REPORT SUMMARIZING THE FINDINGS OF THE

QUANTITATIVE ENVIRONMENTAL ANALYSIS

CONDUCTED UPON

THE PROPOSED SITE OF THE DOWNTOWN BATAVIA MUNICIPAL FACILITIES COMPLEX DEVELOPMENT PROJECT

SUBMITTED TO

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EXECUTIVE SUMMARY

This Quantitative Environmental Analysis was completed on parcels located on Evans Street in the City of Batavia, New York. The environmental investigation was conducted to assess, quantify, and, if necessary, to facilitate the planning of remediation required to address any environmental condition which may pose a threat to human health or the environment. The two (2) parcels investigated have been proposed as the site for a proposed governmental complex for the County of Genesee. The work summarized herein was completed in an attempt to measure the contamination on these parcels, via quantitative investigation and testing, to determine the actual areas and volume of soil, fill, and groundwater that has been impacted by the contamination, or may yet be impacted through contaminant migration.

Based upon the results and conclusions outlined in this report, ODNY Incorporated (ODNY) concludes the following:

A. The levels of contaminants measured on site do not indicate or establish that the site poses a risk of injury to public health or the environment and should not, for this reason, be listed on the New York State Department of Environmental Protection's (NYSDEC) inactive hazardous waste site registry. With the exception of the limited issues addressed below, the quantitative environmental analysis confirmed that the site exhibited close to ambient background contaminant characteristics with respect to virtually all of the contaminants analyzed for. None of the contaminant levels found on this site should be considered as imminently dangerous to human health and/or the environment.

B. Although not significant enough to warrant a determination that the site poses a risk to public health or the environment, the following items marginally deviate from applicable regulatory standards and/or guidance values sufficient to warrant remediation and/or discussion with the NYSDEC regarding the need for same:

   1. <u>Lead Contaminated Soils</u> - The soils in the vicinity of trench soil sampling location T-4 were classified as a characteristic hazardous waste. As such, these soils should be remediated, with this remediation likely to involve landfill disposal.

2. Petroleum Contaminated Soils - Based upon volatile organic, semi-volatile organic and oil and grease concentrations in the trench soil samples (those surrounding the perimeter of the foundation located on the site), it is ODNY's opinion that these soils are petroleum contaminated, and remediation of these soils will be necessary.

3. Solvents In Groundwater - Based upon volatile organic and semi-volatile organic concentrations in the groundwater at Monitoring Well 2, the site is marginally impacting the groundwater under the site in the vicinity of Well 2. No definitive potential source of this contamination was identified. However, evidence exists which leads ODNY to believe that surficial dumping of waste solvents has occurred. Requirements for any further analytical testing and/or investigation will be negotiated with the NYSDEC.

C. ODNY will meet with the NYSDEC (after the NYSDEC has had the opportunity to review this report) to ensure that the NYSDEC agrees with the conclusions and recommendations contained in this report, as well as for preliminary discussion concerning remedial and/or further testing requirements for the outstanding issues identified above. Based upon the results of the NYSDEC meeting, ODNY will develop a remedial work plan for submittal to the NYSDEC for approval prior to the initiation of any remedial activities.

D. It is ODNY's opinion that remediation of the lead and petroleum contaminated soils should be given priority, and that initiation of the necessary steps for this soil remediation should commence immediately.

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I. INTRODUCTION AND OBJECTIVE

The County of Genesee (County) has been investigating the feasibility of purchasing three (3) contiguous parcels located at 26 through 100 Evans Street in the City of Batavia, County of Genesee, New York. These parcels, the combined size of which is 11.72 acres, constitute the desired location for a proposed governmental complex to include a joint City/County Courthouse, Mental Health Facility and Human Services Facility. Recent developments, including (i) the unwillingness of one of the property owners to sell, and (ii) inadequate County funding available to complete this project, have restricted County interest to the northern-most two (2) parcels for potential development of a courthouse only. As a result, ODNY's Work Plan was restricted to investigation of only the two (2) northern-most parcels described above.

A Phase I Real Estate Investigation completed on this property by Earth Investigations Ltd. (February 20, 1990) to determine any potential environmental liability associated with purchasing the site indicated various potential contaminant sources, and the need for further study. A partial (qualitative) Phase II Real Estate Investigation was subsequently completed by Earth Investigations Ltd. (June 14, 1990). The results of this latter study identified the presence of contamination and the existence of various fill materials.

The Quantitative Environmental Analysis summarized herein was completed in an attempt to measure the contamination, via quantitative investigation and testing, to determine the actual areas and volume of soil, fill, and groundwater that has been impacted by the contamination, or may yet be impacted through contaminant migration. This quantitative analysis of the site involved the use of trenches and test pits excavated using a backhoe, hand auger borings, continuous soil sampling and monitoring well installation using a mobile drilling rig, and the collection and analysis of multiple soil, fill, sludge, surface run-off and groundwater samples.

II. MONITORING WELL INSTALLATION AND DEVELOPMENT

A. Precleaning Procedures

The mobile drilling rig, augers, and all downhole sampling equipment were steam-cleaned with a water and detergent solution prior to all sampling, drilling and monitoring well installation activities. All equipment was inspected for integrity of hydraulic and oil fluid handling systems and general overall cleanliness. During and following cleaning, the equipment was handled only with clean gloves. The split-spoon sampler was similarly cleaned between sampling attempts. Every precaution was taken during drilling and construction of the monitoring wells to avoid introducing contaminants into a borehole.

B. Continuous Soil Sampling and Log Preparation

The unconsolidated fill and soil overburden were continuously augered and sampled to the base of the well depth using a two-inch outside diameter split-spoon sampler which was advanced below 4.25 inch inside diameter hollow stem augers using a B-61 mobile drilling rig. Soil borings were sampled using the split-spoon method, with continuous OVM monitoring, and samples for analysis were collected from the most visibly contaminated strata or the zone of highest permeability (that through which contaminants may migrate). No positive OVM results were observed during the sampling. A total of eight (8) soil samples were collected in this manner, one (1) from each location where a monitoring well was installed.

It should be noted that initial project plans (as detailed in the Work Plan for this project) specified only six (6) monitoring wells to be installed and associated soil samples collected. Two (2) additional monitoring wells and soil samples were added as a result of on-site negotiations with the New York State Department of Environmental Conservation (NYSDEC), who were notified per the Navigation Law when petroleum contamination was visibly identified in the trench in and around the apparent hydraulic lift.

Complete and accurate drilling logs were prepared for each well installation soil boring, and diagrams of the completed wells were prepared showing pertinent details, materials of construction and elevations of all well features. These soil logs and monitoring well diagrams are included in the Subsurface Investigation Report in

Appendix A. The surveyed monitoring well locations, ground surface elevations and top-of-riser elevations are delineated on the Site Plan.

All cuttings from monitoring well installation drilling activities were temporarily drummed and sealed until analytical laboratory test results could be received and reviewed. All drums are currently stored on pallets with underlying plastic sheeting to provide secondary containment in the unlikely event of drum leakage, and the drums are also covered with plastic sheeting. A discussion of the analytical results and the recommended ultimate disposition of these cuttings are presented later in this report.

C. Installation

A total of eight (8) monitoring wells were installed as a part of this Quantitative Environmental Analysis. The monitoring wells were constructed with two-inch inside diameter Polyvinyl Chloride (PVC) risers attached to a five foot PVC slotted screen (slot size of the screen selected to be compatible with the sand pack). Joints, caps and end plugs were secured by force fittings, and no glues or other adhesives were used. All well caps are vented to allow for proper pressure equalization.

The sand pack surrounding the well screen consists of clean, inert, siliceous material (#2 size sand), selected to minimize the amount of fine materials entering the well without inhibiting groundwater flow into the well. The sand pack was placed in the annular space around the well screen to extend to no more than two feet above the top (with the exception of Well 3, at 2.1 feet) or one foot below the bottom of the screen. The sand pack material was placed using the tremie method. Bentonite was placed above the sand pack using the tremie method to form a seal approximately three feet thick.

Grout of cement/bentonite was placed with a tremie to completely fill the annular space from the bentonite seal to the surface seal. The grout mixture was set up without being diluted by formation water, and any water in the annular space was displaced to ensure a continuous seal. Auger flights or casing were not removed until the annular space had been filled with grout.

A protective casing, four inches in diameter, was placed over the riser pipe and secured in a surface well seal to adequately protect the riser. A locking cap and weather resistant padlock were placed on the protective casing to prevent any unauthorized tampering.

D. Well Development

Following installation of the monitoring wells (minimum 24 hours after completion of construction), the water level depth and the total well depth were measured at each monitoring well, and the applicable well volume was calculated, prior to any well development, purging or sampling activities.

For well development, a minimum total of five (5) well volumes were removed from the well, or more as necessary to remove sand, sediment or other debris from the well (as monitored primarily by visual observation, as well as field turbidity measurements). Where possible, each well was developed to the extent necessary for the groundwater sample to read below 50 Nephelometric Turbidity units. No water was introduced into the well for purposes of development.

The teflon bailers dedicated at each monitoring well location for sampling purposes could not be utilized for well development purposes due to sand and sediment clogging the bailers' check valves. As such, a well developing pump was used, the down-hole portion of which was cleaned thoroughly prior to introduction to each well.

A field log was maintained recording any significant observations of each well volume removed, as well as the initial water levels. Water removed during well development was containerized in 55-gallon drums and sealed until analytical laboratory test results could be received and reviewed. All drums are currently stored on pallets with underlying plastic sheeting to provide secondary containment in the unlikely event of drum leakage, and the drums are also covered with plastic sheeting. A discussion of the analytical results and the recommended ultimate disposition of the well development and purge water are presented later in this report.

Prior to groundwater sample collection (as described in the following section), the well was purged a minimum of three (3) additional well volumes, with the date, time, pH, conductivity, temperature and a technical description being recorded for each purged well volume. Groundwater samples were not collected until these parameters had been observed to stabilize, indicating representative groundwater quality. All purged water was containerized and managed in the same manner as the well development water described above.

III. GROUNDWATER SAMPLING PROCEDURES

A. Air Monitoring

Prior to initiation of any purging or groundwater sample collection activities, the ambient air in the well was monitored with an organic vapor meter (OVM). The only positive reading recorded was that at Monitoring Well 5, at which a reading of 1.0 parts per million was recorded.

B. Water Level Measurement

The static water level was measured to the nearest one-hundredth of a foot from the top of the riser (a reference surveyed datum point) using an electronic water level detector. This level was recorded in the field log, and the resultant well volume calculated. The water level detector was thoroughly cleaned prior to use at each monitoring well location.

C. Well Purging

Each monitoring well was purged a minimum of three (3) well volumes to evacuate the well and sand pack of any stagnant water, with the date, time, pH, conductivity, temperature and a technical description being recorded in the field log for each purged well volume. The wells were purged using dedicated teflon bailers attached to dedicated polypropylene rope to avoid the need for continuous cleaning, decontamination and equipment blanks. Groundwater samples were not collected until the field parameters were observed to stabilize, indicating representative groundwater quality. All purged water was containerized and managed in the same manner as the well development water described in Section III.D.

D. Sample Collection

Following purging, the groundwater samples were collected in the following order of volatilization sensitivity:

1. Volatile Organics
2. Field Parameters
3. Semi-Volatile Organics
4. Pesticides and PCB's
5. Total Recoverable Oil and Grease
6. Total Cyanide
7. Total Metals

The only sampling equipment used was the teflon bailers dedicated at each monitoring well location, and a precleaned beaker to transfer the samples from the bailer into the laboratory-provided precleaned and preserved sample bottles. No head space was permitted in the filled sample bottles to be analyzed for volatile organics.

Information recorded in the field log during collection of the groundwater samples from each monitoring well included the date, time, pH, specific conductivity, temperature, and a technical description of the groundwater quality (odor, clarity, color, particulates, etc.). Results of the field analyses are included in Section IX of this report, and field log information is included in Appendix B to this report.

IV. SURFACE WATER SAMPLING PROCEDURES

No permanent surface water bodies exist on the parcels to be investigated, and all surface water samples (one (1) upgradient and three (3) downgradient) were collected during a period of stormwater run-off. As the topography of this site is relatively level, sloping gently downwards toward Tonawanda Creek, visibly flowing run-off streams were not available for collection of all four (4) of the surface water samples. In cases where visibly flowing run-off streams were unavailable, standing surface water was collected such that a fairly even geographical distribution of surface water samples was collected for analysis.

All surface waters sampled on the site during the precipitation event were relatively small, shallow streams or puddles of water. As such, care was exercised to avoid the collection of sediments with the surface water to the greatest extent possible. Also for this purpose, the surface water sampling locations were approached from downstream whenever possible to avoid the disturbance of sediments which could impact the sample integrity, and all samples were collected from as close to the center of the surface water stream or puddle as possible. Pre-cleaned beakers were utilized for the collection of all surface water samples.

V. TEST PITS, TRENCHES AND HAND AUGER SOIL BORINGS

Earth Dimensions Inc. (EDI), ODNY's subcontractor for subsurface investigation activities, made all inquiries and contacts necessary to ensure adequate clearance with respect to buried utilities prior to the initiation of any subsurface investigation or drilling.

Previous investigations conducted on this site had identified piping of unknown origin and destination in the vicinity of the building foundation (NL Industries) and Tonawanda Creek. As a result of this, trenches were excavated around the perimeter of the building foundation using a backhoe in an attempt to locate contamination and buried pipes, as well as to define the fill thickness and depth to natural soil.

A total of eleven (11) soil samples were collected for analysis during these trenching activities, a number greater than initially anticipated in the Work Plan for this project. This is due to the fact that soil samples were collected from all observed areas of suspected contamination, as negotiated with the New York State Department of Environmental Conservation (NYSDEC), who were notified per the regulatory requirements when petroleum contamination was visibly identified in the trench in and around the apparent hydraulic lift (described below). Additional areas of potential petroleum contamination were similarly identified, and samples collected.

Various drain lines were located, and those of suspect content were exposed via excavation to their final on-site destination to allow for observation (visual, olfactory, and organic vapor meter (OVM) monitoring) of contaminated soils, sludges, et cetera, in and around the pipes. Positive OVM readings were recorded at several of the trench locations, with organics concentrations ranging from 0.5 to 19.9 parts per million. Samples were collected for analysis from each of these locations (T-4, T-5, T-8 and T-10).

Several small diameter metallic pipes were also located along the foundation during this investigation. Each was drilled and then cut open and inspected. No contamination was found in any of these pipes.

Additional findings of interest in this area included what appeared to be an hydraulic lift and a small underground storage tank. The soils in the vicinity of the hydraulic lift appeared to be potentially petroleum-contaminated, and a sample (T-6) was collected for analysis. The underground tank appeared to be in good condition, and as no leakage was

observed (by the sight, smell or sheen tests), no laboratory analyses of the soils in this area were completed. It should be noted that this tank was subsequently removed and disposed of off-site by the property owner. Other observations included the presence of various types of fill, including the black-colored strata bands of incinerated material previously identified on this site, and the presence of tiles (potentially asbestos) among the fill in the vicinity of the underground storage tank location.

One (1) hand auger soil boring was completed in order to obtain one (1) representative background soil sample. This boring was completed at the location shown in Figure 2, approximately 550 feet west-southwest of the intersection of South Jackson and South Swan Streets, along the western bank of Tonawanda Creek. This location was chosen upon review of the Genesee County Soil Survey, which indicates that this area exhibits similar soil depositional characteristics to those found on the Evans Street Site.

All hand auger boring, test pit and trench excavation activities were observed by a Project Geologist, and all excavations were backfilled and compacted with excavated materials following soils description and sample collection. A detailed Subsurface Investigation Report, including all soils descriptions and observations, is included as Appendix A to this report. The locations at which the trenches and test pits were completed are delineated on the Site Plan (Figure 1, at the end of this report), as are the approximate locations from which the eleven (11) soil, fill, and sludge samples were collected during completion of the trenching activities for laboratory analysis.

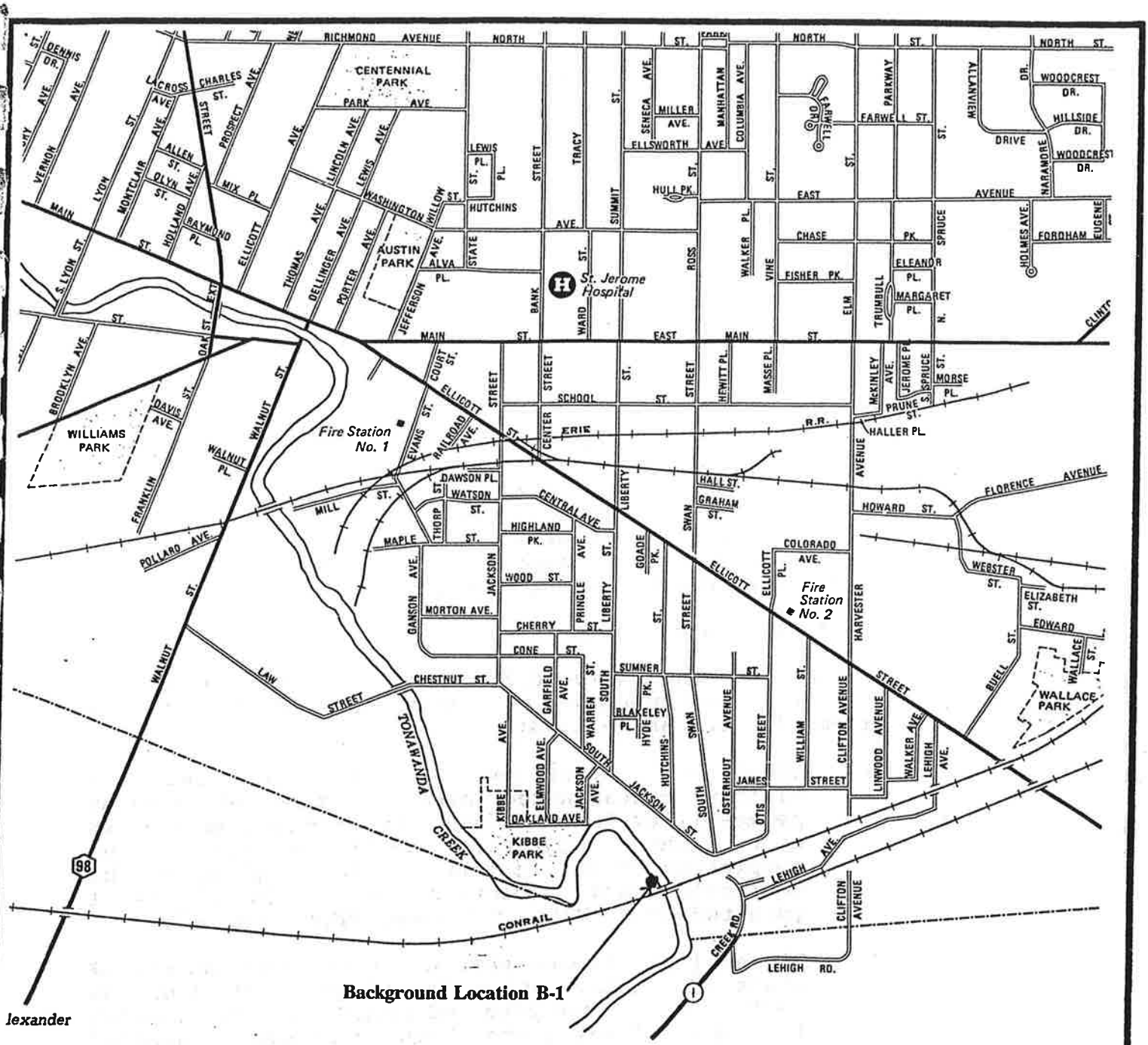

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FIGURE 2: LOCATION OF BACKGROUND SOIL SAMPLE

VI. SAMPLE QUANTITIES AND SAMPLING LOCATIONS

Soil, fill, sludge, surface and groundwater samples, as well as equipment blank and trip blank samples, have been collected and analyzed as an integral part of this Quantitative Environmental Analysis. The sampling activities and locations are discussed on an individual basis below.

The Site Plan for this project is presented in Figure 1, at the end of this report, upon which all significant existing structures (e.g. buildings, foundations), subsurface investigation and sampling locations have been surveyed. The lone exceptions to this are the trench sampling locations T-1 through T-10, which were not surveyed due to the completion of backfilling prior to survey completion, and the background soil sampling location (see Figure 2), which was located off the site and across the creek. Locations for these sampling activities have been approximated based upon field measurements conducted during sampling.

A. Soil, Fill and Sludge

A total of twenty (20) soil, sludge and fill samples were collected and analyzed as a part of this quantitative investigation as follows:

1. Eight (8) samples were collected from the most visibly contaminated area or zone of highest permeability (that through which contaminants would most likely migrate) identified during the completion of the continuous soil sampling at the monitoring well locations shown in Figure 1 (denoted "MON. WELL 1" through "MON. WELL 8").

2. Eleven (11) samples were collected from suspected areas of contamination investigated through the completion of test pits and trenches, the sampling locations of which are shown in Figure 1 (denoted "T-1" through "T-10").

3. One (1) background soil sample was collected for analytical comparison with the samples identified above, this sample being collected at the off-site sampling location shown in Figure 2.

B. Groundwater

A total of eight (8) groundwater samples were collected, one (1) from each of the eight (8) monitoring wells installed at the locations shown in Figure 1 (denoted "MON. WELL 1" through "MON. WELL 8").

C. Surface Water

A total of four (4) surface water samples were collected for analytical laboratory testing, consisting of three (3) downgradient surface run-off samples and one (1) upgradient surface run-off sample for comparison. These samples were collected from the sampling locations shown in Figure 1 (denoted "S. WATER 1" through "S. WATER 8").

D. Equipment Blanks

A total of two (2) equipment blanks were collected for analysis. The first equipment blank was for soil sampling equipment, in which distilled and deionized water was poured over an auger, drilling rod and a split-spoon sampler and funneled into the sample bottles. The second equipment blank was for groundwater equipment, in which distilled and deionized water was poured over the water level meter probe, the developing pump and the beaker, and funneled into the sample bottles.

All equipment blanks were collected after equipment decontamination and cleaning, and prior to initiation of drilling, sampling or well development operations at the next location. As dedicated bailers were used for collection of the groundwater samples, no equipment blanks were necessary for the groundwater sampling activities.

E. Trip Blanks

The trip blank requirement is for one (1) trip blank to accompany each shipment of sample bottles delivered for laboratory analysis. Per the Work Plan, only one (1) trip blank was to be submitted, as all of the sampling was to occur within a period of five days, and delivery of the samples was to occur in a single shipment. Consistent with the CLP-ASP data package requirements (see Section VII), however, all samples must be delivered to the laboratory within 48 hours of sample collection. As such, three such shipments were necessary, and a total of three (3) trip blanks were submitted.

F. Decontamination Liquids and Solids

Testing of the decontamination liquids and solids (including drill cuttings and monitoring well development and purge water) was not completed pending receipt and review of the results from the solid and liquid samples described above. Discussion on the necessity of this testing and the recommended ultimate disposition of these liquids and solids is contained later in this report.

VII. ANALYTICAL TESTING

All of the samples collected during this Quantitative Environmental Analysis were, at a minimum, contained, packaged, marked, labelled, sealed, stored, shipped and tested in accordance with the standards outlined in the New York Code of Rules and Regulations (NYCRR) Title 6, Chapter 370, Section 370.1(e). Laboratory-provided precleaned sample containers were utilized, and standard chain-of-custody procedures relative to the collection, transfer of possession, shipment and testing of all samples were adhered to at all times.

ODNY's sampling personnel, knowledgeable and experienced in all of the sampling techniques described in this Work Plan, were utilized for the collection of all samples submitted for analysis. The analytical laboratory utilized for all analyses required for this project was Recra Environmental, Inc., located in Amherst, New York. This laboratory is certified by the New York State Department of Health for all of the analytical parameters described herein.

The list of analytical parameters tested for in all samples collected as a part of this Quantitative Environmental Analysis is provided below. The sample groupings presented in Table 1 represent the respective sets of parameters comprising the Target Compound List (TCL), and all analytical detection limits were at or below the Contract Required Quantitation Limits (CRQL). These parameters were chosen to include: (i) TCL analyses, as is standard procedure when investigating a potentially hazardous or contaminated site; and (ii) suspected potential contaminants, as indicated by previous site investigation activities.

All activities involving the disturbance of soil or sampling of soil, sludge, fill, groundwater or surface water run-off were supervised by the on-site health and safety officer, and all activities were monitored using an Organic Vapor Meter (OVM). The OVM was calibrated periodically with an isobutylene standard. All detectable results observed during these activities were recorded in a field log. This allowed a preliminary determination of the volatile organic content of the material (and thus an indication of a potentially contaminated material), as well as ensured worker safety in preventing potential exposure to high volatile organic concentrations which could be harmful to human health. As discussed previously, the only locations at which volatile organics were detected with the OVM were at Trench samples T-4, T-5, T-8 and T-10, and within the head space at Monitoring Well 5.

All results obtained from the analytical laboratory testing (including all quality assurance/quality control test results) underwent third party data validation to ensure the admissibility and validity of the data, as deemed potentially necessary for litigation purposes or to acquire the innocent purchaser's defense. It is for this reason that the CLP (Contract Laboratory Protocol) data package (requiring use of the NYSDEC ASP-89 Methods) was used to generate the amount of quality assurance and quality control data necessary for data validation purposes.

A. Soil, Fill and Sludge Samples

All soil, fill and sludge samples collected, as identified in Section VI of this report, were analyzed for the parameters listed in Table 1.

B. Groundwater Samples

All groundwater samples collected, as identified in Section VI of this report, were analyzed for the parameters listed in Table 1, below, with the exception that the Extraction Procedure (EP) Toxicity digestion was not performed on the water samples. Additionally, due to laboratory error, insufficient sample volume was retained to complete all metals analyses in the groundwater sample from Well 1, and thus arsenic, lead, mercury and selenium were not tested for in this sample.

C. Surface Water Samples

All surface water samples collected, as identified in Section VI of this report, were analyzed for the parameters listed in Table 1, below, with the exception that the Extraction Procedure (EP) Toxicity digestion was not performed on the water samples.

D. Equipment and Trip Blanks

The two (2) equipment blanks collected during completion of the sampling activities were analyzed for the parameters listed in Table 1, below, with the exception that the Extraction Procedure (EP) Toxicity digestion was not performed on the water samples. The three (3) trip blanks were analyzed for volatile organic compounds only, as is customary for trip blanks.

TABLE 1

ANALYTICAL TESTING PARAMETERS

Method	Parameter(s)
89-1 (1)	Volatile Organics
89-2 (1)	Semi-Volatile Organics
89-3 (1)	Pesticides and PCB's
413.1 (2)	Total Recoverable Oil and Grease
6010/7000 (2)	EP Toxicity Metals (As, Ba, Cd, Cr, Pb, Hg, Se, and Ag)
6010/7000 (2)	Total Metals (Al, Cu, Fe, Mg, Ni, Sn, and Zn)
9010 (2)	Total Cyanide

Notes: (1) NYSDEC ASP-89 (Analytical Services Protocol) Method

(2) SW-846, 3rd Edition Method (analyzed with level of QA/QC required under NYSDEC ASP-89)

VIII. ANALYTICAL AND QA/QC TEST RESULTS

All laboratory analytical results are summarized in Appendix C to this report. This report was generated by Chemworld Environmental, Inc., of Bethesda, Maryland, who provided all analytical data validation services for this project, and who attached all significant qualifiers to the data in these tables. All data validation was completed in accordance with NYSDEC and USEPA Region II data validation criteria, as applicable. Due to the sheer size and volume of the analytical and QA/QC data generated for this project by Recra Environmental, Inc. (in excess of 4000 pages), the analytical report itself was not included as an appendix to this report.

IX. FIELD DATA SUMMARY

Results from field analyses conducted upon the groundwater samples collected during this investigation are summarized in Table 3. The field data sheets maintained during the development, purging and groundwater sample collection activities are included within Appendix B to this report.

All equipment utilized for on-site monitoring and field analysis of samples was calibrated periodically per the manufacturer's instructions, and all calibration activities were documented in a field log. A list of the equipment and the calibration solutions utilized for this project is provided below.

Field Instrument	Calibration Solution(s)	Calibration Solution Concentration
Thermo Environmental Instruments Inc. Organic Vapor Meter Model 580A	Isobutylene (Gas)	100 PPM
Presto-Tek Corp. pH/Conductivity Meter Model DspH-3	pH Buffer	4.00
	pH Buffer	7.00
LaMotte Chemical Products Company Turbidimeter Model 2008	AMCO Turbidity Standard	5.0 NTUs

TABLE 2

GROUNDWATER FIELD ANALYSES

Monitoring Well	Groundwater Sample	pH	Specific Conductance	Temp. (°C)
1	GW-1	7.24	2180	10
2	GW-2	6.62	1120	7
3	GW-3	8.13	800	9
4	GW-4	8.48	680	7
5	GW-5	7.40	1140	10
6	GW-6	7.01	2690	8
7	GW-7	7.71	1510	10
8	GW-8	8.03	860	11

X. REGULATORY STANDARDS

The following standards are presented for purposes of comparison to the analytical data provided in Table 1. For each set of standards described below, only those standards for parameters which were detected in the soils, groundwater and surface water samples collected from this site are included in the following tables. Thus, these tables are recognized as incomplete, and do not include standards for the many parameters not detected on the site.

Soils

Table 4 presents the Maximum Concentration of Contaminants for the Characteristic of Extraction Procedure Toxicity (EP Tox). Soils possessing an EP Tox leachate in excess of the standards presented in this table are considered a hazardous waste under the New York Compilation of Rules and Regulations, Title 6, Chapter 371, Identification and Listing of Hazardous Wastes.

Table 5 presents the New York State Department of Environmental Conservation (NYSDEC) Petroleum Contaminated Soil Guidance Values from the NYSDEC Proposed New York State Petroleum Contaminated Soil Guidance document (September 24, 1990). These guidance values were derived from a leachability prediction model, the "Water-Soil Partitioning Theory", wherein soil concentrations above the guidance values provided are deemed high enough to potentially negatively impact the groundwater through leaching concentrations in excess of the groundwater standards.

Groundwater

Table 6 presents Ambient Water Quality Standards and Guidance Values, from the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1). It should be noted that some of these are guidance values, and not standards, and all of the limits provided in this table are groundwater standards and guidance values for class GA waters (groundwater for drinking water supply).

TABLE 3

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF EP TOXICITY

EPA Hazardous Waste Number	Contaminant	Maximum Concentration (micrograms per liter)
D004	Arsenic	5,000
D005	Barium	100,000
D006	Cadmium	1,000
D007	Chromium	5,000
D008	Lead	5,000
D011	Silver	5,000

TABLE 4

NYSDEC PETROLEUM CONTAMINATED SOIL GUIDANCE VALUES

Compound	Soil Guidance Value (micrograms per kilogram)
Volatile Organics	
Ethylbenzene	137.5
Toluene	37.5
Xylenes (Total)	30
Semi-Volatile Organics	
Naphthalene	325.0
2-Methylnaphthalene	10,000
Acenaphthylene	3,125.0
Acenaphthene	2,300.0
Fluorene	9,125
Phenanthrene	10,000
Anthracene	10,000
Fluoranthene	10,000
Pyrene	10,000
Benzo(a)Anthracene	69.0
Chrysene	10.0
Benzo(b)Fluoranthene	275.0
Benzo(k)Fluoranthene	27.5
Benzo(a)Pyrene	61.0

TABLE 5

AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

Substance	Standard (micrograms/liter)	Guidance Value (micrograms/liter)
Metals (Totals)		
Arsenic	25	---
Barium	1,000	---
Cadmium	10	---
Chromium	50 (as Cr^{+6})	---
Copper	1,000	---
Iron	300	---
Lead	25	---
Magnesium	---	35,000
Mercury	2	---
Silver	50	---
Zinc	5,000	---
Volatile Organics		
Trichloroethene	10	---
1,2-Dichloroethene	---	50
1,1-Dichloroethene	---	0.07
Vinyl Chloride	5.0	---
Semi-Volatile Organics		
Bis(2-Ethylhexyl) Phthalate	4,200	---
Bis(2-Chloroethyl) Ether	1.0	---
Pesticides and PCB's		
Alpha-chlordane	0.1 (total)	---
Heptachlor	non-detectable	---
Cyanide	200	---

XI. CONCLUSIONS

A. Inorganics Analyses - Soils

Only one soil sample, T-4, was reported to possess an EP Tox leachate concentration in excess of the applicable standard. This sample contained lead (5.8 mg/l) slightly in excess of the EP Tox lead limit (5.0 mg/l). As such, this sample must be considered a characteristic hazardous waste, and should be handled accordingly. Although EP Tox concentrations of many of the metals were observed to vary across the site, all of the other soil samples possessed concentrations well under all of the applicable EP Tox limits.

With respect to the total metals analyses, sample T-3 was determined to possess a copper and nickel content higher than that found in the background soil sample or on the remainder of the site. This sample was initially collected due to the observation of a thin layer of bluish-white crystals in the soil, thus a high metals content in this sample is not surprising. Copper was also observed at lesser elevated levels at sample locations T-4 and T-9, and zinc was observed at very slightly elevated levels at locations T-3, T-4, T-5A and T-9. Cyanide was detected at a very low concentration at location T-4. None of these metals were found to be in excess of established soil guidance criteria.

As these tests were for total metals and cyanide, the leachability of these inorganics (and thus their potential impact upon groundwater) is unknown. It should be noted that no impact upon groundwater quality is currently evident (with the potential exception of the lead at sample location T-4), and any potential future impact is minimized by the fact that all groundwater leaving this site enters the Tonawanda Creek (and thus is greatly diluted and not used directly as a drinking water source). As such, ODNY does not consider these elevated metals concentrations to be a significant problem.

B. Inorganics Analyses - Water

Groundwater concentrations of cadmium, iron and magnesium were all detected marginally in excess of the groundwater standards, while lead was detected at the groundwater standard in one of the samples.

Cadmium was detected at Well 4 (11 ug/l, estimate) just in excess of the groundwater standard (10 ug/l), and lead was detected in Well 8 at the level of the groundwater standard (25 ug/l). Given the facts that (i) cadmium and lead were detected or estimated at levels so close to the groundwater standards (and may be below these standards, if standard laboratory error and accuracy are considered), and (ii) groundwater from this industrial area flows directly into the creek (thus being greatly diluted, and not used directly as a drinking water supply, for which these standards are applicable), the cadmium and lead levels are not considered a cause for significant concern.

It should also be noted that Well 8, in which lead was detected at the level of the groundwater standard, is in close proximity to soil sample location T-4, determined to contain elevated levels of leachable lead. Thus T-4, which is subject to removal as a hazardous waste, is a potential contaminant source for the lead detected in Well 8.

Iron and magnesium were detected uniformly throughout the site at levels above the applicable groundwater standards, including at the upgradient background location. Because significant levels of these metals are present in the soils on this site, ODNY concludes that groundwater concentrations of iron and magnesium are likely naturally-occurring in this area. Again considering the contaminants and ultimate disposition of this groundwater (Tonawanda Creek), these iron and magnesium levels should cause little concern.

C. Volatile Organics Analyses - Soils

Total xylenes were the only volatile organic compounds detected in the soils samples at concentrations in excess of the NYSDEC petroleum soil guidance values. Total xylenes were reported at locations T-5 (estimated at 110 ug/kg), T-8 (36 ug/kg) and T-10 (68 ug/kg), all of which are above the soil guidance value of 30 ug/kg. The fact that ethylbenzene was also reported at T-8 and T-10, and toluene was reported at T-10, indicate that the probable source of these organic compounds is petroleum contamination. It is important to note, however, that given the groundwater results for these parameters, no petroleum contamination of the groundwater is yet evident.

No other volatile organic compounds were reported above the Contract Required Quantitation Limits (CRQL's).

D. Volatile Organics Analyses - Water

Several volatile organic compounds of the trichloroethene family (specifically trichloroethene and its breakdown components of 1,2-dichloroethene, 1,1-dichloroethene and vinyl chloride) were detected above the applicable groundwater standards and guidance values in Well 2.

Several of these compounds were also detected at surface water sampling location R-3, which is in extremely close proximity to Well 2, although concentrations in this sample were all at or below the applicable standards. Trichloroethene and/or 1,2-dichloroethene were also reported in significantly lower concentrations at Wells 1, 7 and 8.

Given the relative concentrations, it appears that this common industrial solvent contamination is primarily isolated to the area in the immediate vicinity of Well 2. The presence of these compounds in the surface water sample indicates the likely existence of solvent contamination near the ground surface, possibly from surficial dumping of waste solvents during previous industrial usage of the site.

Chloroethane, also reported at Well 2 at a concentration of 11 ug/l, and for which no existing standards are available, was the only other volatile organic compound detected in any of the groundwater or surface water samples.

E. Semi-Volatile Organics Analyses - Soils

A total of seven semi-volatile organics indicative of petroleum contamination were reported at estimated concentrations above the NYSDEC soil guidance values. The "hot spots", those containing the highest estimated concentrations of these compounds, were trench sample locations T-5, T-7 and T-9. Locations T-5 and T-8 (which is adjacent to T-7) were identified as potentially petroleum contaminated due to volatile organic

concentrations, while location T-9 represents petroleum contaminated sediments collected from an existing pipe exiting from beneath the foundation.

Other soil sampling locations exhibiting concentrations of these same semi-volatile compounds at or above the petroleum contaminated soil guidance values, but all at lower concentrations (all estimated values below the CRQL's), are B-1 (background), S-2 (Well 2), S-8 (Well 8), T-1, T-2, T-4 and T-5A. Various other compounds were detected at levels below the soil guidance values, the

highest concentrations of which were again consistently at the "hot spot" locations identified previously (T-5, T-7 and T-9).

F. Semi-Volatile Organics Analyses - Water

The only semi-volatile compound reported above the applicable groundwater standard (1.0 ug/l) was bis(2-chloroethyl) ether, reported at 87 ug/l at Well 2. The vast majority of the other compounds detected were reported estimates (below the CRQL's).

G. Pesticides and PCB's Analyses - Soils

Several different pesticides were detected in the soils at various locations throughout the site, including several at the background location, although all of these compounds were reported as estimates due to the very low concentrations detected. None of the compounds were reported above the CRQL's, and none of the PCB's analyzed for were detected at any of the soil sampling locations, thus ODNY does not consider pesticides and PCB's to be a valid contaminant concern at this site.

H. Pesticides and PCB's Analyses - Water

The only pesticide reported in the groundwater above the groundwater standard was heptachlor, a compound similar to chlordane commonly used as an insecticide in the past, estimated to be present at concentrations from 0.0067 ug/l to 0.0090 ug/l in Wells 1, 3, 5 and 7. Although the groundwater standard for this compound is non-detectable, all of the levels reported were extremely low (below the CRQL's), and in consideration of the ultimate destination and use of this groundwater, ODNY does not consider these levels to be of significant concern. None of the PCB's analyzed for were detected in any of the groundwater or surface water samples analyzed.

I. Oil and Grease Analyses - Soils

Oil and grease was not detected in any of the monitoring well soil samples. Slight oil and grease concentrations were reported in trench samples T-1 through T-5 (347 to 593 mg/kg, only slightly above the analytical detection limit of 334 mg/kg), while samples T-5A through T-10 contained significantly higher concentrations (1,180 mg/kg to 8,940 mg/kg) of oil and grease. This confirms the suspected petroleum contamination of many of the trench soil sampling locations surrounding the foundation perimeter, as was similarly indicated by the volatile organic and semi-volatile organic analytical results.

J. Oil and Grease Analyses - Water

Oil and grease was detected in the groundwater at Wells 3 through 8 at concentrations of 5.1 to 7.6 mg/l (all of which are below the applicable CRQL). It is interesting to note that no oil and grease was detected at Wells 1 and 2, the two wells furthest downgradient of the petroleum contaminated soils identified around the perimeter of the foundation, while the highest oil and grease concentration was detected at Well 3, the upgradient monitoring location. As such, this oil and grease contamination appears typical for this industrialized area, and the on-site petroleum contaminated soils have yet to negatively impact the groundwater quality currently ambient to this area. This lack of impact is possibly due in part to the presence of the concrete foundation slab, which inhibits the infiltration of rainwater through the contaminated soils.

XII. RECOMMENDATIONS

Based upon the results and conclusions previously outlined in this report, ODNY has developed the following recommendations:

A. The levels of contaminants measured on site do not indicate or establish that the site poses a risk of injury to public health or the environment and should not, for this reason, be listed on the New York State Department of Environmental Protection's (NYSDEC) inactive hazardous waste site registry. With the exception of the limited issues addressed below, the quantitative environmental analysis confirmed that the site exhibited close to ambient background contaminant characteristics with respect to virtually all of the contaminants analyzed for. None of the contaminant levels found on this site should be considered as imminently dangerous to human health and/or the environment.

B. The tiles identified of potential asbestos composition among the fill in the vicinity of the underground storage tank location (this tank having since been removed) are not considered a valid contaminant concern. Given their current subsurface location, from where no airborne asbestos particulates could be emitted, no further testing or remediation activities should be required for these tiles, and these tiles should be left in place. If these tiles are removed for disposal at some point in the future, compliance with asbestos-specific disposal requirements may be necessary.

C. Although not significant enough to warrant a determination that the site poses a risk to public health or the environment, the following items marginally deviate from applicable regulatory standards and/or guidance values sufficient to warrant remediation and/or discussion with the NYSDEC regarding the need for same:

1. Lead Contaminated Soils - The soils in the vicinity of trench soil sampling location T-4 were classified as a characteristic hazardous waste. As such, these soils should be remediated. For lead contaminated soils, this will likely involve soils removal for landfill disposal. Despite also potentially being petroleum contaminated soils, these soils must be handled separately from other petroleum contaminated soils to avoid mixing a hazardous waste with a non-hazardous waste. Such a mixture is, by definition, a hazardous waste, and the amount of such waste requiring disposal must be minimized. The potential need for remediation of

minimized. The potential need for remediation of any petroleum contamination in these soils prior to landfill disposal will be dictated by the requirements of the landfill accepting these soils for disposal.

2. Petroleum Contaminated Soils - Based upon volatile organic, semi-volatile organic and oil and grease concentrations in the soils surrounding the foundation perimeter, these soils must be considered petroleum contaminated, and remediation will be necessary. Trench soil sampling locations T-5 through T-10 appear to be the most highly contaminated soils, although remediation around much of the foundation perimeter will likely be necessary.

3. Solvents In Groundwater - Based upon volatile organic and semi-volatile organic concentrations in the groundwater at Monitoring Well 2, the site is marginally impacting the groundwater under the site in the vicinity of Well 2. No definitive potential source of this contamination was identified. However, evidence exists which leads ODNY to believe that surficial dumping of waste solvents has occurred. Requirements for any further analytical testing and/or investigation will be negotiated with the NYSDEC.

D. ODNY will meet with the NYSDEC (after the NYSDEC has had the opportunity to review this report) to ensure that the NYSDEC agrees with the conclusions and recommendations contained in this report, as well as for preliminary discussion concerning remedial and/or further testing requirements for the outstanding issues identified above. Based upon the results of the NYSDEC meeting, ODNY will develop a remedial work plan for submittal to the NYSDEC for approval prior to the initiation of any remedial activities.

E. It is ODNY's opinion that the lead and petroleum contaminated soils should be given remedial priority due to the facts that: (i) the source and extent of this contamination, and resultant scope of remediation, have been more completely defined through the completion of this investigation; (ii) remediation of the referenced contaminated soils should be completed prior to the occurrence of any significant or detectable groundwater contamination; and (iii) bioremediation (if this is the method selected) of these soils during this calendar year will require fast action to initiate the remediation

during the spring, as is necessary for completion during this summer. As such, it is ODNY's opinion that initiation of the necessary steps for this soil remediation should commence immediately.

F. The drummed soil cuttings (from drilling operations), and well development and purge water should be redistributed on the site adjacent to the areas from which these were collected (i.e. soils and water from Well 1 are to be returned to the Well 1 area, etc.). Based upon the analyses completed on the monitoring well soil and groundwater samples, there appears to be nothing present which would have a deleterious impact on the site if said soils and groundwater were returned to their source locations.

APPENDIX A

EARTH DIMENSIONS, INC.
Soil and Hydrogeologic Investigations
1091 Jamison Road • Elma, NY 14059 • (716) 655-1717

SUBSURFACE INVESTIGATION
EVANS STREET SITE

BATAVIA, NEW YORK

Prepared for

ODNY, INCORPORATED

INTRODUCTION

A total of eight soil borings were advanced onsite, which subsequently were converted to monitoring wells, at various locations around the old Doeler-Jarvis property (see figure 1 for generalized site location map). Six of the eight monitoring wells were installed at predetermined locations, which were chosen using information gained during the initial Phase I investigation and test pit investigation, conducted in May through June of 1990 (see Appendix 1, surveyed well location map). Two additional monitoring wells (MW 7-91 and MW 8-91) were installed to monitor the potential petroleum contamination discovered during the test trench portion of the investigation.

REGIONAL GEOLOGY

The city of Batavia lies within the Erie-Ontario lowlands, characterized by extensive glacial scouring of the underlying, low competency, clastic sedimentary rocks, and the subsequent low topographic relief which this process created. (See figure 2).

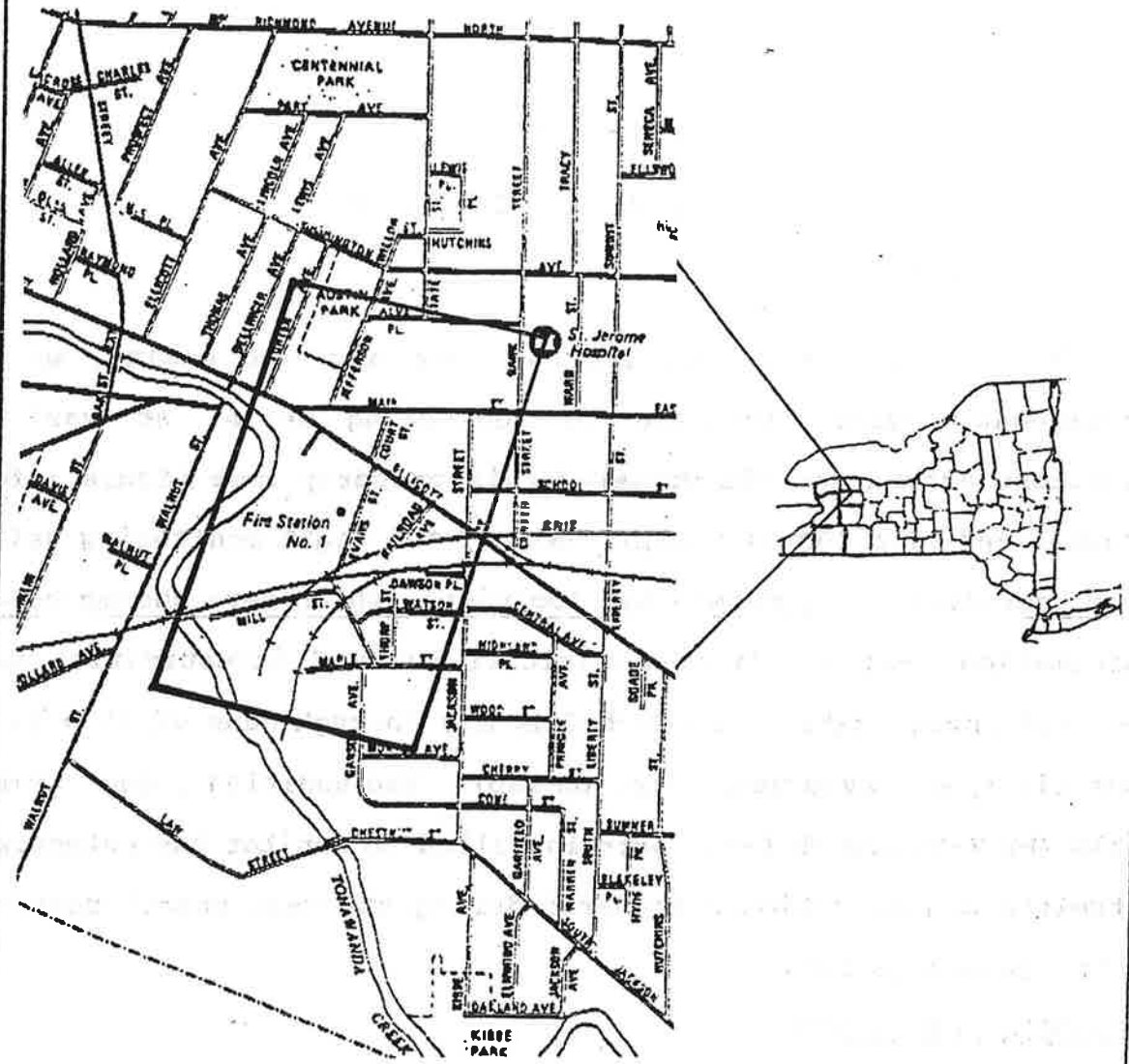

FIGURE 1 – GENERALIZED SITE LOCATION MAP

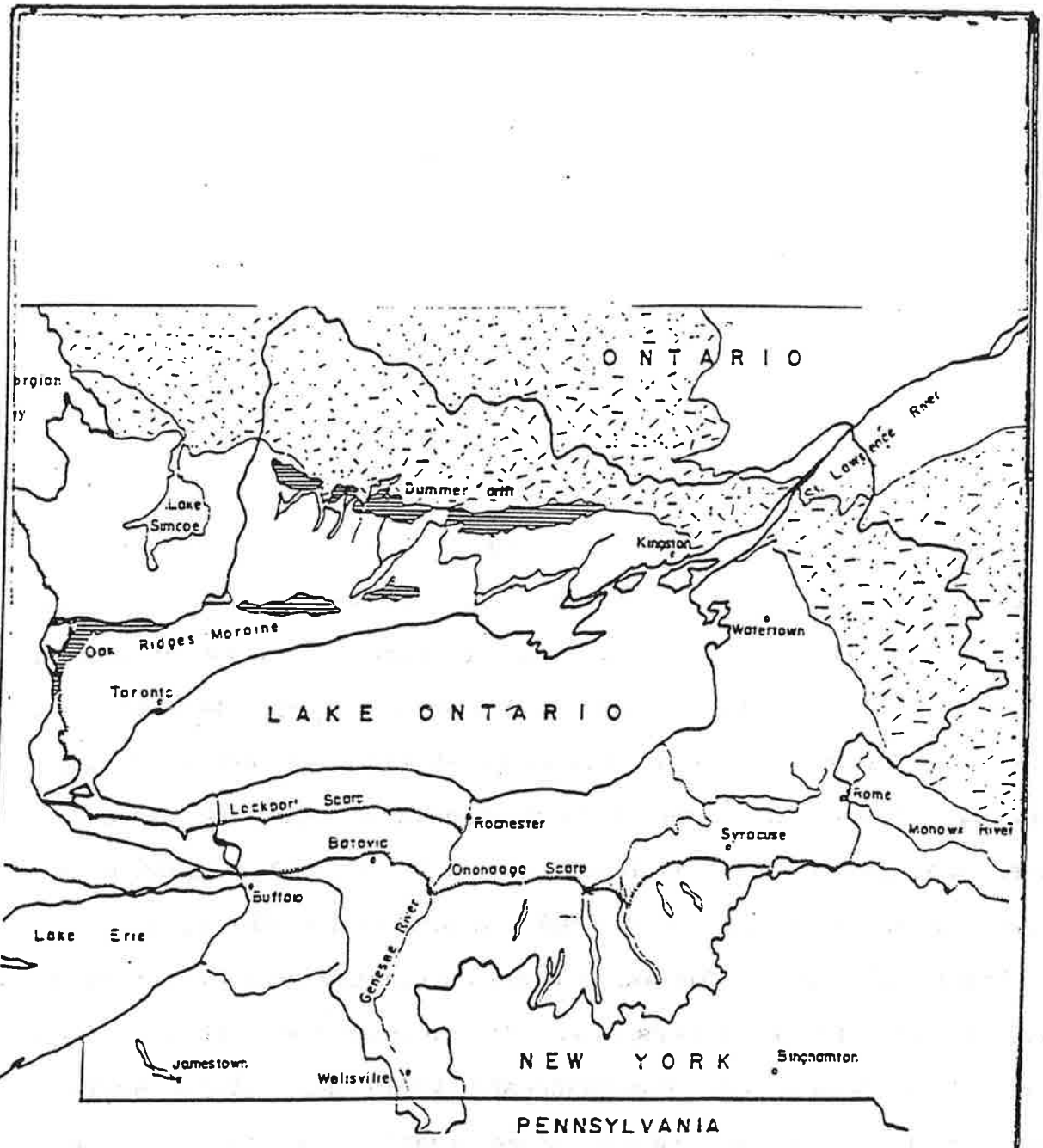

FIGURE 2 - REGIONAL GEOLOGY

Adapted from: Muller and Prest, 1985

Differential erosional susceptibility of these carbonate and fine clastic rocks developed the Lockport and Onondaga escarpments, creating the gentle cuesta-form nature of the lowlands. Both escarpments lie to the north of Batavia, with the Onondaga escarpment tracing a line north of and parallel to the NYS Thruway, until taking a sharp southward turn after encountering a normal fault just east of Batavia. The east-west trend of the escarpment then continues south of the Thruway toward Syracuse.

The Batavia moraine, north of the city, owes its linear nature to its position abutting the Onondaga escarpment. It is associated with either glacial surges or readvancements and newly dammed proglacial lakes. Glacial lake and stagnant water deposits are numerous in the vicinity, as well as stratified ice contact "slump" deposits and kame and kame terrace complexes. Outwash deposits, either associated with the main ice sheet or newly stranded ice provide an abundant source of sand and gravel for the area.

The north flowing Tonawanda Creek, situated west of the city, separates it into two watersheds. To the east and north, surface waters flow toward the Irondogenesee watershed, while surface waters tributary to the Tonawanda Creek (west and south) ultimately flow to the Niagara River. The Tonawanda takes a precipitous turn to the west upon encountering the Onondaga escarpment, eventually breaching it at Indian Falls. Numerous wetland areas, often including peat and marl deposits are associated with the poorly drained glacial lake deposits near the city, usually occurring within the flood plain of the Tonawanda Creek and its tributaries.

REGIONAL HYDROGEOLOGY

A large, valley-controlled, glacial outwash aquifer, bounded by Route 98 to the west of Batavia, and skirting the southeastern two-thirds of the city itself, has been defined as a principal source aquifer for residents of this area. The aquifer underlies a 23 square mile area along the Tonawanda Creek valley, with maximum saturated thicknesses extending to 40 feet. The southeastern portion of the city is one such area of the aquifer, where the saturated thickness ranges to 40 feet, and where well yields may be as high as 1000 to 9000 gallons per minute. Regional ground water flow in the aquifer is to the northeast. (See figure 3).

The aquifer is semi-confined in nature, as the westernmost region is overlain by impermeable sediments, estimated to have an infiltration rate of less than 0.20 inches per hour. Thin soil cover over much of the rest of the aquifer allows recharge to take place directly from precipitation/infiltration. The outwash deposits which comprise the aquifer range from fine sand to coarse gravel (figure 4). Small discontinuous pockets of lake deposited silts and clays are interspersed throughout the aquifer.

Glacial scoured valleys which have been infilled with sand and gravel deposits control the direction of groundwater flow in the aquifer. Northeast valley aquifers are regional discharge for ground water flow, while more southerly valley aquifers act as regional recharge. Major regional inflow to the aquifer occurs

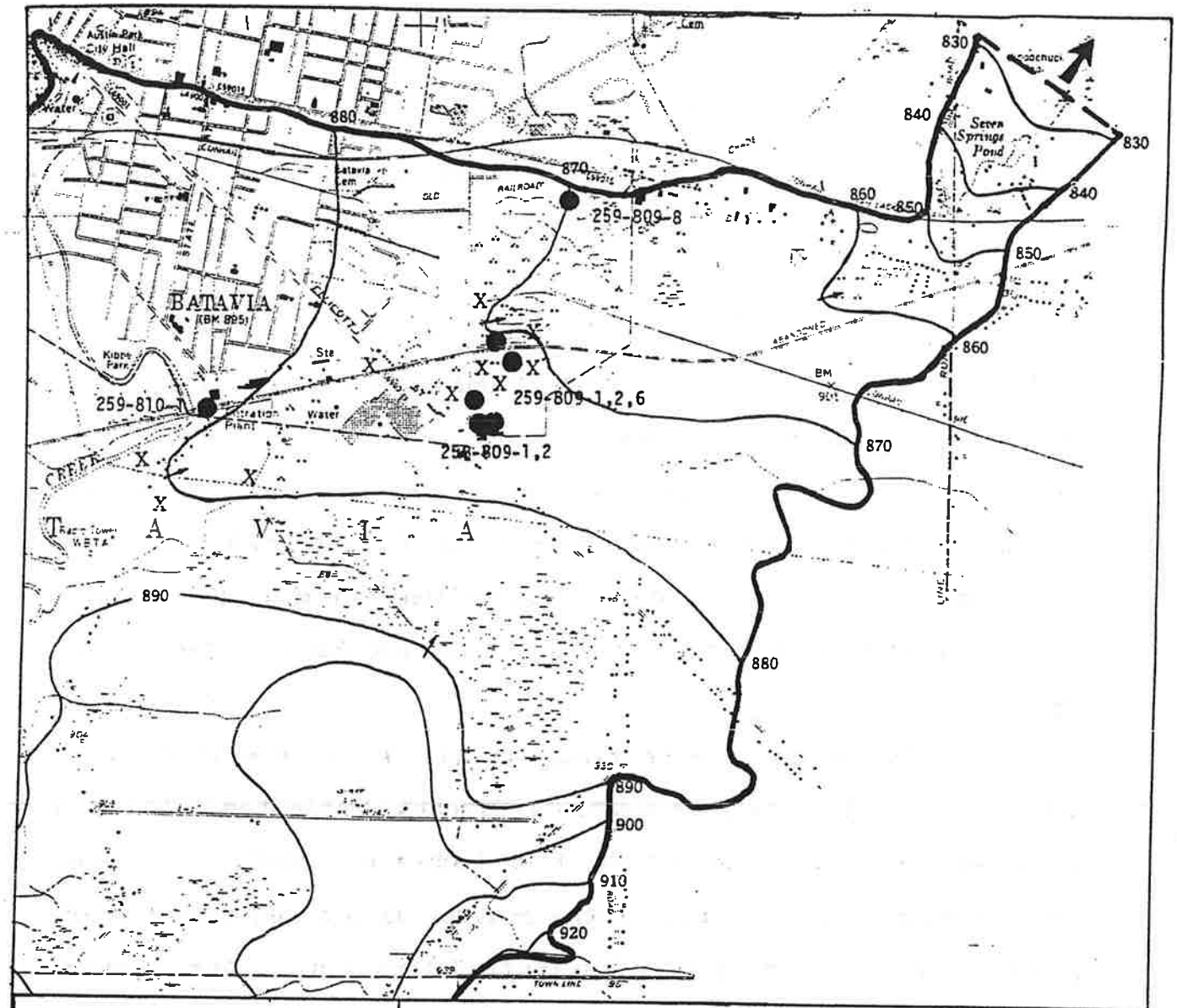

FIGURE 3 – REGIONAL GROUND WATER FLOW

Adapted from: USGS Water Resource Investigations Report 85-4096, 1984; sheet 5

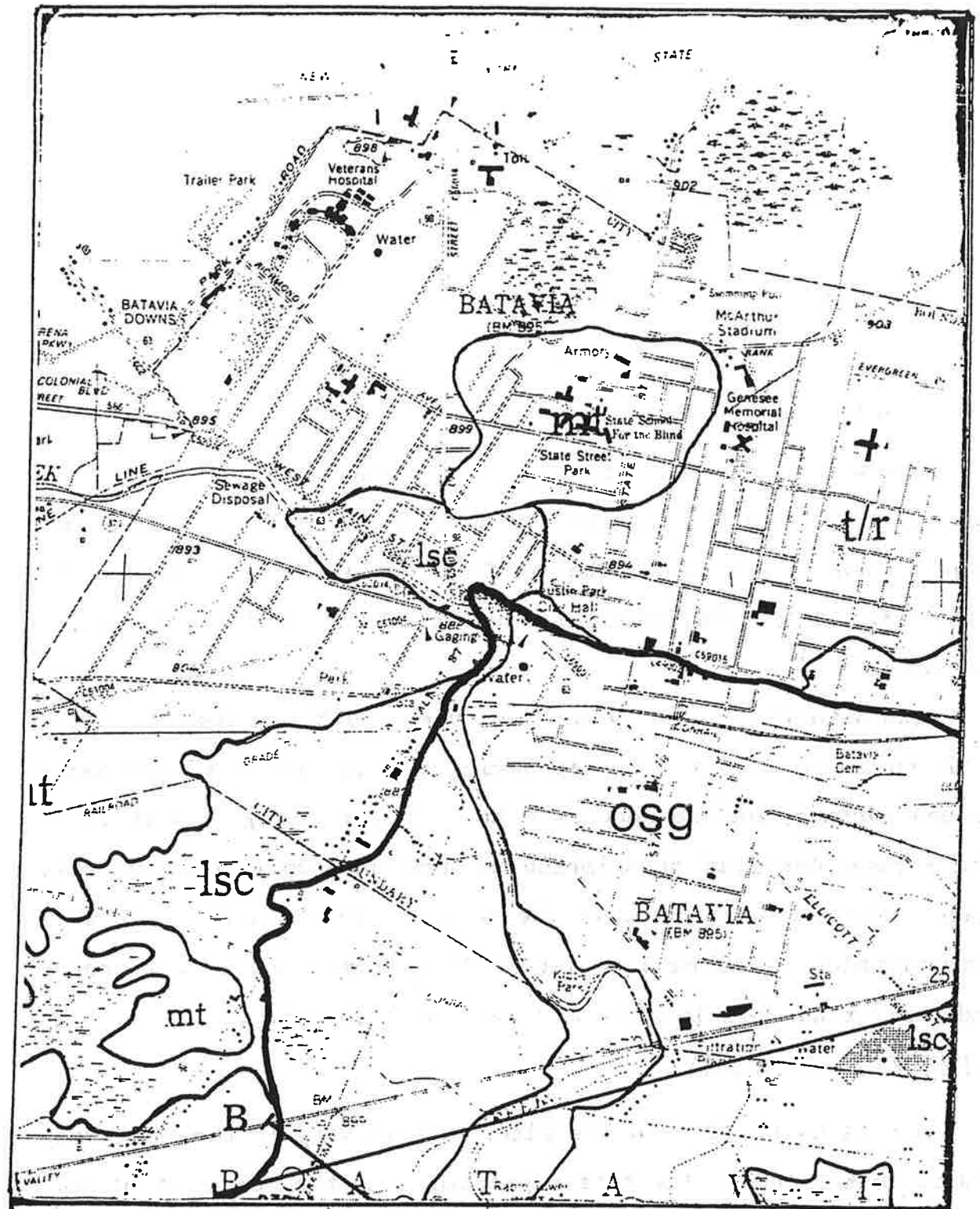

FIGURE 4 - REGIONAL SURFICIAL GEOLOGY

mt: morainal till
lsc: lake silt and/or clay
osg: outwash sand and gravel
SCALE: 1:24000

Adapted from: USGS Water Resource Investigations Report 85-4096, 1984; sheet 1

from Wyoming County through the Town of Alexander, and along a valley controlled region along Route 45, west of the Village of Alexander where saturated thicknesses again reach 40 feet. Secondary recharge is contributed from the West Bethany area. Major regional outflow is directed to the northeast and Woodchuck Hollow, southeast of the city.

SITE GEOLOGY

There is little variation in ground surface elevation across the site (5.38 feet from the southeastern corner to the eastern edge - see figure 5). The surface gently slopes toward the Tonawanda Creek, with resultant surface drainage directed toward the creek.

The site is mantled by varying types and thicknesses of fill, with natural sediment first appearing as shallow as 2 feet below ground surface, and as deep as 6 to 8 feet below ground surface. For a more detailed description of the unconsolidated deposits found onsite, please refer to the test trench and monitoring well investigations sections immediately following, and the test trench and monitoring well logs found in appendices 1 and 2.

SITE HYDROGEOLOGY

Ground water flow on the site is generally to the northwest and is controlled by the site's proximity to the Tonawanda Creek. The controlling influence of the Tonawanda is well illustrated when the creek meanders in an easterly direction north of the site. The resulting, somewhat gradual, change in onsite groundwater flow

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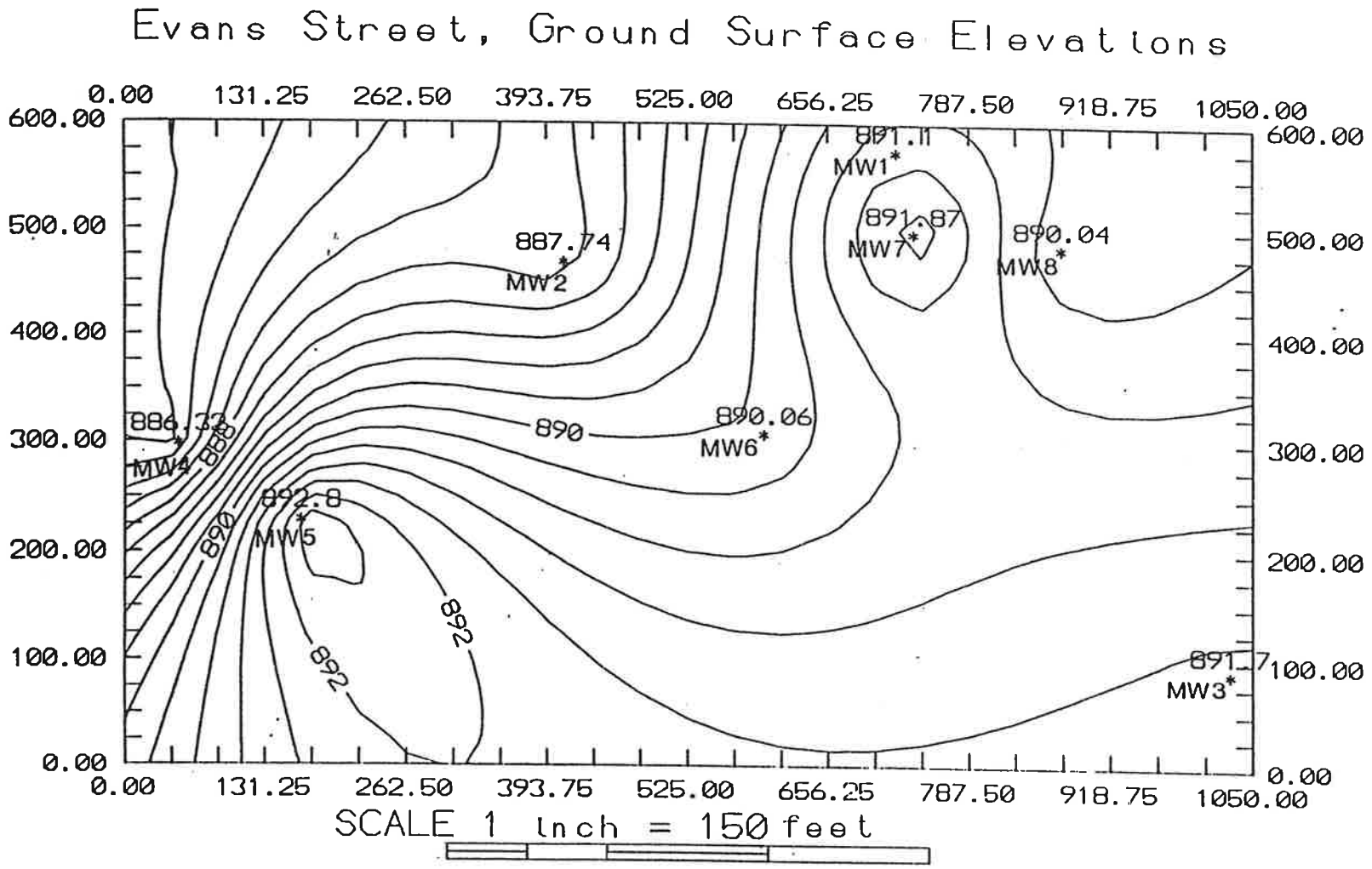

FIGURE 5 - GROUND SURFACE ELEVATIONS

direction from northeast to due north on the westernmost portion of the site follows the curve of the meander in an almost radial manner. (See figure 6).

Elevations of ground water in the monitoring wells have little variance across the site, with the greatest difference (1.34 feet) occurring between monitoring well MW 3-91 (highest groundwater level at 885.65 feet) and monitoring well 2-91 (lowest groundwater elevation at 884.31). (See table 1).

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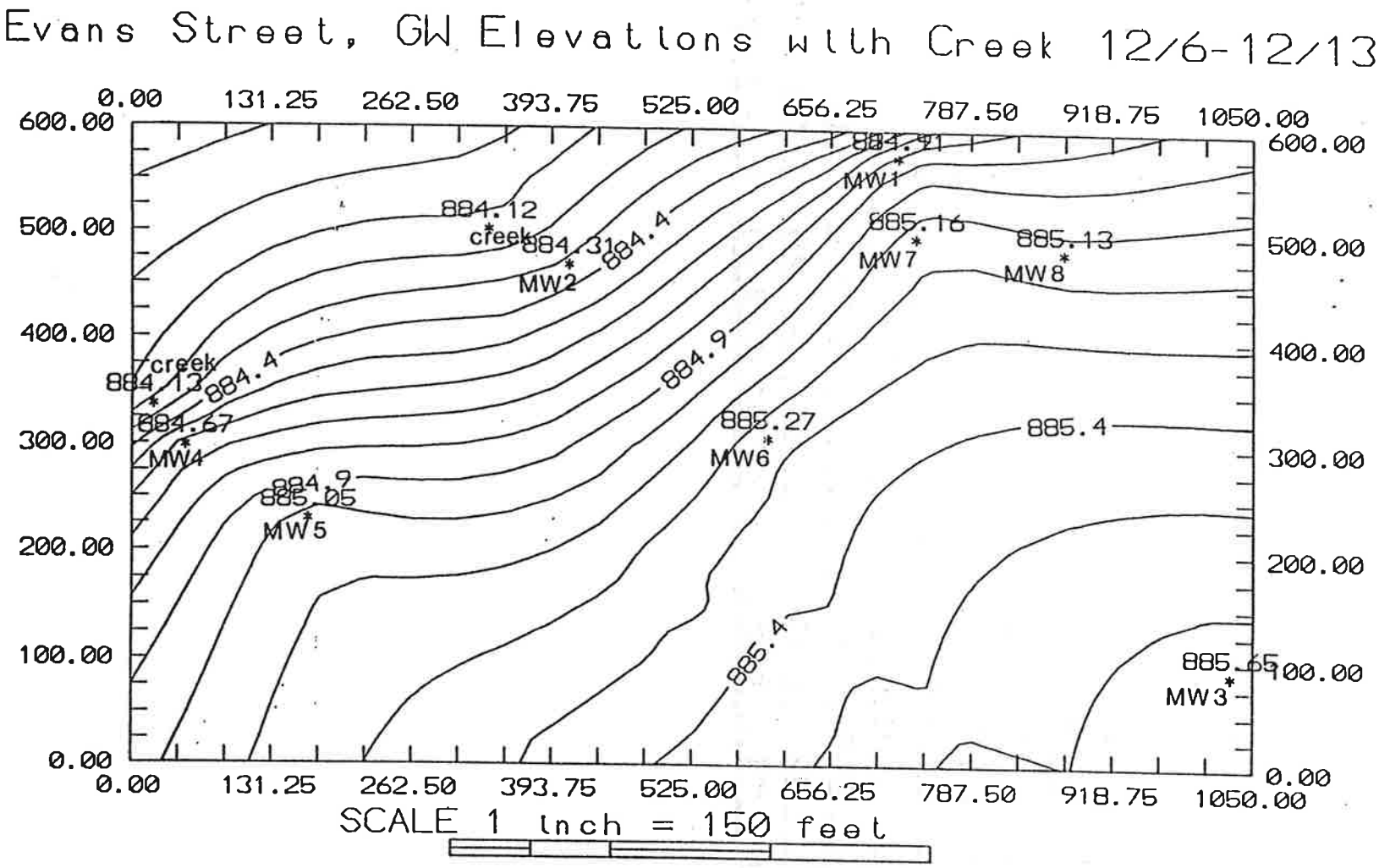

FIGURE 6 – GROUND WATER ELEVATIONS, WITH TONAWANDA CREEK

TABLE 1 - GROUND WATER AND SURFACE ELEVATIONS

DATA POINT	SURFACE ELEV.	GROUNDWATER ELEV. (12/13/91)
MW 1-91	891.10	884.94
MW 2-91	887.74	884.31
MW 3-91	891.70	885.65
MW 4-91	886.32	884.67
MW 5-91	892.80	885.05
MW 6-91	890.06	885.27
MW 7-91	891.87	885.16
MW 8-91	890.04	885.13
CREEK POINT 1	884.13 (12/6/91)	(SEE SURVEY MAP)
CREEK POINT 2	884.12 (12/6/91)	(SEE SURVEY MAP)
CREEK POINT 3	884.12 (12/6/91)	(SEE SURVEY MAP)

TEST TRENCH INVESTIGATION

An open trench investigation was conducted by Earth Dimensions, Inc (EDI) utilizing a rubber tired Ford 655 A backhoe with a 2.0 foot wide bucket to allow entry into the trench for the visual classification of the various fill zones and natural material encountered. Approximately 850 linear feet of trench was excavated to an average depth of 5.3 feet around the outer perimeter of the old foundation which supported the now non-existent Dueler-Jarvis plant.

This trenching effort was necessary to accurately evaluate the fill thickness and depth to natural soil as well to determine the potential of environmental hazards associated with the old (Dueler-Jarvis) plant (see Appendix 2 for test trench logs). All features such as drain tiles, old buried pipes, concrete structures, etcetera, which were encountered along the trench were noted and analytical samples were retained for laboratory analyses when warranted by EDI and ODNY personnel. (See figures 8 through 10 for cross sections of test trenches 1 through 4.)

TRENCH 1-91

The fill material was fairly uniform across large portions of the individual trenches. From 0.0 to 266.0 feet along this east-west oriented trench (see survey map) predominantly SILTY-SAND textured fill was described with gravel contents ranging from 0 to as much as 60 percent. This stretch of trench revealed that

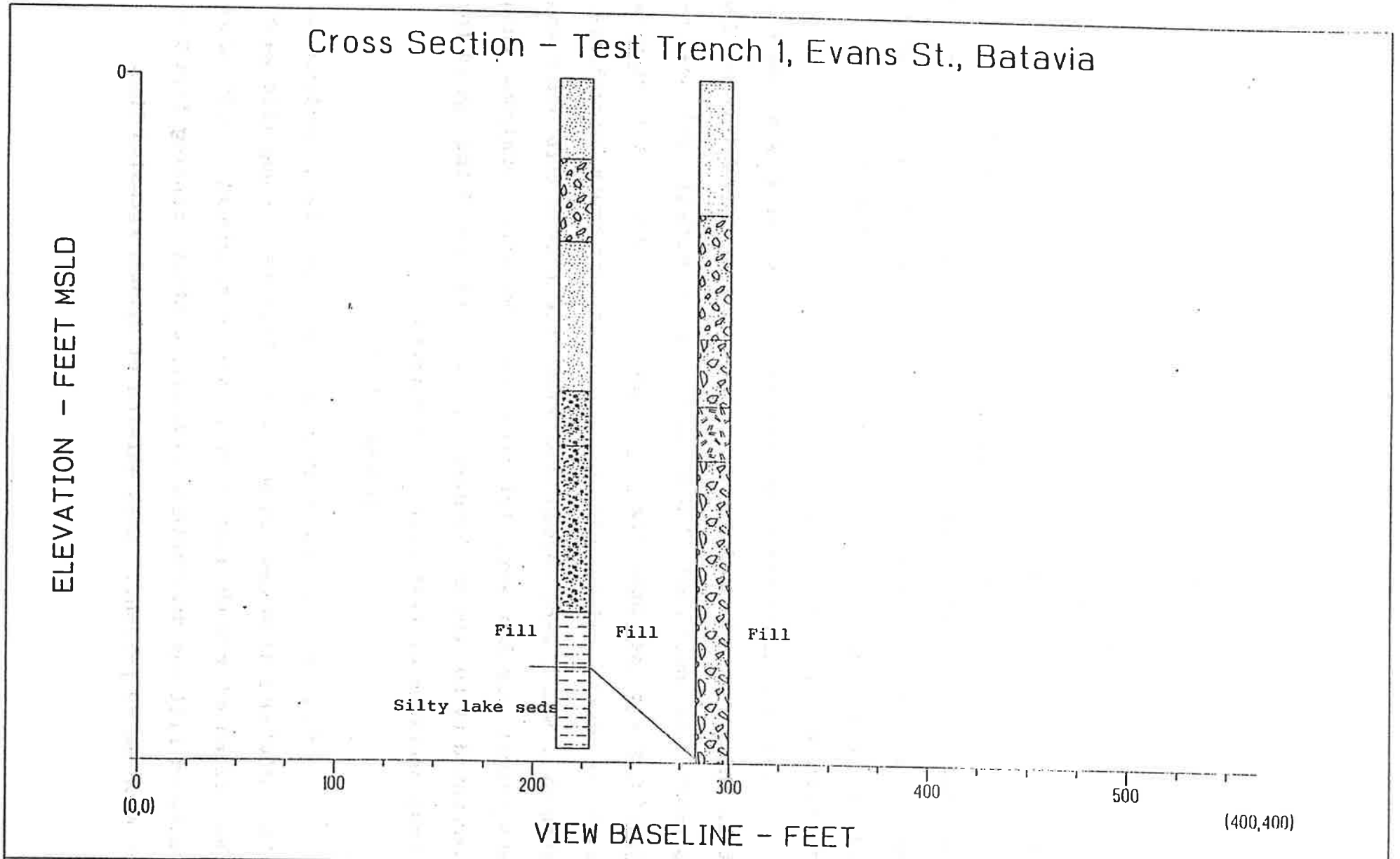

FIGURE 7 – TEST TRENCH 1

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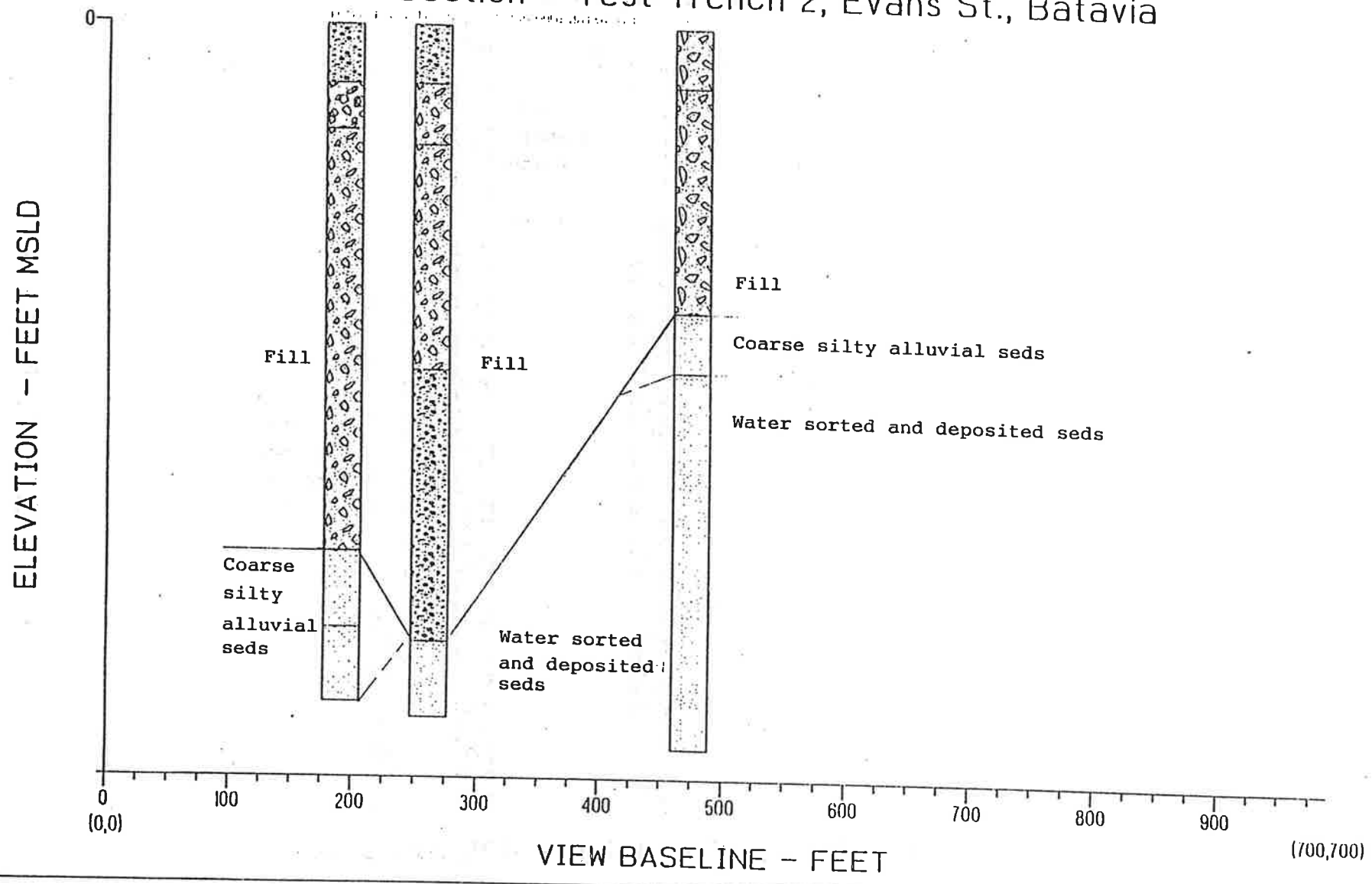

FIGURE 8 – TEST TRENCH 2

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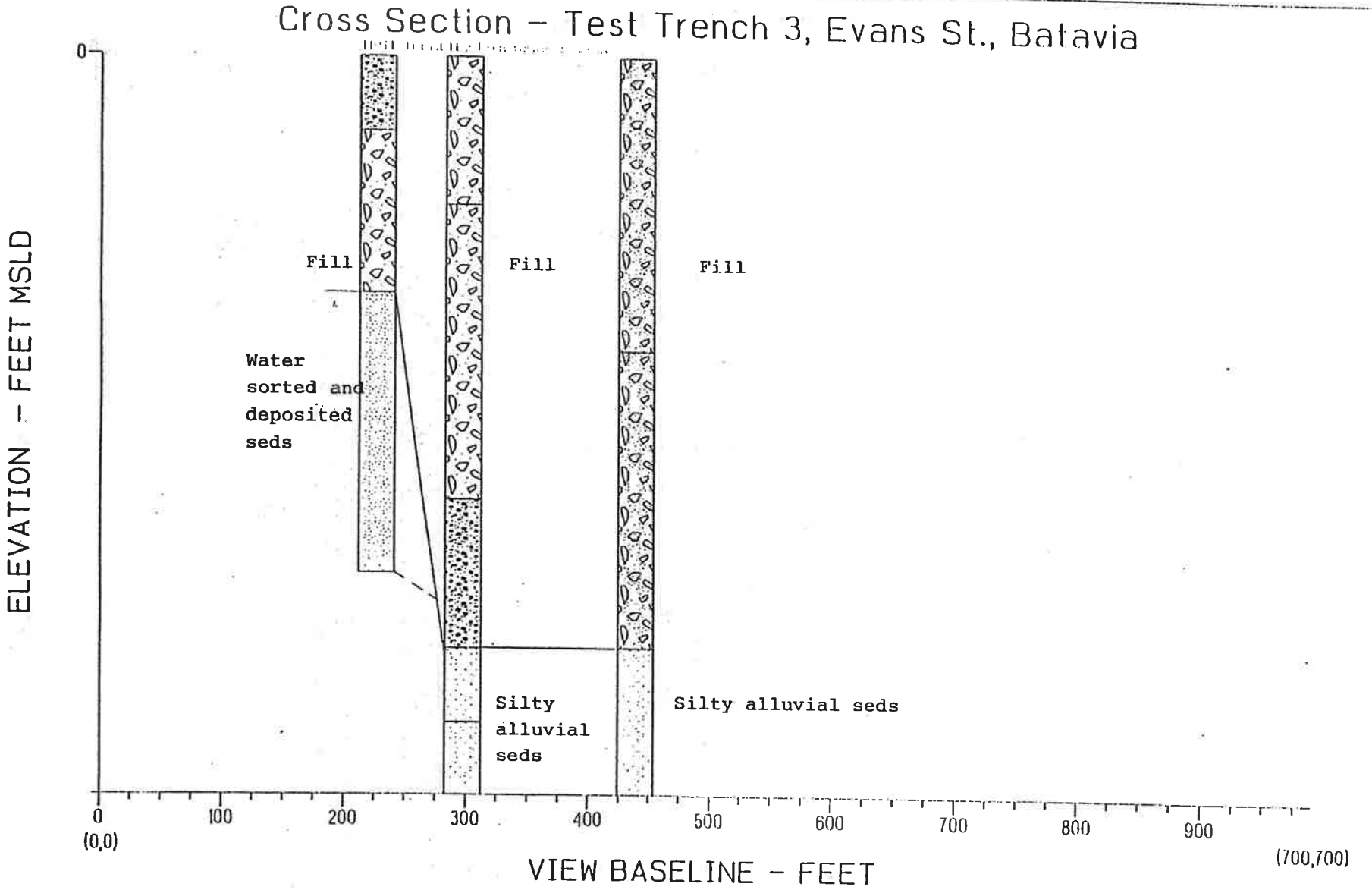

FIGURE 9 – TEST TRENCH 3

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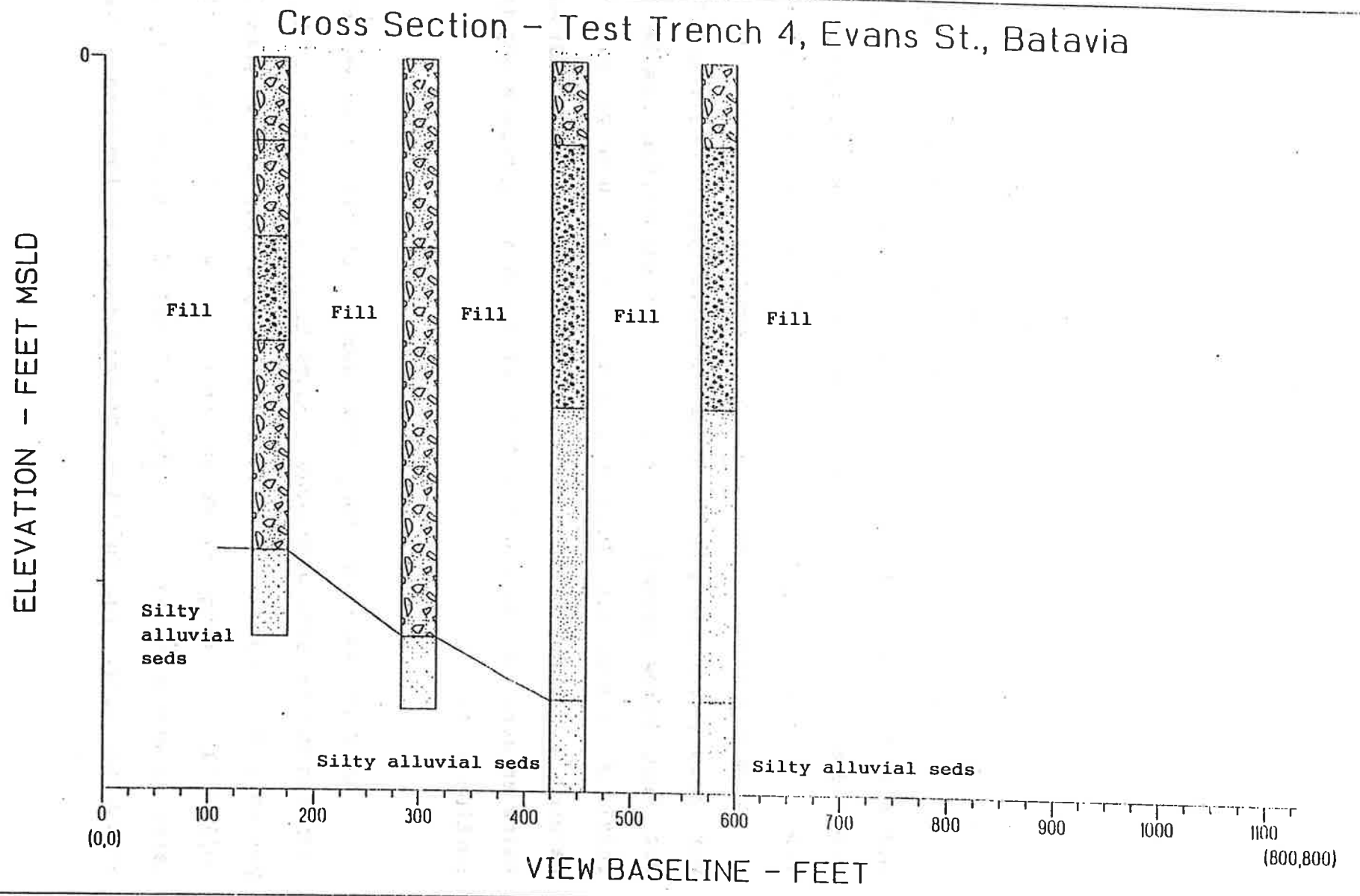

FIGURE 10 – TEST TRENCH 4

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the fill had apparently been placed in distinct, continuous lifts. The color, texture and thickness of each of the individual fill layers revealed a well graded distribution of material. Numerous large pieces of wood were removed during excavation between 41.0 to 266.0 feet along this trench.

Several north-south oriented clay drain tiles were encountered throughout this section of trench. These drain tiles were found at 26.0, 68.0, 111.0 and 176.0 feet from the beginning of the trench. All four tiles were dry, and no organic vapors were picked up by the OVM meter. A significant seep was observed originating below the foundation at a point 53.0 feet from the trench beginning, and a sample was retained for analysis. Several thin lenses of ash were encountered along this trench, and were typically found 2.0 to 2.4 feet below ground surface. A representative sample was retained for analysis along test trench 1-91 (41.0 to 266.0). The natural soils consisted of CLAYEY-SILT textured lake sediments below an average depth of 4.6 feet below ground surface along this portion of trench.

TRENCH 2-91

The fill material along this section of trench possessed a (SILTY-SAND) texture with gravel contents ranging between 15 to 60 percent. The surficial fill consisted of gravelly to very gravelly soil fill to a range of depths between 0.4 to 0.8 feet. This material was underlain by a black colored fill which was typical across the site. The thickness of this fill section ranged from

1.5 to 2.8 feet thick and contained 20 to 60 percent gravel containing slag, coal, and bricks. At test trench 2-91 (between 341.0 to 371.0) a rusty brown colored zone containing a mix of ash and (SILTY-SAND) material was described between 2.3 to 4.1 feet below the original ground surface. Near the end of the north side of test trench 2-91 and the intersection of test trench 3-91 an eight inch (8") diameter clay drain tile was uncovered. This east-west oriented tile had 1/2 inch of apparently standing water at the bottom of the tile, and when scanned with the OVM meter 0 ppm were recorded.

The natural sediments along this section of trench appeared to become coarser in texture as the trench was advanced in a westerly direction toward Tonawanda Creek. Along trench 2-91 between 266.0 to 341.0, (SANDY-SILT) textured alluvial sediments were described below the fill with a thin layer of this alluvial sediment also present between 1.9 to 2.3 feet below ground surface along test trench 2-91 between 371.0 to 415.0.

Water sorted and deposited (SILTY-SAND) material was described directly below the fill along test trench 2-91 between 341.0 to 371.0 and below the coarse silty alluvial sediments from 371.0 to the end of trench 2-91 at 415.0 feet.

TRENCH 3-91

The fill thickness ranged from 1.6 feet along the southern portion of the test trench (from 0.0 to 175.0 feet), and increased in thickness to 4.0 feet throughout the remainder of the trench.

The surficial fill material ranged in texture from (SANDY-SILT) to (SILTY-SAND) with 15 to 50 percent gravel size slag, metal, concrete, and bricks, to a depth of 0.5 feet in the southern portion of the trench to between 3.0 to 2.0 feet in the central and northern portions of the trench respectively.

The (SILTY-SAND) textured, black fill was also present below the previously mentioned surficial fill to a range of depths from 1.6 feet along the southern portion of trench 3-91, to 4.0 feet from 175.0 to the north end of trench 3-91 at 286.0 feet. This black colored fill contained gravel size coal, slag, bricks and asphalt with occasional wood pieces.

A 1.5 foot diameter pipe was observed on the east trench wall 13.0 feet from the intersection of trench 2-91 and 3-91, and contained an accumulation of an orange-yellow substance which was collected for analytical testing.

A concrete distribution box was unearthed which extended between 83.0 to 87.0 feet from the beginning of trench 3-91, with a clay drainage tile running north from the box. There was some water noticed in the tiles and around the distribution box, however when scanned with the OVM meter, 0 ppm were recorded. A black colored (SILTY-SAND) soil was encountered in this trench between 109.0 to 115.0 with a distinct petroleum odor and little oil sheen; this material was collected for analysis.

An apparent hydraulic lift was discovered along trench 3-91 at the 175.0 foot mark. This lift was surrounded by concrete, and the soils possessed a distinct petroleum odor and sheen when excavated.

A representative soil sample from this area was retained for analytical testing.

Running east-west through trench 3-91 at a point 260.0 feet from the beginning of the trench, two 2 inch diameter black steel pipes were uncovered. The pipes were subsequently cut and proved to be empty. When this area was excavated several feet to the west to expose a larger section of these pipes, it was noticed that the soils surrounding and below the pipes possessed an oil sheen and petroleum odor. A representative soil sample from this area was also retained for analytical sampling.

At a point 280.0 feet from the beginning of test trench 3-91, a 1 inch steel pipe running through the trench in an east-west direction was noticed, with a slight water seep emanating from the east trench wall at a point 285.0 feet from the beginning of the trench.

The natural soils described below the fill consisted of water sorted and deposited (SILTY-SAND) from the beginning of trench 3-91 to a point 175.0 feet north and appeared to become alluvial in nature, possessing a distinct gray color and a (SILT) texture throughout the remainder of the test trench.

TRENCH 4-91

The thickest accumulation of fill was noticed along test trench 4-91 with an average thickness of 5.4 feet. The predominant texture of the fill ranged from (SILTY-SAND) to (SANDY-SILT) with gravel contents ranging from 15 percent to as much as 60 percent.

The fill zones varied in thickness and were often found mixed with different textured and color fills. Throughout this section of fill, gravel size bricks and concrete with occasional pieces of wood were often found. Occasional thin pockets of ash were randomly exposed throughout the trench. Below 3.3 to 3.5 feet along test trench 4-91 between 120.0 feet to the end of the trench at 147.0 feet, the fill material had a (SILT) texture with a only 5 to 10 percent gravel. Below 5.5 feet at these locations occasional ash layers within the fill were noticed.

A two inch steel pipe was uncovered at a point 1.0 feet from the beginning of trench 4-91, with another two inch pipe running northeast to southwest at a point 16.0 to 18.0 feet from the beginning of this trench. A six inch pipe oriented north-south crossed the trench at a point 97.0 feet from the beginning of the trench.

Along a stretch from 136.0 to 140.0 feet a fire brick constructed distribution box was encountered running due north-south. This area was excavated to the north several feet and the soils surrounding the exiting pipe possessed a slight petroleum odor. The natural soils described below the fill consisted of (SILT) textured alluvial sediments to the bottom of the trench.

TRENCH 5-91

An additional test trench was excavated approximately 100.0 feet southwest of the intersection of trench 2-91 and 3-91, to expose an underground storage tank. The fill surrounding the

approximately 200 gallon steel tank, consisted of (SILTY-SAND) textured material with 15 to 40 percent gravel, and included abundant accumulations of slate, shingles of apparent asbestos nature, glass bottles and glass fragments with some wood.

The storage tank was found to be placed on natural material which consisted of water sorted and deposited (SILTY-SAND). No water was present in the excavation and the tank appeared to be in good condition. When the tank and bottom of the pit were scanned with the OVM meter nothing was detected. There was also no visible evidence of leakage associated with this tank.

MONITORING WELL INSTALLATION

A total of eight monitoring wells were installed across the site. Logs of these wells may be found in Appendix 3, with cross sections exhibited on figures 11 through 13. The lines of section may be found on the large site map, Appendix 1.

The fill material described at the monitoring well locations predominantly ranged in texture from (SILTY-SAND) to (SANDY-SILT) with varying amounts of gravel. The characteristic black colored fill was present in all the monitoring wells except MW 4-91, which was drilled in the southwesternmost portion of the site, located on the flood plain of Tonawanda Creek. This coarse textured black colored fill material often contained gravel size concrete, slag, bricks and glass.

A one foot layer of ash was described between 5.0 and 6.0 feet in MW 1-91. Although this was the only well which penetrated the

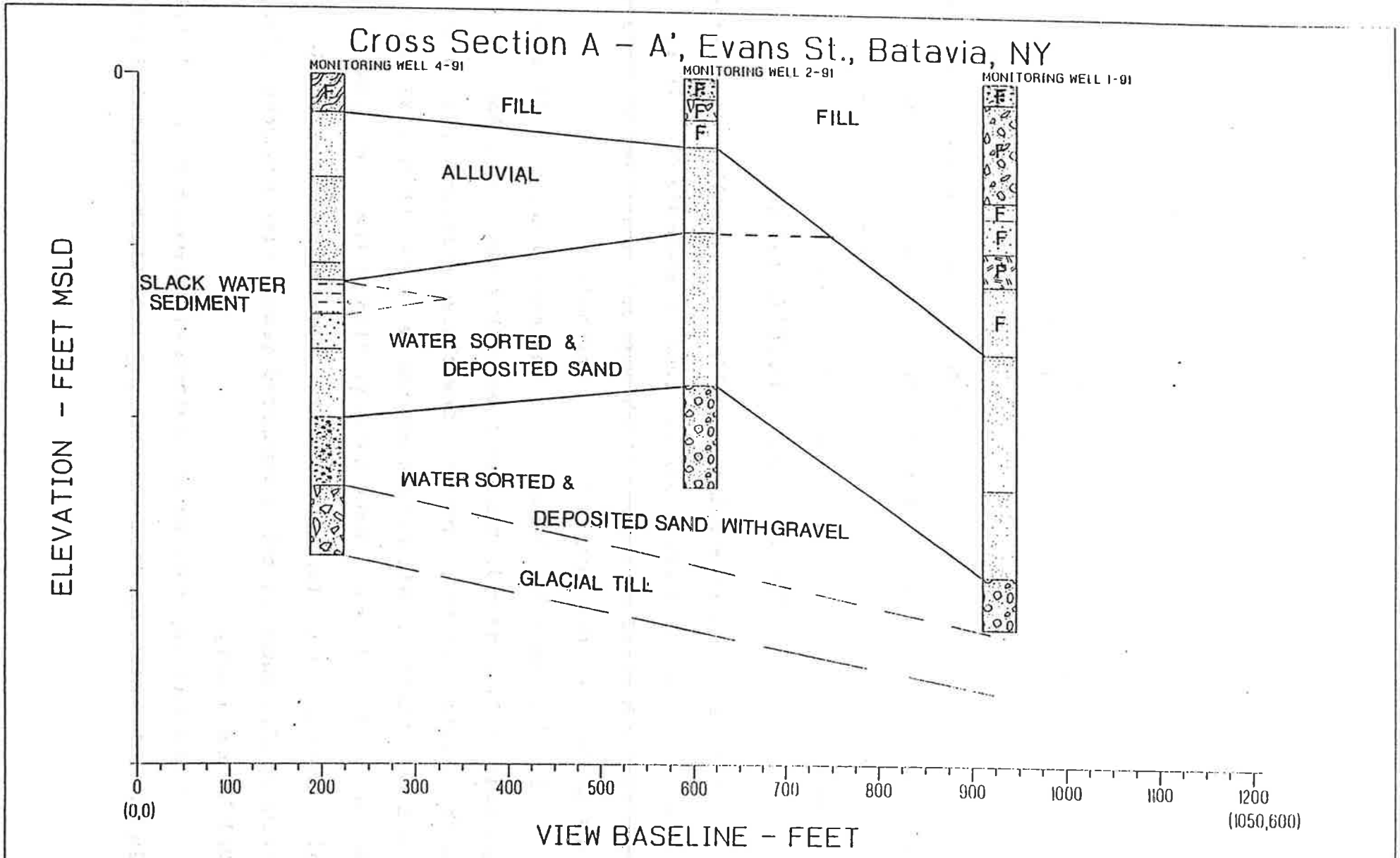

FIGURE 11 - CROSS SECTION A - A'

EARTH DIMENSIONS, INC.
Soil Investigations and Wetland Delineations

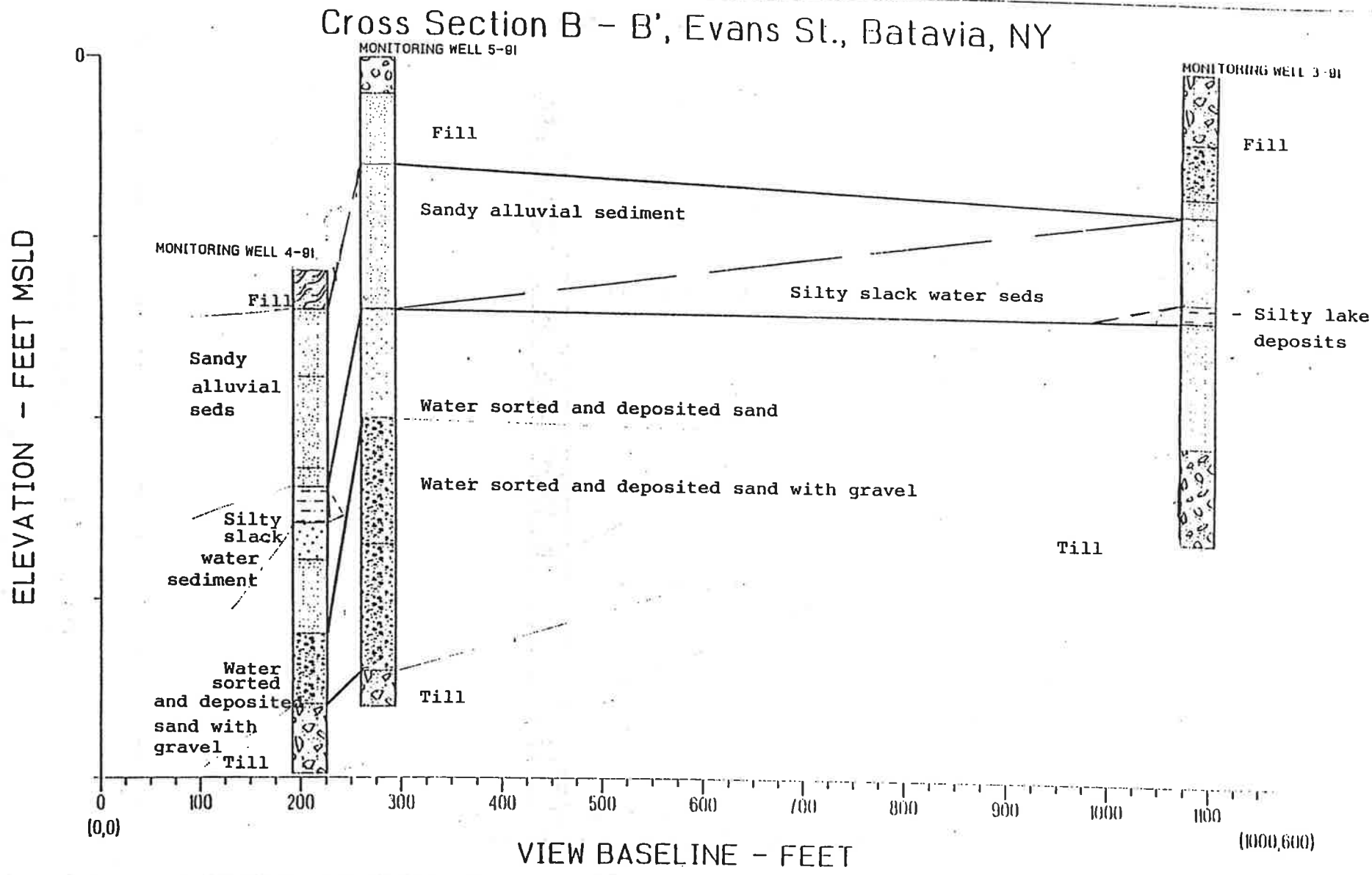

figure 12 – CROSS SECTION B – B'

EARTH DIMENSIONS, INC.
Soil Investigations and Wetland Delineations

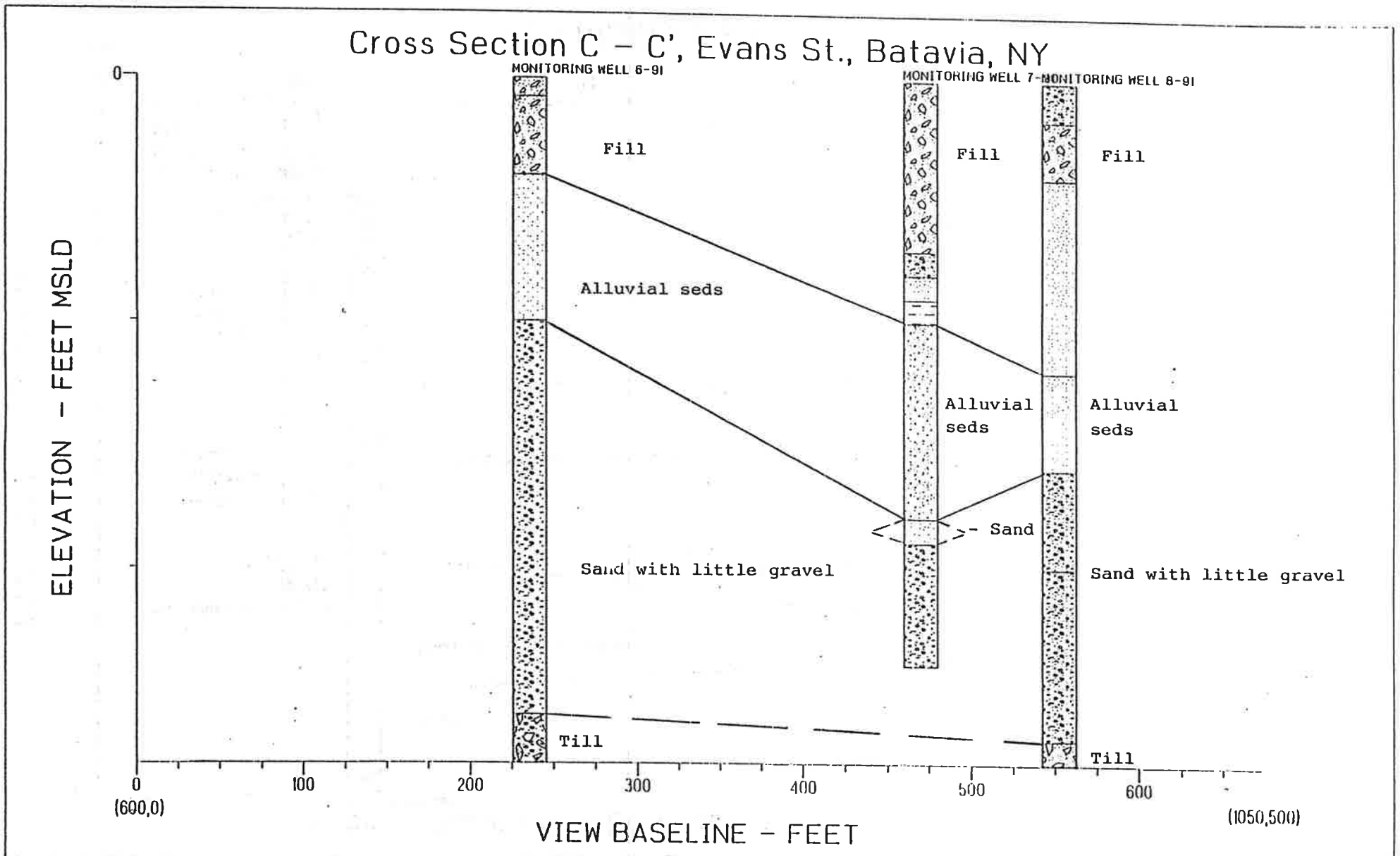

FIGURE 13 – CROSS SECTION C – C'

EARTH DIMENSIONS, INC.
Soil Investigations and Wetland Delineations

ash, it was observed at numerous locations throughout the test trenches and appeared to be variable in thickness and extent.

The greatest accumulation of fill material on site appears to be along the northern portion of the property, where the average thickness during test trenching was 5.4 feet (4-91 excavation) and 6.0 to 8.0 feet thick in monitoring wells MW 8-91 and 1-91, respectively.

The natural sediments described below the fills consisted predominantly of three discrete depositional horizons (see figure 11 - 13 cross-sections). Each horizon represents a distinct mode of transportation at the time of deposition. The upper portion of natural material had a primarily (SANDY-SILT) to (SILT) texture and represents alluvial material deposited during periods of flooding associated with the Tonawanda Creek. Occasional thin layers of (CLAYEY-SILT) material were spaced randomly across the site and represent deposits which accumulated during periods of standing water.

Below these finer textured horizons exists a material with a prevailingly high sand content which ranged from (SILTY-SAND) to (SAND) in texture. These water sorted and deposited sediments became wet with depth and most likely represent the elevation of the local water table in this area. It should be noted for building purposes that these materials, when saturated, would be highly unstable in an unconfined setting.

The third horizon observed below the sandy textured soils was classified as (SILTY-SAND) to (SAND) with a distinct increase in

gravel content. Because of the coarse texture and increased gravelcontent, these stratified deposits have the capability to contain and transmit large volumes of water. This zone and portions of the upper water sorted sands were the targeted area for the placement of the screened section of the monitoring wells. Using ground water levels obtained for these wells and the water levels of Tonawanda Creek itself, ground water flow directions have been established. (See figure 6 for computer generated ground water flow map.)

The placement of monitoring wells within this saturated portion of the naturally occurring deposits will then allow representative ground water samples to be secured. Laboratory analysis of these samples will provide an accurate indication of the effects of the previous activities associated with past onsite industrial development on the quality of ground water in the immediate area.

OFF-SITE BACKGROUND SOIL INVESTIGATION

One hand auger boring was advanced in an area located approximately 550 feet west-southwest of the intersection of South Jackson and South Swan Streets, along the western bank of Tonawanda Creek, north of the Conrail tracks. According to the Genesee County Soil Survey, this area exhibits similar depositional characteristics to those found on the Evans Street Site.

The soils at this location consisted of a thin layer of

topsoil, underlain by (SILTY-SAND) textured alluvial sediments to a depth of 4.0 feet. The background soil sample retained for analytical testing was obtained from the 4.0 to 5.0 foot interval and was classified as a wet, (SILTY-SAND) tending toward (SANDY-SILT) textured material.

Prepared by,

Dale M. Gramza,
Senior Geologist/Project Manager

and

Ann R. Salmon,
Hydrogeologist

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Muller, Ernest, and V.K. prest, *Glacial Lakes in the Ontario Basin*, from Quaternary Evolution of the Great Lakes, Geological Association of Canada Special Paper 30, 1985.

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APPENDIX 1

SITE MAP


SURVEY OF PART OF ORIGINAL VILLAGE LOT 19
SITUATE IN THE
CITY OF BATAVIA
GENESEE COUNTY, NEW YORK
SCALE 1 IN = 50 FT
NOV. 21, 1991
ADDITIONS DEC. 12, 1991
KEVIN M. O'DONOGHUE
LAND SURVEYOR
P.O. BOX 669, 8713 ROUTE 237
STAFFORD, NEW YORK 14143
NORTH
NOTE: COORDINATE SYSTEM SHOWN IS ASSUMED
REFERENCE BEARINGS PER REFERENCES 1, 2 & 3
BENCH MARK
USGS MON. CITY OF BATAVIA IN FRONT OF CITY HALL
— REFERENCES —
1) DEED TO CITY OF BATAVIA (L.443 D.546)
2) MAP BY McINTOSH & McINTOSH, DATED MAR. 16, 1972 JOB No. B-3113 FILED WITH CITY ENGINEERS OFFICE FILE No. M-475
3) MAP BY K. M. O'DONOGHUE DATED JUNE 15, 1989 JOB No. G89-249
4) DEED TO: NORBERT BARBER (L.457 D.428)
~ LEGEND ~
= SET IRON PIN
= EXISTING IRON PIN OR PIPE
= EXISTING RAILROAD SPIKE
= EXISTING NAIL
= UTILITY POLE
= GROUND WATER MONITERING WELL
= SURFACE WATER SAMPLING SITE
= TRENCH SOIL SAMPLING LOCATION
ELLICOTT STREET
(49.5' WIDE)
STREET
EVANS
(49.5' WIDE)
TONAWANDA
CREEK
FLOW
BANK OF CREEK
PROPERTY CORNER N 4496.775 E 4693.221
CREEK ELEV 12/6/91 884.12
CREEK ELEV 12/6/91 884.12
CREEK ELEV. 12/6/91 884.13
N 70°-11'-52" E 398.85
N 60°-58'-00" E 359.42
304.00 S 56°-43'-44" E
S 33°-50'-05" W
S 56°-43'-44" E 332.81
MON. WELL 1 N 4449.495 E 4712.647 RISER 893.43 GRADE 891.10
MON. WELL 2 N 4345.105 E 4422.170 RISER 890.20 GRADE 887.74
MON. WELL 4 N 4171.668 E 4068.175 RISER 888.45 GRADE 886.32
MON. WELL 5 N 4101.720 E 4184.319 RISER 895.18 GRADE 892.80
MON. WELL 6 N 4180.876 E 4613.218 RISER 891.67 GRADE 890.04
MON. WELL 7 N 4371.123 E 4749.817 RISER 891.11 GRADE 889.51
MON. WELL 8 N 4368.782 E 4886.860 RISER 891.71 GRADE 890.04
MON. WELL 3
S. WATER 1 891.05
S. WATER 2 888.35
S. WATER 3 887.12
S. WATER 4 890.52
SOIL SAMPLE T-1
SOIL SAMPLE T-2
SOIL SAMPLE T-3
SOIL SAMPLE T-4
SOIL SAMPLE T-5
SOIL SAMPLE T-5A
SOIL SAMPLE T-6
SOIL SAMPLE T-7
SOIL SAMPLE T-8
SOIL SAMPLE T-9
SOIL SAMPLE T-10
TRENCH 1
TRENCH 2
TRENCH 4
TRENCH 5
PK NAIL
MANUSO MEMORIAL ICE ARENA
REMAINS OF OLD BUILDING FOUNDATION
BRICK FRAME BUILDING
TOTAL OF AREA SURVEYED
N 86°-50'-04" W 1103.75
S 87°-36'-57" W 233.97
S 89°-26'-33" W 189.65
N 88°-54'-24" W 188.99
N 87°-49'-23" W 327.24
S 64°-00'-28" W 120.00
142.00
S 86°-36'-22" W 14.47
N 05°-12'-59" W 7.00
S 86°-49'-19" W 14.14
CENTERLINE OF RAILROAD SIDE TRACK
PROPERTY CORNER
APPROXIMATE LOCATION OF UNDERGROUND TANK
8'x28' METAL TANK
4'x3' METAL BLDG
I HEREBY CERTIFY THAT THIS MAP WAS MADE NOV. 21, 1991 FROM NOTES OF A SURVEY COMPLETED NOV. 20, 1991
KEVIN M. O'DONOGHUE
STATE OF NEW YORK
G91-643

APPENDIX 2

TEST TRENCH LOGS

EARTH DIMENSIONS, INC.
Soil and Hydrogeologic Investigations
1091 Jamison Road • Elma, NY 14059 • (716) 655-1717

2J89b HOLE NO.. TEST TRENCH 1-91 e to w 0-41 SURF. ELEVATION 890.78

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/2/91 COMPLETED 12/2/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Moist, mixed dark grey and black, gravelly sandy loam, (SILTY-SAND) fill with 15 to 40% gravel, very fine size sand, little silt, compact. 0.6	Sandy fill with little gravel and silt to 0.6 foot over sand and gravel soil fill with little silt to 1.2 feet over sandy soil fill with little silt to 2.3 feet over sandy soil fill with little gravel and silt to 2.7 feet over sandy fill with little gravel and silt to 3.9 feet over silty soil fill to 4.3 feet over silty lake sediment to end of test pit.
								Moist to extremely moist, brown, very gravelly sandy loam (SILTY-SAND) fill with 40 to 60% gravel, very fine to coarse size sand, little silt, compact. 1.2	
5								Extremely moist, black sandy loam (SILTY-SAND) fill, very fine to fine size sand, little silt, compact, noticed layer of ash between 2.0 to 2.2 feet. 2.3	No water at completion
								Moist to extremely moist, faintly mottled, brown, gravelly sandy loam (SILTY-SAND) fill with 15 to 30% gravel, very fine to medium size sand, little silt. 2.7	*NOTE* Soil descriptions on south side of trench – old foundation to depth of 2.5 feet below ground level on north side of trench.
10								Extremely moist, dark grey to black, gravelly sandy loam (SILTY-SAND) fill with 15 to 30% gravel, very fine to fine size sand, little silt, compact. 3.9	Noticed north south oriented clay drain tile 36" below surface along test trench, 26 ft west of initial study location. No water or fluids, no OVM readings.
								Extremely moist, greyish brown silt loam (CLAYEY-SILT) fill with little clay, firm. 4.3	
15								Extremely moist, distinctly mottled, olive brown silt loam (CLAYEY-SILT) with little clay, firm, blocky soil structure with grey silt coated ped faces. 4.9	OVM reads 0 ppm throughout excavation at this locaiton.
								Test trench completed at 4.9 feet.	
20									

N=NUMBER OF BLOWS TO DRIVE _ " SPOON " WITH lb. WT. FALLING " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

EARTH DIMENSIONS, INC.
Soil and Hydrogeologic Investigations
1091 Jamison Road • Elma, NY 14059 • (716) 655-1717

2J89b HOLE NO. TEST TRENCH 1-91 e to w 41.0 to 266.0 SURF. ELEVATION 890.29

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/2/91 COMPLETED 12/2/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Moist, mixed grey and dark grey, gravelly sandy loam (SILTY-SAND) fill with 15 to 30% gravel, very fine sand, little silt, compact. 1.0	Sandy fill with little gravel and silt to 1.0 foot over sandy soil fill with little gravel, trace to little silt to 1.9 feet over sand and gravel fill with little silt to 2.4 feet over ash fill to 2.8 feet over sand and gravel fill with little silt to 5.0 feet over silty lake sediment to end of boring.
								Moist to extremely moist, brown, gravelly sandy loam (SILTY-SAND) fill with 20 to 40% gravel, very fine to very coarse size sand, trace to little silt, compact in place. 1.9	
5								Extremely moist, black, very gravelly sandy loam (SILTY-SAND) fill with 40 to 50% gravel, very fine to fine size sand, little silt, compact. 2.4	No water at completion.
								Extremely moist, distinctly mottled, brown ash fill, very fine sand to gravel size, loose, numerous large wood pieces throughout trench. 2.8	*NOTE* Retained sample 2.4 to 2.8 for sample analysis.
10								Extremely moist, black, very gravelly sandy loam (SILTY-SAND) fill with 40 to 50% gravel, very fine to fine size sand, little silt, compact. 5.0	Encountered clay drain tile N-S orientation at 68.0 ft, 111.0 and 176.0 from trench beginning, dry, 0 ppm on OVM.
								Moist, distinctly mottled, olive brown silt loam (CLAYEY-SILT) with little clay, firm, blocky soil structure with grey silt coated ped faces. 5.2	Noticed seep below foundation 53.0 ft from trench beginning - (Sample retained for analysis.)
15								Test trench completed at 5.2 feet.	
20									

N=NUMBER OF BLOWS TO DRIVE _ • SPOON • WITH lb. WT. FALLING • PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

EARTH DIMENSIONS, INC.
Soil and Hydrogeologic Investigations
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2J89b HOLE NO. TEST TRENCH 2-91 east 268.0 to 341.0 SURF. ELEVATION 889.89

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/3/91 COMPLETED 12/3/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Extremely moist, dark grey to black, gravelly sandy loam (SILTY-SAND) fill with 15 to 30% gravel, very fine to fine size sand, little silt, loose. 0.4	Sandy soil fill with little gravel and silt to 0.4 foot over sand and gravel soil fill with little silt to 0.7 foot over sandy fill with gravel, little silt to 3.5 feet over coarse silty alluvial sediment to 4.0 feet over coarse silty slack water sediment to end of test pit.
								Extremely moist, brown, very gravelly sandy loam (SILTY-SAND) fill with 40 to 60% subrounded gravel, very fine to medium size sand, little silt, compact. 0.7	
5								Extremely moist, black, gravelly to very gravelly sandy loam (SILTY-SAND) fill with 20 to 60% gravel, brick, coal and slag, very fine to very coarse sand size, little silt size, compact in place, noticed ash layer between 2.8 to 3.1 feet. 3.5	No water at completion.
								Extremely moist, dark grey silt loam (SANDY-SILT) with little very fine size sand, compact, weakly thinly bedded. 4.0	
10								Extremely moist, brown silt loam (SANDY-SILT) with little very fine size sand, loose and compact, weakly thinly bedded. 4.5	
								Test pit completed at 4.5 feet.	
15									
20									

N=NUMBER OF BLOWS TO DRIVE _ " SPOON " WITH lb. WT. FALLING " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

EARTH DIMENSIONS, INC.
Soil and Hydrogeologic Investigations
1091 Jamison Road • Elma, NY 14059 • (716) 655-1717

2J89b HOLE NO. TEST TRENCH 2-91 east 341.0 to 371.0 SURF. ELEVATION 890.00

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/3/91 COMPLETED 12/3/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Extremely moist to wet, olive grey, gravelly sandy loam (SILTY-SAND) fill with 15 to 30% gravel, very fine to fine size sand, little silt, loose. 0.4	Sandy soil fill with little gravel and silt to 0.4 foot over sandy soil fill with some gravel, little silt to 0.8 foot over sandy fill with gravel, little silt to 2.3 feet over mixed ash and coarse silty soil fill to 4.1 feet over water sorted and deposited sand with little silt to end of test pit.
								Extremely moist, brown, gravelly sandy loam (SILTY-SAND) fill with 20 to 40% gravel, very fine to coarse size sand, little silt, loose. 0.8	
5								Extremely moist, black, gravelly to very gravelly sandy loam (SILTY-SAND) fill with 20 to 60% gravel and slag, very fine to very coarse size sand, little silt, loose to compact. 2.3	No water at completion.
								Extremely moist, mixed rusty brown and light grey ash and (SILTY-SAND) fill with 15 to 30% gravel size pieces, coarse silt to coarse sand size. 4.1	
10								Extremely moist, distinctly mottled, brown very fine sandy loam (SILTY-SAND) with little silt, loose to compact, thinly bedded. 4.6	
								Test pit complete at 4.6 feet.	
15									
20									

N=NUMBER OF BLOWS TO DRIVE _ • SPOON • WITH lb. WT. FALLING • PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

EARTH DIMENSIONS, INC.
Soil and Hydrogeologic Investigations
1091 Jamison Road • Elma, NY 14059 • (716) 655-1717

2J89b HOLE NO. TEST TRENCH 2-91 east 371.0 to 415.0 SURF. ELEVATION 889.76

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/3/91 COMPLETED 12/3/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Extremely moist to wet, brown, gravelly sandy loam (SILTY-SAND) fill with 20 to 40% gravel, very fine to coarse size sand, little silt, loose. 0.4	Sandy soil fill with some gravel, little silt to 0.4 foot over sandy soil fill with gravel, little silt to 1.9 feet over coarse silty alluvial sediment to 2.3 feet over water sorted and deposited sand with little silt to end boring.
								Extremely moist, black, gravelly to very gravelly sandy loam (SILTY-SAND) fill with 20 to 60% gravel, bricks and slag, very fine to very coarse size sand, little silt, compact in place. 1.9	
5								Extremely moist, faintly mottled, olive grey silt loam (SANDY-SILT) with little very fine size sand, compact, weak blocky soil structure. 2.3	No water at completion. Noticed 8" diameter drain tile on north side of track running east to west with 1/2" of standing water. OVM meter reading: 0 ppm at drain tile.
								Extremely moist, faintly mottled, brown, very fine sandy loam (SILTY-SAND) with little silt, compact, weakly thinly bedded. 4.8	
10								Test pit completed at 4.8 feet.	
15									
20									

N=NUMBER OF BLOWS TO DRIVE _ " SPOON " WITH lb. WT. FALLING " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

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Soil and Hydrogeologic Investigations
1091 Jamison Road • Elma, NY 14059 • (716) 655-1717

2J89b HOLE NO. TEST TRENCH 3-91 s to n 0 to 175.0 SURF. ELEVATION 889.76

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/3/91 COMPLETED 12/3/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Extremely moist, brown, gravelly silt loam (SANDY-SILT) and sandy loam (SILTY-SAND) fill with 15 to 30% gravel, slag and metal, very fine to coarse sand size, loose.	Mixed coarse silty and sandy fill with little gravel to 0.5 foot over sandy fill with little to some gravel, little silt to 1.6 feet over water sorted and deposited sand with little silt to end of test pit.
								0.5	
								Extremely moist, black, gravelly sandy loam (SILTY-SAND) fill with 15 to 40% gravel, coal, slag and wood, very fine to very coarse size sand, little silt size, loose to compact.	No water at completion.
								1.6	*NOTE* West test trench wall observed for soil classification; east wall exposed edge of concrte foundation.
5								Extremely moist, faintly mottled, brown very fine sandy loam (SILTY- SAND) with little silt, compact, weakly thinly bedded.	0 ppm OVM reading
								3.5	Noticed 1.5 ft diameter pipe on east trench wall with 0.2 accumulation of orange-yellow substance (took analytical sample) located 13.0 feet north of test trench 2.
								Test pit completed at 3.5 feet.	At 175 ft mark, encountered apparent hydraulic lift surrounded by concrete with petroleum odor and sheen on soils.
10									Water in test trench 57.0 feet from 0.0 point, beginning at trench #3,
									83.0 to 87.0 ft - concrete distribution box with clay tiles running north, some water; 0 ppm on OVM meter.
15									109.0 to 115.0 ft - Encountered black (SILTY-SAND) soil with petroleum odor little sheen.
20									

N=NUMBER OF BLOWS TO DRIVE _ " SPOON " WITH lb. WT. FALLING " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

EARTH DIMENSIONS, INC.
Soil and Hydrogeologic Investigations
1091 Jamison Road • Elma, NY 14059 • (716) 655-1717

2J89b HOLE NO. TEST TRENCH 3-91 s to n 175.0 to 271.0 SURF. ELEVATION 890.63

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/3/91 COMPLETED 12/3/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Moist to extremely moist, dark grey, gravelly loam (SANDY-SILT) fill with 15 to40% gravel, concrete, bricks, some very fine to medium sand size, compact. 1.0	Coarse silty fill with little gravel and some sand to 1.0 feet over sandy soil fill with some gravel, little silt to 3.0 feet over sandy soil fill with little gravel and silt to 4.0 feet over silty alluvial sediment to end of test pit.
								Extremely moist, brown, gravelly sandy loam (SILTY-SAND) fill with 20 to 40% gravel, concrete and bricks, little silt, compact. 3.0	
5									No water at completion.
								Moist to extremely moist, dark grey to black, gravelly sandy loam (SILTY-SAND) fill with 15 to 30% gravel, asphalt and bricks, very fine to medium sand size, little silt, compact. 4.0	Noticed double black 2" pipe running east-west through trench at 260.0 ft from 0.0 mark with petroleum odor and sheen.
								Extremely moist, faintly mottled, olive grey silt loam (SILT) with trace very fine size sand, compact. 4.5	
10								Extremely moist, faintly mottled, olive grey silt loam (SILT) with trace very fine size sand, compact, weakly thinly bedded. 5.0	
								Test pit completed at 5.0 feet.	
15									
20									

N=NUMBER OF BLOWS TO DRIVE _ " SPOON " WITH lb. WT. FALLING " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

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Soil and Hydrogeologic Investigations
1091 Jamison Road • Elma, NY 14059 • (716) 655-1717

2J89b HOLE NO. TEST TRENCH 3-91 n to s 271.0 to 286.0 ft SURF. ELEVATION 891.43

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/3/91 COMPLETED 12/3/91

DEPTH IN FT	BLOWS ON SAMPLER SN	0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Extremely moist, dark brown, very gravelly sandy loam (SILTY-SAND) fill with 40 to 50% gravel, occasional bricks and concrete, very fine to very coarse size sand, trace to little silt, compact, loose when disturbed.	Sand and gravel fill with trace to little silt to 2.0 feet over sandy fill with little to some gravel, little silt to 4.0 feet over silty alluvial sediment to end of test pit.
								2.0	
								Extremely moist to wet, black, gravelly sandy loam (SILTY-SAND) fill with 20 to 40% gravel, very fine to coarse size sand, little silt, compact in place, some wood.	No water at completion.
5								4.0	
								Extremely moist, olive grey silt loam (SILT) with trace very fine size sand, compact, weakly thinly bedded.	Noticed slight water seep from east wall at 285.0 feet from 0.0 mark.
								5.0	
								Test pit completed at 5.0 feet.	East-west 1" pipe through trench at 280.0 ft
10									
15									
20									

N=NUMBER OF BLOWS TO DRIVE _ " SPOON " WITH lb. WT. FALLING " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

EARTH DIMENSIONS, INC.

Soil and Hydrogeologic Investigations

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2J89b HOLE NO. TEST TRENCH 4-91 e to w 0.0 to 72.0 ft SURF. ELEVATION 891.43

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/3/91 COMPLETED 12/3/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Extremely moist, dark brown, very gravelly sandy loam (SILTY-SAND) fill with 40 to 60% gravel, very fine to very coarse size sand, little silt, loose. 0.8	Sand and gravel fill with little silt to 0.8 foot over sandy fill with some gravel, little silt to 1.7 feet over mixed silty and sandy fill with little gravel to 2.7 feet over sandy fill with little to some gravel, little silt to 4.7 feet over silty alluvial sediment to end of test pit.
5								Extremely moist, dark grey to black, gravelly sandy loam (SILTY-SAND) fill with 20 to 40% gravel, bricks and glass, fine to coarse size sand, little silt, compact, with occasional wood chunks. 1.7	No water at completion.
								Extremely moist to wet, brown, mixed silt loam (SILT) fill and grey sandy loam (SILTY-SAND) fill with 15 to 25% gravel, very fine to medium sand size, compact. 2.7	Noticed 2" pipe east-west at 1.0 ft from 0.0 mark of test trench 4 16.0 to 18.0 NE-SW oriented 2" pipe crossing trench.
10								Extremely moist, dark grey to black, gravelly sandy loam (SILTY-SAND) fill with 20 to 40% gravel and bricks, very fine to coarse size sand, little silt, compact, noticed occasional thin ash pockets. 4.7	NOTE: Soils classified from north end of trench.
								Extremely moist, olive brown silt loam (SILT) with trace very fine size sand, compact, weakly thinly bedded. 5.5	
15								Test pit completed at 5.5 feet.	
20									

N=NUMBER OF BLOWS TO DRIVE _ * SPOON * WITH lb. WT. FALLING * PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

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Soil and Hydrogeologic Investigations

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2J89b HOLE NO. TEST TRENCH 4-91 e to w 72.0 to 120.0 ft SURF. ELEVATION 891.25

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/3/91 COMPLETED 12/3/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Extremely moist, mixed dark brown and brown very gravelly sandy loam (SILTY-SAND) and gravelly silt loam (SANDY-SILT) fill with 20 to 60% gravel and bricks, very fine to very coarse size sand, little to some silt, compact, noticed occasional ash seams 1/2 to 1 inch thick.	Mixed sandy and coarse silty soil fill with gravel to 1.8 feet over sandy soil fill with some gravel to 5.5 feet over silty alluvial sediment to bottom of test pit.
								1.8	
5								Extremely moist, brown, gravelly sandy loam (SILTY-SAND) fill with 20 to 40% gravel, very fine to medium size sand.	
								5.5	
								Extremely moist, olive grey silt loam (SILT) with trace very fine size sand, compact and loose, weakly thinly bedded.	No water at completion.
10								6.2	6" north-south oriented pipe crossing trench at 97.0 feet from 0.0 mark (TT 4).
								Test pit completed at 6.2 feet.	
15									
20									

N=NUMBER OF BLOWS TO DRIVE _ " SPOON " WITH lb. WT. FALLING " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

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2J89b HOLE NO. TEST TRENCH 4-91 e to w 120.0 to 136.0 ft SURF. ELEVATION 891.28

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/4/91 COMPLETED 12/4/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Extremely moist, brown, very gravelly sandy loam (SILTY-SAND) fill with 40 to 60% gravel, very fine to very coarse size sand, little silt, compact. 0.8	Sand and gravel fill with little silt to 0.8 feet over mixed coarse silty and sandy fill with trace gravel to 3.3 feet over silty soil fill with little sand to 6.1 feet over apparent silty alluvial sediment to end of test pit.
								Extremely moist, distinctly mottled, mixed olive brown and brown silt loam (SANDY-SILT) and sandy loam (SILTY-SAND) fill with 15% gravel, bricks, and concrete, very fine to coarse sand size, compact. 3.3	
5								Extremely moist, faintly mottled olive grey to dark grey silt loam (SILT) fill with 5 to 10% gravel little very fine to fine size sand, compact, noticed occasional ash layers below 5.5 feet. 6.1	No water at completion.
								Extremely moist, olive grey silt loam (SILT) with trace very fine size sand, loose, very weakly thinly bedded. 7.2	
10								Test pit completed at 7.2 feet.	
15									
20									

N=NUMBER OF BLOWS TO DRIVE _ " SPOON " WITH lb. WT. FALLING " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

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1091 Jamison Road • Elma, NY 14059 • (716) 655-1717

2J89b HOLE NO. TEST TRENCH 4-91 e to w 136.0 to 147.0 ft SURF. ELEVATION 891.28

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/4/91 COMPLETED 12/4/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Extremely moist, brown, very gravelly sandy loam (SILTY-SAND) fill with 40 to 60% gravel, very fine to very coarse size sand, little silt, compact. 0.8	Sand and gravel fill with little silt to 0.8 feet over mixed coarse silty and sandy fill with trace gravel to 3.3 feet over silty soil fill with little sand to 6.1 feet over apparent silty alluvial sediment to end of test pit.
								Extremely moist, distinctly mottled, mixed olive brown and brown silt loam (SANDY-SILT) and sandy loam (SILTY-SAND) fill with 15% gravel, bricks, and concrete, very fine to coarse sand size, compact. 3.3	
5								Extremely moist, faintly mottled olive grey to dark grey silt loam (SILT) fill with 5 to 10% gravel little very fine to fine size sand, compact, noticed occasional ash layers below 5.5 feet. 6.2	No water at completion.
								Extremely moist, olive grey silt loam (SILT) with trace very fine size sand, loose, very weakly thinly bedded. 7.2	Encountered apparent fire brick constructed distribution box running north-south from mark 136.0 to 140.0. Slight petroleum odor to soils surrounding the exit pipe.
10								Test pit completed at 7.2 feet.	
15									
20									

N=NUMBER OF BLOWS TO DRIVE _ " SPOON " WITH lb. WT. FALLING " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

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2J89b

HOLE NO. TEST TRENCH 5-91

SURF. ELEVATION 891.62

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site

LOCATION Southwest of test trenches, near small building foundation, Batavia, New York

CLIENT ODNY, Inc.

DATE STARTED 12/5/91 COMPLETED 12/5/91

DEPTH IN FT	SN	0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Extremely moist, mixed dark grey to black, gravelly sandy loam (SILTY-SAND) fill with 15 to 40% gravel, asbestos, slate and shingles, very fine to coarse size sand, little silt, compact in place, noticed occasional glass bottles and glass fragments, some wood.	Mixed sandy fill with abundant assorted demolition debris to 4.5 feet over sandy alluvial sediment to end of test pit.
								4.5	
5								Extremely moist, faintly mottled, brown very fine sandy loam (SILTY-SAND) with little silt, loose to compact, weakly thinly bedded.	No water at completion.
								5.3	
								Test pit completed at 5.3 feet.	Excavated small approximately 200± gallon steel tank – no visible evidence of leakage: OVM reading 0 ppm
10									
15									
20									

N=NUMBER OF BLOWS TO DRIVE _ " SPOON " WITH lb. WT. FALLING " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

APPENDIX 3

MONITORING WELL LOGS

EARTH DIMENSIONS, INC.

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2J89b HOLE NO. MONITORING WELL 1-91 SURF. ELEVATION 891.10

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/2/91 COMPLETED 12/2/91

DEPTH IN FT	SN	0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WELL	WATER TABLE AND REMARKS
	1	8								
			17			37		Moist to extremely moist, dark brown loam (SANDY-SILT) fill with 5 to 15% gravel, little to some very fine size sand, compact. 0.6		Coarse silty soil fill with trace gravel to 0.6 foot over sand and gravel soil fill with little silt to 3.5 feet over sandy soil fill with little silt to 4.0 feet over sandy fill with trace gravel to 5.0 feet over ash fill to 6.0 feet over sandy soil fill with little silt to 8.0 feet over water sorted and deposited sand with little silt to 12.0 feet over water sorted and deposited sand with trace to little silt to 14.5 feet over water sorted and deposited sand with some gravel to end of boring.
				20						
					23					
	2	8								
			9			15		Moist, dark grey to black, very gravelly sandy loam (SILTY-SAND) fill with 40 to 60% mostly angular gravel, very fine to medium size sand, little silt, dense in place, loose when disturbed. 3.5		
				6						
					7					
	3	4								
5			6			9		Moist to extremely moist, olive grey to dark grey very fine sandy loam (SILTY-SAND) fill with > 3% gravel, little silt, compact. 4.0		
				3						
					1					
	4	1								
			2			4		Extremely moist, black loamy sand (SAND) fill with 5 to 15% fine size gravel, very fine to fine size sand, loose. 5.0		
				2						
					2					
	5	2								
			2			4		Extremely moist, distinctly mottled, brown ash fill, very fine to very coarse sand size. 6.0		
				2						
10					2					
	6	1								
			2			3		Extremely moist, dark grey, very fine sandy loam (SILTY-SAND) fill with little silt, noticed occasional small red brick fragments, very loose. clear transition to 8.0		
				1						
					1					
	7	1/12								
				1/12				Wet, olive brown, very fine sandy loam (SILTY-SAND) with little silt, very loose soil material tends to liquify when disturbed, weakly thinly bedded. 12.0		
	8	WR								
15			5			11		Wet, brown to olive brown, sandy loam (SILTY-SAND) with very fine to medium size sand, trace to little silt, very loose, readily liquifies when disturbed, thinly bedded. 14.5		
				6						
					10					
								Wet, brown gravelly sandy loam (SILTY-SAND) with 20 to 40% mostly subrounded gravel, very fine to coarse size sand, little silt, compact in place, loose when disturbed, stratified. 16.0		
20								Boring completed at 16.0 feet.		

WELL: 2" PVC riser pipe; cement bentonite grout; (1); (2); 2" .010 slotted PVC screen; #2 size sand; 5.5; 8.5; 9.0; 10.2; 15.2; 16.0

(1) Bentonite pellet seal
(2) #550 filter sand

Water level at 9.1 feet below ground surface at completion.

WR: Sampler penetration with weight of rods.

Sample	Interval	OVM readings
1	0-2	0 ppm
2	2-4	0 ppm
3	4-6	0 ppm
4	6-8	0 ppm
5	8-10	0 ppm
6	11-12	0 ppm
7	12-14	0 ppm
8	14-16	0 ppm

N=NUMBER OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 lb. WT. FALLING 30" PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

EARTH DIMENSIONS, INC.

Soil and Hydrogeologic Investigations

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2J89b HOLE NO. MONITORING WELL 6-91 SURF. ELEVATION 890.06

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/6/91 COMPLETED 12/6/91

DEPTH IN FT	SN	0/6	6/12	12/18	18/24	N
	1	7				
			22			34
				12		
					6	
	2	2				
			3			9
				6		
					6	
	3	3				
5			3			5
				2		
					2	
	4	1				
			1			7
				1/12		
	5	4				
			3			
				4		
10					6	8
	6	3				
			4			
				4		
					5	
	7	4				
			13			27
				14		
					8	
15						
20						

LITH / DESCRIPTION AND CLASSIFICATION

Extremely moist, brownish grey, gravelly silt loam (SANDY-SILT) fill with 20 to 40% gravel, little very fine to fine size sand, dense. — 0.4

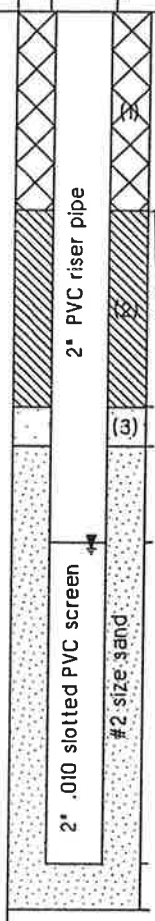
Extremely moist, black, gravelly sandy loam (SILTY-SAND) fill with 20 to 40% gravel, bricks, concrete and slag, very fine to very coarse size sand, little silt, dense in place. — 2.0

Extremely moist, faintly mottled, brown silt loam (SILT) tending toward silt loam (SANDY-SILT) with little very fine size sand, loose, very weakly thinly bedded. — 5.0

Wet, faintly mottled, brown loamy sand (SAND) with 5 to 15% mostly fine size gravel, very fine to very coarse size sand, trace silt, loose and very loose, thinly bedded. — 13.0

Wet, grey, gravelly loam (SILTY-SAND) with 15 to 30% mostly subangular gravel, very fine size sand, little to some silt, compact, massive soil structure to weakly stratified. — 14.0

Boring completed at 14.0 feet.



WATER TABLE AND REMARKS

Coarse silty soil fill with little to some gravel, little sand to 0.4 foot over sandy fill with little to some gravel, little silt to 2.0 feet over coarse silty alluvial sediment to 5.0 feet over water sorted and deposited sand with trace gravel, little silt to 13.0 feet over apparent loamy glacial till to end of boring.

3.1 — 6.2 — 6.8 — 8.3 — 13.3 — 14.0

Water level at 8.4 feet below ground surface at completion.

(1) Cement bentonite grout
(2) Bentonite pellet seal
(3) #550 filter sand

Sample	Interval	OVM reading
1	0-2	0 ppm
2	2-4	0 ppm
3	4-6	0 ppm
4	6-8	0 ppm
5	8-10	0 ppm
6	10-12	0 ppm
7	12-14	0 ppm

N=NUMBER OF BLOWS TO DRIVE 2 " SPOON 12 " WITH 140 lb. WT. FALLING 30 " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

EARTH DIMENSIONS, INC.

Soil and Hydrogeologic Investigations

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2J89b

HOLE NO. MONITORING WELL 7-91

SURF. ELEVATION 891.87

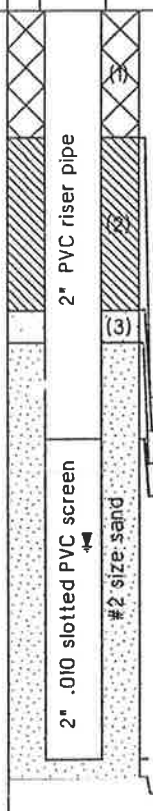
PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site

LOCATION See survey Batavia, New York

CLIENT ODNY, Inc.

DATE STARTED 12/5/91 COMPLETED 12/5/91

DEPTH IN FT	SN	0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WELL	WATER TABLE AND REMARKS
	1	8								
			11			30		Extremely moist, dark brown grading to black, gravelly to very gravelly, sandy loam (SILTY-SAND) fill with 20 to 60% gravel and concrete, very fine to very coarse size sand, little silt size, compact in place.		Sandy fill with gravel, little silt to 3.5 feet over coarse silty soil fill with trace gravel, little sand to 4.0 feet over coarse silty soil fill with little sand to 4.5 feet over silty alluvial sediment to 5.0 feet over coarse silty alluvial sediment to 9.0 feet over water sorted and deposited sand with little silt to 9.5 feet over water sorted and deposited sand with trace gravel and silt to end of boring.
				19						
					15					
	2	6								
			13			38		3.5		
				25				Extremely moist, mixed grey and olive brown silt loam (SANDY-SILT) fill with 5 to 15% gravel, little very fine size sand, dense.		
					11					
	3	3								
5			2			5				
				3				4.0		
					3			Extremely moist, black silt loam (SANDY-SILT) fill with little very fine size sand, loose.		
	4	2								
			2			4				
				2				4.5		
					2			Extremely moist, distinctly mottled, olive grey silt loam (CLAYEY- SILT) with little clay, firm, blocky soil structure.		
	5	1								
			1			2				
				1				grades downward to 5.0		
10					1					
	6	1						Extremely moist, becoming wet below 7.0 feet, faintly mottled, brown loam (SANDY-SILT) with little to some very fine to fine size sand, loose, weakly thinly bedded.		
			1/12							
					2			grades downward to 9.0		
								Wet, faintly mottled, olive brown sandy loam (SILTY-SAND) with very fine to fine size sand, little silt, very loose, liquifies when disturbed, thinly bedded.		
15								clear transition to 9.5		
								Wet, olive brown, loamy sand (SAND) with 5 to 15% mostly fine size gravel, very fine to coarse size sand, trace silt, loose, flows when disturbed, stratified.		
								12.0		
								Boring completed at 12.0 feet.		
20										



Water level at 8.4 feet below ground surface at completion.

(1) Cement bentonite grout
(2) Bentonite pellet seal
(3) #550 filter sand

Sample	Interval	OVM reading
1	0-2	0 ppm
2	2-4	0 ppm
3	4-6	0 ppm
4	6-8	0 ppm
5	8-10	0 ppm
6	10-12	0 ppm

Representative samples from 7.0 to 12.0 feet were retained for analysis.

N=NUMBER OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 lb. WT. FALLING 30" PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

SHEET 1 OF 1

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2J89b HOLE NO. MONITORING WELL 8-91 SURF. ELEVATION 890.04

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/5/91 COMPLETED 12/5/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WELL	WATER TABLE AND REMARKS
	1	10						Moist, rusty brown, gravelly silt loam (SANDY-SILT) fill with 15 to 25% gravel and bricks, little very fine size sand, compact in place.		Coarse silty soil fill with little gravel and sand to 0.8 foot over sandy fill with little gravel and silt to 2.0 feet over coarse silty soil fill with little to some sand to 6.0 feet over coarse silty alluvial sediment with little sand to 8.0 feet over coarse silty slack water sediment with little gravel and sand to 10.0 feet over water sorted and deposited sand with trace gravel, trace to little silt to 13.5 feet over apparent sandy glacial till to end of boring.
			9			18				
				9						
					7					
	2	5								
			2			4				
				2						
					3					
	3	2								
5			2			4				
				2						
					3					
	4	2								
			1			3				
				2						
					3					
	5	3								
			3			6				
				3						
10					3					
	6	1								
			1			<2				
				1/12						
	7	12								
			41			54				
				13						
					12					
15										
20										

Extremely moist, dark grey to black, gravelly, sandy loam (SILTY-SAND) fill with 15 to 40% gravel, bricks and coal, very fine to medium size sand, little silt, compact. 2.0

Extremely moist, mixed dark grey to black loam (SANDY-SILT) fill with little to some very fine size sand, very loose. 6.0

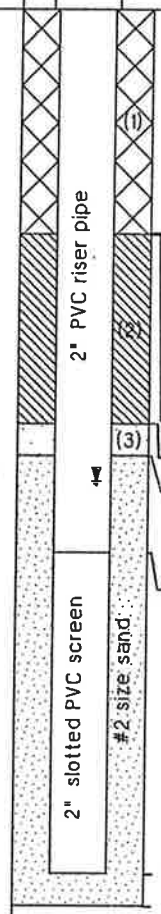
Extremely moist, grey silt loam (SANDY-SILT) with little very fine size sand, very loose, weakly thinly bedded with occasional fine size roots; clear transition to 8.0

Extremely moist, distinctly mottled, brown, gravelly silt loam (SANDY-SILT) with 15 to 25% mostly fine size gravel, little very fine size sand, loose, weakly thinly bedded. 10.0

Wet, dark grey sandy loam (SILTY-SAND) with 5 to 15% mostly fine size gravel, very fine to very coarse size sand, trace to little silt, very loose, flows when disturbed, stratified. 13.5

Extremely moist to wet, grey, gravelly sandy loam (SITLY-SAND) with 15 to 30% gravel, very fine to fine size sand, little silt, dense, weakly stratified to massive soil structure. 14.0

Boring completed at 14.0 feet.



Water level at 7.4 feet below ground surface at completion.

(1) Cement bentonite grout
(2) Bentonite pellet seal
(3) #550 filter sand

Sample	Interval	OVM reading
1	0-2	0 ppm
2	2-4	0 ppm
3	4-6	0 ppm
4	6-8	0 ppm
5	8-10	0 ppm
6	10-12	0 ppm
7	12-14	0 ppm

N=NUMBER OF BLOWS TO DRIVE 2 " SPOON 12 " WITH 140 lb. WT. FALLING 30 " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

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2J89b HOLE NO. HAND AUGER BORE 1-91 SURF. ELEVATION _

PROJECT Soils Investigation, Monitoring Well Installation, and Test Trench Excavation, Evans St. site LOCATION See survey Batavia, New York

CLIENT ODNY, Inc. DATE STARTED 12/4/91 COMPLETED 12/4/91

DEPTH IN FT	SN	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	WATER TABLE AND REMARKS
								Extremely moist, dark grey loam (SANDY-SILT) topsoil with little to some very fine size sand, loose with some fine size roots. 0.3	Topsoil to 0.3 foot over sandy alluvial sediment to 4.0 feet over sandy tending toward coarse silty alluvial sediment to end of hand auger boring.
								Extremely moist, faintly to distinctly mottled, brown, very fine sandy loam (SILTY-SAND) with little silt, loose, weakly thinly bedded with occasional fine size roots. 4.0	▼ Water level at 3.9 feet below ground surface at completion. *Sample interval 4.0 to 5.0 feet retained for background analytical sampling.*
5								Wet, faintly mottled, olive brown, very fine sandy loam (SILTY-SAND) tending toward silt loam (SANDY-SILT), little to some silt, loose, tends to liquify when disturbed, weakly thinly bedded. 5.0	
								Hand auger boring completed at 5.0 feet.	
10									
15									
20									

N=NUMBER OF BLOWS TO DRIVE _ " SPOON " WITH lb. WT. FALLING " PER BLOW

LOGGED BY Dale M. Gramza, Senior Geologist

APPENDIX B

MONITORING WELL 1

Well Depth (tor): 17.7 feet

Riser Diameter and Type: 2-inch PVC

Well Development, Purging and Sampling Personnel: B. Kline, K. McCue

Well Development

Well Volume: 1.5 gallons

Development Method: Teflon Bailer, Teflon/SS Well Developing Pump

Date	Time (Start-Stop)	Initial Water Level (tor)	Gallons Removed	Well Volumes Removed	Turbidity (NTU's)
12/3/91	15:00 - 15:15	8.75'	1.5	1.0	----
12/4/91	11:55 - 13:15	8.8'	5.5	3.7	----
12/5/91	12:37 - 13:45	8.8'	12.0	8.0	80.4

Purging and Sampling

Purging and Sampling Method: Dedicated Teflon Bailer and PVC Line

Weather: 30°F, light snow

Well Volume Number	Date	Time (Start-Stop)	Initial Water Level (tor)	Water Temp. (°C)	pH	Specific Conductance (umhos)	Gallons Removed From Well	Technical Description
1	12/6/91	11:45 - 11:55	8.8'	10	7.30	1950	1.5	Initially very clear, becoming more turbid. Lt. brown color, no odor.
2	12/6/91	12:00 - 12:10	---	10	7.30	2170	1.5	Disturbed bottom sediment impacting clarity and turbidity.
3	12/6/91	12:15 - 12:25	---	10	7.28	2100	1.5	Slightly turbid, lt. brown color, no odor.
Sample	12/6/91	12:35 - 12:55	---	10	7.24	2180	1.5	Slightly turbid, lt. brown color, no odor.

MONITORING WELL 2

Well Depth (tor): 12.5 feet

Riser Diameter and Type: 2-inch PVC

Well Development, Purging and Sampling Personnel: B. Kline, K. McCue

Well Development

Well Volume: 1.0 gallons

Development Method: Teflon/SS Well Developing Pump

Date	Time (Start-Stop)	Initial Water Level (tor)	Gallons Removed	Well Volumes Removed	Turbidity (NTU's)
12/4/91	13:55 - 15:45	6.1'	2.0	2.0	-----
12/5/91	10:15 - 11:54	6.125'	54.0	54.0	131.8

Purging and Sampling

Purging and Sampling Method: Dedicated Teflon Bailer and PVC Line

Weather: 20°F, Snow

Well Volume Number	Date	Time (Start-Stop)	Initial Water Level (tor)	Water Temp. (°C)	pH	Specific Conductance (umhos)	Gallons Removed From Well	Technical Description
1	12/5/91	16:15 - 16:20	6.2'	7	6.56	1100	1.25	Slightly turbid with a brownish-reddish tint.
2	12/5/91	16:25 - 16:30	---	7	6.62	1060	1.25	More turbid than above, same brownish-reddish tint.
3	12/5/91	16:40 - 16:45	---	7	6.62	1120	1.25	Same as above.
Sample	12/5/91	17:00 - 18:30	---	7	6.62	1120	5.0	Slightly turbid, lt. brown color, no odor. Duplicate samples also taken here.

MONITORING WELL 3

Well Depth (tor): 15.15 feet

Riser Diameter and Type: 2-inch PVC

Well Development, Purging and Sampling Personnel: B. Kline, K. McCue

Well Development

Well Volume: 1.1 gallons

Development Method: Teflon/SS Well Developing Pump

Date	Time (Start-Stop)	Initial Water Level (tor)	Gallons Removed	Well Volumes Removed	Turbidity (NTU's)
12/5/91	15:29 - 16:03	8.275'	3.5	3.2	---
12/6/91	11:47 - 12:20	8.3'	3.0	2.7	---
12/6/91	18:03 - 18:21	8.3'	2.5	2.3	---
12/7/91	09:30 - 09:50	8.25'	2.25	2.0	208

Purging and Sampling

Purging and Sampling Method: Dedicated Teflon Bailer and PVC Line

Weather: 45°F, Overcast, Windy

Well Volume Number	Date	Time (Start-Stop)	Initial Water Level (tor)	Water Temp. (°C)	pH	Specific Conductance (umhos)	Gallons Removed From Well	Technical Description
1	12/7/91	12:00 - 12:05	8.67'	10	7.27	880	1.1	Mostly clear, no odor.
2	12/7/91	12:10 - 12:20	11.85'	10	8.14	830	1.1	Considerably more turbid due to purging from bottom of well. No odor.
3	12/7/91	14:40 - 14:45	8.3'	10	8.17	890	1.1	Initially clearer, becoming more turbid as bailed. Lt. brown tint.
Sample	12/7/91	16:40 - 17:15	8.35'	9	8.13	800	1.5	All samples mostly clear except metals (final sample).

MONITORING WELL 4

Well Depth (tor): 15.95 feet

Riser Diameter and Type: 2-inch PVC

Well Development, Purging and Sampling Personnel: B. Kline

Well Development

Well Volume: 2.0 gallons

Development Method: Teflon/SS Well Developing Pump

Date	Time (Start-Stop)	Initial Water Level (tor)	Gallons Removed	Well Volumes Removed	Turbidity (NTU's)
12/7/91	12:58 - 16:01	3.95'	20.5	10.3	156

Purging and Sampling

Purging and Sampling Method: Dedicated Teflon Bailer and PVC Line

Weather: 45°F, Overcast

Well Volume Number	Date	Time (Start-Stop)	Initial Water Level (tor)	Water Temp. (°C)	pH	Specific Conductance (umhos)	Gallons Removed From Well	Technical Description
1	12/7/91	16:17 - 16:24	---	7	8.60	660	2.0	Initially mostly clear, with increasing turbidity as purged. Brownish tint, no odor.
2	12/7/91	16:27 - 16:33	---	7	8.72	650	2.0	Sample cloudy, brownish tint, no odor.
3	12/7/91	16:37 - 16:43	---	7	8.66	680	2.0	Same as above.
Sample	12/7/91	16:47 - 17:03	---	7	8.48	680	1.5	Same as above.

MONITORING WELL 5

Well Depth (tor): 20.05 feet

Riser Diameter and Type: 2-inch PVC

Well Development, Purging and Sampling Personnel: B. Kline, K. McCue

Well Development

Well Volume: 1.6 gallons

Development Method: Teflon/SS Well Developing Pump

Date	Time (Start-Stop)	Initial Water Level (tor)	Gallons Removed	Well Volumes Removed	Turbidity (NTU's)
12/5/91	16:37 - 17:08	10.35'	12.5	7.8	----
12/6/91	09:32 - 10:31	10.35'	17.5	10.9	40.1

Purging and Sampling

Purging and Sampling Method: Dedicated Teflon Bailer and PVC Line

Weather: 30°F

Well Volume Number	Date	Time (Start-Stop)	Initial Water Level (tor)	Water Temp. (°C)	pH	Specific Conductance (umhos)	Gallons Removed From Well	Technical Description
1	12/6/91	14:25 - 14:35	10.35'	10	6.80	1160	1.6	Initially mostly clear, with increasing turbidity as purged. Brownish tint, slight odor.
2	12/6/91	14:40 - 14:50	---	10	7.50	1140	1.6	Sample very turbid, "murky", brownish tint, slight odor.
3	12/6/91	14:55 - 15:05	---	10	7.42	1120	1.6	Same as above.
Sample	12/6/91	15:05 - 15:25	---	10	7.40	1140	1.5	Same as above.

MONITORING WELL 6

Well Depth (tor): 14.95 feet

Riser Diameter and Type: 2-inch PVC

Well Development, Purging and Sampling Personnel: B. Kline, K. McCue

Well Development

Well Volume: 1.4 gallons

Development Method: Teflon/SS Well Developing Pump

Date	Time (Start-Stop)	Initial Water Level (tor)	Gallons Removed	Well Volumes Removed	Turbidity (NTU's)
12/6/91	13:53 - 14:52	6.5'	34.5	24.6	40.1

Purging and Sampling

Purging and Sampling Method: Dedicated Teflon Bailer and PVC Line

Weather: 30°F

Well Volume Number	Date	Time (Start-Stop)	Initial Water Level (tor)	Water Temp. (°C)	pH	Specific Conductance (umhos)	Gallons Removed From Well	Technical Description
1	12/6/91	17:20 - 17:30	6.68'	8	6.72	2190	1.5	Initially mostly clear, with increasing turbidity as purged. Brownish tint, no odor.
2	12/6/91	17:35 - 17:40	---	8	6.82	2720	1.5	Sample turbid, "murky", brownish tint, no odor.
3	12/6/91	17:45 - 17:50	---	8	6.90	2790	1.5	Same as above.
Sample	12/6/91	17:55 - 18:15	---	8	7.01	2690	1.5	Same as above.

MONITORING WELL 7

Well Depth (tor): 14.25 feet

Riser Diameter and Type: 2-inch PVC

Well Development, Purging and Sampling Personnel: B. Kline, K. McCue

Well Development

Well Volume: 0.8 gallons

Development Method: Teflon/SS Well Developing Pump

Date	Time (Start-Stop)	Initial Water Level (tor)	Gallons Removed	Well Volumes Removed	Turbidity (NTU's)
12/6/91	17:13 - 17:38	9.3'	6.5	8.1	-----
12/7/91	10:15 - 11:03	9.275'	9.0	11.3	130.5

Purging and Sampling

Purging and Sampling Method: Dedicated Teflon Bailer and PVC Line

Weather: 39°F, Overcast, Windy

Well Volume Number	Date	Time (Start-Stop)	Initial Water Level (tor)	Water Temp. (°C)	pH	Specific Conductance (umhos)	Gallons Removed From Well	Technical Description
1	12/7/91	12:45 - 12:50	9.25'	10	7.72	1400	0.8	Initially mostly clear, with increasing turbidity as purged. Brownish tint, "musty" odor.
2	12/7/91	12:50 - 12:55	---	10	7.77	1530	0.8	Sample turbid, brownish tint, "musty" odor.
3	12/7/91	12:55 - 13:00	---	10	7.70	1560	0.8	Same as above.
Sample	12/7/91	13:10 - 13:40	---	10	7.71	1510	1.5	Somewhat clearing, still turbid, brownish tint, "musty" odor.

MONITORING WELL 8

Well Depth (tor): 15.30 feet

Riser Diameter and Type: 2-inch PVC

Well Development, Purging and Sampling Personnel: B. Kline, K. McCue

Well Development

Well Volume: 1.4 gallons

Development Method: Teflon/SS Well Developing Pump

Date	Time (Start-Stop)	Initial Water Level (tor)	Gallons Removed	Well Volumes Removed	Turbidity (NTU's)
12/7/91	11:27 - 12:08	6.9'	33.0	23.6	130.5

Purging and Sampling

Purging and Sampling Method: Dedicated Teflon Bailer and PVC Line

Weather: 45°F, Overcast

Well Volume Number	Date	Time (Start-Stop)	Initial Water Level (tor)	Water Temp. (°C)	pH	Specific Conductance (umhos)	Gallons Removed From Well	Technical Description
1	12/7/91	15:10 - 15:15	6.83'	11	8.47	880	1.4	Initially mostly clear, with increasing turbidity as purged. Brownish tint, no odor.
2	12/7/91	15:20 - 15:25	---	11	8.42	870	1.5	Sample turbid, brownish tint, no odor.
3	12/7/91	15:30 - 15:35	---	11	8.64	860	1.4	Same as above.
Sample	12/7/91	15:40 - 16:15	---	11	8.03	860	1.5	Same as above.

SURFACE WATER SAMPLING

R-1 - Surface Water Sample 1

Date: 12/3/91 Time: 09:35

Weather: 35°F, overcast, light rain, light winds

Sampling personnel: B. Kline, K. McCue

Description: Sample location a puddle - no visible runoff. Sample clear, no particulates, no odor.

R-2 - Surface Water Sample 2

Date: 12/3/91 Time: 12:10

Weather: 35°F, overcast, rain stopped, light winds

Sampling personnel: B. Kline

Description: Sample location upgradient of a ditch sloping towards the creek - very little flow visible here. Sample slightly cloudy, very slight brownish tint, some floating vegetative material, no odor.

R-3 - Surface Water Sample 3

Date: 12/3/91 Time: 11:00

Weather: 35°F, overcast, light rain, light winds

Sampling personnel: B. Kline

Description: Sample location a puddle - no visible runoff. Sample slightly cloudy, very slight greenish-brown tint, some floating vegetative material, no odor.

R-4 - Surface Water Sample 4

Date: 12/3/91 Time: 12:50

Weather: 35°F, overcast, rain stopped, light winds

Sampling personnel: B. Kline

Description: Sample location immediately upgradient of a visible stream flowing in the direction of the creek. Sample very slightly cloudy, very slight grayish tint, no odor.

EQUIPMENT BLANKS

E-1 - Soil Sampling Equipment

Date: 12/4/91 Time: 10:05

Sampling personnel: B. Kline, D. Gramza

Equipment: Soil boring auger, rod and split-spoon sampler (all were deconned the previous day using an alconox and water solution, and pressure-steam sprayed).

Method: Queen's Pride deionized water was poured over the equipment listed above, and directed into sample bottles through a precleaned funnel. Each sample bottle was filled with water poured over each individual piece of equipment.

E-2 - Water Sampling Equipment

Date: 12/6/91 Time: 16:10

Sampling personnel: B. Kline

Equipment: Water level meter probe, well developing pump, sampling beaker and funnel (all were deconned using an alconox and water solution).

Method: Tops brand deionized water was poured over the equipment listed above, and directed into sample bottles through the funnel. Each sample bottle was filled with water poured over each individual piece of equipment.

SOIL SAMPLING FIELD NOTES

Monitoring Well Soil Sample S-1

Date: 12/2/91 Time: 11:35

Personnel: K. McCue

Description: No OVM results recorded. Tube sample taken at depth of 10 to 12 feet, within water-bearing zone.

Monitoring Well Soil Sample S-2

Date: 12/2/91 Time: 14:45

Personnel: K. McCue

Description: No OVM results recorded. Sample taken at depth of 0 to 2 feet.

Monitoring Well Soil Sample S-3

Date: 12/3/91 Time: 11:05

Personnel: K. McCue

Description: No OVM results recorded. Sample taken at depth of 8 to 10 feet.

Monitoring Well Soil Sample S-4

Date: 12/3/91 Time: 14:40

Personnel: K. McCue

Description: No OVM results recorded. Sample taken at depth of 6 to 8 feet.

Monitoring Well Soil Sample S-5

Date: 12/4/91 Time: 10:40

Personnel: K. McCue

Description: No OVM results recorded. Composite sample taken at depth of 6 to 10 feet.

SOIL SAMPLING FIELD NOTES, Continued

Monitoring Well Soil Sample S-6

Date: 12/4/91 Time: 14:00

Personnel: K. McCue

Description: No OVM results recorded. Composite sample taken at depth of 4 to 8.

Monitoring Well Soil Sample S-7

Date: 12/5/91 Time: 11:25

Personnel: K. McCue

Description: No OVM results recorded. Composite sample taken at depth of 7 to 12 feet.

Monitoring Well Soil Sample S-8

Date: 12/5/91 Time: 13:55

Personnel: K. McCue

Description: No OVM results recorded. Composite sample taken at depth of 6 to 12 feet.

Background Soil Sample B-1

Date: 12/4/91 Time: 12:45

Personnel: K. McCue, D. Gramza

Description: No OVM results recorded. Sample taken at depth of 4 to 5 feet.

Trench Soil Sample T-1

Date: 12/2/91 Time: 13:00

Personnel: D. Gramza

Description: Sample taken 41 feet from eastern end of Trench #1, orangish-whitish crystal-like solids. No OVM results recorded.

SOIL SAMPLING FIELD NOTES, Continued

Trench Soil Sample T-2

Date: 12/2/91 Time: 13:00

Personnel: D. Gramza

Description: Sample taken 53 feet from eastern end of Trench #1, dark ash-like material collected from the area of a seep located beneath the foundation. No OVM results recorded.

Trench Soil Sample T-3

Date: 12/2/91 Time: 15:55

Personnel: D. Gramza

Description: Sample taken 146 feet from eastern end of Trench #1, whitish-bluish granular material. No OVM results recorded.

Trench Soil Sample T-4

Date: 12/4/91 Time: 15:35

Personnel: K. McCue

Description: Sample taken approximately 35 feet from western end of Trench #4 (one foot west of subsurface vertical pipe), from the southern side of the trench (near foundation), darkly stained soils, potentially petroleum contaminated. 0.5 ppm OVM reading recorded.

Trench Soil Sample T-5

Date: 12/4/91 Time: 15:25

Personnel: K. McCue

Description: Sample taken 25 feet from northern end of Trench #3, collected from the area of a seep and a one-inch steel pipe. Sample collected from the overburden pile, localized organic levels of 2.5 to 8.8 ppm recorded.

SOIL SAMPLING FIELD NOTES, Continued

Trench Soil Sample T-5A

Date: 12/4/91 Time: 10:10

Personnel: J. Gratz

Description: Sample taken approximately 43 feet from eastern end of Trench #4, darkly stained soils, potentially petroleum contaminated. No OVM results recorded.

Trench Soil Sample T-6

Date: 12/4/91 Time: 15:35

Personnel: K. McCue

Description: Sample taken 175 feet from southern end of Trench #3, 3.5 feet below grade, near an apparent hydraulic lift (petroleum-like odor observed within), darkly stained clayey soils, potentially petroleum contaminated. No OVM results recorded.

Trench Soil Sample T-7

Date: 12/4/91 Time: 15:45

Personnel: K. McCue

Description: Sample taken 120 feet from southern end of Trench #3, 4 feet below grade, darkly stained soils, potentially petroleum contaminated, soils produced sheen when mixed with water. No OVM results recorded.

Trench Soil Sample T-8

Date: 12/4/91 Time: 16:10

Personnel: K. McCue

Description: Sample taken 86 feet from southern end of Trench #3, 5 feet below grade, potentially petroleum contaminated, from area in which sheen was noticeable on standing water in the trench. Localized organics levels of up to 19.9 ppm recorded.

SOIL SAMPLING FIELD NOTES, Continued

Trench Soil Sample T-9

Date: 12/4/91 Time: 16:15

Personnel: K. McCue

Description: Sample taken from Trench #3 13 feet north of intersection with Trench #2, from within broken drain tile, yellowish-orange and dark sludge-like sediments. No OVM results recorded.

Trench Soil Sample T-10

Date: 12/4/91 Time: 12:55

Personnel: K. McCue

Description: Sample taken at intersection of Trench #3 and Trench #4, 10 feet below grade, potentially petroleum contaminated, from area where sheen was noticeable upon standing water in the trench. Localized organics levels of up to 14 ppm recorded.

APPENDIX C

DATA VALIDATION REPORT

GENESEE COUNTY DEVELOPMENT PROJECT

Case No.'s 3857 and 91-3584

Sampling Dates of December 2 - 7, 1991

PREPARED FOR:

ODNY, Incorporated
4098 North Buffalo Road
Orchard Park, New York 14127

February 1992

PREPARED BY:

ChemWorld Environmental, Inc.
4500 Avamere Street
Bethesda, Maryland 20814

Genesee County Development Project
Data Validation Report: Organic and Inorganic Analyses

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DATA VALIDATION SUMMARY

Genesee County Development Project
Case No.'s 3857 and 91-3584
Sampling Dates of December 2 - 7, 1991

INTRODUCTION

This Data Validation Summary report was generated for 14 water and 20 soil samples for Case No.'s 3857 and 91-3584, in support of the Genesee County Development Project for the Proposed Site of a Downtown Batavia Municipal Facilities Complex. The analytical laboratory work was performed by Recra Environmental, Inc.

Analytical testing consisted of volatile organic analyses by Gas Chromatography/Mass Spectroscopy (GC/MS); Base/Neutral and Acid Extractable Organics by GC/MS; Pesticides and PCB's by GC; Inorganics and EP Toxicity Metals by Atomic Absorption (AA) and Inductively Coupled Argon Plasma (ICP); Cyanides by Spectrophotometry; Mercury by Cold Vapor; and Total Recoverable Oil and Grease by a Gravimetric Method. All analytical work was performed utilizing NYSDEC's Analytical Service Protocols (ASP), September 1989.

The following report provides a summary of data acceptability and deviations in accordance with the U. S. Environmental Protection Agency's (EPA's) **Contract Laboratory Program (CLP) Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses (February 1988)**, in conjunction with EPA's **Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses (July 1988)**, and the CLP portion of the **NYSDEC Analytical Services Protocol** (September 1989), where applicable and relevant. This validation report pertains to the following samples:

E-1	GW-6	B-1	S-7	T-5A
EQUIPTBLANK2	GW-7	S-1	S-8	T-6
GW-1	GW-8	S-2	T-1	T-7
GW-2	R-1	S-3	T-2	T-8
GW-3	R-2	S-4	T-3	T-9
GW-4	R-3	S-5	T-4	T-10
GW-5	R-4	S-6	T-5	

1.0 VOLATILE ORGANICS BY GC/MS

The following items/criteria were reviewed:

* Holding Times
* Surrogate Recovery
* Matrix Spikes (MS) and Matrix Spike Duplicates (MSD)
* Initial and Continuing Calibration
* Blanks (Method and Field)
* GC/MS Tuning
* Tentatively Identified Compounds(TIC's)
* Internal Standards
* Field Duplicates
* Target Compound List (TCL) Compound Identification
* Compound Quantitation and Reported Detection Limits
* System Performance

All items above were generated within acceptable Quality Control (QC) specifications with deviations detailed as follows. All data is considered to be valid and usable with the appropriate qualifiers, as noted on the data summary tables and within the following text.

1.1 Holding Times

All holding times were met within the acceptable time frame of 7 days from Verified Time of Sample Receipt (VTSR) for the water and soil samples.

1.2 Surrogate Recovery

All surrogate recovery was found to be generated within acceptable limits for the three surrogate compounds, with exceptions as follows.

Soil Samples:

T-2	Toluene-d8	128% (Limit 81-117%)
T-2-RE	Toluene-d8	137%
T-9	Toluene-d8	132%
T-9RE	Toluene-d8	143%
T-1MS	Toluene-d8	122%
T-1MSD	Toluene-d8	125%

Positive values for the soil samples above were qualified as 'J', estimated, due to high surrogate recovery for Toluene-d8. The non-detectable values remain unqualified.

1.3 MS/MSD

All MS/MSD's were generated within acceptable limits for Relative Percent Difference (RPD) and Percent Recovery (%R).

1.4 Calibration

All initial and continuing calibration was performed within acceptable limits for average Relative Response Factors ($\overline{RRF}$), Percent Relative Standard Deviation (% RSD), Relative Response Factors (RRF), and Percent Difference (% D).

1.5 Blanks

1.5.1 Field Blanks

Three trip blanks and two equipment rinsate blanks were analyzed for the water samples for Case No. 3857. Contamination is noted as follows.

Water Samples:

TB1 (Trip Blank)	
Methylene Chloride	0.5 ug/L, estimated
TB3 (Trip Blank)	
Methylene Chloride	0.6 ug/L, estimated

E1 (Equipment Blank)

Acetone	18 ug/L
Toluene	1 ug/L, estimated

EQUIPTBLANK2

Chloroform	2 ug/L, estimated

Methylene Chloride values for the trip blanks were qualified as 'U', not detected, through the method blanks, below. Equipment rinsate blank E-1 is associated with soil samples S-1 through S-8, T-1 through T-10 and the background sample B-1. EQUIPTMENT 2 (E-2) is associated with the water samples GW-1 through GW-8 and R-1 through R-4.

A limit of 10 times the acetone and toluene values for E-1 and 5 times the chloroform value for E-2 was used for review and qualification of the respective samples. All acetone values for the associated soil samples are qualified as 'U', not detected, due to their value of < 10 times the respective equipment blank (E-1). Toluene in samples T-10, T-1MS and MSD exceeded the limit, therefore, qualification was not required. Chloroform was not detected in the water samples, therefore, qualification was not required.

One background soil sample was collected and designated as B-1. This sample was found to contain methylene chloride at 1 ug/kg, estimated. Methylene chloride, a common laboratory solvent, was not detected in any of the soil method blanks. It should be noted, however, that the methylene chloride values detected in the samples are very low, and not considered significant.

1.5.2 Method Blanks

Three holding blanks and three method blanks were analyzed for the water samples. Holding blank VHB1 was the only method blank containing a positive value for a TCL compound, methylene chloride was detected at 1 ug/L for the sample.

Ten times the methylene chloride value detected was chosen for review and qualification of the associated field blanks and water samples. All associated sample concentrations were reported at < Contract Required Quantitation Limit (CRQL) and < 10 times the blank value and were qualified as 'U', not detected at the CRQL.

Five method blanks were analyzed for the soil samples. Volatile organics were not detected in any of the method blanks.

1.6 GC/MS Tuning

All tuning was generated within acceptable limits for Bromofluorobenzene (BFB).

1.7 Tentatively Identified Compounds (TIC's)

TIC's, which were generated in accordance with protocol, are summarized on the Data Summary Tables, which follow.

1.8 Internal Standards

All internal standards were generated within acceptable specifications for area counts and retention time variation, with the exception of the following.

Soil Samples:

		Reported Area Count	Lower Limit
T1	Chlorobenzene	59200	63000
T2	Chlorobenzene	57100	63000
T1-MSD	Chlorobenzene	55300	63000
T2-RE	Chlorobenzene	58000	8000
T9	Chlorobenzene	58300	8000
T9-RE	Chlorobenzene	44500	56500

The compounds quantitated using chlorobenzene as the internal standard were qualified as 'J', estimated, for the positive values and 'UJ', estimated, for non-detectables for the samples noted above.

1.9 Field Duplicates

Field duplicates were not collected for the project.

1.10 TCL Identification

GC/MS qualitative analyses are considered to be acceptable for the data set. Retention times and mass spectra were generated within appropriate specifications.

1.11 Compound Quantitation and Reported Detection Limits

GC/MS quantitative analyses are considered to be acceptable. Sample dilutions, internal standards, dry weight factors, and RRF's were found to be within acceptable limits.

1.12 System Performance

Acceptable system performance was maintained throughout the analyses for the water and soil samples. This was exhibited through good resolution and consistent chromatographic performance.

2.0 SEMI-VOLATILE ORGANICS BY GC/MS
(Base/Neutral and Acid Extractable Organics)

The following items/criteria were reviewed:

* Holding Times
* Surrogate Recovery
* MS/MSD
* Initial and Continuing Calibration
* Blanks (Method and Field)
* GC/MS Tuning
* TIC's
* Internal Standards
* Field Duplicates
* TCL Compound Identification
* Compound Quantitation and Reported Detection Limits
* System Performance

All items above were generated within acceptable QC specifications, with deviations detailed as follows. All data is considered to be valid and usable with the appropriate qualifiers, as noted on the data summary tables and within the following text.

2.1 Holding Times

All holding times were met for extraction and analysis (5 days for extraction, 40 days for analysis), with the following exceptions.

Sample	Days Exceeding Hold Time
GW-1	9
GW-6	9

The water samples above are qualified as 'J', estimated, for the positive values, and 'UJ', estimated, for the non-detectable results.

The following samples were re-extracted beyond the holding time. The original extraction was performed within the holding time; however, the matrix spike blank was inadvertently not spiked. The samples include: T1, T2, T3, T4, T5, T5A, T6, T7, T8, T9, B1, S1, S2, S3, S4, S5, S6, T1MS, and T1-MSD.

All positive values for these samples were qualified as 'J', estimated, and non-detectable results were qualified as 'UJ', estimated. All samples exceeded the extraction hold time by 14 days, with the exception of sample T-9. This sample exceeded the hold time by 29 days.

2.2 Surrogate Recovery

All surrogate recovery was found to be generated within acceptable limits for the 6 surrogate compounds, with the exception of the following.

GW-1	2-Fluorophenol	18% R	(Limit 21 - 100)

Sample GW-1 does not require qualification, due to the fact that only one surrogate was found to be out of specification. Two are required for qualification.

2.3 MS/MSD

All %R and RPD's were found to be within acceptable limits with the exception of the following.

GW-2-MSD	2-Chlorophenol	51% RPD	(Limit 40)
	1,2,4-Trichlorobenzene	106% R	(Limit 39 - 98)
	2,4-Dinitrotoluene	105% R	(Limit 24 - 96)
	Pentachlorophenol	72% RPD	(Limit 50)
T1-MSD	Pentachlorophenol	51% RPD	(Limit 47)

Qualification of the data was not imposed in relation to the MS/MSD sample.

2.4 Calibration

All initial and continuing calibrations were performed within acceptable limits for $\overline{RRF}$, % RSD, RRF, and % D, with the exception of the following.

Continuing Calibration (1/6/92 at 07:06)

3-Nitroaniline	20.5% D	(Limit 20%)
4-Nitrophenol	22.2%	

The compounds above were not detected in the samples, therefore, qualification was not necessary.

2.5 Blanks

2.5.1 Field Blanks

Two equipment rinsate blanks were collected for the water and soil samples for Case No. 3857. Bis-2-ethyl-hexyl phthalate was detected in blank E-1 at 48 ug/L. Additional contamination was not noted. Rinsate sample E-1 is asociated with the soil samples S-1 through S-8, T-1 through T-10 and B-1.

A limit of 10 times the bis(2-ethylhexyl)phthalate value was used for review and qualification of the soil samples. Sample concentrations which were reported > CRQL, but < 10 times the blank value, were qualified as 'U', not detected. Sample concentrations which were reported at < CRQL and < 10 times the blank were qualified as 'U', not detected at the CRQL.

One background sample, B-1, was collected for the soil samples. Contamination was detected, as follows.

B-1 (Soil)	
4-methyl phenol	150 ug/kg, estimated
Acenapthene	48 ug/kg, estimated
Fluoranthene	130 ug/kg, estimated
Pyrene	120 ug/kg, estimated
benzo(b)fluoranthene	58 ug/kg, estimated
benzo(a)pyrene	230 ug/kg, estimated

2.5.2 Method Blanks

Four method blanks were analyzed for the water samples for the analysis of semi-volatiles. Contamination was not detected in any of the method blanks. However, an unknown hydrocarbon TIC of 100 ug/L was detected in SBLK23. This does not negatively affect the data.

Four method blanks were analyzed for the soil samples. The only contamination noted within the method blanks was bis(2-ethyl hexyl)phthalate at 30 ug/kg, estimated, for SBLK03. Bis (2-ethylhexyl)phthalate was also detected in the rinsate sample E-1, above. The soil samples were reviewed and qualified in regard to both the method blank and rinsate esmple. A limit of 10 times each respective blank was used. TIC's which were detected in the method blanks and samples are summarized in the tables which follow.

2.6 GC/MS Tuning

All tuning was generated within acceptable limits for Decafluorotriphenylphosphine (DFTPP).

2.7 Tentatively Identified Compounds (TIC's)

TIC's were generated in accordance with protocol and are summarized on the Data Summary Tables, which follow.

2.8 Internal Standards

All internal standards were generated within acceptable specifications for area counts and retention time variation, with the following exceptions.

Soils:

		Reported Area Count	Upper Limit
T10	Acenaphthene-d10	127000	122800
	Phenanthrene-d10	218000	168200
	Chrysene-d12	168000	147400
T10RE	Acenapthene-d10	54200	44800
	Phenanthrene-d10	82500	60000
	Chrysene-d12	63300	54600

The samples above were qualified as 'UJ', estimated, for the non-detectable results for the compounds quantitated using the respective internal standards. Positive results were not detected for the compounds affected.

2.9 Field Duplicates

Field duplicates were not collected for the project.

2.10 TCL Compound Identification

GC/MS qualitative analyses are considered to be acceptable for the data set. Retention times and mass spectra were generated within appropriate specifications.

2.11 Compound Quantitation and Reported Detection Limits

GC/MS quantitative analyses are considered to be acceptable for the data set. Sample dilutions, dry weight factors, internal standards, and RRF's were found to be within acceptable limits.

2.12 System Performance

Acceptable system performance was maintained throughout the analyses of the water and soil samples. This was exhibited through good resolution and consistent chromatographic performance.

3.0 PESTICIDES/PCB's BY GC

The following items/criteria were reviewed:

* Holding Times
* Surrogate Recovery
* MS and MSD
* Blanks (Method and Field)
* Instrument (GC) Performance
* Calibration
* Field Duplicates
* Pesticide/PCB Identification
* Compound Quantitation and Reported Detection Limits

4.6 Lab Duplicates

Precision (calculated RPD) was found to be acceptable for all the elements, with the following exceptions.

GW-2D (Water)	
Cadmium	200% RPD
Silver	200% RPD

The positive values for cadmium and silver were qualified as 'J', estimated.

T-1 (EP Toxicity)	
Silver	200% RPD

Silver values for the EP Toxicity metals were previously qualified through the spike recovery section. Additional qualification is not necessary.

T-1 (Total Metals)	
Iron	44.1% RPD
Magnesium	125.2% RPD

Positive values for iron and magnesium for the soil samples analyzed for total metals were qualified as 'J', estimated.

4.7 Field Duplicates

Field duplicates were not collected.

4.8 Laboratory Control Sample (LCS)

The LCS for the water and soil analyses generated acceptable %R.

4.9 ICP Serial Dilution

ICP Serial Dilution was found to be within the acceptable 10 % limit for % D, with the exception of the following.

T-1 (Total Metals)	
Zinc	14.3%

Zinc values which exceeded 50 times the Instrument Detection Limit for soil samples analyzed for total metals were qualified as 'J', estimated. A limit of 500 mg/kg was used for qualification of the samples.

4.10 Furnace AA Quality Control

Quality control for furnace atomic absorption was found to be acceptable for the furnace AA scheme and %RSD.

4.11 Sample Result Verification

Quantitative analyses are considered to be acceptable for the data set. Analyte quantitation was generated in accordance with protocols.

5.0 TOTAL RECOVERABLE OIL AND GREASE

The following items/criteria were reviewed:

* Holding Times
* Blanks (Method and Field)
* Laboratory Duplicates
* Laboratory Spike Sample
* Field Duplicate

All items above were generated within acceptable QC specifications, with deviations detailed as follows. All data is considered to be valid and usable with the appropriate qualifiers, as noted on the summary tables and within the following text.

5.1 Holding Times

All holding times were met within the acceptable time frame of 26 days from VTSR.

5.2 Blanks

5.2.1 Laboratory (Method) Blanks

Four method blanks were analyzed for Case No. 91-3584. All were found to be free of contamination.

5.2.2 Field Blanks

Two samples were collected in the field as equipment rinsate blanks for the water and soil samples. These are designated as E-1 and EQBLANK-2. Sample E-1 did not exhibit contamination by oil and grease. Rinsate sample EQBLANK-2 was found to contain 5.4 mg/L of oil and grease.

Sample E-1 is associated with the soil samples. EQBLANK-2 is associated with the water samples. A limit of 5 times the respective equipment blank value was used for review and qualification of the water samples. Samples GW-3 through GW-8 are qualified as 'U', not detected, due to contamination of the field rinsate blank. Samples GW-2 and R-1 through R-4 did not exhibit contamination by oil and grease.

One background sample was collected for the soil samples (B-1). Oil and grease was detected at 406 ug/g (ppm) within the sample.

5.3 Laboratory Duplicates

Acceptable precision was generated for the laboratory duplicates.

5.4 Laboratory Spike Sample

Percent recovery generated for GW-2 was somewhat low, reported at 70%. However, qualification of the samples based upon this slight deviation was not deemed necessary. The percent recovery for sample T-1 was found to be acceptable.

5.5 Field Duplicate

Field duplicates were not collected for the oil and grease analyses.

DATA SUMMARY TABLES

VOLATILE ORGANICS

GENESEE COUNTY DEVELOPMENT PROJECT
VOLATILES/WATER - DATA SUMMARY

CASE NO. 3857
SDG NO. R-1

All results reported in ug/L

Parameters - Volatiles	E1	EQUIPTBLANK2	GW1	GW2	GW2DL	GW3	GW4	GW5	GW6	SW7	GW8	R1	R2	R3	R4
Chloromethane															
Bromomethane															
Vinyl Chloride				150	120 D									0.3 J	
Chloroethane				11	8 DJ										
Methylene Chloride															
Acetone	18														
Carbon Disulfide															
1,1-Dichloroethylene				1 J											
1,1-Dichloroethane															
Total 1,2-Dichloroethylene			3 J	370 E	320 D					4 J	20			38	
Chloroform		2 J													
1,2-Dichloroethane															
2-Butanone															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Cis-1,3-Dichloropropene															
Trichloroethene			5	170	130 D					2 J	2 J			10	
Dibromochloromethane															
1,1,2-Trichlorethane															
Benzene															
Trans-1,3-Dichloropropene															
Bromoform															
4-Methyl-2-pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene	1 J														
Chlorobenzene															
Ethylbenzene															
Styrene															
Total Xylenes															

GENESEE COUNTY DEVELOPMENT PROJECT
VOLATILES/WATER - DATA SUMMARY (cont.)

CASE NO. 3857
SDG NO. R-1

All results reported in ug/L

Parameters - Volatiles	TB1	TB2	TB3	VHB1	VHB2	VHB3	VBLK07	VBLK09	VBLK62
Chloromethane									
Bromomethane									
Vinyl Chloride									
Chloroethane									
Methylene Chloride	5 U		5 U	1 J					
Acetone									
Carbon Disulfide									
1,1-Dichloroethylene									
1,1-Dichloroethane									
Total 1,2-Dichloroethylene									
Chloroform									
1,2-Dichloroethane									
2-Butanone									
1,1,1-Trichloroethane									
Carbon Tetrachloride									
Vinyl Acetate									
Bromodichloromethane									
1,2-Dichloropropane									
Cis-1,3-Dichloropropene									
Trichloroethene									
Dibromochloromethane									
1,1,2-Trichlorethane									
Benzene									
Trans-1,3-Dichloropropene									
Bromoform									
4-Methyl-2-pentanone									
2-Hexanone									
Tetrachloroethene									
1,1,2,2-Tetrachloroethane									
Toluene									
Chlorobenzene									
Ethylbenzene									
Styrene									
Total Xylenes									

GENESEE COUNTY DEVELOPMENT PROJECT
VOLATILES/SOIL - DATA SUMMARY

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Parameters - Volatiles	B1	S1	S2	S3	S4	S5	S6	S7	S8	T1	T2	T2RE	T3	T4	T5	T5A	T6	T7	T8	T9	T9RE	T10
Chloromethane																						
Bromomethane																						
Vinyl Chloride																			3 J			
Chloroethane																						
Methylene Chloride	1 J	1 J	1 J	1 J	2 J	1 J	1 J		5 J	2 J	2 J		3 J	2 J		2 J	1 J	2 J	1 J		3 J	
Acetone		53U							11 U		14 U	14 U				84U	160U	35U	21U			
Carbon Disulfide																5 J						
1,1-Dichloroethylene																						
1,1-Dichloroethane																						
Total 1,2-Dichloroethylene																	2 J					
Chloroform																						
1,2-Dichloroethane																						
2-Butanone																						
1,1,1-Trichloroethane																						
Carbon Tetrachloride																						
Vinyl Acetate																						
Bromodichloromethane																						
1,2-Dichloropropane																						
Cis-1,3-Dichloropropene																						
Trichloroethene																	3 J					
Dibromochloromethane																						
1,1,2-Trichlorethane																						
Benzene																						
Trans-1,3-Dichloropropene																						
Bromoform																						
4-Methyl-2-pentanone										UJ	UJ	UJ								UJ	UJ	
2-Hexanone										UJ	UJ	UJ								UJ	UJ	
Tetrachloroethene										UJ	UJ	UJ								UJ	UJ	
1,1,2,2-Tetrachloroethane										UJ	UJ	UJ								UJ	UJ	
Toluene										UJ	UJ	UJ								UJ	UJ	16 J
Chlorobenzene										UJ	UJ	UJ								UJ	UJ	
Ethylbenzene										UJ	UJ	UJ							5 J	UJ	UJ	0.8 J
Styrene										UJ	UJ	UJ								UJ	UJ	
Total Xylenes										UJ	UJ	UJ			110 J				36	UJ	UJ	68

GENESEE COUNTY DEVELOPMENT PROJECT
VOLATILES/SOIL - DATA SUMMARY (cont.)

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Parameters - Volatiles	VBLK77	VBLK07	VBLK78	VBLK79	VBLK80	MSBLANK	T1MS	T1MSD
Chloromethane								
Bromomethane								
Vinyl Chloride								
Chloroethane								
Methylene Chloride							2 J	2 J
Acetone								
Carbon Disulfide								
1,1-Dichloroethylene						48	69 J	70 J
1,1-Dichloroethane								
Total 1,2-Dichloroethylene								
Chloroform								
1,2-Dichloroethane								
2-Butanone								
1,1,1-Trichloroethane								
Carbon Tetrachloride								
Vinyl Acetate								
Bromodichloromethane								
1,2-Dichloropropane								
Cis-1,3-Dichloropropene								
Trichloroethene						44	56 J	54 J
Dibromochloromethane								
1,1,2-Trichlorethane								
Benzene						50	76 J	76 J
Trans-1,3-Dichloropropene								
Bromoform								
4-Methyl-2-pentanone								UJ
2-Hexanone								UJ
Tetrachloroethene								UJ
1,1,2,2-Tetrachloroethane						0.6 J		UJ
Toluene						52	88 J	87 J
Chlorobenzene						43	63 J	60 J
Ethylbenzene								UJ
Styrene								UJ
Total Xylenes								UJ

DATA SUMMARY TABLES

SEMI-VOLATILE ORGANICS

GENESEE COUNTY DEVELOPMENT PROJECT

SEMI-VOLATILES/WATER - DATA SUMMARY

CASE NO. 3857
SDG NO. R-1

All results reported in ug/L

Parameters - Semi-Volatiles	E1	EQUIPTBLANK2	GW1	GW2	GW3	GW4	GW5	GW6	GW7	GW8	R1	R2	R3	R4	SBLK21	SBLK23	SBLK24	SBLK02
Phenol			UJ					UJ										
bis (2-chloroethyl) ether			UJ	87				UJ										
2-Chlorophenol			UJ					UJ										
1,3-Dichlorobenzene			UJ					UJ										
1,4-Dichlorobenzene			UJ					UJ										
Benzyl Alcohol			UJ					UJ										
1,2-Dichlorobenzene			UJ					UJ										
2-Methylphenol			UJ					UJ										
2,2-oxybis(1-chloropriopane)			UJ	41				UJ										
4-methylphenol			UJ					UJ										
N-Nitroso-di-n-propylamine			UJ					UJ										
Hexachloroethane			UJ					UJ										
Nitrobenzene			UJ					UJ										
Isophorone			UJ					UJ										
2-Nitrophenol			UJ					UJ										
2,4-Dimethylphenol			UJ					UJ										
Benzoic Acid			UJ					UJ	6 J	5 J								
bis(2-chloroethoxy)methane			UJ					UJ										
2,4-Dichlorophenol			UJ					UJ										
1,2,4-Trichlorobenzene			UJ					UJ										
Naphthalene			UJ					UJ										
4-chloroaniline			UJ					UJ										
Hexachlorobutadiene			UJ					UJ										
4-chloro-3-methylphenol			UJ					UJ										
2-methylnaphthalene			UJ					UJ										
Hexachlorocyclopentadiene			UJ					UJ										
2,4,6-Trichlorophenol			UJ					UJ										
2,4,5-Trichlorophenol			UJ					UJ										
2-Chloronaphthalene			UJ					UJ										
2-Nitroaniline			UJ					UJ										
Dimethylphthalate			UJ					UJ										
Acenaphthylene			UJ					UJ										

GENESEE COUNTY DEVELOPMENT PROJECT

SEMI-VOLATILES/WATER - DATA SUMMARY (continued)

CASE NO. 3857
SDG NO. R1

All results reported in ug/L

Parameters - Semi-Volatiles	E1	EQUIPTBLANK2	GW1	GW2	GW3	GW4	GW5	GW6	GW7	GW8	R1	R2	R3	R4	SBLK21	SBLK23	SBLK24	SBLK02
2,6-Dinitrotoluene			UJ					UJ										
3-Nitroaniline			UJ					UJ										
Acenaphthene			UJ					UJ										
2,4-Dinitrophenol			UJ					UJ										
4-Nitrophenol			UJ					UJ										
Dibenzofuran			UJ					UJ										
2,4-Dinitrotoluene			UJ					UJ										
Diethylphthalate			UJ					UJ										
4-chlorophenyl-phenylether			UJ					UJ										
Fluorene			UJ					UJ										
4-Nitroaniline			UJ					UJ										
4,6-Dinitro-2-methylphenol			UJ					UJ										
N-Nitrosodiphenylamine			UJ					UJ										
4-Bromophenyl-phenylether			UJ					UJ										
Hexachlorobenzene			UJ					UJ										
Pentachlorophenol			UJ					UJ										
Phenanthrene			UJ					UJ										
Anthracene			UJ					UJ										
Di-n-butylphthalate			UJ					UJ										
Fluoranthene			UJ					UJ										
Pyrene			UJ					UJ										
Butylbenzylphthalate			UJ					UJ										
3,3'-Dichlorobenzidine			UJ					UJ										
Benz(a)anthracene			UJ					UJ										
Chrysene			UJ					UJ										
bis(2-ethylhexyl)phthalate	48		2 J		1 J	3 J		UJ										
Di-n-octyl phthalate			UJ					UJ										
Benzo(b)flouranthene			UJ					UJ										
Benzo(k)flouranthene			UJ					UJ										
Benzo(a)pyrene			UJ					UJ										
Indeno(1,2,3-cd)pyrene			UJ					UJ										
Dibenz(a,h)anthracene			UJ					UJ										
Benzo(g,h,i)perylene			UJ					UJ										

GENESEE COUNTY DEVELOPMENT PROJECT

SEMI-VOLATILES/SOIL - DATA SUMMARY

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Parameters - Semi-Volatiles	B1	S1	S2	S3	S4	S5	S6	S7	S8	T1	T2	T3	T4
Phenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
bis(2-chloroethyl) ether	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2-Chlorophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
1,3-Dichlorobenzene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
1,4-Dichlorobenzene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Benzyl Alcohol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
1,2-Dichlorobenzene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2-Methylphenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2,2-oxybis(1-chloropriopane)	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
4-methylphenol	150 J	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
N-Nitroso-di-n-propylamine	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Hexachloroethane	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Nitrobenzene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Isophorone	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2-Nitrophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2,4-Dimethylphenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Benzoic Acid	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
bis(2-chloroethoxy)methane	UJ	UJ	UJ	UJ	UJ	UJ	UJ		47 J	UJ	UJ	UJ	UJ
2,4-Dichlorophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
1,2,4-Trichlorobenzene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Naphthalene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
4-chloroaniline	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Hexachlorobutadiene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
4-chloro-3-methylphenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2-methylnaphthalene	UJ	UJ	100 J	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Hexachlorocyclopentadiene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2,4,6-Trichlorophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2,4,5-Trichlorophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2-Chloronaphthalene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2-Nitroaniline	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Dimethylphthalate	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Acenaphthylene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ

GENESEE COUNTY DEVELOPMENT PROJECT

SEMI-VOLATILES/SOIL - DATA SUMMARY (continued)

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Parameters - Semi-Volatiles	B1	S1	S2	S3	S4	S5	S6	S7	S8	T1	T2	T3	T4
2,6-Dinitrotoluene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
3-Nitroaniline	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Acenaphthene	48 J	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2,4-Dinitrophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
4-Nitrophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Dibenzofuran	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
2,4-Dinitrotoluene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Diethylphthalate	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
4-chlorophenyl-phenylether	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Fluorene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
4-Nitroaniline	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
4,6-Dinitro-2-methylphenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
N-Nitrosodiphenylamine	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
4-Bromophenyl-phenylether	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Hexachlorobenzene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Pentachlorophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Phenanthrene	UJ	UJ	140 J	UJ	UJ	UJ	UJ			1200 J	280 J	140 J	UJ
Anthracene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			240 J	UJ	UJ	UJ
Di-n-butylphthalate	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Fluoranthene	130 J	UJ	UJ	UJ	UJ	UJ	UJ		49 J	940 J	330 J	UJ	260 J
Pyrene	120 J	UJ	UJ	UJ	UJ	UJ	UJ			730 J	280 J	UJ	240 J
Butylbenzylphthalate	UJ	89 J	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
3,3'-Dichlorobenzidine	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Benz(a)anthracene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			410 J	150 J	UJ	120 J
Chrysene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			420 J	220 J	UJ	210 J
bis(2-ethylhexyl)phthalate	920 UJ	820 UJ	770 UJ	800 UJ	810 UJ	800 UJ	800 UJ	860 U	840 U	UJ	820 UJ	UJ	UJ
Di-n-octyl phthalate	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Benzo(b)fluoranthene	58 J	UJ	96 J	UJ	UJ	UJ	UJ		27 J	380 J	190 J	71 J	UJ
Benzo(k)fluoranthene	UJ	UJ	36 J	UJ	UJ	UJ	UJ		11 J	170 J	74 J	UJ	UJ
Benzo(a)pyrene	230 J	UJ	UJ	UJ	UJ	UJ	UJ		61 J	270 J	100 J	UJ	UJ
Indeno(1,2,3-cd)pyrene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			160 J	UJ	UJ	UJ
Dibenz(a,h)anthracene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ
Benzo(g,h,i)perylene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			130 J	UJ	UJ	UJ

GENESEE COUNTY DEVELOPMENT PROJECT

SEMI-VOLATILES/SOIL - DATA SUMMARY (continued)

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Parameters - Semi-Volatiles	T5	T5A	T6	T7	T8	T9	T10	T10RE	SBLK03	SBLK67	SBLK07	SBLK39	MSBLANK
Phenol	UJ	UJ	UJ	UJ	UJ	UJ							
bis(2-chloroethyl) ether	UJ	UJ	UJ	UJ	UJ	UJ							10000
2-Chlorophenol	UJ	UJ	UJ	UJ	UJ	UJ							
1,3-Dichlorobenzene	UJ	UJ	UJ	UJ	UJ	UJ							8900
1,4-Dichlorobenzene	UJ	UJ	UJ	UJ	UJ	UJ							
Benzyl Alcohol	UJ	UJ	UJ	UJ	UJ	UJ							4700
1,2-Dichlorobenzene	UJ	UJ	UJ	UJ	UJ	UJ							
2-Methylphenol	UJ	UJ	UJ	UJ	UJ	UJ							
2,2-oxybis(1-chloropriopane)	UJ	UJ	UJ	UJ	UJ	UJ							
4-methylphenol	UJ	UJ	UJ	UJ	UJ	UJ							
N-Nitroso-di-n-propylamine	UJ	UJ	UJ	UJ	UJ	UJ							
Hexachloroethane	UJ	UJ	UJ	UJ	UJ	UJ							4600
Nitrobenzene	UJ	UJ	UJ	UJ	UJ	UJ							
Isophorone	UJ	UJ	UJ	UJ	UJ	UJ							
2-Nitrophenol	UJ	UJ	UJ	UJ	UJ	UJ							
2,4-Dimethylphenol	UJ	UJ	UJ	UJ	UJ	UJ							
Benzoic Acid	UJ	UJ	UJ	UJ	UJ	120 J							
bis(2-chloroethoxy)methane	UJ	UJ	UJ	UJ	UJ	UJ							
2,4-Dichlorophenol	UJ	UJ	UJ	UJ	UJ	UJ							
1,2,4-Trichlorobenzene	UJ	UJ	UJ	UJ	UJ	UJ							
Naphthalene	2900 J	UJ	UJ	400 J	UJ	1400 J							4900
4-chloroaniline	UJ	UJ	UJ	UJ	UJ	UJ							
Hexachlorobutadiene	UJ	UJ	UJ	UJ	UJ	UJ							
4-chloro-3-methylphenol	UJ	UJ	UJ	UJ	UJ	UJ							
2-methylnaphthalene	11000 J	UJ	UJ	UJ	UJ	3400 J							8800
Hexachlorocyclopentadiene	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
2,4,6-Trichlorophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
2,4,5-Trichlorophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
2-Chloronaphthalene	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
2-Nitroaniline	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
Dimethylphthalate	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
Acenaphthylene	UJ	UJ	UJ	UJ	UJ	280 J	UJ	UJ					

GENESEE COUNTY DEVELOPMENT PROJECT

SEMI-VOLATILES/SOIL - DATA SUMMARY (continued)

CASE NO. 3857

SDG NO. B-1

All results reported in ug/kg

Parameters - Semi-Volatiles	T5	T5A	T6	T7	T8	T9	T10	T10RE	SBLK03	SBLK67	SBLK07	SBLK39	MSBLANK
2,6-Dinitrotoluene	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
3-Nitroaniline	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
Acenaphthene	UJ	UJ	UJ	510 J	UJ	170 J	UJ	UJ					4600
2,4-Dinitrophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
4-Nitrophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					14000 E
Dibenzofuran	UJ	UJ	UJ	UJ	UJ	780 J	UJ	UJ					
2,4-Dinitrotoluene	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					5100
Diethylphthalate	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
4-chlorophenyl-phenylether	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
Fluorene	UJ	UJ	UJ	730 J	UJ	330 J	UJ	UJ					
4-Nitroaniline	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
4,6-Dinitro-2-methylphenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
N-Nitrosodiphenylamine	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
4-Bromophenyl-phenylether	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
Hexachlorobenzene	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
Pentachlorophenol	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					13000 E
Phenanthrene	UJ	UJ	UJ	3200 J	UJ	3800 J	UJ	UJ					
Anthracene	3500 J	UJ	UJ	820 J	UJ	490 J	UJ	UJ					
Di-n-butylphthalate	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
Fluoranthene	UJ	590 J	UJ	2400 J	UJ	3400 J	UJ	UJ					
Pyrene	UJ	1400 J	UJ	3100 J	UJ	4100 J	UJ	UJ					5300
Butylbenzylphthalate	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
3,3'-Dichlorobenzidine	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ					
Benz(a)anthracene	UJ	350 J	UJ	890 J	UJ	2400 J	UJ	UJ					
Chrysene	UJ	360 J	UJ	780 J	UJ	3000 J	UJ	UJ					
bis(2-ethylhexyl)phthalate	UJ	UJ	UJ	UJ	UJ	2200 J	UJ	UJ	30 J				
Di-n-octyl phthalate	UJ	UJ	UJ	UJ	UJ	UJ							
Benzo(b)fluoranthene	UJ	UJ	UJ	620 J	UJ	3900 J							
Benzo(k)fluoranthene	UJ	UJ	UJ	330 J	UJ	1300 J							
Benzo(a)pyrene	UJ	290 J	UJ	440 J	UJ	2900 J							
Indeno(1,2,3-cd)pyrene	UJ	UJ	UJ	UJ	UJ	UJ							
Dibenz(a,h)anthracene	UJ	UJ	UJ	UJ	UJ	UJ							
Benzo(g,h,i)perylene	UJ	UJ	UJ	110 J	UJ	1500 J							

GENESEE COUNTY DEVELOPMENT PROJECT

SEMI-VOLATILES/SOIL - DATA SUMMARY (continued)

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Parameters - Semi-Volatiles	T1MS	T1MSD
Phenol	16000 J	16000 J
bis (2-chloroethyl) ether	UJ	UJ
2-Chlorophenol	14000 J	14000 J
1,3-Dichlorobenzene	UJ	UJ
1,4-Dichlorobenzene	7500 J	7200 J
Benzyl Alcohol	UJ	UJ
1,2-Dichlorobenzene	UJ	UJ
2-Methylphenol	UJ	UJ
2,2-oxybis(1-chloropriopane)	UJ	UJ
4-methylphenol	UJ	UJ
N-Nitroso-di-n-propylamine	7800 J	7300 J
Hexachloroethane	UJ	UJ
Nitrobenzene	UJ	UJ
Isophorone	UJ	UJ
2-Nitrophenol	UJ	UJ
2,4-Dimethylphenol	UJ	UJ
Benzoic Acid	UJ	UJ
bis(2-chloroethoxy)methane	UJ	UJ
2,4-Dichlorophenol	UJ	UJ
1,2,4-Trichlorobenzene	7800 J	7800 J
Naphthalene	UJ	UJ
4-chloroaniline	UJ	UJ
Hexachlorobutadiene	UJ	UJ
4-chloro-3-methylphenol	14000 J	15000 J
2-methylnaphthalene	UJ	UJ
Hexachlorocyclopentadiene	UJ	UJ
2,4,6-Trichlorophenol	UJ	UJ
2,4,5-Trichlorophenol	UJ	UJ
2-Chloronaphthalene	UJ	UJ
2-Nitroaniline	UJ	UJ
Dimethylphthalate	UJ	UJ
Acenaphthylene	UJ	220 J

GENESEE COUNTY DEVELOPMENT PROJECT

SEMI-VOLATILES/SOIL - DATA SUMMARY (continued)

CASE NO. 3857 **All results reported in ug/kg**

SDG NO. B-1

Parameters - Semi-Volatiles	T1MS	T1MSD
2,6-Dinitrotoluene	UJ	UJ
3-Nitroaniline	UJ	UJ
Acenaphthene	7100 J	7200 J
2,4-Dinitrophenol	UJ	UJ
4-Nitrophenol	22000 E	21000 E
Dibenzofuran	UJ	UJ
2,4-Dinitrotoluene	8600 J	8000 J
Diethylphthalate	UJ	UJ
4-chlorophenyl-phenylether	UJ	UJ
Fluorene	UJ	UJ
4-Nitroaniline	UJ	UJ
4,6-Dinitro-2-methylphenol	UJ	UJ
N-Nitrosodiphenylamine	UJ	UJ
4-Bromophenyl-phenylether	UJ	UJ
Hexachlorobenzene	UJ	UJ
Pentachlorophenol	11000 J	18000 E
Phenanthrene	580 J	2800 J
Anthracene	560 J	300 J
Di-n-butylphthalate	UJ	UJ
Fluoranthene	560 J	4100 J
Pyrene	8800 J	10000 J
Butylbenzylphthalate	UJ	UJ
3,3'-Dichlorobenzidine	UJ	UJ
Benz(a)anthracene	240 J	1400 J
Chrysene	260 J	1800 J
bis(2-ethylhexyl)phthalate	UJ	UJ
Di-n-octyl phthalate	UJ	UJ
Benzo(b)fluoranthene	270 J	1900 J
Benzo(k)fluoranthene	110 J	850 J
Benzo(a)pyrene	160 J	1400 J
Indeno(1,2,3-cd)pyrene	110 J	900 J
Dibenz(a,h)anthracene	UJ	170 J
Benzo(g,h,i)perylene	UJ	660 J

DATA SUMMARY TABLES

PESTICIDES AND PCB'S

GENESEE COUNTY DEVELOPMENT PROJECT

PESTICIDES and PCB'S/WATER - DATA SUMMARY

CASE NO. 3857
SDG NO. R1

All results reported in ug/L

Parameters-Pesticides/PCB's	E1	GW1	GW2	GW3	GW4	GW5	GW6	GW7	GW8	R1	R2	R3	R4	EQUIPTBLANK2
alpha-BHC														
beta-BHC														
delta-BHC														
gamma-BHC(Lindane)														
Heptachlor		0.0089 J		0.0090 J		0.0067 J		0.0081 J						
Aldrin														
Heptachlor Epoxide														
Endosulfan I														
Dieldrin														
4,4'-DDE														
Endrin														
Endosulfan II														
4,4'-DDD														
Endosulfan Sulfate														
4,4'-DDT														
Methoxychlor														
Endrin Ketone														
alpha-chlordane				0.053 J										
gamma-chlordane														
Toxaphene														
Aroclor-1016														
Aroclor-1221														
Aroclor-1232														
Aroclor-1242														
Aroclor-1248														
Aroclor-1254														
Aroclor-1260														

GENESEE COUNTY DEVELOPMENT PROJECT

PESTICIDES and PCB'S/WATER - DATA SUMMARY (continued)

CASE NO. 3857
SDG NO. R1

All results reported in ug/L

Parameters-Pesticides/PCB's	PBLK01	PBLK02
alpha-BHC		
beta-BHC		
delta-BHC		
gamma-BHC(Lindane)		
Heptachlor		
Aldrin		
Heptachlor Epoxide		
Endosulfan I		
Dieldrin		
4,4'-DDE		
Endrin		
Endosulfan II		
4,4'-DDD		
Endosulfan Sulfate		
4,4'-DDT		
Methoxychlor		
Endrin Ketone		
alpha-chlordane		
gamma-chlordane		
Toxaphene		
Aroclor-1016		
Aroclor-1221		
Aroclor-1232		
Aroclor-1242		
Aroclor-1248		
Aroclor-1254		
Aroclor-1260		

GENESEE COUNTY DEVELOPMENT PROJECT

PESTICIDES and PCB'S/SOIL - DATA SUMMARY

CASE NO. 3857
SDG NO. B1

All results reported in ug/kg

Parameters-Pesticides/PCB's	B1	S1	S2	S3	S4	S5	S6	S7	S8	T1	T2	T3	T4	T5	T5A	T6	T7	T8
alpha-BHC	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
beta-BHC	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	2.3 J
delta-BHC	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	3.2 J	UJ	UJ	UJ	UJ	3.9 J
gamma-BHC(Lindane)	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Heptachlor	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	3.0 J	UJ	UJ	UJ
Aldrin	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Heptachlor Epoxide	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Endosulfan I	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Dieldrin	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
4,4'-DDE	2.8 J	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Endrin	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	1.9 J	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Endosulfan II	UJ	UJ	4.7 J	UJ	UJ	UJ	UJ			11 J	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
4,4'-DDD	14 J	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	3.5 J	UJ	UJ
Endosulfan Sulfate	UJ	UJ	UJ	UJ	UJ	UJ	UJ			7.2 J	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
4,4'-DDT	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Methoxychlor	UJ	UJ	UJ	UJ	UJ	UJ	UJ		32 J	23 J	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Endrin Ketone	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
alpha-chlordane	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
gamma-chlordane	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Toxaphene	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Aroclor-1016	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Aroclor-1221	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Aroclor-1232	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Aroclor-1242	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Aroclor-1248	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Aroclor-1254	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
Aroclor-1260	UJ	UJ	UJ	UJ	UJ	UJ	UJ			UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ

GENESEE COUNTY DEVELOPMENT PROJECT

PESTICIDES and PCB'S/SOIL - DATA SUMMARY (cont.)

CASE NO. 3857
SDG NO. B1

All results reported in ug/kg

Parameters-Pesticides/PCB's	T9	T10	PBLK10	PBLK11	T1MS	T1MSD	MSB07
alpha-BHC	UJ				UJ	UJ	
beta-BHC	UJ				UJ	UJ	
delta-BHC	UJ				UJ	UJ	
gamma-BHC(Lindane)	UJ				80 J	45 J	54
Heptachlor	UJ				110 J	110 J	68
Aldrin	UJ				72 J	65 J	43
Heptachlor Epoxide	UJ				UJ	UJ	
Endosulfan I	UJ				UJ	UJ	
Dieldrin	UJ				170 J	200 J	120
4,4'-DDE	UJ				UJ	UJ	
Endrin	16 J				210 J	210 J	130
Endosulfan II	8.9 J				UJ	UJ	
4,4'-DDD	4.6 J				UJ	UJ	
Endosulfan Sulfate	UJ				UJ	7.0 J	
4,4'-DDT	4.2 J				170 J	180 J	130
Methoxychlor	UJ				10 J	44 J	
Endrin Ketone	UJ				UJ	UJ	
alpha-chlordane	UJ				UJ	UJ	
gamma-chlordane	UJ				UJ	UJ	
Toxaphene	UJ				UJ	UJ	
Aroclor-1016	UJ				UJ	UJ	
Aroclor-1221	UJ				UJ	UJ	
Aroclor-1232	UJ				UJ	UJ	
Aroclor-1242	UJ				UJ	UJ	
Aroclor-1248	UJ				UJ	UJ	
Aroclor-1254	UJ				UJ	UJ	
Aroclor-1260	UJ				UJ	UJ	

DATA SUMMARY TABLES

INORGANICS

GENESEE COUNTY DEVELOPMENT PROJECT

INORGANICS/WATER - DATA SUMMARY

CASE NO. 3857
SDG NO. R1

All results reported in ug/L

Parameters - Inorganics	EQPBLK	E1	GW1	GW2	GW3	GW4	GW5	GW6	GW7	GW8	R1	R2	R3	R4
Aluminum		73.3	3730	8560	8230	9910	10900	19200	9820	33700	268	236		237
Copper	14.2	29.4	27.8 U	42.0 U	38.6 U	48.7 U	77.0	114	53.8 U	157	11.5 U	10.1 U	21.3 U	37.2 U
Iron	69.6	153	9940	20300	17200	26900	34300	52000	30400	87200	274 U	342 U	140 U	350
Magnesium			40300	43300	40900	52700	62500	105000	21500	46800	504	1360	5710	4230
Nickel			158	91.8	60.4	121	77.3	168	106	272				
Zinc		18.0	61.7	119	70.1	90.2	114	232	105	361	19.3	11.8	42.5	35.0
Cyanide				60.4										
Tin	R	R	R	R	R	R	R	R	R	R	R	R	R	R

GENESEE COUNTY DEVELOPMENT PROJECT

INORGANICS/WATER - DATA SUMMARY

CASE NO. 3857
SDG NO. 68

All results reported in ug/L

Parameters - Inorganics	EQPBLK	E-1	GW1	GW2	GW3	GW4	GW5	GW6	GW7	GW8	R1	R2	R3	R4
Arsenic			N/A					8.0 B		5.0 B				
Barium			232							275				
Cadmium				7.0 J		11.0 J	6.0 J							
Chromium			44.0							26.0				
Lead	3.0		N/A	11.0 U	3.0 U	6.0 U	3.0 U	23.0	6.0 U	25.0	7 U	3 U		8 U
Mercury	UJ	UJ	N/A	UJ	UJ	UJ	UJ	0.70 J	UJ	0.32 J	UJ	UJ	UJ	0.23 J
Selenium			N/A											
Silver	R	R	12.0 J	29.0 J	R	R	R	R	R	R	R	R	R	R

N/A - Not Analyzed, due to insufficient sample volume

GENESEE COUNTY DEVELOPMENT PROJECT

INORGANICS/SOIL - DATA SUMMARY

CASE NO. 3857
SDG NO. B-1

All results reported in mg/kg

Parameters-Inorganics	B-1	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	T-1	T-10
Aluminum	5440	6600	7430	4460	6400	6750	6490	11800	8350	8170	8590
Copper	14.1 J	17.6 J	203 J	16.4 J	12.9 J	22.5 J	32.5 J	27.7 J	10.8 J	75.9 J	29.0 J
Iron	13000 J	17700 J	28100 J	11800 J	16800 J	16800 J	16100 J	19200 J	21300 J	28600 J	15100 J
Magnesium	6630 J	1890 J	18600 J	3250 J	2280 J	2480 J	2530 J	2680 J	2740 J	1790 J	2990 J
Nickel	18.2	20.7	22.9	22.1	29.0	30.3	25.2	21.1	43.6	25.7	17.2
Zinc	53.3	69.0	188	48.7	54.6	63.2	67.1	59.0	70.3	442	69.2
Cyanide											
Tin											

GENESEE COUNTY DEVELOPMENT PROJECT

INORGANICS/SOIL - DATA SUMMARY (cont.)

CASE NO. 3857
SDG NO. B-1

All results reported in mg/kg

Parameters - Inorganics	T-2	T-3	T-4	T-5	T-5A	T-6	T-7	T-8	T-9
Aluminum	3920	163000	4030	14100	8150	9180	11100	11000	6750
Copper	31.6 J	12000 J	253 J	22.3 J	65.8 J	85.2 J	66.1 J	32.3 J	1500 J
Iron	12100 J	13400 J	119000 J	22300 J	22800 J	15300 J	19300 J	19400 J	13800 J
Magnesium	7350 J	11000 J	2010 J	2970 J	10200 J	2330 J	7940 J	2300 J	8200 J
Nickel	12.7	2830	57.7	26.1	67.1	20.9	35.3	24.8	21.5
Zinc	49.6	765 J	1030 J	63.1	797 J	280	102	63.2	1150 J
Cyanide			4.6						
Tin									

GENESEE COUNTY DEVELOPMENT PROJECT

EP TOXICITY METALS - DATA SUMMARY

CASE NO. 3857
SDG NO. B-1

All results reported in ug/L

Parameters - Inorganics	B-1	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	T-1	T-10	T-2	T-3	T-4
Arsenic														
Barium	484	87.4 B	226	81.7 B	69.7 B	30.6 B	39.5 B	61.2 B	855	385	48.2 B	143 B	186 B	420
Cadmium			5.0	5.0										6.0
Chromium	10.0		18.0										226	
Lead	13.0	5.0	18.0	5.0	5.0	4.0	5.0	5.4	17.0	68.0	4.9	9.0	9.0	5800
Mercury														
Selenium														
Silver	12.0 J	R	12.0 J	98.0 J	R	R	R	R	33.0 J	20.0 J	R	R	R	R

GENESEE COUNTY DEVELOPMENT PROJECT

EP TOXICITY METALS - DATA SUMMARY (continued)

CASE NO. 3857
SDG NO. B-1

All results reported in ug/L

Parameters - Inorganics	T-5	T-5A	T-6	T-7	T-8	T-9
Arsenic		6.0 B				
Barium	103 B	480	50.7 B	152 B	81.0 B	721
Cadmium						44.0
Chromium		14.0	172			38.0
Lead	9.1	90.0	5.0	5.0	4.0	590
Mercury						
Selenium						
Silver	R	13.0 J	R	R	R	31.0 J

TENTATIVELY IDENTIFIED COMPOUNDS

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
VOLATILES/WATER - DATA SUMMARY

CASE NO. 3857
SDG NO. R-1

All results reported in ug/L

Tentatively Identified Compounds	E1	EQUIPTBLANK2	GW1	GW2	GW2DL	GW3	GW4	GW5	GW6	GW7	GW8	R1	R2	R3	R4
Dichloro Propene Isomer				5 J											
Oxybis-Chloro Propane Isomer				8 J											
Unknown		10 J													

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
VOLATILES/WATER - DATA SUMMARY (continued)

CASE NO. 3857
SDG NO. R-1

All results reported in ug/L

Tentatively Identified Compounds	TB1	TB2	TB3	VHB1	VHB2	VHB3	VBLK07	VBLK09	VBLK62
Dichloro Propene Isomer									
Oxybis-Chloro Propane Isomer									
Unknown									

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
VOLATILES/SOIL - DATA SUMMARY

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Parameters - Volatiles	B1	S1	S2	S3	S4	S5	S6	S7	S8	T1	T2	T2RE	T3	T4	T5	T5A	T6	T7	T8	T9
Alkyl Cyclohexane															930 J				22 J	
Alkyl Cyclohexane															3500 J				59 J	
Alkyl Cyclohexane															930 J					
Alkyl Saturated Hydrocarbon																			37 J	
Unsaturated Hydrocarbon																11 J				
Unsaturated Hydrocarbon																31 J				
Methyl Cyclohexane																				
Unknown															1700 J	14 J		23 J	110 J	
Unknown															3900 J	120 J		37 J	150 J	
Unknown															4100 J	12 J		190 J	140 J	
Unknown															3600 J	12 J		27 J	92 J	
Unknown																22 J		120 J	62 J	
Unknown																29 J		80 J	70 J	
Unknown																		10 J	120 J	
Unknown																		180 J		
Unknown																		380 J		

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
VOLATILES/SOIL - DATA SUMMARY (cont.)

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Parameters - Volatiles	T9RE	T10	VBLK77	VBLK07	VBLK78	VBLK79	VBLK80
Alkyl Cyclohexane		200 J					
Alkyl Cyclohexane		260 J					
Alkyl Cyclohexane							
Alkyl Saturated Hydrocarbon		160 J					
Unsaturated Hydrocarbon		290 J					
Unsaturated Hydrocarbon		860 J					
Methyl Cyclohexane		270 J					
Unknown		170 J					
Unknown		230 J					
Unknown		460 J					
Unknown		150 J					
Unknown							
Unknown							
Unknown							
Unknown							
Unknown							

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
SEMI-VOLATILES/WATER - DATA SUMMARY

CASE NO. 3857
SDG NO. R-1

All results reported in ug/L

Tentatively Identified Compounds	E1	EQUIPTBLANK2	GW1	GW2	GW3	GW4	GW5	GW6	GW7	GW8	R1	R2	R3	R4
Diphenyl Methanone	33 J													
Chlorinated Compound				100 J										
Unknown Hydrocarbon					25 J					89 J			220 J	
Unknown Acid									9 J					
Unknown	8 J		21 J			24 J		23 J						
Unknown			7 J											

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
SEMI-VOLATILES/WATER - DATA SUMMARY
(cont.)

CASE NO. 3857
SDG NO. R-1

All results reported in ug/L

Tentatively Identified Compounds	SBLK21	SBLK23	SBLK24	SBLK02
Diphenyl Methanone				
Chlorinated Compound				
Unknown Hydrocarbon		100 J		
Unknown Acid				
Unknown				
Unknown				

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
SEMI-VOLATILES/SOIL - DATA SUMMARY

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Tentatively Identified Compounds	B1	S1	S2	S3	S4	S5	S6	S7	S8	T1	T2
Trimethyl Naphthalene Isomer											
Cyclohexane Derivative											
Cyclohexane Derivative											
Cyclohexane Derivative											
Alkyl Saturated Hydrocarbon	680 J										
Alkyl Saturated Hydrocarbon											
Alkyl Saturated Hydrocarbon											
Alkyl Saturated Hydrocarbon											
Alkyl Saturated Hydrocarbon											
Alkyl Saturated Hydrocarbon											
Alkyl Substituted Hydrocarbon											
Alkyl Substituted Hydrocarbon											
Alkyl Substituted Compound											
Long Chain Hydrocarbon	2900 J										
Long Chain Hydrocarbon	3800 J										
Long Chain Hydrocarbon	1400 J										
Long Chain Hydrocarbon											
Long Chain Hydrocarbon											
Long Chain Hydrocarbon											
Long Chain Hydrocarbon											
Long Chain Hydrocarbon											
Long Chain Hydrocarbon											
Long Chain Hydrocarbon											
Aromatic Derivative											
Dimethyl Naphthalene Isomer											
Dimethyl Naphthalene Isomer											
Dibenzothiophene Derivative											
PAH Derivative											
Suspected Aldol Cond. Product	1400 AJ	820 AJ	570 AJ	960 AJ	1600 AJ	1200 AJ	1000 AJ			930 AJ	720 AJ
Suspected Aldol Cond. Product	580 AJ			370 AJ		320 AJ					
Unknown Acid	680 J										

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
SEMI-VOLATILES/SOIL - DATA SUMMARY (continued)

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Tentatively Identified Compounds	B1	S1	S2	S3	S4	S5	S6	S7	S8	T1	T2
Unknown Hydrocarbon											530 J
Unknown Hydrocarbon											
Unknown Hydrocarbon											
Unknown Hydrocarbon											
Unknown	450 J									820 J	910 J
Unknown	380 J										
Unknown	690 J										
Unknown	1600 J										
Unknown	500 J										
Unknown	440 J										

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
SEMI-VOLATILES/SOIL - DATA SUMMARY (continued)

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Tentatively Identified Compounds	T3	T4	T5	T5A	T6	T7	T8	T9	T10	T10RE
Trimethyl Naphthalene Isomer				4000 J						
Cyclohexane Derivative						3200 J	6600 J			6000 J
Cyclohexane Derivative						3700 J	3700 J			5800 J
Cyclohexane Derivative						2700 J				
Alkyl Saturated Hydrocarbon		730 J	23000 J			2100 J	3900 J	1200 J	130000 J	3600 J
Alkyl Saturated Hydrocarbon		2900 J	19000 J			5700 J		5300 J	120000 J	4800 J
Alkyl Saturated Hydrocarbon		1800 J	9100 J						120000 J	
Alkyl Saturated Hydrocarbon									30000 J	
Alkyl Saturated Hydrocarbon									73000 J	
Alkyl Saturated Hydrocarbon									36000 J	
Alkyl Substituted Hydrocarbon			8800 J	4800 J			1900 J			
Alkyl Substituted Hydrocarbon							2800 J			
Alkyl Substituted Compound							2000 J			
Long Chain Hydrocarbon		2800 J						1700 J		
Long Chain Hydrocarbon		4100 J								
Long Chain Hydrocarbon		4900 J								
Long Chain Hydrocarbon		6100 J								
Long Chain Hydrocarbon		6800 J								
Long Chain Hydrocarbon		6700 J								
Long Chain Hydrocarbon		5000 J								
Long Chain Hydrocarbon		4800 J								
Long Chain Hydrocarbon		4500 J								
Long Chain Hydrocarbon		2700 J								
Aromatic Derivative								1900 J		
Dimethyl Naphthalene Isomer								2300 J		
Dimethyl Naphthalene Isomer								1400 J		
Dibenzothiophene Derivative								1400 J		
PAH Derivative								2700 J		
Suspected Aldol Cond. Product	1100 AJ	2600 AJ								
Suspected Aldol Cond. Product										
Unknown Acid										

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
SEMI-VOLATILES/SOIL - DATA SUMMARY (continued)

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Tentatively Identified Compounds	T3	T4	T5	T5A	T6	T7	T8	T9	T10	T10RE
Unknown Hydrocarbon		1000 J			3700 J	2200 J	3300 J	1700 J	17000 J	10000 J
Unknown Hydrocarbon		720 J			2500 J	4400 J	4300 J	1500 J		1700 J
Unknown Hydrocarbon						27000 J				
Unknown Hydrocarbon						4800 J				
Unknown	980 J	1100 J	12000 J	13000 J	5900 J	1400 J	2900 J	1700 J	110000 J	11000 J
Unknown		500 J	17000 J	2200 J	3800 J	3800 J	2600 J	1600 J	68000 J	5600 J
Unknown		570 J	8500 J	4600 J	7000 J	3100 J	3000 J	1900 J	6400 J	3200 J
Unknown		580 J	5600 J	4900 J	3400 J	6300 J	3200 J	2700 J	9300 J	1300 J
Unknown			2900 J	9400 J	1800 J	4300 J	6000 J	2500 J	12000 J	2400 J
Unknown			930 J	11000 J	1300 J	2000 J	2900 J	1900 J	28000 J	4100 J
Unknown			580 J	4300 J	3300 J	4200 J	2200 J	1200 J	14000 J	1700 J
Unknown			1900 J	1900 J	2700 J	2000 J	2900 J	1600 J	11000 J	2800 J
Unknown			1500 J	3800 J	3900 J	3000 J	2400 J	3300 J	7700 J	3900 J
Unknown			5300 J	1000 J	1700 J	2700 J	4700 J	3500 J		1800 J
Unknown			1900 J	2100 J	2400 J	5400 J	5300 J			2900 J
Unknown			4200 J	2400 J			2600 J			2000 J
Unknown			3000 J	2500 J						3100 J
Unknown				5700 J						3300 J
Unknown				1400 J						
Unknown				3100 J						
Unknown				1800 J						
Unknown				2600 J						

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
SEMI-VOLATILES/SOIL - DATA SUMMARY (continued)

CASE NO. 3857 **All results reported in ug/kg**
SDG NO. B-1

Tentatively Identified Compounds	SBLK03	SBLK67	SBLK07	SBLK39
Trimethyl Naphthalene Isomer				
Cyclohexane Derivative				
Cyclohexane Derivative				
Cyclohexane Derivative				
Alkyl Saturated Hydrocarbon				
Alkyl Saturated Hydrocarbon				
Alkyl Saturated Hydrocarbon				
Alkyl Saturated Hydrocarbon				
Alkyl Saturated Hydrocarbon				
Alkyl Saturated Hydrocarbon				
Alkyl Substituted Hydrocarbon				
Alkyl Substituted Hydrocarbon				
Alkyl Substituted Compound				
Long Chain Hydrocarbon				
Long Chain Hydrocarbon				
Long Chain Hydrocarbon				
Long Chain Hydrocarbon				
Long Chain Hydrocarbon				
Long Chain Hydrocarbon				
Long Chain Hydrocarbon				
Long Chain Hydrocarbon				
Long Chain Hydrocarbon				
Long Chain Hydrocarbon				
Aromatic Derivative				
Dimethyl Naphthalene Isomer				
Dimethyl Naphthalene Isomer				
Dibenzothiophene Derivative				
PAH Derivative				
Suspected Aldol Cond. Product				
Suspected Aldol Cond. Product				
Unknown Acid				

GENESEE COUNTY DEVELOPMENT PROJECT

TENTATIVELY IDENTIFIED COMPOUNDS
SEMI-VOLATILES/SOIL - DATA SUMMARY (continued)

CASE NO. 3857
SDG NO. B-1

All results reported in ug/kg

Tentatively Identified Compounds	SBLK03	SBLK67	SBLK07	SBLK39
Unknown Hydrocarbon				
Unknown Hydrocarbon				
Unknown Hydrocarbon				
Unknown Hydrocarbon				
Unknown	620 J			
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				
Unknown				

DATA SUMMARY TABLES

OIL AND GREASE

TABLE 1

GENESEE COUNTY DEVELOPMENT PROJECT

TOTAL RECOVERABLE OIL AND GREASE

CASE NO. 91-3584
DATA SUMMARY

Sample	ug/g (ppm)
B-1	406
S-1	ND
S-2	ND
S-3	ND
S-4	ND
S-5	ND
S-6	ND
S-7	ND
S-8	ND
T-1	347
T-2	446
T-3	366
T-4	593
T-5	353
T-5A	3270
T-6	4950
T-7	1850
T-8	1180
T-9	8940
T-10	8260

ND - Not Detected

TABLE 2

GENESEE COUNTY DEVELOPMENT PROJECT

TOTAL RECOVERABLE OIL AND GREASE

CASE NO. 91-3584
DATA SUMMARY

Sample	mg/L (ppm)
R-1	ND
R-2	ND
R-3	ND
R-4	ND
E-1	ND
GW-2	ND
GW-5	6.2 U
GW-6	5.1 U
EQ BLANK-2	5.4
GW-3	7.6 U
GW-4	6.9 U
GW-7	6.5 U
GW-8	6.6 U

ND - Not Detected

U - Not Detected; qualified through the associated equipment blank

DATA QUALIFIERS

NYSDEC SSP DATA QUALIFIERS

ORGANIC DATA QUALIFIERS

U - Indicates that the compound was analyzed for but not detected at or above the Contract Required Quantitation Limit (CRQL).

J - The associated numerical value is an estimated quantity.

UJ - The compound was analyzed for, but not detected. The sample quantitation limit is an estimated quantity due to variance in quality control limits.

B - The analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

C - Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.

M - Matrix spike compound.

E - Reported value is estimated due to the presence of matrix interference.

D - Reported result taken from diluted sample analysis.

A - Aldol condensation product.

R - Reported value is unusable and rejected due to variance from quality control limits.

NYSDEC SSP DATA QUALIFIERS

INORGANIC DATA QUALIFIERS

U - Indicates analyte result less than Contract Required Detection Limit (CRDL).

B - Indicates analyte result between Instrument Detection Limit (IDL) and CRDL.

J - Reported value is estimated due to variance from quality control limits identified during data validation procedures.

UJ - The element was analyzed for, but not detected. The sample quantitation limit is an estimate due to variance in quality control limits.

E - Reported value is estimated because of the presence of interference.

R - Reported value is unusable and rejected due to variance from quality control limits.

NYSDEC ASP SUMMARY SHEETS

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

CUSTOMER SAMPLE CODE	LABORATORY SAMPLE CODE	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	OTHER
T-1	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
T-2	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
T-3	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
T-4	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
T-5	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
T-5A	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
T-6	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
T-7	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
T-8	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
T-9	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
B-1	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
S-1	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
S-2	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
S-3	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

CUSTOMER SAMPLE CODE	LABORATORY SAMPLE CODE	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	OTHER
S-4	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
S-5	91-3584	HSL/AP89	HSL/ASP 89	-	HSL/ASP 89	*	**
S-6	91-3584	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
S-7	91-3608	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
S-8	91-3608	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**
T-10	91-3608	HSL/ASP 89	HSL/ASP 89	-	HSL/ASP 89	*	**

* Total-Al, Cu, Fe, Mg, Ni, Sn, Zn (on sample) and Total-As, Ba, Cd, Cr, Pb, Hg, Se, Ag on EP Tox extract/ASP89
** Total Cyanide and TR-oil and Grease/ASP89

I.D. #91-3584.1

NYSDEC-1

RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE ANALYSIS

LAB NAME RECRA ENVIRONMNENTAL INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
T-1	Soil	12/02/91	12/04/91	NA	12/05/91
T-2	Soil	12/02/91	12/04/91	NA	12/05/91
T-3	Soil	12/02/91	12/04/91	NA	12/05/91
T-4	Soil	12/03/91	12/04/91	NA	12/05/91
T-5	Soil	12/04/91	12/04/91	NA	12/06/91
T-5A	Soil	12/04/91	12/04/91	NA	12/09/91
T-6	Soil	12/04/91	12/04/91	NA	12/06/91
T-7	Soil	12/04/91	12/04/91	NA	12/09/91
T-8	Soil	12/04/91	12/04/91	NA	12/09/91
T-9	Soil	12/04/91	12/04/91	NA	12/06/91
B-1	Soil	12/04/91	12/04/91	NA	12/06/91
S-1	Soil	12/02/91	12/04/91	NA	12/06/91
S-2	Soil	12/02/91	12/04/91	NA	12/06/91
S-3	Soil	12/03/91	12/04/91	NA	12/06/91
S-4	Soil	12/03/91	12/04/91	NA	12/06/91
S-5	Soil	12/04/91	12/04/91	NA	12/06/91
S-6	Soil	12/04/91	12/04/91	NA	12/06/91
S-7	Soil	12/05/91	12/06/91	NA	12/09/91
S-8	Soil	12/05/91	12/06/91	NA	12/09/91
T-10	Soil	12/05/91	12/06/91	NA	12/11/91

I.D. #91-3584.2

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMI-VOLATILE ANALYSIS

LAB NAME RECRA ENVIRONMNENTAL INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
T-1	Soil	12/02/91	12/04/91	12/23/91	01/06/92
T-2	Soil	12/02/91	12/04/91	12/23/91	01/06/92
T-3	Soil	12/02/91	12/04/91	12/23/91	01/06/92
T-4	Soil	12/03/91	12/04/91	12/23/91	01/06/92
T-5	Soil	12/04/91	12/04/91	12/23/91	01/06/92
T-5A	Soil	12/04/91	12/04/91	12/23/91	01/06/92
T-6	Soil	12/04/91	12/04/91	12/23/91	01/06/92
T-7	Soil	12/04/91	12/04/91	12/23/91	01/06/92
T-8	Soil	12/04/91	12/04/91	12/23/91	01/06/92
T-9	Soil	12/04/91	12/04/91	01/07/92	01/09/92
B-1	Soil	12/04/91	12/04/91	12/23/91	01/06/92
S-1	Soil	12/02/91	12/04/91	12/23/91	01/06/92
S-2	Soil	12/02/91	12/04/91	12/23/91	01/06/92
S-3	Soil	12/03/91	12/04/91	12/23/91	01/06/92
S-4	Soil	12/03/91	12/04/91	12/23/91	01/06/92
S-5	Soil	12/04/91	12/04/91	12/23/91	01/06/92
S-6	Soil	12/04/91	12/04/91	12/23/91	01/06/92
S-7	Soil	12/05/91	12/06/91	12/10/91	12/30/91
S-8	Soil	12/05/91	12/06/91	12/10/91	12/30/91
T-10	Soil	12/05/91	12/06/91	12/10/91	12/30/91

I.D. #91-3584.3

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB ANALYSIS

LAB NAME RECRA ENVIRONMENTAL INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
T-1	Soil	12/02/91	12/04/91	12/23/91	01/07/92
T-2	Soil	12/02/91	12/04/91	12/23/91	01/07/92
T-3	Soil	12/02/91	12/04/91	12/23/91	01/07/92
T-4	Soil	12/03/91	12/04/91	12/23/91	01/07/92
T-5	Soil	12/04/91	12/04/91	12/23/91	01/07/92
T-5A	Soil	12/04/91	12/04/91	12/23/91	01/07/92
T-6	Soil	12/04/91	12/04/91	12/23/91	01/07/92
T-7	Soil	12/04/91	12/04/91	12/23/91	01/07/92
T-8	Soil	12/04/91	12/04/91	12/23/91	01/07/92
T-9	Soil	12/04/91	12/04/91	12/23/91	01/07/92
B-1	Soil	12/04/91	12/04/91	12/23/91	01/07/92
S-1	Soil	12/02/91	12/04/91	12/23/91	01/07/92
S-2	Soil	12/02/91	12/04/91	12/23/91	01/07/92
S-3	Soil	12/03/91	12/04/91	12/23/91	01/07/92
S-4	Soil	12/03/91	12/04/91	12/23/91	01/08/92
S-5	Soil	12/04/91	12/04/91	12/23/91	01/08/92
S-6	Soil	12/04/91	12/04/91	12/23/91	01/08/92
S-7	Soil	12/05/91	12/06/91	12/10/91	01/07/92
S-8	Soil	12/05/91	12/06/91	12/10/91	01/07/92
T-10	Soil	12/05/91	12/06/91	12/10/91	01/07/92

RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYTICAL SUMMARY
INORGANIC ANALYSIS

SAMPLE IDENTIFICATION	MATRIX	METALS REQUESTED	DATE RECEIVED AT LAB	DATE DIGESTED	DATE ANALYZED
T-1	Soil	*	12/04/91	12/19/91	12/12-26/91
T-2	Soil	*	12/04/91	12/19/91	12/12-26/91
T-3	Soil	*	12/04/91	12/19/91	12/12-26/91
T-4	Soil	*	12/04/91	12/19/91	12/12-26/91
T-5	Soil	*	12/04/91	12/19/91	12/12-26/91
T-5A	Soil	*	12/04/91	12/19/91	12/12-26/91
T-6	Soil	*	12/04/91	12/19/91	12/12-26/91
T-7	Soil	*	12/04/91	12/19/91	12/12-26/91
T-8	Soil	*	12/04/91	12/19/91	12/12-26/91
T-9	Soil	*	12/04/91	12/19/91	12/12-26/91
B-1	Soil	*	12/04/91	12/19/91	12/12-26/91
S-1	Soil	*	12/04/91	12/19/91	12/12-26/91
S-2	Soil	*	12/04/91	12/19/91	12/12-26/91
S-3	Soil	*	12/04/91	12/19/91	12/12-26/91
S-4	Soil	*	12/04/91	12/19/91	12/12-26/91

1/DEC.5

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSIS

SAMPLE IDENTIFICATION	MATRIX	METALS REQUESTED	DATE RECEIVED AT LAB	DATE DIGESTED	DATE ANALYZED
S-5	Soil	*	12/04/91	12/19/91	12/12-26/91
S-6	Soil	*	12/04/91	12/19/91	12/12-26/91
S-7	Soil	*	12/06/91	12/19/91	12/12-26/91
S-8	Soil	*	12/06/91	12/19/91	12/12-26/91
T-10	Soil	*	12/06/91	12/19/91	12/12-26/91

*Total-Al, Cu, Fe, Mg, Ni, Sn and Zn (on sample)
Total-As, Ba, Cd, Cr, Pb, Hg, Se, Ag, (on EP Tox Extract)

I.D. #91-3584.5

NYSDEC-5

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSIS

LAB NAME RECRA ENVIRONMENTAL INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
T-1	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-2	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-3	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-4	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-5	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-5A	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-6	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-7	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-8	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-9	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
B-1	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-1	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-2	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-3	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-4	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED

1/DEC.6

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSES

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
S-5	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-6	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-7	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-8	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-10	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED

NYSDEC-6

91-3584.6

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSIS

LABORATORY SAMPLE CODE	MATRIX	ANALYTICAL PROTOCOL	DIGESTION PROCEDURE	MATRIX MODIFIER	DIL/CONC FACTOR
T-1	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-2	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-3	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-4	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-5	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-5A	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-6	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-7	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-8	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-9	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
B-1	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-1	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-2	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-3	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-4	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

LABORATORY SAMPLE CODE	MATRIX	ANALYTICAL PROTOCOL	DIGESTION PROCEDURE	MATRIX MODIFIER	DIL/CONC FACTOR
S-5	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-6	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-7	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
S-8	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED
T-10	Soil	ASP89	ASP89	AS REQUIRED	AS REQUIRED

NYSDEC-7

91-3584.7

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

CUSTOMER SAMPLE CODE	LABORATORY SAMPLE CODE	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	OTHER
E-1	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
Equipment Blank-2	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
GW-1	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
GW-2	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
GW-3	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
GW-4	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
GW-5	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
GW-6	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
GW-7	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
GW-8	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
R-1	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
R-2	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
R-3	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
R-4	91-3584	ASP89	ASP89	-	ASP89	ASP89	*
TB-1	91-3584	ASP89	-	-	-	-	-
TB-2	91-3584	ASP89	-	-	-	-	-
TB-3	91-3584	ASP89	-	-	-	-	-
VHB-1	91-3584	ASP89	-	-	-	-	-
VHB-2	91-3584	ASP89	-	-	-	-	-
VHB-3	91-3584	ASP89	-	-	-	-	-

*TOTAL RECOVERABLE OIL AND GREASE/ASP89
I.D. # 91-3584.1

NYSDEC-1

RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE ANALYSIS

LAB NAME RECRA ENVIRONMNENTAL INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
E-1	AQUEOUS	12/3/91	12/4/91	NA	12/6/91
EQUIPMENT BLANK - 2	AQUEOUS	12/6/91	12/6/91	NA	12/10/91
GW-1	AQUEOUS	12/6/91	12/6/91	NA	12/10/91
GW-2	AQUEOUS	12/6/91	12/6/91	NA	12/10/91
GW-3	AQUEOUS	12/7/91	12/7/91	NA	12/10/91
GW-4	AQUEOUS	12/7/91	12/7/91	NA	12/10/91
GW-5	AQUEOUS	12/6/91	12/6/91	NA	12/10/91
GW-6	AQUEOUS	12/6/91	12/6/91	NA	12/10/91
GW-7	AQUEOUS	12/7/91	12/9/91	NA	12/10/91
GW-8	AQUEOUS	12/7/91	12/9/91	NA	12/10/91
R-1	AQUEOUS	12/3/91	12/4/91	NA	12/6/91
R-2	AQUEOUS	12/3/91	12/4/91	NA	12/6/91
R-3	AQUEOUS	12/3/91	12/4/91	NA	12/6/91
R-4	AQUEOUS	12/3/91	12/4/91	NA	12/6/91
TB-1	AQUEOUS	12/4/91	12/4/91	NA	12/6/91
TB-2	AQUEOUS	-	12/6/91	NA	12/10/91
TB-3	AQUEOUS	12/7/91	12/9/91	NA	12/10/91
VHB-1	AQUEOUS	12/9/91	12/9/91	NA	12/10/91
VHB-2	AQUEOUS	12/9/91	12/9/91	NA	12/10/91
VHB-3	AQUEOUS	12/5/91	12/5/91	NA	12/6/91

ID #91-3584.2

NEW YORK STATE
DEPARTMENT OF ENVIROMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B\N-A ANALYSIS

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	REC. AT LAB	DATE EXTRACTED	DATE ANAL-YZED
E-1	AQUEOUS	12/3/91	12/4/91	12/9/91	12/16/91
EQUIPMENT BLANK - 2	AQUEOUS	12/6/91	12/6/91	12/10/91	12/17/91
GW-1	AQUEOUS	12/6/91	12/6/91	12/20/91	12/30/91
GW-2	AQUEOUS	12/6/91	12/6/91	12/10/91	12/17/91
GW-3	AQUEOUS	12/7/91	12/7/91	12/11/91	12/16/91
GW-4	AQUEOUS	12/7/91	12/7/91	12/11/91	12/16/91
GW-5	AQUEOUS	12/6/91	12/6/91	12/10/91	12/17/91
GW-6	AQUEOUS	12/6/91	12/6/91	12/20/91	12/30/91
GW-7	AQUEOUS	12/7/91	12/9/91	12/11/91	12/16/91
GW-8	AQUEOUS	12/7/91	12/9/91	12/11/91	12/16/91
R-1	AQUEOUS	12/3/91	12/4/91	12/9/91	12/11/91
R-2	AQUEOUS	12/3/91	12/4/91	12/9/91	12/11/91
R-3	AQUEOUS	12/3/91	12/4/91	12/9/91	12/11/91
R-4	AQUEOUS	12/3/91	12/4/91	12/9/91	12/11/91

ID #91-3584.3

NYDEC-3

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB ANALYSIS

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE REC AT LAB	DATE EXTRACTED	DATE ANAL-YZED
E-1	AQUEOUS	12/3/91	12/4/91	12/9/91	12/13/91
EQUIPMENT BLANK - 2	AQUEOUS	12/6/91	12/6/91	12/11/91	12/13/91
GW-1	AQUEOUS	12/6/91	12/6/91	12/11/91	12/13/91
GW-2	AQUEOUS	12/6/91	12/6/91	12/11/91	12/13/91
GW-3	AQUEOUS	12/7/91	12/7/91	12/11/91	12/13/91
GW-4	AQUEOUS	12/7/91	12/7/91	12/11/91	12/13/91
GW-5	AQUEOUS	12/6/91	12/6/91	12/11/91	12/13/91
GW-6	AQUEOUS	12/6/91	12/6/91	12/11/91	12/13/91
GW-7	AQUEOUS	12/7/91	12/9/91	12/11/91	12/13/91
GW-8	AQUEOUS	12/7/91	12/9/91	12/11/91	12/13/91
R-1	AQUEOUS	12/3/91	12/4/91	12/9/91	12/13/91
R-2	AQUEOUS	12/3/91	12/4/91	12/9/91	12/13/91
R-3	AQUEOUS	12/3/91	12/4/91	12/9/91	12/13/91
R-4	AQUEOUS	12/3/91	12/4/91	12/9/91	12/13/91

ID #91-3584.4

NYSDEC-4

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

SAMPLE IDENTIFICATION	MATRIX	METALS REQUESTED	DATE RECEIVED AT LAB	DATE DIGESTED	DATE ANALY-ZED
E-1	AQUEOUS	*	12/4/91	12/12/91	12/16/91
EQUIPMENT BLANK - 2	AQUEOUS	*	12/6/91	12/12/91	12/16/91
GW-1	AQUEOUS	*	12/6/91	12/12/91	12/16/91
GW-2	AQUEOUS	*	12/6/91	12/12/91	12/16/91
GW-3	AQUEOUS	*	12/7/91	12/12/91	12/16/91
GW-4	AQUEOUS	*	12/7/91	12/12/91	12/16/91
GW-5	AQUEOUS	*	12/6/91	12/12/91	12/16/91
GW-6	AQUEOUS	*	12/6/91	12/12/91	12/16/91
GW-7	AQUEOUS	*	12/9/91	12/12/91	12/16/91
GW-8	AQUEOUS	*	12/9/91	12/12/91	12/16/91
R-1	AQUEOUS	*	12/4/91	12/12/91	12/16/91
R-2	AQUEOUS	*	12/4/91	12/12/91	12/16/91
R-3	AQUEOUS	*	12/4/91	12/12/91	12/16/91
R-4	AQUEOUS	*	12/4/91	12/12/91	12/16/91

*Total Aluminum, Copper, Iron, Magnesium, Nickel, Tin, Zinc, Cyanide

ID #91-3584.5

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSIS

LAB NAME RECRA ENVIRONMENTAL INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
E-1	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
EQUIPMENT BLANK - 2	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
GW-1	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
GW-2	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
GW-3	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
GW-4	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
GW-5	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
GW-6	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
GW-7	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
GW-8	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
R-1	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
R-2	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
R-3	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED
R-4	AQUEOUS	ASP 89	ASP89	AS REQUIRED	AS REQUIRED

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYTICAL SUMMARY
INORGANIC ANALYSIS

SAMPLE IDENTIFICATION	MATRIX	METALS REQUESTED	DATE RECEIVED AT LAB	DATE DIGESTED	DATE ANALYZED
R-1	WATER	*	12/4/91	1/8/92	1/9-14/92
R-2	WATER	*	12/4/91	1/8/92	1/9-14/92
R-3	WATER	*	12/4/91	1/8/92	1/9-14/92
R-4	WATER	*	12/4/91	1/8/92	1/9-14/92
E-1	WATER	*	12/4/91	1/8/92	1/9-14/92
GW-1	WATER	**	12/4/91	1/8/92	1/9-14/92
GW-2	WATER	*	12/6/91	1/8/92	1/9-14/92
GW-3	WATER	*	12/7/91	1/8/92	1/9-14/92
GW-4	WATER	*	12/7/91	1/8/92	1/9-14/92
GW-5	WATER	*	12/6/91	1/8/92	1/9-14/92
GW-6	WATER	*	12/6/91	1/8/92	1/9-14/92
GW-7	WATER	*	12/7/91	1/8/92	1/9-14/92
GW-8	WATER	*	12/7/91	1/8/92	1/9-14/92
EQUIP BLANK	WATER	*	12/6/91	1/8/92	1/9-14/92

* Total As, Ba, Cd, Cr, Pb, Hg, Se, Ag
**Total Ba, Cd, Cr, Ag

I.D. #92-0068.2

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSIS

LABORATORY SAMPLE CODE	MATRIX	ANALYTICAL PROTOCOL	DIGESTION PROCEDURE	MATRIX MODIFIER	DIL/CONC FACTOR
R-1	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
R-2	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
R-3	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
R-4	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
E-1	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
GW-1	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
GW-2	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
GW-3	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
GW-4	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
GW-5	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
GW-6	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
GW-7	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
GW-8	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED
EQUIP BLANK	WATER	ASP-89	ASP-89	AS REQUIRED	AS REQUIRED

CASE NARRATIVES

RECRA ENVIRONMENTAL, INC.
Chemical and Environmental Analysis Services

World University Games Buffalo '93
GRAND PATRON
HELPING TO BRING THE WORLD TO BUFFALO

January 23, 1992

Mr. John Gratz
ODNY Incorporated
P.O.Box 54
Hamburg, New York 14075

RE: Analytical Results

Dear Mr. Gratz:

Please find enclosed results concerning the analyses of the samples recently submitted by your firm. Preliminary results were given to ODNY,Incorporated personnel on December 26, 1991, January 9, 16, 17, 1992. The pertinent information regarding these analyses is listed below.

Quote #: NY91-959
SDG #: B-1
Case #: 3857
Project Name: Genesee County
Matrix: Soil
Samples Received: 12/4,6/91
Sample Dates: 12/2,3,4,5/91

If you have any questions concerning these data, please contact Ms. Candace Steady, Project Manager at (716) 691-2600 and refer to the I.D. number listed below. It has been our pleasure to provide ODNY, Incorporated with Environmental Testing Services. We look forward to serving you in the future.

Sincerely,

RECRA ENVIRONMENTAL, INC.

Kenneth C. Malinowski /KPK

Kenneth C. Malinowski, PhD
Vice President

MKA/KCM/edl
Enclosure
cc: Ms. Andrea P. Schuessler
Chemworld Environmental, Inc.
4500 Avamere Street
Bethesda, MD 20814

I.D. #91-3584
#91-3608
NY2A3857

CASE NARRATIVE

Laboratory Name: Recra Environmental, Inc.

Laboratory Code: RECNY

Case Number: 3857

SDG #: B-1

Contract Number: NY91-959

Sample Identifications:

T-1
T-1 Matrix Spike
T-1 Matrix Spike Duplicate
T-1 Matrix Duplicate
T-2
T-3
T-4
T-5
T-5A
T-6
T-7
T-8
T-9
B-1
S-1
S-2
S-3
S-4
S-5
S-6
S-7
S-8
T-10

METHODOLOGY

Analyses were performed in accordance with New York State 1989 Analytical Services Protocol.

COMMENTS

Comments pertain to data on one or all pages of this report.

Results are reported utilizing standard USEPA qualifiers (Q) as defined on the Organic and Inorganic Data Comment Pages.

Results of the analyses of soil samples have been corrected for moisture content and are reported on a dry weight basis when the percent dry is greater than or equal to fifty percent.

Preliminary results were sent via facsimile to Mr. John Gratz of ODNY, Incorporated by Ms. Candace Steady of Recra Environmental, Inc. as listed below:

Volatiles-December 26, 1991; Metals-January 9, 1992; Oil and Grease-January 16, 1992; Semivolatiles-January 17, 1992.

VOLATILE DATA

Volatile sample and standard areas are listed n the corresponding data system printouts.

Volatile data was processed utilizing Finnigan Autoquantitation and QA Formaster software. All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. Unedited quantitation reports have been submitted in this data package.

Samples T-2 and T-9 exhibited noncompliant recoveries for Surrogate Toluene-d8, and Internal Standard Chlorobenzene; the reanalyses exhibited the same behavior indicating matrix interference.

Samples T-1 Matrix Spike and T-1 Matrix Spike Duplicate exhibited noncompliant recoveries for Surrogate Toluene-d8. Samples T-1 and T-1 Matrix Spike Duplicate also exhibited noncompliant recoveries for Internal Standard Chlorobenzene. This behavior indicates matrix interference.

Sample T-5 was initially analyzed at medium level extraction due to matrix interference and the high concentration of the Tentatively Identified Compounds (TIC's).

Sample T-10 was initially analyzed at a dilution factor of five (5) due to matrix interference and the high concentration of TCL compound Total Xylenes.

Differences in detected compounds between the following related samples have been reviewed by the organic laboratory manager and verified to be as presented in this data package:

T-1, T-1 MS, T-1 MSD
T-2, T-2 RE
T-9, T-9 RE

In some cases clear spectra were not obtainable for some compounds due to matrix interference.

SEMIVOLATILE DATA

Semivolatile sample and standard areas are listed on the corresponding data system printouts.

Semivolatile data was processed utilizing Finnigan Autoquantitation and QA Formaster software. All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. Unedited quantitation reports have been submitted in this data package.

Chromatographically 3-Methylphenol and 4-Methylphenol coelute.

Tentatively Identified Compound (TIC) Polynuclear Aromatic Hydrocarbon is abbreviated as PAH due to computer software limitations.

In several cases clean sample spectra was not obtainable due to sample matrix interference.

Sample T-10 exhibited noncompliant recoveries for Internal Standard Acenaphthene-d10, Phenanthrene-d10 and Chrysene-d12. The reanlysis, T10 RE, exhibited the same behavior indicating matrix interference.

The Matrix Spike Blank exhibited noncompliant recoveries for six laboratory spiking compounds utilizing the advisory quality control for the MSB (75%-125%). However, the recoveries all fall within normal regulatory limits.

The following samples were originally extracted within holding time limitations; however, due to a laboratory oversight, the method blank was not spiked with any of the Surrogates. The samples were, therefore, re-extracted outside holding time limitations:

T-1, T-1MS, T-1MSD, T-2, T-3, T-4, T-5
T-5A, T-6, T-7, T-8, T-9, B-1, S-1, S-2
S-3, S-4, S-5, S-6, MSB

PESTICIDE/PCB DATA

Samples received on December 12, 1991 were originally extracted within holding time limitations. The samples required re-extraction and reanalyses as a result of the low Surrogate recovery in the associated Method Blank. The re-extractions were performed outside of holding time limitations.

Sample chromatograms contained many low peaks which were confirmed by second column, however, they were not quantified when the concentration was significantly below the CRQL.

Sample T-9 exhibited recovery for Surrogate Dibutylchlorendate which fell below advisory quality control limits.

Samples T-1 Matrix Spike and T-1 Matrix Spike Duplicate exhibited noncompliant recoveries for laboratory spiking compound Heptachlor, indicating matrix interference.

The Matrix Spike Blank recovery for laboratory spiking compound Heptachlor fell outside advisory quality control limits for an MSB (75%-125%). However, the recovery does fall within normal regulatory limits.

INORGANIC DATA

The extra ZZZZZ's found on the form 14's of the Flame Inorganic data represent the rezeroing of the instrument after each sample.

The EP Toxicity Test Extracts of samples T-1, T-1 Matrix Spike and T-1 Matrix Spike Duplicate were digested using an aliquot of 100 ML due to insufficient sample volume.

"Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or her designee, as verified by the following signature."

Kenneth C. Malinowski /KPK

Kenneth C. Malinowski

1/23/92

Date

RECRA ENVIRONMENTAL, INC.

Chemical and Environmental Analysis Services

January 15, 1992

Mr. John Gratz
ODNY Incorporated
P.O. Box 54
Hamburg, NY 14075

RE: Analytical Results

Dear Mr. Gratz:

Please find enclosed results concerning the analyses of the samples recently submitted by your firm. The Pertinent Information regarding these analyses is listed below.

Quote #: NY91-959
Case #: 3857
SDG #: R-1
Project Name: Genesee County
Matrix: Aqueous
Samples Received: 12/4,7,9/91
Sample Date: 12/2,3,4,6,7,9/91

If you have any questions concerning these data, please contact Ms. Candace Steady, at (716) 691-2600 and refer to the I.D. number listed below. It has been our pleasure to provide ODNY Incorporated with Environmental Testing Services. We look forward to serving you in the future.

Sincerely,

RECRA ENVIRONMENTAL, INC.

Kenneth C. Malinowski, PhD
Vice President

KLWW/KCM/nmm
Enclosure
cc: Ms. Andrea P. Schuessler
Chemworld Environmental, Inc.
4500 Avamere Street
Bethesda, MD 20814

I.D. #91-3584A
#91-3608A
#91-3621
#NY2A3857

CASE NARRATIVE

Laboratory Name: Recra Environmental, Inc.

Laboratory Code: RECNY

Case Number: 3857

SDG Number : R-1

Contract Number: NY91-959

Sample Identification:

E-1	R-1
Equipment Blank 2	R-2
GW-1	R-3
GW-2	R-4
GW-3	TB-1
GW-4	TB-2
GW-5	TB-3
GW-6	VHB-1
GW-7	VHB-2
GW-8	VHB-3

METHODOLOGY

Analyses were performed in accordance with New York State 1989 Analytical Services protocol.

COMMENTS

Comments pertain to data on one or all pages of this report.

Partial preliminary results were sent via facsimile to Mr. John Gratz of ODNY Incorporation on 12/26/91;1/3/92 and 1/6/92 by Ms. Candace Steady of Recra Environmental, Inc.

Results have been reported utilizing standard qualifiers (Q) as defined on the Organic and Inorganic Data Comment Pages.

Sample identifications have been abbreviated due to computer software limitations.

Volatile Data

Volatile sample and standard areas are listed on the corresponding data system printouts.

Volatile data was processed utilizing Finnigan Autoquantitation and QA Formaster software. All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. Unedited quantitation reports have been submitted with this data package.

Sample GW-2 required reanalysis (GW-2DL) at a dilution factor of five (5.0) due to the high concentration of TCL compound 1,2-Dichloroethene (total). Samples GW-2 Matrix Spike and GW-2 Matrix Spike Duplicate were also analyzed at a dilution (GW-2MSDL and GW-2MSDDL).

Semivolatile Data

Semivolatile sample and standard areas are listed on the corresponding data system printouts.

Semivolatile data was processed utilizing Finnigan Autoquantitation and QA Formaster software. All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. Unedited quantitation reports have been submitted with this data package.

Samples GW-1 and GW-6 were extracted outside extraction hold time.

Sample GW-1 exhibited a non-compliant recovery for Surrogate 2-Fluorobiphenyl.

Sample Matrix Spike Blank exhibited non-compliant recoveries for Laboratory Spiking Compounds Phenol, 4-Nitrophenol and Pentachlorophenol.

Samples GW-2 Matrix Spike Duplicate exhibited non-compliant recoveries for Laboratory Spiking Compounds 1,2,4-Trichlorobenzene and Pentachlorophenol. Samples GW-2 Matrix Spike and GW-2 Matrix Spike Duplicate exhibited non-compliant percent RPD's for Laboratory Spiking Compounds 2-Chlorophenol and Pentachlorophenol.

INORGANIC COMMENTS

The extra zzzzz's found on the form 14's of the flame Inorganic Data represent the rezeroing of the instrument after each sample

"Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or her designee, as verified by the following signature."

Kenneth C. Malinowski /KCM

Kenneth C. Malinowski

1/15/92

Date

RECRA ENVIRONMENTAL INC.

RECRA ENVIRONMENTAL, INC.

Chemical and Environmental Analysis Services

World University Games Buffalo '93
GRAND PATRON
HELPING TO BRING THE WORLD TO BUFFALO

January 17, 1992

Mr. John Gratz
ODNY Incorporated
P.O. Box 54
Hamburg, New York 14075

RE: Analytical Results

Dear Mr. Gratz:

Please find enclosed results concerning the analyses of the samples recently submitted by your firm. Preliminary results were sent via facsimile to ODNY Incorporated personnel on January 16, 1992. The Pertinent Information regarding these analyses is listed below.

Quote #:	NY91-959
Project Name:	Genesee County
Matrix:	Aqueous
Samples Received:	12/4,6,7/91
Sample Dates:	12/3,6,7/91

If you have any questions concerning these data, please contact Ms. Candace Steady, Project Manager at (716) 691-2600 and refer to the I.D. number listed below. It has been our pleasure to provide ODNY Incorporated with Environmental Testing Services. We look forward to serving you in the future.

Sincerely,

RECRA ENVIRONMENTAL, INC.

Kenneth C. Malinowski, PhD
Vice President

MKA/KCM/lla
Enclosure

I.D. # 92-0068
92-0068A
NY2A3857

Audubon Business Centre • 10 Hazelwood Drive • Amherst, New York 14228-2298 • (716) 691-2600 • FAX (716) 691-3011

CASE NARRATIVE

Lab Name: Recra Environmental, Inc.

Lab Code: RECNY

Case # : 3857

Contract Number: NY91-959

Sample Identification:

R-1
R-2
R-3
R-4
E-1
GW-1
GW-2
GW-2 MATRIX SPIKE
GW-2 MATRIX DUPLICATE
GW-3
GW-4
GW-5
GW-6
GW-7
GW-8
Equipment Blank

METHODOLOGY

Analyses were performed in accordance with New York State 1989 Analytical Services Protocol.

COMMENTS

Comments pertain to data on one or all pages of this report.

Results are reported utilizing standard qualifiers (Q) as defined on the Inorganic Data Comment Page.

Due to limited sample volume, sample GW-1 could only be analyzed for four elements; Barium, Cadmium, Chromium, and Silver. This course of action was approved by ODNY Incorporated on January 9, 1992.

Preliminary results were sent via facsimile to Mr. John Gratz of ODNY Incorporated on January 16, 1992 by Ms Candace Steady of Recra Environmental Inc.

INORGANIC DATA

Mercury analyses were performed outside holding time.

The Preparation Blank (digestion number 2657) was noncompliant for Chromium when analyzed by ICP(Inductively Coupled Plasma) technique. The same Blank was compliant when analyzed by Flame Atomic Absorption technique. The Flame results are presented in this data package.

The extra ZZZZZ's found on the form 14's of the Flame Inorganic Data represent the rezeroing of the instrument after each sample.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or her designee, as verified by the following signature."

Kenneth C. Malinowski, PhD
Vice President

1/20/92
Date

CHAIN - OF - CUSTODY FORMS

3 COOLERS

RECRA ENVIRONMENTAL, INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.: 91-034

SITE NAME: GENESEE COUNTY

SAMPLERS (SIGNATURE): Barbara J. Kline

STATION NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CON-TAINERS	VOC's - no pres.	Semi-VOC's - no pres.	Pest's + PCB's - no pres.	O+G (T) - H_2SO_4	Metals - HNO_3	CN (T) - NaOH	REMARKS
													All samples preserved on ice
R-1	12/3	9:35		✓	Upgradient Surface Water	8	2	2	1	1	1	1	Water sample
R-2	12/3	12:10		✓	Downgradient Surface Water	8	2	2	1	1	1	1	Water sample
R-3	12/3	11:00		✓	Downgradient Surface Water	8	2	2	1	1	1	1	Water sample
R-4	12/3	12:50		✓	Downgradient Surface Water	8	2	2	1	1	1	1	Water sample
E-1	12/4	10:05		✓	Eqpt. Blank	8	2	2	1	1	1	1	Water sample
TB-1	—	—	—	—	Trip Blank #1	2	2	0	0	0	0	0	Water

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Barbara J. Kline	12/4/91	19:00	Kathryn Moline	Kathryn Moline	12/4/91	20:21	
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	REMARKS	
			Donna A. Jarvis	12/4/91	2021		

Distribution: Original accompanies shipment; copy to coordinator's file

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3 COOLERS

Sheet 1 of 2

RECRA ENVIRONMENTAL, INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.: 91-034

SITE NAME: GENESEE COUNTY

SAMPLERS (SIGNATURE): Barbara J. Kline / Kathryn McClure

STATION NO	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC's - ng pres.	Semi-VOC's - no pres	Pest's & PCB's - no pres	Org-(T) - H_2SO_4	Metals - HNO_3	CN(T) - NaOH	REMARKS
													All samples preserved on ice
GW-1	12/6	12:35		✓	Monitoring Well #1	8	2	2	1	1	1	1	Water Sample
GW-2	12/6	17:00		✓	Monitoring Well #2	8	2	2	1	1	1	1	Water Sample
GW-5	12/6	15:05		✓	Monitoring Well #5	8	2	2	1	1	1	1	Water Sample
GW-6	12/6	17:55		✓	Monitoring Well #6	8	2	2	1	1	1	1	Water Sample
E-2	12/6	16:10		✓	Eqpt. Blank #2	8	2	2	1	1	1	1	Water Sample
TB-2	—	—	—	—	Trip Blank #2	2	2	0	0	0	0	0	Water Sample
GW-2MS	12/6	17:00		✓	M.W. #2 - Matrix Spike	8	2	2	1	1	1	1	Water Sample
GW-2MSD	12/6	17:00		✓	M.W #2 - Matrix Spike Duplicate	8	2	2	1	1	1	1	Water Sample

RELINQUISHED BY (SIGNATURE)	DATE TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE) Kathryn McClure	DATE TIME 12/6/91 21:00	RECEIVED FOR LABORATORY BY (SIGNATURE) Debra A Powell	DATE TIME 12/6/91 2100	REMARKS	

Distribution: Original accompanies shipment; copy to coordinator; field copy

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2
COOLERS

RECRA ENVIRONMENTAL, INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.: 91-034

SITE NAME: GENESEE COUNTY

SAMPLERS (SIGNATURE): Barbara F. Klein

STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC's - no pres.	Semi-VOC's - no pres.	Pest & PCB's - no pres.	O+G (Hg) - H_2SO_4	Metals - HNO_3	CN (Hg) - NaOH	REMARKS
													All Samples Preserved on Ice
GW-3	12/7	16:40		✓	Monitoring Well #3	8	2	2	1	1	1	1	Water Sample
GW-4	12/7	16:47		✓	Monitoring Well #4	8	2	2	1	1	1	1	Water Sample
GW-7	12/7	13:10		✓	Monitoring Well #7	8	2	2	1	1	1	1	Water Sample
GW-8	12/7	15:40		✓	Monitoring Well #8	8	2	2	1	1	1	1	Water Sample
TB-3	—	—	—	—	Trip Blank	2	2	0	0	0	0	0	Water Sample

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Barbara F. Klein	12/9/91	10:35	
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)

DATE TIME: 12-9-91 | 1040

REMARKS:

Distribution: Original accompanies shipment; copy to Coordinator, Field Files

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3
COOLERS

Sheet 2 of 2

RECRA ENVIRONMENTAL, INC.

CHAIN OF CUSTODY RECORD

PROJECT NO: 91-034

SITE NAME: GENESEE COUNTY

SAMPLERS (SIGNATURE): Kathleen McClure

STATION NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	VOC's	Semi-VOC's	Pest's + PCB's	D+C (T)	CN (T)	Metals (Al, Cu, Fe, Mg, Ni, Sb, Zn) - EP TOX Metals (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)	REMARKS
S-7	12/5	11:25		✓	Monitoring Well #7	2	1				1			Soil Sample
S-8	12/5	13:55		✓	Monitoring Well #8	2	1				1			Soil Sample
T-10	12/5	12:55		✓	Trench #4	2	1				1			Soil Sample

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Kathleen McClure	12/6/91	21:00					
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	REMARKS	
			David Howard	12/6/91	2103		

Distribution: Original accompanies shipment; copy to coordinator; [illegible]

FIG 3

3 COOLERS

RECRA ENVIRONMENTAL, INC.

CHAIN OF CUSTODY RECORD

PROJECT NO.: 91-034

SITE NAME: GENESEE COUNTY

SAMPLERS (SIGNATURE): Kathryn Mulva

STATION NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	VOC's	Semi-VOC's	Pest's + PCB's	O+G (T)	CN (T)	Metals (Al, Ca, Fe, Mg, Mn, Na, Zn)	Metals - EP TOX (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)	REMARKS
T-1	12/2	13:00		✓	Trench #1	2	1				1			Soil Sample
T-2	12/2	13:00		✓	Trench #2	2	1				1			Soil Sample
T-3	12/2	15:55		✓	Trench #3	2	1				1			Soil Sample
T-4	12/3	15:35		✓	Trench #4	2	1				1			Soil Sample
T-5	12/4	15:25		✓	Trench #5	2	1				1			Soil Sample
T-5a	12/4	10:10		✓	Trench #5a	2	1				1			Soil Sample
T-6	12/4	15:35		✓	Trench #6	2	1				1			Soil Sample
T-7	12/4	15:45		✓	Trench #7	2	1				1			Soil Sample
T-8	12/4	16:10		✓	Trench #8	2	1				1			Soil Sample
T-9	12/4	16:15		✓	Trench #9	3	1				2			Soil Sample
B-1	12/4	12:45		✓	Background	2	1				1			Soil Sample

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Kathryn Mulva	12/4/91	20:21					
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	REMARKS	
				12/4/91	2021		

Distribution: Original accompanies shipment; copy to coordinator, data base

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RECRA ENVIRONMENTAL, INC.

Sheet 3 of 3

3
COOL

CHAIN OF CUSTODY RECORD

PROJECT NO.: 91-034

SITE NAME: GENESEE COUNTY

SAMPLERS (SIGNATURE): Kathryn Thelen

STATION NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC's	Semi-VOCs	Pest's + PCB's	O+G (IR)	CN (IR)	Metals (Al, Ca, Fe, Mg, Na, Sb)	Metals - EP TOX (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)	REMARKS
S-1	12/2	11:35		✓	Monitoring Well #1	2	1				1			Soil Sample
S-2	12/2	14:45		✓	Monitoring Well #2	2	1				1			Soil Sample
S-3	12/3	11:05		✓	Monitoring Well #3	2	1				1			Soil Sample
S-4	12/3	14:40		✓	Monitoring Well #4	2	1				1			Soil Sample
S-5	12/4	10:40		✓	Monitoring Well #5	2	1				1			Soil Sample
S-6	12/4	14:00		✓	Monitoring Well #6	2	1				1			Soil Sample
														Soil Sample

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Kathryn Thelen	12/4/91	2012	
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)
			Chris Rhodes

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
DATE TIME	REMARKS		
12/4/91 2021			

Distribution: Original accompanies shipment; copy to coordinator, white