O'BRIEN & GERE

Transmittal

P O Box 4873 / 1304 Buckley Road / Syracuse, New York 13221 / 315 451-4700

To: Mr. Bruce L. Clifford
City Manager
Memorial City Hall
24 South Street
Auburn, New York 13021

Date: 10-30-89

File: 178.024.230

Re: City of Auburn Landfill

Gentlemen: We are sending you __X__ herewith _____ under separate cover

_____ drawings __X__ descriptive literature _____ letters

Quan.	Identifying Number	Title	Action*
1		Surface Seal Repairs to Monitoring Wells	I

OCT 24

*Action lettercode: **R**-reviewed **N**-reviewed and noted **I**-for your information
S-resubmit **J**-rejected **Y**-for your approval

Remarks: Per your conversation with Bill Jones on Friday, October 27, 1989, enclosed please find a sketch of the surface seal repairs to monitoring wells.

If material received is not as listed, please notify us at once

cc.

Very truly yours,
O'Brien & Gere Engineers, Inc.

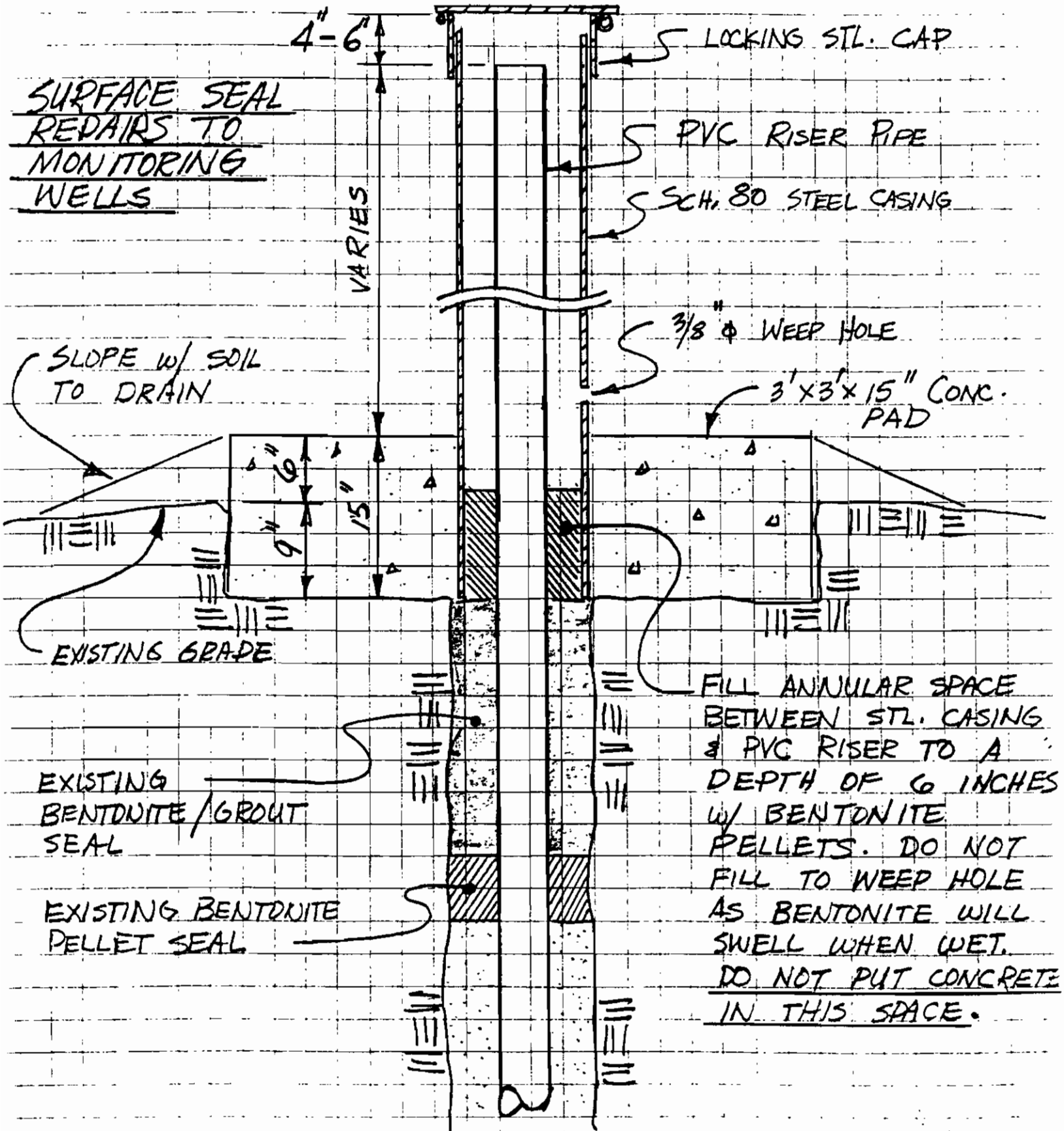
John Strepelis

John Strepelis
Design Engineer

O'BRIEN & GERE

SUBJECT	SHEET	BY	DATE	JOB NO
CITY OF AUBURN LANDFILL		WRJ	10/28/89	178.024.230

SURFACE SEAL REPAIRS TO MONITORING WELLS



REPORT

INTERIM CLOSURE MEASURES PLAN (ICMP)

CITY OF AUBURN LANDFILL NO. 1

PREPARED FOR:

CITY OF AUBURN
CAYUGA COUNTY, NEW YORK

SEPTEMBER 1989

O'BRIEN & GERE ENGINEERS, INC.
1304 BUCKLEY ROAD
SYRACUSE, NEW YORK 13221

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SECTION 1 - INTRODUCTION

1.01 Background

The City of Auburn has operated its municipal landfill since 1956 on a 75-acre site in the northwest corner of the City at the intersection of North Division and York Streets. The landfill has accepted residential, commercial, and light industrial wastes from within the City and ten neighboring towns as well as limited quantities of waste material from several sources outside Cayuga County.

During the history of landfill operations, approximately 9,000 tons of baghouse dust was deposited in the landfill. Due to the presence of cadmium and chromium in this material, the site was listed as a hazardous waste site by the New York State Department of Environmental Conservation with a classification of 2a. Monitoring of groundwater and surface water has not shown these materials to be migrating from the landfill. The site is currently being considered for delisting to classification 3.

On May 6, 1985, the City of Auburn entered into a Consent Order with the State of New York Department of Environmental Conservation (NYSDEC) for the closure of the landfill. Subsequent to the signing of the Consent Order the City evaluated available long term disposal options and determined that landfilling, in conjunction with a program for waste reduction and recycling, still provided the most cost effective method of managing solid waste. Since then the City has been working toward developing a new landfill that will provide for environmentally sound disposal of nonrecyclable and nonreusable materials after the existing landfill is closed.

The City of Auburn entered into a revised Consent Order with the NYSDEC with an effective date of July 27, 1989 for closure of the existing Landfill No. 1 and the construction of the new Landfill No. 2. As part of the requirements of the revised Consent Order, an Interim Closure Measures Plan (ICMP) for the existing Landfill No. 1 must be prepared and submitted to the NYSDEC for its review and approval within 45 days of the effective date of the order.

1.02 Purpose and Scope

This Interim Closure Measures Plan (ICMP) identifies closure measures which can be implemented in whole or in part before implementation of the approved closure plan, and establishes a schedule for their implementation. This report is not intended to constitute a thorough site investigation or a final closure plan. Detailed site investigations will be completed in accordance with an approved Site Investigation Plan for Closure (SIPC), which is currently being developed. The results of the site investigations will be presented in a Closure Investigation Report (CIR). Based on the approved conclusions of the CIR, a final Closure Plan (CP) will be developed and submitted to the Department for review and approval, and subsequent implementation.

The ICMP also evaluates, based on available existing information, threats to human health or the environment, and sets forth interim measures which can remove or minimize such threats before implementation of the approved closure plan.

To aid the development of the ICMP and support the recommendation contained herein, a walkover of the site was conducted on Monday, August 7, 1989 by O'Brien & Gere staff. The intent of the walkover was to identify noncompliant areas and to develop

a preliminary understanding of the long term concerns and measures to be addressed in the subsequent Site Investigation Plan for Closure (SIPC). Based on the observations made during the walkover, prior discussions with Department staff, and review of existing data and information regarding the operation of the landfill, the following items were identified as needing to be addressed in this ICMP:

- Definition of fill areas to be active through November 30, 1990;
- Delineation of areas where waste will not be placed within thirty days and, as such, require the application of intermediate cover;
- Delineation of areas which may be final capped prior to November 30, 1990;
- Extension of the existing leachate collection system;
- Repair of existing monitoring wells;
- Relocation of monitoring wells in close proximity to the cap that may be jeopardized during closure activities;
- Development and implementation of a long term monitoring program in accordance with 6 NYCRR Part 360, and;
- Identification of potential health threats if any, based on review of existing data, and the walkover observations at the landfill.

SECTION 2 - IMPACT ASSESSMENT

2.01 General

An assessment was made, based on available existing information and observations at the site, of the potential impacts the existing landfill facility may have on human health and the environment and to identify any measures necessary at the landfill to monitor, control, remediate, and protect against such impacts prior to implementation of an approved closure plan. This assessment considered potential impacts on groundwater and surface water quality, as well as the potential impacts of the landfill operation resulting from the presence of landfill gas and vectors and the generation of noise, odors, and dust.

Based on the results of this assessment, it is concluded that the landfill does not pose an imminent threat to human health. Although the landfill has some influence on the environment, this influence is not considered to be so significant that immediate closure of the landfill is required. The implementation of certain interim closure measures and the eventual closure in November, 1990 will further reduce potential impacts of the landfill. The reasons for this conclusion are as follows.

2.02 Groundwater Quality

The groundwater monitoring program for the existing landfill has included the monitoring of one upgradient well cluster (MW-4A & 4B), one upgradient well (MW-1), two downgradient wells (MW-2 & 3), and three downgradient well clusters (MW-5A, 5B, 6A, 6B, 7A, & 7B). A compilation of all known water quality data from these wells is

contained in Appendix A. Refer to Figure 1 for the locations of the groundwater monitoring points.

It should be noted that water quality data has also been collected from 15 additional monitoring wells and three water level observation monitoring wells located north of the existing landfill. These data were collected in connection with the development of the new landfill and have not been included in this report.

Groundwater monitoring data for the period from October 1986 to the present were reviewed to assess the landfill's potential impact. Review of the data, summarized in Appendix A, indicates that, while there are occasional occurrences of elevated levels of some indicator parameters and volatile organics, no trends were observed that indicated increases in those parameters over time. Specifically, iron, manganese, and phenols were observed occasionally in samples from the monitoring wells in concentrations greater than those published in the New York State groundwater quality standards (6 NYCRR Part 703.5). Also, some volatile organics were observed on occasion in some of the wells. In some cases wide ranges of values are recorded for individual wells which may be reflective of sampling or laboratory procedures used. For instances where only one or two data points exist for each well, additional data is needed before reasonable conclusions can be developed. Section 3.07 - Environmental Monitoring has been developed to address these concerns.

Groundwater is not used for drinking purposes in this area; municipal water supply is available to residences and businesses in the vicinity of the landfill. Based on information provided by the City, it is understood that there are no residential water supply wells within a one mile radius of the landfill other than about a half dozen homes along

Beech Tree Road. These homes are located on the west side of the Owasco Outlet upgradient from the general direction of the groundwater flow from the site which has previously been identified as being to the northeast. Based on this fact and on the results of the groundwater monitoring to date it does not appear that the landfill represents a significant, immediate threat to human health or the environment from a groundwater quality standpoint. Additional monitoring will be conducted as part of the SIPC and more detailed assessments made in the CIR. Also, long-term trends in groundwater quality will continue to be evaluated as part of the closure and post closure monitoring programs.

2.03 Surface Water Quality

The surface water monitoring program for the landfill has included the monitoring of two surface water monitoring points (SW-2 & 3) located on the drainage ditch which flows through the eastern part of the site. Refer to Figure 1 for the location of the two surface water monitoring points.

During the site inspection four leachate outbreaks were noted on the landfill side slopes along the perimeter of the site. Refer to Figure 2 for the locations of the observed leachate seeps which were observed on 8/7/89. A seep located on the northern slope in the same area of the landfill, had been previously sampled and designated as location SW-1 in the Hydrogeologic Report by Calocerinos and Spina dated 1985. The analytical results for this seep are presented in Appendix A. Although leachate was not observed running directly into surface waters, it was felt that during periods of high stormwater runoff these seeps, due to their proximity, would migrate into the surface waters.

Surface water sampling results were reviewed to assess the landfill's potential impact

on human health and the environment relative to surface water quality. As mentioned above, results are available for two sampling locations along the drainage ditch which traverses the site. Both appear to represent conditions downgradient from the landfill. For this reason it is not possible to conclusively evaluate the landfill's influence on the drainage ditch at this time. These results, which are summarized in Appendix B, indicate that the parameters analyzed for in the ditch do not change significantly over time. No trends indicating an increase in indicator parameters were noted. Although three elevated parameters were observed, iron, manganese and phenols, they are generally of aesthetic concern (i.e. staining and odor). Since their concentrations are not elevated in the extreme, it does not appear the surface water is being impacted to the point where human health or the environment is in imminent danger. Additional monitoring will be conducted as part of the closure program, and long-term trends in surface water quality will continue to be evaluated.

2.04 Landfill Gas

On 7-13-89 suspected landfill gas was observed bubbling at the surface near well nests 6 (near the drainage ditch) and 7 by NYSDEC and O'Brien & Gere staff. Although this observation is not conclusive as to the presence of methane gas, the likelihood of gas movement on the site does exist. To date the City has not received complaints regarding landfill gas from adjacent residents and businesses. Even though the presence of landfill gas is suspected, it is not believed to constitute an immediate health threat because certain physical features at the site would tend to limit gas migration from the site. Gas movement to the north, east and west on the site is precluded by the presence of the

Owasco Outlet and the drainage ditch (i.e. groundwater discharge points) between the landfill and potential receptors such as residential and commercial/industrial buildings. To the south, the closest potential receptor is over 1,900 feet away. Due to the distance and topography, it is unlikely that gas would make it to these potential receptors.

As part of the SIPC, the details of a site study will be identified, including testing for methane gas and the installation of gas monitoring wells to confirm the limited horizontal migration of gas.

2.05 Vectors

To date landfill staff have not reported the existence of any uncontrolled vector populations. In addition, based on discussions with City staff, surrounding residents have not reported vector problems at residential areas. Thus, there does not appear to be an imminent health hazard associated with vectors at this site.

A vector survey will be conducted as part of the SIPC and, in the event a problem is identified, an extermination program will be recommended. Such a program will be in strict conformance with all requirements of the NYSDEC and NYS Department of Health.

2.06 Noise

The nearest receptor to the existing landfill operation is a residence located about 900 feet away. Based on the inverse square law for sound attenuation, this distance will reduce sound pressure levels (SPL) at the adjoining residence to about 62 decibels (A) for pieces of equipment with an 87 decibel (A) rating at 50 feet (e.g. Cat D-7 which is typical of operating equipment at the landfill). As per Part 360-1.14(p), the allowable sound

pressure level for a suburban community is 62 decibels (A) from 7 a.m.- 10 p.m.. Other private lands that are not sufficiently buffered from the landfill operation to meet the allowable sound pressure levels are vacant.

Refer to Appendix C for the calculations on the attenuation of sound. Based on these calculations and compliance with the allowable sound pressure levels at the residences, there does not appear to be a health hazard associated with noise from the landfill.

2.07 Dust

Dust does occur on dry days at the landfill operation. However, the nearest residence to the landfill is greater than 900 feet away. As such, fugitive dust problems have not been reported by surrounding residents.

The City should be able to alleviate any potential problems with dust by using a water truck and/or other measures to control the dust.

2.08 Odors

Odors do occur at the landfill operation. However, the nearest residence to the landfill is greater than 900 feet away. As such, odor problems have not been reported by surrounding residents.

If problems with odor should arise, the City can attend to the problem by applying surficial deodorizers and/or modify their filling operations to help mitigate odor problems. If odor problems are identified during subsequent investigations, specific remedial measures will be developed.

SECTION 3 - INTERIM CLOSURE MEASURES

3.01 General

The interim closure measures set forth in this section are intended to deal with immediate situations that need to be addressed until such time the CP is completed and its long term closure recommendations are implemented. An attempt has been made to identify long term closure activities that can be implemented immediately, thereby minimizing environmental impacts, yet will not contradict or interfere with implementation of the SIPC or the CP.

3.02 Interim Fill Sequence

The current fill sequence must be revised to provide a minimum four percent slope that will promote surface runoff and reduce infiltration of precipitation into the refuse. Figure 3 identifies two areas of the site where waste filling operations will be redirected in an effort to improve, or in some cases, develop acceptable final grades.

Phase 1 area is a narrow strip along the west edge of the landfill that can be regraded using refuse and daily cover to attain the required four percent minimum slope. Fill operations should return to this area as soon as possible to complete this regrading. Based on current refuse delivery rates it is anticipated filling in this area could continue for three to four months.

Phase 2 area is a "valley" that opens along the southern edge of the landfill and continues north into the approximate center of the site. This area has a larger capacity and it is anticipated will take eight to ten months to fill.

Combined, these two areas will provide enough capacity for the disposal needs throughout the remaining life of the site as specified in the consent order. Should additional capacity be required before the end of the operational life of the site, refuse will be used to fill in irregularities and smooth side slopes not previously regraded.

3.03 Daily Cover

To comply with 6 NYCRR Part 360, daily cover is a minimum of six inches of compacted cover material that will continue to be applied on all exposed surfaces of solid waste at the close of each operating day to control vectors, fires, odors, blowing litter, and scavenging.

During the site investigation, areas of protruding refuse were observed at the landfill. Such areas may not necessarily be an indication of improper placement of daily cover. Wind, rain, and settlement can cause areas to be deficient of daily cover despite proper placement. Regardless, in an effort to remediate the situation, the City may find it necessary to reapply daily cover as needed in noncompliant areas. The landfill supervisor will be made aware of this possibility and occasional inspections by the City engineering department or the project consultant will improve compliance.

3.04 Intermediate Cover

In accordance with 6 NYCRR Part 360, intermediate cover is a minimum of 12 inches of compacted cover material that must be applied and maintained on all landfill surfaces where no additional solid waste has been or will be deposited within 30 calendar days. At the time of the site investigation, it was noted that intermediate cover may be

insufficient in certain areas of the landfill that would neither be disturbed by filling/grading operations or final capping. Figure 3 exhibits those areas of the existing landfill that may need additional cover soil to comply with the intermediate cover requirements.

Under the SIPC a plan will be developed to further identify those areas which are deficient of intermediate cover and a schedule developed for remediation of such areas.

3.05 Final Cap System

One of the purposes of the site investigation was to identify those areas of the landfill that had adequate grades established, were not necessary for future fill operations, and could be capped without interfering with final closure plans. The north slope and a small portion of the east slope appear to meet these conditions. Figure 3 illustrates those areas of the existing landfill to be covered with the final cap system.

The only possible interference that could result from placing the final cap in these areas would be if it was determined, as a result of the CIR, that additional leachate control measures were necessary to preclude possible leachate movement northward towards the new landfill area. After review of this concern it seems likely that such future remedial actions could be accomplished even if the final cap were installed along the north slope.

To comply with 6 NYCRR Part 360, the final cap system at a minimum would be a layered system consisting of:

- a 12-inch gas venting layer,
- a 18-inch low permeability barrier layer,
- a 24-inch barrier protection and root zone layer,
- and a 6-inch topsoil layer.

The affected areas will need to be cleared and grubbed, and smoothly graded prior to placement of the cap profile described above.

3.06 Leachate Collection

The appearance of surface leachate seeps at the landfill, suggest that the existing leachate collection piping must be supplemented with additional leachate collection and diversion mechanisms.

During the site visit leachate seeps were visible along the north end of the landfill between well cluster #5 and monitoring well #2, the east end around well cluster #6, and the south end in an area about 400 feet west of well cluster #7. Refer to Figure 2 for the location of identifiable leachate seeps. Some of the seeps are symptomatic of grading and erosion of existing cover soil while others may more likely be the result of groundwater intrusion.

The leachate seep at the north end of the landfill site is not very severe and is evidenced by iron staining on rocks and soil in the drainage rill. At the time of the site inspection on 8/7/89, there was no flow observed in this drainage rill. It appears that this rill is a result of cover soil erosion. This will be remediated by placement of the final cap in this area and improved runoff control upgradient of these slopes.

Seeps occurring at the east side of the landfill site appear to be downgradient of the existing leachate collection laterals. These seeps were evidenced on 8/7/89 by multiple outbreaks which flowed to stagnant, wet areas at the toe of landfill slope. One option could be the collection and diversion of leachate north via a new gravity drain to the leachate storage facility. Additional survey information is necessary to verify that sufficient

slope exists along the possible pipe route to flow leachate back to the leachate storage area. Also, the installation of the leachate collection lateral should be consistent with construction of the final cap in this area to help minimize infiltration.

A more viable option would be the installation of a sump at the location of the seep. Leachate could be removed and discharged into the existing collection lateral via pumping or some other manner. This option would be a temporary remediation and would have to be replaced with a more permanent solution as part of the final closure plan.

Leachate seeps along the southwest end of the site appear to be the result of groundwater movement from the ridge west of the site into the landfill. These minor seeps were evidenced by iron-stained drainage rills which discharged to low-lying wet areas at the edge of the landfill. Remediation of this condition will consist of constructing a groundwater diversion trench upgradient of the fill area (i.e. along the proposed route for the access road to the new landfill). A french drain system will be utilized and discharge to existing drainage patterns to the south of the landfill. The discharge from this system will be included in the environmental monitoring plan for the existing landfill to assure leachate does not backflow into the diversion trench. If the discharge proves to be influenced by the landfill, it will be incorporated into the eventual leachate collection system developed as part of the CP.

3.07 Environmental Monitoring

3.07.1 Groundwater Monitoring Well Repair

The groundwater monitoring wells to be included in the monitoring program for the existing landfill are discussed in Section 2.02 of this report. On many of these wells the cement pads holding in the protective steel casings are cracked, and the steel casings are loose. To remediate this situation the old cement pads will be removed and replaced with a 3 foot diameter, four foot deep concrete cylinder. The bentonite seal at the top of the casing will be inspected and repaired as necessary. In addition, the outer protective steel casings will be replaced with a heavier gage steel in an attempt to minimize damage by vandals to the inner PVC well casing. Weep holes will be installed in the outer protective casing. More secure lockable lids will also be installed on all monitoring wells. Those wells with damaged inner casings will have repair lengths of PVC installed. Wells requiring repair of the PVC pipe will have to be resurveyed upon completion of the repair to establish a new reference elevation for groundwater level measurements.

3.07.2 Groundwater Monitoring Well Relocation

It appears at this time that the only well clusters which would interfere with construction of the final cap system are MW-6A & B. Since the location of wells 6A & B should not impact the placement of the final cap in the area designated in Figure 3, and since further site investigations may warrant the installation of additional wells in this area, it was determined prudent to defer the relocation of these wells until implementation of the SIPC.

3.07.3 Monitoring Program and Schedule

The revised groundwater monitoring program for the existing landfill will include the monitoring of seven wells. Two upgradient wells (MW-1 & MW-4A) and four downgradient wells (MW-2, MW-3, MW-5A, MW-6A, & MW-7A) will monitor the shallow groundwater zone around the perimeter of the existing landfill area. Monitoring well MW-6A will eventually be relocated as discussed in Section 3.07.2.

The sampling program will include one baseline sample to be collected annually from the wells included in the monitoring program in accordance with 6 NYCRR Part 360. Subsequently, four quarterly samples will be tested for the routine parameters. Refer to Table 1 for a listing of the baseline and routine parameters. A repeat of the sampling sequence identified above will establish a pattern where subsequent baseline samples collected over a five year period will have analyzed water quality for baseline parameters during each of the four seasons. Appendix D contains a sample groundwater monitoring protocol and Appendix G contains a schedule for the groundwater monitoring program. The City of Auburn will retain a laboratory firm to collect all groundwater samples. This firm will submit to the City its own Groundwater Sampling Protocol prior to the initiation of any sampling.

The revised surface water monitoring program will include the sampling of three surface water monitoring points (SW-2,SW-3 & SW-4). Refer to Figure 1 for monitoring point locations.

The surface water sampling program will require one baseline sample to be taken from the three surface water monitoring locations during the next scheduled sampling date in accordance with 6 NYCRR Part 360. Subsequently, four quarterly samples will be taken from each of the surface water monitoring locations and tested for the routine parameters listed in Table 1. A repeat of the sampling sequence identified above will establish a pattern where subsequent baseline samples collected over a five year period will have analyzed water quality during each of the four seasons.

Appendix E contains a sample surface water monitoring protocol and Appendix G contains a schedule for the surface water monitoring program. The City of Auburn will retain a laboratory firm to collect all surface water samples. This firm will submit to the city its own Surface Water Sampling Protocol prior to the initiation of any sampling.

The revised leachate monitoring program will include the sampling of two leachate monitoring points (L-1 & L-2). Refer to Figure 1 for monitoring point locations.

The leachate sampling program will require one baseline sample to be taken from both of the leachate monitoring locations during the next scheduled sampling date in accordance with 6 NYCRR Part 360. Subsequently, four quarterly samples will be taken from each of the leachate monitoring locations and tested for the routine parameters listed in Table 1. A repeat of the sampling sequence identified above will establish a pattern where subsequent baseline samples collected over a five year period will have analyzed leachate quality during each of the four seasons.

Appendix F contains a sample leachate monitoring protocol and Appendix G contains a schedule for the leachate monitoring program. The City of Auburn will retain a laboratory firm to collect all leachate samples. This firm will submit to the city its own Leachate Sampling Protocol prior to the initiation of any sampling.

3.08 Personnel and Equipment

Increased operational requirements in order to continue to comply with 6 NYCRR Part 360 and additional work efforts associated with the ICMP will require additional personnel and equipment. An assessment of additional personnel and equipment needs and a schedule for acquiring such needs will be determined by October 1, 1989.

SECTION 4 - IMPLEMENTATION SCHEDULE

4.01 General

The following section discusses a proposed schedule for implementation of the above mentioned interim closure measures.

4.02 Interim Fill Sequence

The interim fill sequence phase at the Auburn Landfill should begin immediately and continue until the areas outlined on Figure 3 are filled to final grades. If such areas reach final grades prior to November 30, 1990, the additional waste and necessary cover soil will be deposited in miscellaneous areas of the landfill that need further grading to provide uniform final grades prior to placement of the final cap system.

4.03 Daily Cover

Proper placement of daily cover as discussed in Section 3.03 shall be implemented immediately and continue until the landfill closes.

4.04 Final Cap System

Placement of the final cap system will occur on those areas of the landfill as designated on Figure 2. This level of work is beyond the City's capability and will therefore require procurement by competitive bidding. The following steps outline the competitive bid process and related time frames.

- One month for the development of Contract Documents,

- A minimum of two weeks for contractors to respond,
- Two weeks for awarding of the contract which involves approval by the City Council and City Attorney and execution of the contract,
- Two weeks for the contractor to clear & grub the proposed area.
- Minimum of one month for the contractor to identify a borrow source and evaluate the material for the barrier layer to the satisfaction of the Engineer and NYSDEC and obtain a mining permit for the excavation of such material.

Based on the above, the earliest possible time that the contractor could conceivably begin to construct the final cap system is mid-December. Prevailing weather conditions would make construction at this time impractical thus delaying construction of the final cap system to the Spring of 1990. For this reason it is proposed that the City start the procurement process in order that the contract can be awarded, necessary approvals obtained, and work initiated by May 1, 1990. It is anticipated that the capping will take three months to complete.

4.05 Leachate Collection

Installation of the additional leachate diversion and collection drains and the groundwater cutoff trench as discussed in Section 3.06 of this report will be accomplished by the City of Auburn during the month of October, 1989.

Assuming construction of the groundwater cutoff trench at the southwestern edge of the site is completed by the end of October, sampling of the groundwater effluent from this system will begin November 1, 1989 and continue quarterly.

4.06 Groundwater Monitoring

4.06.1 Monitoring Well Repair

Repair of the groundwater monitoring wells discussed in Section 3.07.1 will begin immediately following NYSDEC approval of the ICMP. All repairs will be completed by October 1, 1989.

4.06.2 Monitoring Well Relocation

Relocation of MW-6A & B will be scheduled following development and NYSDEC approval of the SIPC.

4.06.3 Monitoring Program and Schedule

The groundwater monitoring program discussed in Section 3.07.3 will be implemented starting with the fourth quarter (December) round of analysis for 1989.

Tables

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TABLE 1

WATER QUALITY ANALYSIS TABLE

	GROUND AND SURFACE WATER		
	Baseline Parameters	Routine Parameters	Expanded Parameters
FIELD PARAMETERS			
Static water level (in wells and sumps)	x	x	x
Specific Conductance	x	x	x
Temperature	x	x	x
Floaters or Sinkers[1]	x		x
pH	x	x	x
Eh	x	x	x
Dissolved Oxygen[2]	x	x	x
Field Observations[3]	x	x	x
LEACHATE INDICATORS			
Total Kjeldahl Nitrogen (TKN)	x		x
Ammonia	x	x	x
Nitrate	x	x	x
Chemical Oxygen Demand (COD)	x	x	x
Biochemical Oxygen Demand (BOD_5)	x		x
Total Organic Carbon (TOC)	x	x	x
Total Dissolved Solids (TDS)	x	x	x
Sulfate	x	x	x
Alkalinity	x	x	x
Phenols	x	x	x
Chloride	x	x	x
Total hardness as $CaCO_3$	x	x	x
Turbidity	x	x	x
Color	x		x
Boron	x		x
METALS			
Potassium	x	x	x
Sodium	x	x	x
Iron	x	x	x
Manganese	x	x	x
Magnesium	x	x	x

- Taken from 6 NYCRR Part 360-2.11(c)(6)

TABLE 1 (cont.)

	GROUND AND SURFACE WATER Baseline Parameters	Routine Parameters	Expanded Parameters
Lead	x	x	x
Cadmium	x	x	x
Aluminum	x		x
Calcium	x	x	x
Toxic metals[4] and cyanide	x		x
Volatile organics[5]	x		x
All constituents listed in 6 NYCRR Part 373-2, Appendix 33[6]			x

The department may modify this list as needed.

All samples must be whole and unfiltered except as otherwise specified by the department.

[1]Any floaters or sinkers found must be analyzed separately for baseline parameters.

[2]Surface water only.

[3]Any unusual conditions (colors, odors, surface sheens, etc.) noticed during well development, purging, or sampling must be reported.

[4]Toxic metals include: Antimony, Arsenic, Beryllium, Barium, Cadmium, Chromium (total and hexavalent)*, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium and Zinc.

[5]Volatile organics are to be analyzed using EPA methods 601 and 602 as described in 40 CFR Part 136 (see section 360-1.3 of this Part).

[6]Upon request of the applicant, the department may waive the requirement to analyze for dioxins and furans (suggested method 8280), where appropriate.

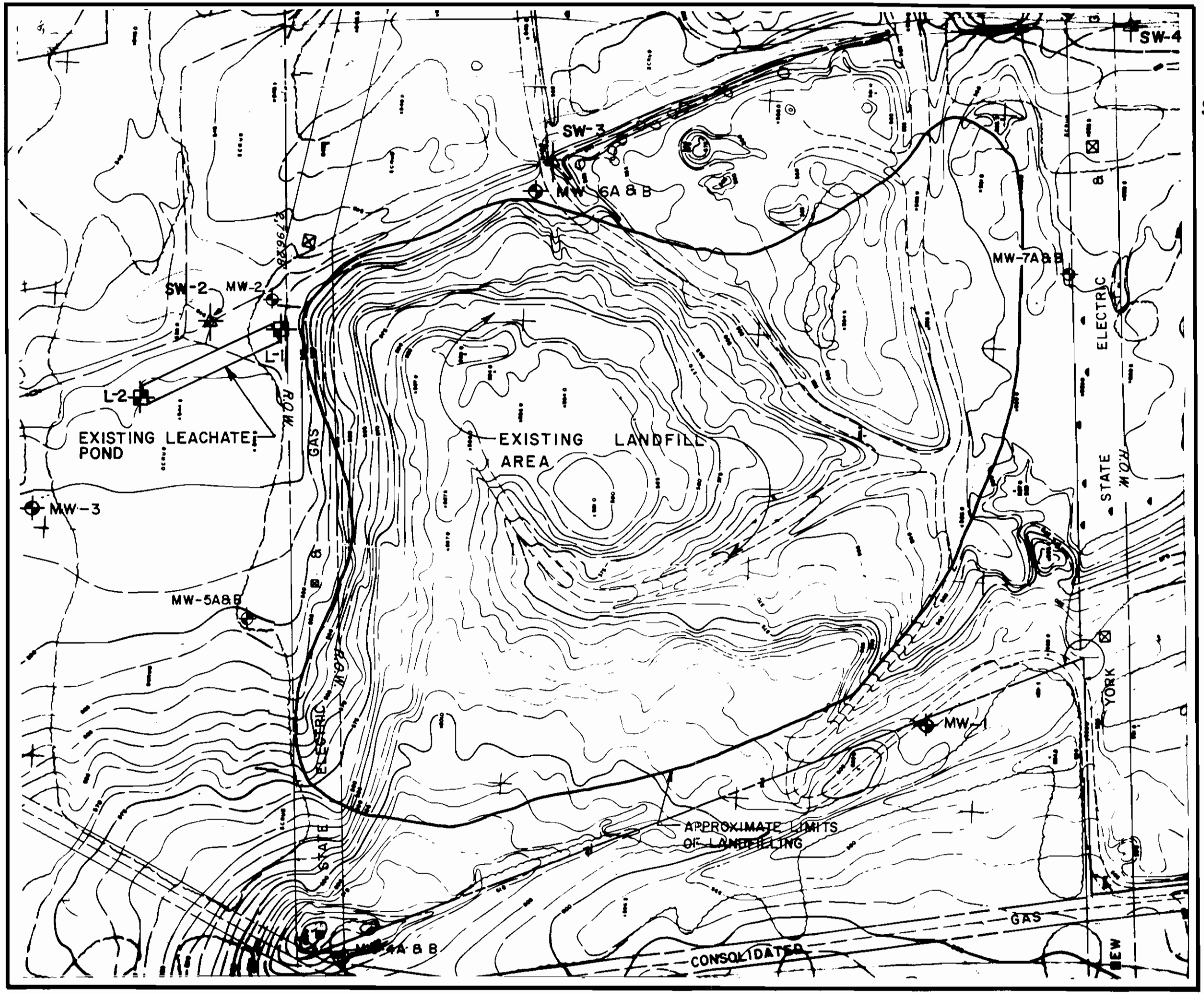
*The department may waive the requirement to analyze Hexavalent Chromium provided that Total and Hexavalent and Trivalent Chromium values do not exceed 0.05 mg/l.

- Taken from 6 NYCRR Part 360-2.11(c)(6)

FIGURE 1

CITY OF AUBURN SANITARY LANDFILL NO. 1

INTERIM ENVIRONMENTAL MONITORING PLAN



LEGEND

- MW-1 GROUNDWATER MONITORING WELL
- SW-2 SURFACE WATER MONITORING POINT
- L-1 LEACHATE MONITORING PLAN

NOTE:

1) TOPOGRAPHIC MAP BY LOCKWOOD SUPPORT SERVICES, ROCHESTER, N.Y.; 1984.
2.) TOPOGRAPHY IS NOT REPRESENTATIVE OF ACTUAL FIELD CONDITIONS AT THE TIME THIS REPORT WAS PUBLISHED.

200 0 200

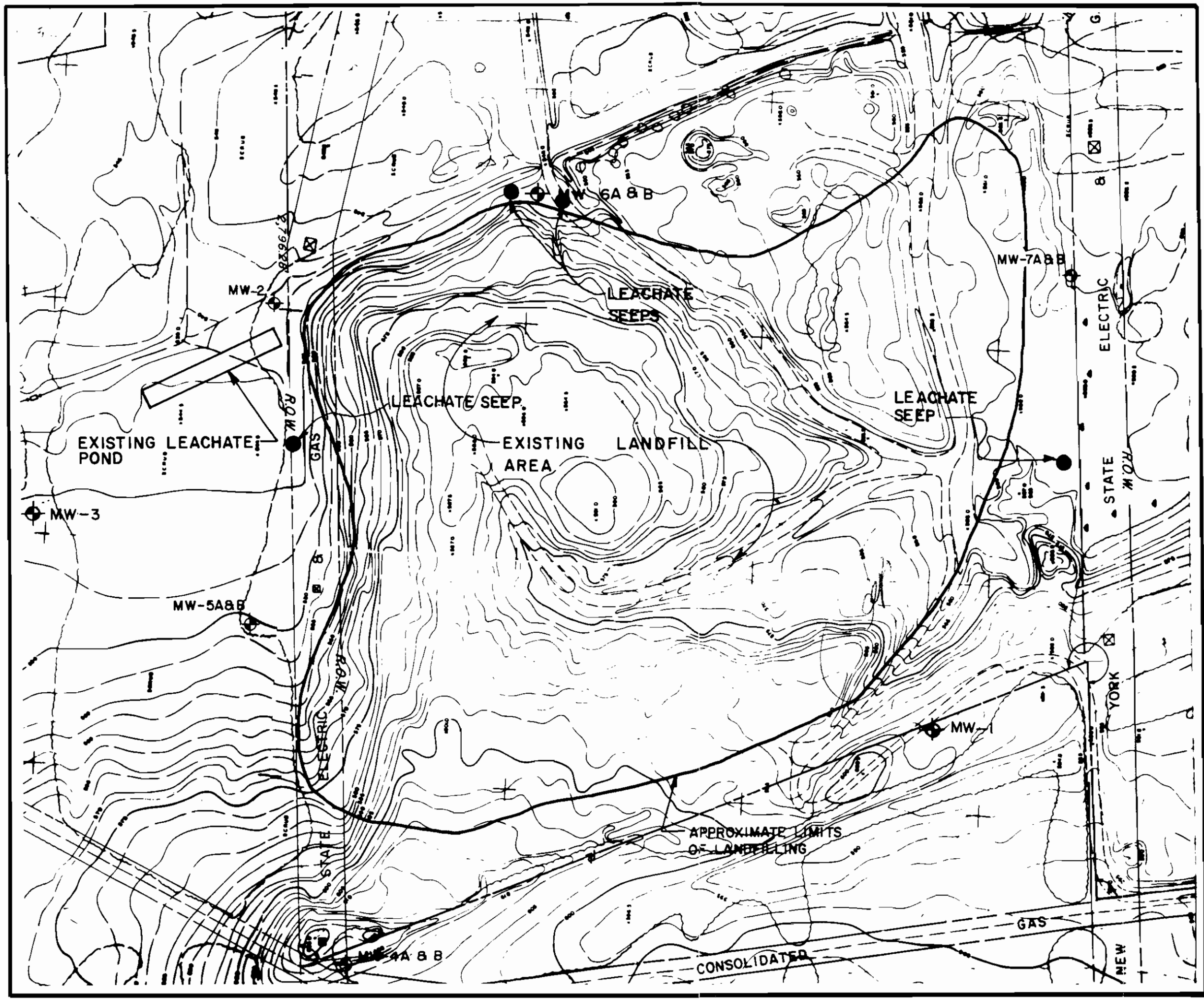
HORIZ. SCALE-IN FEET

O'BRIEN & GERE ENGINEERS, INC.
Syracuse, New York

FIGURE 2

CITY OF AUBURN
SANITARY LANDFILL NO. 1

OBSERVED LEACHATE SEEPS
8/7/89



NOTE:

1.) TOPOGRAPHIC MAP BY LOCKWOOD SUPPORT SERVICES, ROCHESTER, N.Y.; 1984.

2.) TOPOGRAPHY IS NOT REPRESENTATIVE OF ACTUAL FIELD CONDITIONS AT THE TIME THIS REPORT WAS PUBLISHED.

200 0 200

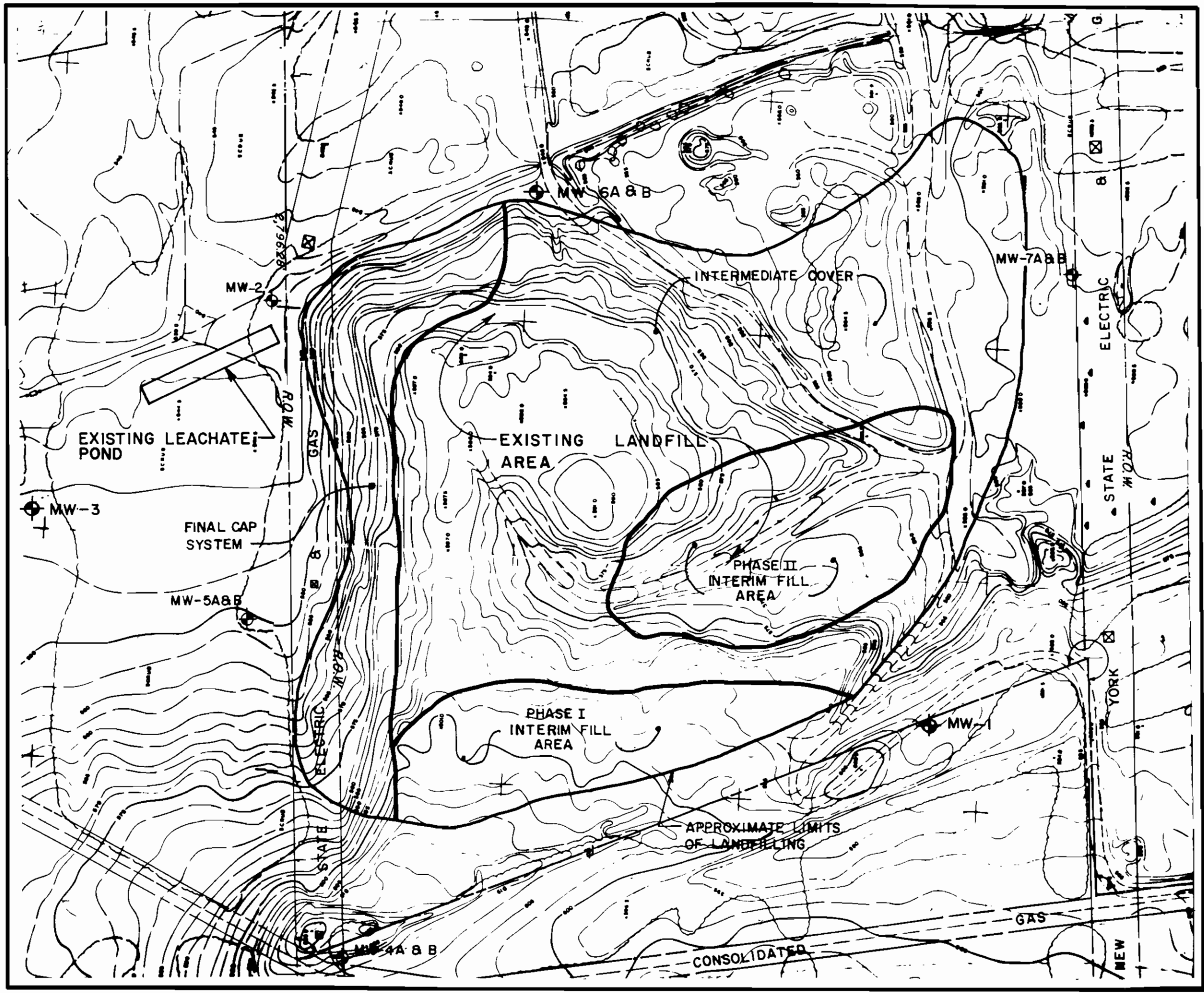
HORIZ. SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.
Syracuse, New York

FIGURE 3

CITY OF AUBURN SANITARY LANDFILL NO. 1

INTERIM FILL SEQUENCE AND CAPPING PLAN



NOTE:

1.) TOPOGRAPHIC MAP BY LOCKWOOD SUPPORT SERVICES, ROCHESTER, N.Y.; 1984.

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200 0 200

HORIZ. SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

Syracuse, New York

APPENDIX A

RESULTS OF GROUNDWATER MONITORING PROGRAM

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
WELL MW-1

PARAMETER	UNITS	STANDARD	1-21-87	7-16-87	10-15-87	1-21-88	4-14-88	7-21-88	10-20-88	1-17-89	4-12-89	7-19-89
pH	Stndrd Units	6.5 TO 8.5	8.0	7.0	7.5	8.0	8.0	7.6	8.2	7.8	8.0	8.1
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALKALANITY AS CACO3	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BORON	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	5.0	3.5	1.8	4.5	3.0	3.0	2.0	3.0	4.0	3.0
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	(0.004	(0.004	(0.004	(0.004	(0.004	(0.004	(0.004	(0.004	(0.004	(0.004
AMMONIA NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	0.010	(0.010	0.013	(0.010	(0.010	(0.010	(0.010	(0.010	(0.010	(0.010
COPPER	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	(0.05	(0.05	0.19	0.07	0.09	0.11	(0.05	(0.05	(0.05	(0.05
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	0.48	0.34	0.43	0.30	0.30	0.24	0.14	0.13	0.53	0.97
ARSENIC	mg/l (ppm)	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	0.05	0.04	0.05	0.05	0.05	0.04	0.04	(0.03	(0.03	0.03
CADMIUM	mg/l (ppm)	0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01
CHROMIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	(0.05	(0.05	(0.05	(0.020	(0.05	(0.05	(0.020	(0.020	(0.020	(0.020
MERCURY	mg/l (ppm)	0.002	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001
SELENIUM	mg/l (ppm)	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	690	680	740	760	680	560	7200	780	780	700
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	45	32	17	15	32	15	38	58	33	30
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This is a compilation summary of data collected by C&S/NET and provided by the City of Auburn.

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
WELL MW-2

PARAMETER	UNITS	STANDARD	1-21-87	7-15-87	10-14-87	1-20-88	4-13-88	7-20-88	10-21-88	1-17-89	4-11-89	7-18-89
pH	Stndrd Units	6.5 TO 8.5	7.3	7.0	6.8	7.3	7.8	7.6	7.7	7.7	7.6	7.5
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALKALANITY AS CACO3	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BORON	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	3.0	4.0	9.5	9.0	4.0	5.5	3.0	2.0	6.0	8.0
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	(0.004	(0.004	(0.004	(0.004	0.008	(0.004	0.009	(0.004	(0.004	(0.004
AMMONIA NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	(0.010	(0.010	0.020	(0.010	(0.010	(0.010	(0.010	(0.010	(0.010	0.020
COPPER	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	1.6	6.3	7.2	7.0	1.7	3.4	3.0	0.39	0.55	1.9
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05
ARSENIC	mg/l (ppm)	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	0.29	0.16	0.43	0.31	0.40	0.21	0.12	0.28	0.30	0.18
CADMIUM	mg/l (ppm)	0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01
CHROMIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	(0.05	(0.05	(0.05	(0.020	(0.05	(0.05	(0.020	(0.020	(0.020	(0.020
MERCURY	mg/l (ppm)	0.002	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001
SELENIUM	mg/l (ppm)	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	2050	1900	2000	2000	1800	1500	2300	2200	2300	2300
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	15	9	4.7	8	6	5	10	14	7	5
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This is a compilation summary of data collected by C&S/MET and provided by the City of Auburn.

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
WELL MW-3

PARAMETER	UNITS	STANDARD	10-29-86	1-21-87	7-15-87	10-14-87	1-20-88	4-13-88	7-20-88	10-21-88	1-17-89	4-11-89	7-21-89
pH	Stndrd Units	6.5 TO 8.5	NA	7.6	7.6	7.3	7.7	7.9	7.9	8.0	7.9	7.8	7.7
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALKALANITY AS CACO3	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BORON	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	NA	5.5	5.0	3.0	6.0	4.0	6.0	3.0	2.0	5.0	6.0
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	NA	(0.004	(0.004	(0.004	0.008	(0.004	(0.004	0.005	(0.004	(0.004	(0.004
AMMONIA NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	0.001	(0.010	(0.010	0.011	(0.010	(0.010	(0.010	(0.010	(0.010	(0.010	(0.010
COPPER	mg/l (ppm)	1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	NA	0.59	1.30	0.15	0.79	(0.05	0.09	0.25	(0.05	(0.05	0.71
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	(0.02	(0.05	(0.05	(0.05	(0.05	(0.05	0.05	(0.05	(0.05	(0.05	0.49
ARSENIC	mg/l (ppm)	0.025	(0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	NA	0.07	0.15	0.13	0.12	0.07	0.08	0.09	0.05	(0.03	0.08
CADMIUM	mg/l (ppm)	0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01
CHROMIUM	mg/l (ppm)	NL	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	(0.05	(0.05	(0.05	(0.05	(0.020	(0.05	(0.05	(0.020	(0.020	(0.020	(0.020
MERCURY	mg/l (ppm)	0.002	(0.0005	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001
SELENIUM	mg/l (ppm)	0.02	(0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	(0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	(0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	(0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	0.098	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	NA	2300	2300	2500	2100	2100	1900	2800	2600	2600	2750
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	NA	39	22	13	15	18	40	17	30	19	10
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This is a compilation summary of data collected by C&S/MET and provided by the City of Auburn.

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
WELL MW-4A

PARAMETER	UNITS	STANDARD	11-06-87	1-21-88	4-13-88	7-21-88	4-12-89	7-20-89
pH	Stndrd Units	6.5 TO 8.5	7.9	8.1	7.8	7.4	7.8	7.5
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA
ALKALAHITY AS CACO3	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
BORON	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	125	103	87	69	90	100
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	(0.004	0.005	0.007	(0.004	0.019	(0.004
AMMONIA NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	(0.010	(0.010	(0.010	(0.010	0.015	(0.010
COPPER	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	(0.05	0.15	0.78	0.86	(0.05	0.50
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	(0.05	(0.05	(0.05	(0.05	0.05	0.05
ARSENIC	mg/l (ppm)	0.025	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	0.17	0.19	0.20	0.11	0.40	0.37
CADMIUM	mg/l (ppm)	0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01
CHROMIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	(0.05	(0.020	(0.05	(0.05	(0.020	(0.020
MERCURY	mg/l (ppm)	0.002	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001
SELENIUM	mg/l (ppm)	0.02	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	2300	2400	1900	2200	2100	2400
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	90	80	14	140	125	270
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This is a compilation summary of data collected by C&S/NET and provided by the City of Auburn.

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
WELL MW-4R

PARAMETER	UNITS	STANDARD	1-21-87	7-16-87	1-21-88	4-14-88	10-20-88	1-19-89	4-12-89	7-20-89
pH	Stndrd Units	6.5 TO 8.5	7.9	7.8	8.1	8.2	8.2	7.9	7.9	7.9
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA
ALKALANITY AS CACO3	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
BORON	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	10.0	13.0	8.0	5.0	5.0	9.0	6.0	8.0
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	0.014	(0.004	0.006	(0.004	0.004	(0.004	(0.004	(0.004
AMMONIA NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	(0.010	(0.010	(0.010	(0.010	0.010	(0.010	(0.010	(0.010
COPPER	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	(0.05	0.20	(0.05	(0.05	(0.05	(0.05	0.07	(0.05
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05
ARSENIC	mg/l (ppm)	0.025	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	0.10	0.04	(0.03	(0.03	(0.03	(0.03	(0.03	(0.01
CADMIUM	mg/l (ppm)	0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01
CHROMIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	(0.05	(0.05	(0.020	(0.05	(0.020	(0.020	(0.020	(0.020
MERCURY	mg/l (ppm)	0.002	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001
SELENIUM	mg/l (ppm)	0.02	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	1000	940	1200	900	1100	1200	1300	1200
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	78	33	32	28	42	41	32	22
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This is a compilation summary of data collected by C&S/NET and provided by the City of Auburn.

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
WELL MW-5A

PARAMETER	UNITS	STANDARD	10-29-86	7-15-87	10-14-87	1-20-88	4-13-88	7-20-88	10-21-88	1-17-89	4-11-89	7-18-89
pH	Stndrd Units	6.5 TO 8.5	NA	7.5	7.5	7.7	7.6	7.8	8.1	7.7	7.5	7.5
BODS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALKALAMITY AS CACO3	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BORON	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	NA	135	133	135	138	150	150	170	340	135
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	NA	(0.004	(0.004	0.014	0.011	(0.004	0.006	(0.004	(0.004	(0.004
AMMONIA NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	(0.001	0.011	0.011	(0.010	(0.010	(0.010	(0.010	0.025	(0.010	(0.010
COPPER	mg/l (ppm)	1	D.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	NA	2.7	0.92	1.8	2.1	3.0	0.45	3.2	2.9	2.6
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	(0.02	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05
ARSENIC	mg/l (ppm)	0.025	(0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	NA	0.12	0.17	0.10	0.08	0.09	0.16	0.08	0.06	0.07
CADMIUM	mg/l (ppm)	0.01	0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01
CHROMIUM	mg/l (ppm)	NL	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	(0.05	(0.05	(0.05	(0.020	(0.05	(0.05	(0.020	(0.020	(0.020	(0.020
MERCURY	mg/l (ppm)	0.002	(0.0005	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001
SELENIUM	mg/l (ppm)	0.02	(0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	(0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	(0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	(0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	0.109	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	NA	2200	2300	2400	2000	1800	2600	2500	2500	2600
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	NA	35	28	20	27	56	34	36	28	27
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This a compilation summary of data collected by C&S/NET and provided by the City of Auburn.

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA
METALS, INORGANICS AND ~~WET CHEMISTRY~~ RESULTS
WELL MW-5R

PARAMETER	UNITS	STANDARD	1-21-87	7-15-87	10-14-87	1-20-88	4-13-88	7-20-88	10-21-88	1-17-89	4-11-89	7-18-89
pH	Stndrd Units	6.5 TO 8.5	7.4	7.5	7.3	7.6	7.7	7.9	8.1	7.5	7.4	7.5
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALKALAMITY AS CACO3	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BORON	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	92	110	108	66	81	120	120	130	110	155
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	(0.004	(0.004	(0.004	0.015	0.012	(0.004	0.008	(0.004	(0.004	(0.004
AMMONIA NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	(0.010	(0.010	(0.010	(0.010	(0.010	(0.010	(0.010	(0.010	(0.010	(0.010
COPPER	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	2.5	2.1	2.3	2.0	2.9	3.1	1.8	3.2	3.6	2.5
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05
ARSENIC	mg/l (ppm)	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	0.05	0.04	0.05	0.05	0.05	0.05	0.06	0.04	0.07	0.05
CADMIUM	mg/l (ppm)	0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01
CHROMIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	(0.05	(0.05	(0.05	(0.020	(0.05	(0.05	(0.020	(0.020	(0.020	(0.020
MERCURY	mg/l (ppm)	0.002	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001
SELENIUM	mg/l (ppm)	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	2150	2100	2300	2000	1800	1800	2900	2500	2500	2600
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	38	32	25	14	20	50	24	34	25	22
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

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2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This a compilation summary of data collected by C&S/MET and provided by the City of Auburn.

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
WELL MW-6A

PARAMETER	UNITS	STANDARD	10-29-86	1-22-87	7-16-87	10-15-87	1-22-88	4-14-88	7-21-88	10-21-88	1-20-89	4-13-89	7-21-89
pH	Stndrd Units	6.5 TO 8.5	NA	11.2	9.1	8.6	8.6	8.2	8.2	8.2	8.0	7.7	7.6
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALKALAMITY AS CACO3	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BOROH	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	NA	1025	1450	1200	550	549	740	900	1400	580	700
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	NA	(0.004	0.006	(0.004	0.005	(0.004	0.005	0.010	(0.004	(0.004	0.009
AMMONIA NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	0.030	0.020	0.026	0.012	(0.010	(0.010	0.010	0.019	(0.010	0.015	(0.010
COPPER	mg/l (ppm)	1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	NA	(0.05	(0.05	(0.05	0.05	(0.05	0.08	0.21	0.10	1.7	0.31
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	(0.02	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	0.68
ARSENIC	mg/l (ppm)	0.025	0.008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	NA	(0.03	(0.03	(0.03	(0.03	0.05	0.06	0.17	0.19	0.31	0.37
CADMIUM	mg/l (ppm)	0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01
CHROMIUM	mg/l (ppm)	NL	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	(0.05	(0.05	(0.05	(0.05	(0.020	(0.05	(0.05	(0.020	(0.020	(0.020	(0.020
MERCURY	mg/l (ppm)	0.002	(0.0005	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001
SELENIUM	mg/l (ppm)	0.02	(0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	(0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERTLLIUM	mg/l (ppm)	NL	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	(0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	0.07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	0.066	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	NA	2750	365	3000	3000	2600	2700	4700	3900	3200	5200
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	NA	70	123	79	68	75	109	200	118	90	140
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This a compilation summary of data collected by C&S/NET and provided by the City of Auburn.

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
WELL MW-6B

PARAMETER	UNITS	STANDARD	10-29-86	1-22-87	7-16-87	10-15-87	1-22-88	4-14-88	7-21-88	10-21-88	1-20-89	4-13-89	7-20-89
pH	Stndrd Units	6.5 TO 8.5	NA	7.9	7.8	7.5	7.9	8.0	7.4	8.0	7.8	7.8	7.9
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALKALANITY AS CACO3	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BORON	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	NA	22	15	315	51	30	69	40	110	290	770
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	NA	(0.004	(0.004	0.004	0.004	(0.004	(0.004	(0.004	(0.004	(0.004	0.009
AMMONIA NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	0.002	(0.010	0.018	0.013	(0.010	(0.010	(0.010	(0.010	(0.010	0.019	(0.010
COPPER	mg/l (ppm)	1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	NA	(0.05	(0.05	0.07	(0.05	(0.05	(0.05	(0.05	(0.05	0.09	0.16
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	(0.02	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	0.47
ARSENIC	mg/l (ppm)	0.025	(0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	NA	0.07	0.06	0.08	0.11	0.09	0.07	0.07	0.10	0.20	0.41
CADMIUM	mg/l (ppm)	0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01
CHROMIUM	mg/l (ppm)	NL	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	(0.05	(0.05	(0.05	(0.05	(0.020	(0.05	(0.05	(0.020	(0.020	(0.020	(0.020
MERCURY	mg/l (ppm)	0.002	(0.0005	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001
SELENIUM	mg/l (ppm)	0.02	(0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	(0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	(0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	(0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	(0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	0.093	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	NA	2100	2000	3100	1700	1800	2100	2400	2500	3600	4700
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	NA	23	15	80	22	16	20	23	33	75	310
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This is a compilation summary of data collected by C&S/MET and provided by the City of Auburn.

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
WELL MW-7A

PARAMETER	UNITS	STANDARD	10-29-86	1-21-87	7-16-87	8-12-87	10-14-87	1-20-88	4-14-88	7-22-88	10-21-88	1-20-89	4-13-89	7-21-89
pH	Stndrd Units	6.5 TO 8.5	NA	7.5	7.6	NA	7.7	7.9	8.1	8.0	8.0	7.5	7.5	7.7
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALKALAMITY AS CACO3	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BORON	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL COLTFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	NA	15	14	NA	13	16	10	11	16	38	26	20
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	NA	(0.004	(0.004	NA	(0.004	0.005	0.007	(0.004	(0.004	(0.004	(0.004	(0.004
AMMONIA NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	0.001	(0.010	(0.010	NA	0.011	(0.010	(0.010	(0.010	(0.010	(0.010	0.013	(0.010
COPPER	mg/l (ppm)	1	0.01	NA	NA	(0.01	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	NA	0.52	0.46	NA	0.33	0.26	0.86	(0.05	(0.05	(0.05	1.1	(0.05
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	(0.02	(0.05	(0.05	(0.01	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	(0.05	0.27
ARSENIC	mg/l (ppm)	0.025	(0.005	NA	NA	(0.005	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	NA	0.4	0.28	NA	0.24	0.19	0.35	0.27	0.23	0.25	0.24	0.36
CADMIUM	mg/l (ppm)	0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01	(0.01
CHROMIUM	mg/l (ppm)	NL	(0.01	NA	NA	(0.05	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	(0.05	(0.05	(0.05	0.10	(0.05	(0.020	(0.05	(0.05	(0.020	(0.020	(0.020	(0.020
MERCURY	mg/l (ppm)	0.002	(0.0005	(0.001	(0.001	(0.0005	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001	(0.001
SELENIUM	mg/l (ppm)	0.02	(0.005	NA	NA	(0.005	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	(0.01	NA	NA	(0.01	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	(0.02	NA	NA	(0.01	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	(0.01	NA	NA	(0.05	NA	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	(0.05	NA	NA	(0.05	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	0.04	NA	NA	(0.05	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	0.099	NA	NA	0.09	NA	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	NA	1700	NA	NA	1900	1600	1500	1500	1800	1900	2000	2000
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	NA	47	NA	NA	14	14	22	15	35	23	31	12
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This is a compilation summary of data collected by C&S/MET and provided by the City of Auburn.

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
WELL MW-7R

PARAMETER	UNITS	STANDARD	10-29-86	7-16-87	8-12-87	10-14-87	1-20-88	4-14-88	7-22-88	1-20-89	4-13-89	7-20-89
pH	Stndrd Units	6.5 TO 8.5	NA	7.8	NA	7.7	7.9	7.9	7.8	7.7	7.8	7.5
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALKALAMITY AS CACO3	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BORON	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	NA	12	NA	5.0	17	9.0	<1.0	43	31	20
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	NA	<0.004	NA	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
AMMONIA NITROGEN	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	0.004	0.029	NA	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	<0.010
COPPER	mg/l (ppm)	1	0.01	NA	<0.01	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	NA	<0.05	NA	<0.05	0.07	<0.05	0.06	<0.05	0.11	<0.05
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	<0.02	<0.05	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.20
ARSENIC	mg/l (ppm)	0.025	<0.005	NA	<0.005	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	NA	<0.03	NA	0.04	0.04	0.03	0.03	0.03	<0.03	<0.03
CADMIUM	mg/l (ppm)	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
CHROMIUM	mg/l (ppm)	NL	<0.01	NA	<0.05	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	<0.05	<0.05	0.12	<0.05	<0.020	<0.05	<0.05	<0.020	<0.020	<0.020
MERCURY	mg/l (ppm)	0.002	<0.0005	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SELENIUM	mg/l (ppm)	0.02	<0.005	NA	<0.005	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	<0.01	NA	<0.01	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	<0.02	NA	0.1	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	<0.01	NA	<0.05	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	<0.05	NA	<0.05	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	<0.04	NA	<0.05	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	0.09	NA	0.11	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	NA	1900	NA	2100	2000	1900	1800	2200	2000	2600
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	NA	18	NA	16	12	17	16	47	30	11
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This is a compilation summary of data collected by C&S/MET and provided by the City of Auburn.

OBG
LABORATORIES, INC.

Purgeable Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#3

SAMPLE NO. A4897 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-7-86

	ppb		ppb
Chloromethane	10.	t-1,3-Dichloropropene	<5.
Bromomethane		Trichloroethene	
Vinyl Chloride		Benzene	
Chloroethane		Dibromochloromethane	
Methylene chloride	<5.	1,1,2-Trichloroethane	
1,1-Dichloroethene		c-1,3-Dichloropropene	
1,1-Dichloroethane		2-Chloroethylvinyl ether	<10.
t-1,2-Dichloroethene		Bromoform	<5.
Chloroform		1,1,2,2-Tetrachloroethane	
1,2-Dichloroethane		Tetrachloroethene	
1,1,1-Trichloroethane		Toluene	
Carbon tetrachloride		Chlorobenzene	
Bromodichloromethane		Ethylbenzene	
1,2-Dichloropropane		Xylenes	

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: [signature]

Date: February 26, 1987

OBG Laboratories, Inc.
Box 4942/1304 Buckley Rd./Syracuse, NY/13221/(315) 457-1494

OBG
LABORATORIES, INC.

Purgeable Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#5A

SAMPLE NO. A4898 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-7-86

	ppb		ppb
Chloromethane	10	t-1,3-Dichloropropene	<5.
Bromomethane		Trichloroethene	
Vinyl chloride		Benzene	
Chloroethane		Dibromochloromethane	
Methylene chloride	<5	1,1,2-Trichloroethane	
1,1-Dichloroethene		c-1,3-Dichloropropene	
1,1-Dichloroethane		2-Chloroethylvinyl ether	<10.
t-1,2-Dichloroethene		Bromoform	<5
Chloroform		1,1,2,2-Tetrachloroethane	
1,2-Dichloroethane		Tetrachloroethene	
1,1,1-Trichloroethane		Toluene	
Carbon tetrachloride		Chlorobenzene	
Bromodichloromethane		Ethylbenzene	
1,2-Dichloropropane		Xylenes	

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: [signature]

Date: February 26, 1987

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Purgeable Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#6A

SAMPLE NO. A4899 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-7-86

	ppb		ppb
Chloromethane	<10.	t-1,3-Dichloropropene	<5.
Bromomethane		Trichloroethene	
Vinyl chloride		Benzene	
Chloroethane		Dibromochloromethane	
Methylene chloride	<5	1,1,2-Trichloroethane	
1,1-Dichloroethene		c-1,3-Dichloropropene	
1,1-Dichloroethane		2-Chloroethylvinyl ether	<10.
t-1,2-Dichloroethene		Bromoform	
Chloroform		1,1,2,2-Tetrachloroethane	
1,2-Dichloroethane		Tetrachloroethene	
1,1,1-Trichloroethane		Toluene	7.2
Carbon tetrachloride		Chlorobenzene	<5
Bromodichloromethane		Ethylbenzene	
1,2-Dichloropropane		Xylenes	

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: [signature]

Date: February 26, 1987

OBG Laboratories, Inc.
Box 4942/1304 Buckley Rd./Syracuse, NY/13221/(315) 457-1494

OBG
LABORATORIES, INC.

Purgeable Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#6B

SAMPLE NO. A4900 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-7-86

	ppb		ppb
Chloromethane	<12	t-1,3-Dichloropropene	<6.2
Bromomethane		Trichloroethene	
Vinyl chloride		Benzene	
Chloroethane		Dibromochloromethane	
Methylene chloride	8.5	1,1,2-Trichloroethane	
1,1-Dichloroethene	<6.2	c-1,3-Dichloropropene	
1,1-Dichloroethane		2-Chloroethylvinyl ether	<12
t-1,2-Dichloroethene		Bromoform	<6.2
Chloroform		1,1,2,2-Tetrachloroethane	
1,2-Dichloroethane		Tetrachloroethene	
1,1,1-Trichloroethane		Toluene	
Carbon tetrachloride		Chlorobenzene	
Bromodichloromethane		Ethylbenzene	
1,2-Dichloropropane		Xylenes	

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: [signature]

Date: February 26, 1987

OBG Laboratories, Inc.
Box 4942/1304 Buckley Rd./Syracuse, NY/13221/(315) 457-1494

OBG
LABORATORIES, INC.

Purgeable Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#7A

SAMPLE NO. A4901 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-11-86

	ppb		ppb
Chloromethane	<20.	t-1,3-Dichloropropene	<15.
Bromomethane		Trichloroethene	
Vinyl chloride		Benzene	
Chloroethane		Dibromochloromethane	
Methylene chloride	16.	1,1,2-Trichloroethane	
1,1-Dichloroethene	<15.	c-1,3-Dichloropropene	
1,1-Dichloroethane		2-Chloroethylvinyl ether	<29.
t-1,2-Dichloroethene		Bromoform	
Chloroform		1,1,2,2-Tetrachloroethane	
1,2-Dichloroethane		Tetrachloroethene	
1,1,1-Trichloroethane		Toluene	
Carbon tetrachloride		Chlorobenzene	
Bromodichloromethane		Ethylbenzene	
1,2-Dichloropropane		Xylenes	

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: [signature]

Date: February 26, 1987

OBG Laboratories, Inc.
Box 4942/1304 Buckley Rd./Syracuse, NY/13221/(315) 457-1494

LABORATORIES, INC.

Purgeable Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#7B

SAMPLE NO. A4902 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-7-86

	ppb		ppb
Chloromethane	<10.	t-1,3-Dichloropropene	<5.
Bromomethane		Trichloroethene	
Vinyl chloride		Benzene	
Chloroethane		Dibromochloromethane	
Methylene chloride	<5	1,1,2-Trichloroethane	
1,1-Dichloroethene		c-1,3-Dichloropropene	
1,1-Dichloroethane		2-Chloroethylvinyl ether	<10.
t-1,2-Dichloroethene		Bromoform	<5
Chloroform		1,1,2,2-Tetrachloroethane	
1,2-Dichloroethane		Tetrachloroethene	
1,1,1-Trichloroethane		Toluene	
Carbon tetrachloride		Chlorobenzene	
Bromodichloromethane		Ethylbenzene	
1,2-Dichloropropane		Xylenes	

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984.

Comments:

Authorized: [signature]

Date: February 26, 1987

OBG Laboratories, Inc.
Box 4942/1304 Buckley Rd./Syracuse, NY/13221/(315) 457-1494

OBG
LABORATORIES, INC.

Pesticide/PCB Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#3

SAMPLE NO. A4897 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-4-86

	ppb		ppb
α-BHC	<0.05	4,4'-DDT	<0.1
γ-BHC		Endosulfan Sulfate	
β-BHC		Endrin Aldehyde	
Heptachlor		Methoxychlor	<0.5
δ-BHC		Endrin Ketone	<0.1
Aldrin		Chlordane	<0.5
Heptachlor Epoxide		Toxaphene	<1.0
Endosulfan I		PCB-1221	<0.5
4,4'-DDE	<0.1	PCB-1232	
Dieldrin		PCB-1016/1242	
Endrin		PCB-1248	
4,4'-DDD		PCB-1254	<1.0
Endosulfan II		PCB-1260	<1.0

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: [signature]

Date: February 27, 1987

OBG Laboratories, Inc.
Box 4942/1304 Buckley Rd./Syracuse, NY/13221/(315) 457-1494

OBG
LABORATORIES, INC.

Pesticide/PCB Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#5A

SAMPLE NO. A4898 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-4-86

	ppb		ppb
α-BHC	<0.05	4,4'-DDT	<0.1
γ-BHC		α-Endosulfan Sulfate	
β-BHC		Endrin Aldehyde	
Heptachlor		Methoxychlor	<0.5
δ-BHC		Endrin Ketone	<0.1
Aldrin		Chlordane	<0.5
Heptachlor Epoxide		Toxaphene	<1.0
Endosulfan I		PCB-1221	
4,4'-DDE	<0.1	PCB-1232	
Dieldrin		PCB-1242	
Endrin		PCB-1248	
4,4'-DDD		PCB-1254	<1.0
Endosulfan II		PCB-1260	<1.0

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: [signature]

Date: February 27, 1987

OBG Laboratories, Inc.
Box 4942/1304 Buckley Rd./Syracuse, NY/13221/(315) 457-1494

OBG
LABORATORIES, INC.

Pesticide/PCB Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#6A

SAMPLE NO. A4899 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-4-86

	ppb		ppb
α-BHC	<0.05	4,4'-DDT	<0.1
γ-BHC		Endosulfan Sulfate	
β-BHC		Endrin Aldehyde	
Heptachlor		Methoxychlor	<0.5
δ-BHC		Endrin Ketone	<0.1
Aldrin		Chlordane	<0.5
Heptachlor Epoxide		Toxaphene	<1.0
Endosulfan I		PCB-1221	<1
4,4'-DDE	<0.1	PCB-1232	
Dieldrin		PCB-1016/1242	
Endrin		PCB-1248	
4,4'-DDD		PCB-1254	<1
Endosulfan II		PCB-1260	<1.0

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: [signature]

Date: February 27, 1987

OBG Laboratories, Inc.
Box 4942/1304 Buckley Rd./Syracuse, NY/13221/(315) 457-1494

OBG
LABORATORIES, INC.

Pesticide/PCB Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#6B

SAMPLE NO. A4900 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-4-86

	ppb		ppb
α-BHC	<0.05	4,4'-DDT	<0.1
γ-BHC		Endosulfan Sulfate	
β-BHC		Endrin Aldehyde	
Heptachlor		Methoxychlor	<0.5
δ-BHC		Endrin Ketone	<0.1
Aldrin		α-Chlordane	<0.5
Heptachlor Epoxide		Toxaphene	<1.0
Endosulfan I		PCB-1221	<1.0
4,4'-DDE	<0.1	PCB-1232	
Dieldrin		PCB-1016/1242	
Endrin		PCB-1248	
4,4'-DDD		PCB-1254	<1.0
Endosulfan II		PCB-1260	<1.0

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: February 27, 1987

OBG
LABORATORIES, INC.

Pesticide/PCB Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#7A

SAMPLE NO. A4901 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-4-86

	ppb		ppb
α-BHC	<0.05	4,4'-DDT	<0.1
γ-BHC		Endosulfan Sulfate	
β-BHC		Endrin Aldehyde	
Heptachlor		Methoxychlor	0.51
δ-BHC		Endrin Ketone	<0.1
Aldrin		Chlordane	
Heptachlor Epoxide		Toxaphene	<1.0
Endosulfan I		PCB-1221	
4,4'-DDE	0.1	PCB-1232	
Dieldrin		PCB-1242	
Endrin		PCB-1248	
4,4'-DDD		PCB-1254	<1.0
Endosulfan II		PCB-1260	<1.0

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: [signature]

Date: February 27, 1987

OBG Laboratories, Inc.
Box 4942/1304 Buckley Rd./Syracuse, NY/13221/(315) 457-1494

OBG
LABORATORIES, INC.

Pesticide/PCB Priority Pollutants

CLIENT AUBURN LANDFILL JOB NO. 178.025.517

DESCRIPTION MW#7B

SAMPLE NO. A4902 DATE COLLECTED 10-31-86 DATE REC'D. 10-31-86 DATE ANALYZED 11-4-86

	ppb		ppb
[illegible]	[illegible]	4,4'-DDT	<0.1
γ-BHC		[illegible]	[illegible]
[illegible]	[illegible]	Endrin Aldehyde	
Heptachlor		[illegible]	[illegible]
[illegible]	[illegible]	Endrin Ketone	<0.1
Aldrin		[illegible]	[illegible]
[illegible]	[illegible]	Toxaphene	<1.0
Endosulfan I		[illegible]	[illegible]
[illegible]	[illegible]	PCB-1232	
Dieldrin		[illegible]	[illegible]
[illegible]	[illegible]	PCB-1248	
4,4'-DDD		[illegible]	[illegible]
[illegible]	[illegible]	PCB-1260	<1.0

Methodology: Federal Register—40 CFR, Part 136, October 26, 1984

Comments:

Authorized: [signature]
February 27, 1987

Lab Name : OBG LABORATORIES
Case No : AUBURN_LANDFILL

Sample Number
A4897 MW * 3

ORGANICS ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted: 4 Nov 1986
Date Analyzed: 11/08/86 17:11
Conc/Dil Factor: 1
Percent Moisture (Decanted) .....

GPC Cleanup __ Yes ✓ No
Separatory Funnel Extraction ✓ Yes
Continuous Liquid-Liquid Extraction __ Yes

C.A.S. Number		(ug/L) or ug/Kg (Circle One)	C.A.S. Number		(ug/L) or ug/Kg (Circle One)
108-95-2	Phenol	10.U	83-32-9	Acenaphthene	10.U
111-44-4	bis(-2-Chloroethyl)Ether	10.U	51-28-5	2,4-Dinitrophenol	50.U
95-57-8	2-Chlorophenol	10.U	100-02-7	4-Nitrophenol	50.U
541-73-1	1,3-Dichlorobenzene	10.U	132-64-9	Dibenzofuran	10.U
106-46-7	1,4-Dichlorobenzene	10.U	121-14-2	2,4-Dinitrotoluene	10.U
100-51-6	Benzyl Alcohol	10.N	606-20-2	2,6-Dinitrotoluene	10.U
95-50-1	1,2-Dichlorobenzene	10.U	84-66-2	Diethylphthalate	0.J
95-48-7	2-Methylphenol	10.U	7005-72-3	4-Chlorophenyl-phenlyether	10.N
39638-32-9	bis(2-chloroisopropyl)Ether	10.U	86-73-7	Fluorene	10.U
106-44-5	4-Methylphenol	10.U	100-01-6	4-Nitroaniline	10.U
621-64-7	N-Nitroso-Di-n-Propylamine	10.U	534-52-1	4,6-Dinitro-2-Methylphenol	50.U
67-72-1	Hexachloroethane	10.U	86-30-6	N-Nitrososdiphenylamine (1)	10.U
98-95-3	Nitrobenzene	10.U	101-55-3	4-Brosophenyl-phenylether	10.U
78-59-1	Isophorone	10.U	118-74-1	Hexachlorobenzene	10.U
88-75-5	2-Nitrophenol	10.U	87-86-5	Pentachlorophenol	50.U
105-67-9	2,4-Dimethylphenol	10.U	85-01-8	Phenanthrene	10.U
65-85-0	Benzoic Acid	50.U	120-12-7	Anthracene	10.U
111-91-1	bis(-2-Chloroethoxy)Methane	10.U	84-74-2	Di-n-Butylphthalate	10.U
120-83-2	2,4-Dichlorophenol	10.U	206-44-0	Fluoranthene	10.U
120-82-1	1,2,4-Trichlorobenzene	10.U	129-00-0	Pyrene	10.U
91-20-3	Naphthalene	0.J	85-68-7	Butylbenzylphthalate	10.U
106-47-8	4-Chloroaniline	10.N	91-94-1	3,3'-Dichlorobenzidine	20.U
87-68-3	Hexachlorobutadiene	10.U	56-55-3	Benzo(a)Anthracene	10.U
59-50-7	4-Chloro-3-Methylphenol	10.U	117-81-7	bis(2-Ethylhexyl)Phthalate	10.U
91-57-6	2-Methylnaphthalene	10.N	218-01-9	Chrysene	10.U
77-47-4	Hexachlorocyclopentadiene	10.U	117-84-0	Di-n-Octyl Phthalate	10.N
88-06-2	2,4,6-Trichlorophenol	10.U	205-99-2	Benzo(b)Fluoranthene	10.U
95-95-4	2,4,5-Trichlorophenol	50.U	207-08-9	Benzo(k)Fluoranthene	10.U
91-58-7	2-Chloronaphthalene	10.U	50-32-8	Benzo(a)Pyrene	10.N
88-74-4	2-Nitroaniline	50.U	193-39-5	Indeno(1,2,3-cd)Pyrene	10.U
131-11-3	Dimethyl Phthalate	10.U	53-70-3	Dibenzo(a,h)Anthracene	10.U
208-96-8	Acenaphthylene	10.U	191-24-2	Benzo(g,h,i)Perylene	10.U
99-09-2	3-Nitroaniline	50.U			

(1)-Cannot be separated from diphenylamine

Form 1 7/85

G. LaPlante
11/12/86

Lab Name : 3BG LABORATORIES
Case No : AUBURN LANDFILL

Sample Number
A4698 MW #5A

ORGANICS ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted: 4 Nov 1986
Date Analyzed: 11/08/86 18:34
Conc/Dil Factor: 1
Percent Moisture (Decanted) .....

GPC Cleanup __ Yes ✓ No
Separatory Funnel Extraction ✓ Yes
Continuous Liquid-Liquid Extraction __ Yes

C.A.S. Number		ug/L or ug/Kg (Circle One)	C.A.S. Number		ug/L or ug/Kg (Circle One)
108-95-2	Phenol	10.U	83-32-9	Acenaphthene	10.U
111-44-4	bis(-2-Chloroethyl)Ether	10.U	51-28-5	2,4-Dinitrophenol	50.U
95-57-8	2-Chlorophenol	10.U	100-02-7	4-Nitrophenol	50.U
541-73-1	1,3-Dichlorobenzene	10.U	132-64-9	Dibenzofuran	10.U
106-46-7	1,4-Dichlorobenzene	10.U	121-14-2	2,4-Dinitrotoluene	10.U
100-51-6	Benzyl Alcohol	10.U	606-20-2	2,6-Dinitrotoluene	10.U
95-50-1	1,2-Dichlorobenzene	10.U	84-66-2	Diethylphthalate	4.J
95-48-7	2-Methylphenol	10.U	7005-72-3	4-Chlorophenyl-phenlyether	10.N
39638-32-9	bis(2-chloroisopropyl)Ether	10.U	86-73-7	Fluorene	10.U
106-44-5	4-Methylphenol	10.U	100-01-6	4-Nitroaniline	10.U
621-64-7	N-Nitroso-Di-n-Propylamine	10.U	534-52-1	4,6-Dinitro-2-Methylphenol	50.U
67-72-1	Hexachloroethane	10.U	86-30-6	N-Nitrosodiphenylamine (1)	10.U
98-95-3	Nitrobenzene	10.U	101-55-3	4-Bromophenyl-phenylether	10.U
78-59-1	Isophorone	10.N	118-74-1	Hexachlorobenzene	10.U
88-75-5	2-Nitrophenol	10.U	87-86-5	Pentachlorophanol	50.U
105-67-9	2,4-Dimethylphenol	10.U	85-01-8	Phenanthrene	10.U
65-85-8	Benzoic Acid	50.U	120-12-7	Anthracene	10.U
111-91-1	bis(-2-Chloroethoxy)Methane	10.U	84-74-2	Di-n-Butylphthalate	10.U
120-83-2	2,4-Dichlorophenol	10.U	206-44-8	Fluoranthene	10.U
120-82-1	1,2,4-Trichlorobenzene	10.U	129-00-8	Pyrene	10.U
91-20-3	Naphthalene	10.N	85-68-7	Butylbenzylphthalate	10.U
106-47-8	4-Chloroaniline	10.U	91-94-1	3,3'-Dichlorobenzidine	20.U
87-68-3	Hexachlorobutadiene	10.U	56-55-3	Benzo(a)Anthracene	10.U
59-50-7	4-Chloro-3-Methylphenol	10.U	117-81-7	bis(2-Ethylhexyl)Phthalate	10.U
91-57-6	2-Methylnaphthalene	10.N	218-01-9	Chrysene	10.U
77-47-4	Hexachlorocyclopentadiene	10.U	117-84-0	Di-n-Octyl Phthalate	2.J
88-06-2	2,4,6-Trichlorophenol	10.U	205-99-2	Benzo(b)Fluoranthene	10.U
95-95-4	2,4,5-Trichlorophenol	50.U	207-08-9	Benzo(k)Fluoranthene	10.U
91-58-7	2-Chloronaphthalene	10.U	50-32-8	Benzo(a)Pyrene	10.U
88-74-4	2-Nitroaniline	50.U	193-39-5	Indeno(1,2,3-cd)Pyrene	10.U
131-11-3	Dimethyl Phthalate	10.U	53-70-3	Dibenzo(a,h)Anthracene	10.U
208-96-8	Acenaphthylene	10.U	191-24-2	Benzo(g,h,i)Perylene	10.U
99-09-2	3-Nitroaniline	50.U			

(1)-Cannot be separated from diphenylamine

Form 1 7/85

C. L. Lamb
11/12/86

Lab Name : OBG LABORATORIES
Case No : AUBURN LANDFILL

Sample Number
A4899 mw #6A

ORGANICS ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted: 4 Nov 1986
Date Analyzed: 11/08/86 19:56
Conc/Dil Factor: 1
Percent Moisture (Decantad) .....

GPC Cleanup __ Yes ✓ No
Separatory Funnel Extraction ✓ Yes
Continuous Liquid-Liquid Extraction __ Yes

C.A.S. Number		(ug/L) or ug/Kg (Circle One)	C.A.S. Number		(ug/L) or ug/Kg (Circle One)
108-95-2	Phenol	9.J	83-32-9	Acenaphthene	10.N
111-44-4	bis(-2-Chloroethyl)Ether	10.U	51-28-5	2,4-Dinitrophenol	50.N
95-57-8	2-Chlorophenol	10.U	100-02-7	4-Nitrophenol	50.N
541-73-1	1,3-Dichlorobenzene	10.U	132-64-9	Dibenzofuran	10.U
106-46-7	1,4-Dichlorobenzene	10.U	121-14-2	2,4-Dinitrotoluene	10.N
100-51-6	Benzyl Alcohol	10.N	606-20-2	2,6-Dinitrotoluene	10.U
95-50-1	1,2-Dichlorobenzene	10.U	84-66-2	Diethylphthalate	1.J
95-48-7	2-Methylphenol	10.N	7005-72-3	4-Chlorophenyl-phenylether	10.N
39638-32-9	bis(2-chloroisopropyl)Ether	10.U	86-73-7	Fluorene	10.U
106-44-5	4-Methylphenol	10.N	100-01-6	4-Nitroaniline	10.N
621-64-7	N-Nitroso-Di-n-Propylamine	10.N	534-52-1	4,6-Dinitro-2-Methylphenol	50.N
67-72-1	Hexachloroethane	10.U	86-30-6	N-Nitrosodiphenylamine (1)	10.N
98-95-3	Nitrobenzene	10.N	101-55-3	4-Bromophenyl-phenylether	10.U
78-59-1	Isophorone	8.J	118-74-1	Hexachlorobenzene	10.U
88-75-5	2-Nitrophenol	10.N	87-86-5	Pentachlorophenol	50.U
105-67-9	2,4-Dimethylphenol	8.J	85-01-8	Phenanthrene	10.N
65-85-0	Benzoic Acid	50.U	120-12-7	Anthracene	10.N
111-91-1	bis(-2-Chloroethoxy)Methane	10.N	84-74-2	Di-n-Butylphthalate	10.N
120-83-2	2,4-Dichlorophenol	10.U	206-44-0	Fluoranthene	10.N
120-82-1	1,2,4-Trichlorobenzene	10.U	129-00-0	Pyrene	10.N
91-20-3	Naphthalene	1.J	85-68-7	Butylbenzylphthalate	10.U
106-47-8	4-Chloroaniline	10.N	91-94-1	3,3'-Dichlorobenzidine	20.U
87-68-3	Hexachlorobutadiene	10.U	56-55-3	Benzo(a)Anthracene	10.U
59-50-7	4-Chloro-3-Methylphenol	10.N	117-81-7	bis(2-Ethylhexyl)Phthalate	1.J
91-57-6	2-Methylnaphthalene	10.N	218-01-9	Chrysene	10.U
77-47-4	Hexachlorocyclopentadiene	10.U	117-84-0	Di-n-Octyl Phthalate	10.N
88-06-2	2,4,6-Trichlorophenol	10.U	205-99-2	Benzo(b)Fluoranthene	10.U
95-95-4	2,4,5-Trichlorophenol	50.U	207-08-9	Benzo(k)Fluoranthene	10.U
91-58-7	2-Chloronaphthalene	10.U	50-32-8	Benzo(a)Pyrene	10.N
88-74-4	2-Nitroaniline	50.U	193-39-5	Indeno(1,2,3-cd)Pyrene	10.U
131-11-3	Dimethyl Phthalate	47.	53-70-3	Dibenzo(a,h)Anthracene	10.U
208-96-8	Acenaphthylene	10.N	191-24-2	Benzo(g,h,i)Perylene	10.U
99-09-2	3-Nitroaniline	50.U			

(1)-Cannot be separated from diphenylamine

Form 1 7/85

G. Lofstrom
11/12/86

Lab Name : GBG LABORATORIES
Case No : AUBURN LANDFILL

Sample Number
A4900 MW-6B

ORGANICS ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted: 4 Nov 1986
Date Analyzed: 11/08/86 21:19
Conc/Dil Factor: 1
Percent Moisture (Decanted) .....

GPC Cleanup __ Yes ✓ No
Separatory Funnel Extraction ✓ Yes
Continuous Liquid-Liquid Extraction __ Yes

C.A.S. Number		(ug/L or ug/Kg (Circle One))	C.A.S. Number		(ug/L or ug/Kg (Circle One))
108-95-2	Phenol	10.U	83-32-9	Acenaphthene	10.U
111-44-4	bis(-2-Chloroethyl)Ether	10.U	51-28-5	2,4-Dinitrophenol	50.U
95-57-8	2-Chlorophenol	10.U	100-02-7	4-Nitrophenol	50.U
541-73-1	1,3-Dichlorobenzene	10.U	132-64-9	Dibenzofuran	10.U
106-46-7	1,4-Dichlorobenzene	10.U	121-14-2	2,4-Dinitrotoluene	10.U
100-51-6	Benzyl Alcohol	10.N	606-20-2	2,6-Dinitrotoluene	10.U
95-50-1	1,2-Dichlorobenzene	10.U	84-66-2	Diethylphthalate	3.J
95-48-7	2-Methylphenol	10.N	7005-72-3	4-Chlorophenyl-phenlyether	10.N
39638-32-9	bis(2-chloroisopropyl)Ether	10.N	86-73-7	Fluorene	10.U
106-44-5	4-Methylphenol	10.N	100-01-6	4-Nitroaniline	10.U
621-64-7	N-Nitroso-Di-n-Propylamine	10.U	534-52-1	4,6-Dinitro-2-Methylphenol	50.U
67-72-1	Hexachloroethane	10.U	86-30-6	N-Nitrososdiphenylamine (1)	10.N
98-95-3	Nitrobenzene	10.N	101-55-3	4-Bromophenyl-phenylether	10.U
78-59-1	Isophorone	10.U	118-74-1	Hexachlorobenzene	10.U
88-75-5	2-Nitrophenol	10.U	87-86-5	Pentachlorophenol	50.U
105-67-9	2,4-Dimethylphenol	10.U	85-01-8	Phenanthrene	10.U
65-85-0	Benzoic Acid	50.U	120-12-7	Anthracene	10.U
111-91-1	bis(-2-Chloroethoxy)Methane	10.U	84-74-2	Di-n-Butylphthalate	10.N
120-83-2	2,4-Dichlorophenol	10.U	206-44-0	Fluoranthene	10.U
120-82-1	1,2,4-Trichlorobenzene	10.U	129-00-0	Pyrene	10.U
91-20-3	Naphthalene	10.N	85-68-7	Butylbenzylphthalate	10.N
106-47-8	4-Chloroaniline	10.N	91-94-1	3,3'-Dichlorobenzidine	20.U
87-68-3	Hexachlorobutadiene	10.U	56-55-3	Benzo(a)Anthracene	10.U
59-50-7	4-Chloro-3-Methylphenol	10.U	117-81-7	bis(2-Ethylhexyl)Phthalate	10.N
91-57-6	2-Methylnaphthalene	10.N	218-01-9	Chrysene	10.U
77-47-4	Hexachlorocyclopentadiene	10.U	117-84-0	Di-n-Octyl Phthalate	10.N
88-06-2	2,4,6-Trichlorophenol	10.U	205-99-2	Benzo(b)Fluoranthene	10.U
95-95-4	2,4,5-Trichlorophenol	50.U	207-08-9	Benzo(k)Fluoranthene	10.U
91-58-7	2-Chloronaphthalene	10.U	50-32-8	Benzo(a)Pyrene	10.U
88-74-4	2-Nitroaniline	50.U	193-39-5	Indeno(1,2,3-cd)Pyrene	10.U
131-11-3	Dimethyl Phthalate	10.U	53-70-3	Dibenzo(a,h)Anthracene	10.U
208-96-8	Acenaphthylene	10.U	191-24-2	Benzo(g,h,i)Perylene	10.U
99-09-2	3-Nitroaniline	50.U			

(1)-Cannot be separated from diphenylamine

A. Lofgren
11/12/86

Lab Name : OBG LABORATORIES
Case No : AUBURN_LANDFILL

Sample Number
A4901 MW #7A

ORGANICS ANALYSIS DATA SHEET
(Page 2)

Semivoletile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted: 4 Nov 1986
Date Analyzed: 11/08/86 22:42
Conc/Dil Factor: 1
Percent Moisture (Decanted) .....

GPC Cleanup _ Yes ✓ No
Separatory Funnel Extraction ✓ Yes
Continuous Liquid-Liquid Extraction _ Yes

C.A.S. Number		(ug/L) or ug/Kg (Circle One)	C.A.S. Number		(ug/L) or ug/Kg (Circle One)
108-95-2	Phenol	10.U	83-32-9	Acenaphthene	10.U
111-44-4	bis(-2-Chloroethyl)Ether	10.U	51-28-5	2,4-Dinitrophenol	50.U
95-57-8	2-Chlorophenol	10.U	100-02-7	4-Nitrophenol	50.U
541-73-1	1,3-Dichlorobenzene	10.U	132-64-9	Dibenzofuran	10.U
106-46-7	1,4-Dichlorobenzene	10.U	121-14-2	2,4-Dinitrotoluene	10.U
100-51-6	Benzyl Alcohol	10.N	606-20-2	2,6-Dinitrotoluene	10.U
95-50-1	1,2-Dichlorobenzene	10.U	84-66-2	Diethylphthalate	4.J
95-48-7	2-Methylphenol	10.N	7005-72-3	4-Chlorophenyl-phenlyether	10.N
39638-32-9	bis(2-chloroisopropyl)Ether	10.U	86-73-7	Fluorene	10.U
106-44-5	4-Methylphenol	10.N	100-01-6	4-Nitroaniline	10.U
621-64-7	N-Nitroso-Di-n-Propylamine	10.U	534-52-1	4,6-Dinitro-2-Methylphenol	50.U
67-72-1	Hexachloroethane	10.U	86-30-6	N-Nitrososdiphenylamine (1)	10.U
98-95-3	Nitrobanzene	10.N	101-55-3	4-Bromophenyl-phenylether	10.U
78-59-1	Isophorone	10.N	118-74-1	Hexachlorobenzene	10.U
88-75-5	2-Nitrophenol	10.U	87-86-5	Pentachlorophenol	50.U
105-67-9	2,4-Dimethylphenol	10.U	85-01-8	Phenanthrene	10.U
65-85-0	Benzoic Acid	50.U	120-12-7	Anthracene	10.U
111-91-1	bis(-2-Chloroethoxy)Methane	10.U	84-74-2	Di-n-Butylphthalate	10.U
120-83-2	2,4-Dichlorophenol	10.U	206-44-0	Fluoranthene	10.U
120-82-1	1,2,4-Trichlorobenzene	10.U	129-00-0	Pyrene	10.U
91-20-3	Naphthalene	10.N	85-68-7	Butylbenzylphthalate	10.N
106-47-8	4-Chloroaniline	10.N	91-94-1	3,3'-Dichlorobenzidine	20.U
87-68-3	Hexachlorobutadiene	10.U	56-55-3	Benzo(a)Anthracene	10.U
59-50-7	4-Chloro-3-Methylphenol	10.U	117-81-7	bis(2-Ethylhexyl)Phthalate	10.N
91-57-6	2-Methylnaphthalene	10.N	218-01-9	Chrysene	10.U
77-47-4	Hexachlorocyclopentadiene	10.U	117-84-0	Di-n-Octyl Phthalate	10.N
88-06-2	2,4,6-Trichlorophenol	10.U	205-99-2	Benzo(b)Fluoranthene	10.U
95-95-4	2,4,5-Trichlorophenol	50.U	207-08-9	Benzo(k)Fluoranthene	10.U
91-58-7	2-Chloronaphthalene	10.U	50-32-8	Benzo(a)Pyrene	10.N
88-74-4	2-Nitroaniline	50.U	193-39-5	Indeno(1,2,3-cd)Pyrene	10.U
131-11-3	Dimethyl Phthalate	10.U	53-70-3	Dibenzo(a,h)Anthracene	10.U
208-96-8	Acenaphthylene	10.U	191-24-2	Benzo(g,h,i)Perylene	10.U
99-09-2	3-Nitroaniline	50.U			

(1)-Cannot be separated from diphenylamine

Form 1 7/85

A. F. Blando

Lab Name : OBG LABORATORIES
Case No : AUBURN LANDFILL

Sample Number
A4902 MW 7B

ORGANICS ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted: 4 Nov 1986
Date Analyzed: 11/09/86 0:04
Conc/Dil Factor: 1
Percent Moisture (Decanted) .....

GPC Cleanup __ Yes ✓ No
Separatory Funnel Extraction ✓ Yes
Continuous Liquid-Liquid Extraction __ Yes

C.A.S. Number		(ug/L or ug/Kg (Circle One)
108-95-2	Phenol	10.U
111-44-4	bis(-2-Chloroethyl)Ether	10.U
95-57-8	2-Chlorophenol	10.U
541-73-1	1,3-Dichlorobenzene	10.U
106-46-7	1,4-Dichlorobenzene	10.U
100-51-6	Benzyl Alcohol	10.N
95-50-1	1,2-Dichlorobenzene	10.U
95-48-7	2-Methylphenol	10.N
39638-32-9	bis(2-chloroisopropyl)Ether	10.U
106-44-5	4-Methylphenol	10.U
621-64-7	N-Nitroso-Di-n-Propylamine	10.U
67-72-1	Hexachloroethane	10.U
98-95-3	Nitrobenzene	10.N
78-59-1	Isophorone	10.N
88-75-5	2-Nitrophenol	10.N
105-67-9	2,4-Dimethylphenol	10.U
65-85-0	Benzoic Acid	50.U
111-91-1	bis(-2-Chloroethoxy)Methane	10.U
120-83-2	2,4-Dichlorophenol	10.U
120-82-1	1,2,4-Trichlorobenzene	8.J
91-20-3	Naphthalene	10.N
106-47-8	4-Chloroaniline	10.U
87-68-3	Hexachlorobutadiene	10.U
59-50-7	4-Chloro-3-Methylphenol	10.U
91-57-6	2-Methylnaphthalene	10.N
77-47-4	Hexachlorocyclopentadiene	10.U
88-06-2	2,4,6-Trichlorophenol	10.U
95-95-4	2,4,5-Trichlorophenol	50.U
91-58-7	2-Chloronaphthalene	10.U
88-74-4	2-Nitroaniline	50.U
131-11-3	Dimethyl Phthalate	10.U
208-96-8	Acenaphthylene	10.U
99-09-2	3-Nitroaniline	50.U
83-32-9	Acenaphthene	10.U
51-28-5	2,4-Dinitrophenol	50.U
100-02-7	4-Nitrophenol	50.U
132-64-9	Dibenzofuran	10.U
121-14-2	2,4-Dinitrotoluene	10.U
606-20-2	2,6-Dinitrotoluene	10.N
84-66-2	Diethylphthalate	2.J
7005-72-3	4-Chlorophenyl-phenylether	10.N
86-73-7	Fluorene	10.U
100-01-6	4-Nitroaniline	10.U
534-52-1	4,6-Dinitro-2-Methylphenol	50.U
86-30-6	N-Nitrosodiphenylamine (1)	10.U
101-55-3	4-Bromophenyl-phenylether	10.U
118-74-1	Hexachlorobenzene	10.U
87-86-5	Pentachlorophenol	50.U
85-01-8	Phenanthrene	10.U
120-12-7	Anthracene	10.U
84-74-2	Di-n-Butylphthalate	10.N
206-44-0	Fluoranthene	10.U
129-00-8	Pyrene	10.U
85-68-7	Butylbenzylphthalate	10.N
91-94-1	3,3'-Dichlorobenzidine	20.U
56-55-3	Benzo(a)Anthracene	10.U
117-81-7	bis(2-Ethylhexyl)Phthalate	10.N
218-01-9	Chrysene	10.U
117-84-0	Di-n-Octyl Phthalate	10.N
205-99-2	Benzo(b)Fluoranthene	10.U
207-08-9	Benzo(k)Fluoranthene	10.U
50-32-8	Benzo(a)Pyrene	10.U
193-39-5	Indeno(1,2,3-cd)Pyrene	10.U
53-70-3	Dibenzo(a,h)Anthracene	10.U
191-24-2	Benzo(g,h,i)Perylene	10.U

(1)-Cannot be separated from diphenylamine

Form 1 7/85

G. L. Shumb
11/12/86

CITY OF AUBURN SANITARY LANDFILL NO. 1

GROUNDWATER MONITORING DATA

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
pH	7.09	7.05	7.14
Turbidity, ntu	3500	17	280
COD, Dichromate	109	28.2	106
Chloride	168	113	88.8
Cyanide, Total	<0.02	<0.02	<0.02
Sulfate	1370	1320	48.6
Nitrogen, Kjeldahl	10.4	2.44	129
Nitrogen, Ammonia	5.22	1.52	134
Nitrogen, Nitrate	<0.05	<0.05	0.12
Nitrogen, Nitrite	<0.05	<0.05	<0.05
Nitrogen, Nitrate/Nitrite	<0.05	<0.05	0.12
BOD5	4.0	3.5	18.1
Color, Apparent (APHA)	<5	40	40
Alkalinity, Total	479	328	1230
Alkalinity, Bicarbonate	<2.0	<2.0	<2.0
Alkalinity, Carbonate	479	328	1230
Solids, Dissolved @180 C	2510	2730	1100
Phenol, Total	<0.005	<0.005	<0.005
Total Organic Carbons	10.0	8.42	34.0
Oissolved Oxygen	6.3	5.3	8.5
Redox Potential, mv	299	319	235
HSL Volatiles	**	**	**
HSL Pesticides/PCB's	**	**	**
HSL Acid Extractables/	**		**
Metals, Total & Soluble	**	**	**

** See Attached Data.

Analytical Units - mg/l

- This is a compilation of data provided by General Testing Corporation.

CITY OF AUBURN SANITARY LANDFILL NO. 1

GROUNDWATER MONITORING DATA

METALS, TOTAL & SOLUBLE

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
Aluminum	1.53	0.15	2.34
Aluminum, Soluble	<0.10	<0.10	<0.10
Antimony	<0.010	<0.010	<0.010
Antimony, Soluble	<0.010	<0.010	<0.010
Arsenic	0.0162	0.0192	<0.0020
Arsenic, Soluble	0.0162	0.0148	<0.0020
Barium	<1.0	<1.0	<1.0
Barium, Soluble	<1.0	<1.0	<1.0
Beryllium, Total	<0.0050	<0.0050	<0.0050
Beryllium, Soluble	<0.0050	<0.0050	<0.0050
Boron, Total	<10.0	<10.0	<10.0
Boron, Soluble	<10.0	<10.0	<10.0
Cadmium, Total	<0.0050	<0.0050	<0.0050
Cadmium, Soluble	<0.0050	<0.0050	<0.0050
Calcium, Total	628	425	145
Calcium, Soluble	436	460	88.5
Chromium, Total	<0.0050	<0.0050	0.0078
Chromium, Soluble	<0.0050	<0.0050	<0.0050
Chromium, Hex	<0.010	<0.010	<0.010
Chromium Hex, Soluble	<0.010	<0.010	<0.010
Cobalt, Total	<0.050	<0.050	<0.050
Cobalt, Soluble	<0.050	<0.050	<0.050
Copper, Total	0.030	<0.020	<0.020
Copper, Soluble	<0.020	<0.020	<0.020
Iron, Total	13.1	5.36	5.43
Iron, Soluble	8.04	2.91	3.42
Lead, Total	<0.0050	<0.0050	0.0056
Lead, Soluble	<0.0050	<0.0050	<0.0050

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA. (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

Analytical Results - mg/l

- This is a compilation of data provided by General Testing Corporation.

CITY OF AUBURN SANITARY LANDFILL NO. 1

GROUNDWATER MONITORING DATA

METALS, TOTAL & SOLUBLE

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
Magnesium, Total	201	132	130
Magnesium, Soluble	135	137	123
Manganese, Total	0.742	0.010	0.314
Manganese, Soluble	0.130	0.056	0.167
Mercury, Total	<0.00020	<0.00020	<0.00020
Mercury, Soluble	<0.00020	<0.00020	<0.00020
Nickel, Total	0.069	0.048	0.062
Nickel, Soluble	<0.040	0.044	0.045
Potassium, Total	10.2	4.58	57.2
Potassium, Soluble	9.03	4.71	50.8
Selenium, Total	<0.0020	<0.0020	<0.0020
Selenium, Soluble	<0.0020	<0.0020	<0.0020
Silver, Total	<0.010	<0.010	<0.010
Silver, Soluble	<0.010	<0.010	<0.010
Sodium, Total	82.8	59.4	112
Sodium, Soluble	76.9	64.4	115
Thallium, Total	<0.010	<0.010	<0.010
Thallium, Soluble	<0.010	<0.010	<0.010
Tin, Total	<0.010	<0.010	<0.010
Tin, Soluble	<0.010	<0.010	<0.010
Vanadium, Total	<0.250	<0.250	<0.250
Vanadium, Soluble	<0.0250	<0.250	<0.250
Zinc, Total	0.075	<0.010	0.016
Zinc, Soluble	<0.010	<0.010	<0.010

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA. (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

Analytical Results - mg/l

- This is a compilation of data provided by General Testing Corporation.

CITY OF AUBURN SANITARY LANDFILL NO. 1

GROUNDWATER MONITORING DATA

ANALYSIS * BY GC METHOD 8080 - HSL PESTICIDES

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
Date Extracted:	6/13/88	6/13/88	6/9/88
Date Analyzed:	6/23/88	6/23/88	6/22/88
alpha-BHC	0.050u	0.050u	0.050u
beta-BHC	0.050u	0.050u	0.050u
gamma-BHC (Lindane)	0.050u	0.050u	0.050u
Heptachlor	0.050u	0.050u	0.050u
delta-BHC	0.050u	0.050u	0.050u
Aldrin	0.050u	0.050u	0.050u
Heptachlorepoxide	0.050u	0.050u	0.050u
alpha-Endosulfan	0.050u	0.050u	0.050u
4,4'-DDE	0.050u	0.050u	0.050u
Dieldrin	0.050u	0.050u	0.050u
Endrin	0.050u	0.050u	0.050u
4,4'-TDE (DDD)	0.050u	0.050u	0.050u
beta-Endosulfan	0.10u	0.10u	0.10u
4,4'-DDT	0.10u	0.10u	0.10u
Endrin Aldehyde	0.10u	0.10u	0.10u
Endosulfan Sulfate	0.10u	0.10u	0.10u
Mirex	0.20u	0.20u	0.20u
Methoxychlor	0.20u	0.20u	0.20u
Chlordane	0.20u	0.20u	0.20u
Toxaphene	1.0u	1.0u	1.0u
PCB 1016	1.0u	1.0u	1.0u
PCB 1221	1.0u	1.0u	1.0u
PCB 1232	1.0u	1.0u	1.0u
PCB 1242	0.50u	0.50u	0.50u
PCB 1248	0.50u	0.50u	0.50u
PCB 1254	0.50u	0.50u	0.50u
PCB 1260	0.50u	0.50u	0.50u

*SW 846 Manual, Test Methods for Evaluating Solid Waste, 3rd Edition, 11/86
NY LABORATORY CERTIFICATION ID#: 10145
NJ ID#: 73331 in Rochester; NJ ID#: 02317 in Hackensack

Analytical Results - ug/l

- This is a compilation of data provided by General Testing Corporation.

CITY OF AUBURN SANITARY LANDFILL NO. 1

GROUNDWATER MONITORING DATA

ANALYSIS * BY GC METHOD 8080 - HSL PESTICIDES

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
SURROGATE STANDARD RECOVERY			
% Recovery			
Dibutylchlorendate (Acceptance Limits: 66-134%)	140% ++	138%++	92%
Tetrachloro-meta-xylene (Acceptance Limits: *+)	89%	97%	83%

*SW 846 Manual, Test Methods for Evaluating Solid Waste, 3rd Edition, 11/86.
NY LABORATORY CERTIFICATION ID#: 10145
NJ ID#: 73331 in Rochester;
NJ ID#: 02317 in Hackensack

*+ Currently no limits established
++ Outside Quality Control Limits

Analytical Results - %

- This is a compilation of data provided by General Testing Corporation.

CITY OF AUBURN SANITARY LANDFILL NO. 1
GROUNDWATER MONITORING DATA

HSL VOLATILES BY EPT METHOD 8240*

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
Date Analyzed:	6/15/88	6/15/88	6/12/88
Chloromethane	10u	10u	10u
Bromomethane	10u	10u	10u
Vinyl Chloride	10u	10u	10u
Chloroethane	10u	10u	10u
Methylene Chloride	5u	5u	5u
Acrolein	200u	200u	200u
Acetone	50u	162	50u
Acrylonitrile	100u	100u	100u
Carbon Disulfide	10u	10u	10u
Trichlorofluoromethane	5u	5u	5u
Vinyl Acetate	50u	50u	50u
1,1-Dichloroethene	5u	5u	5u
1,1-Dichloroethane	5u	5u	5u
Trans-1,2-Dichloroethene	5u	5u	5u
Chloroform	5u	1.1R,B	5u
2-Butanone (MEK)	50u	50u	50u
1,2-Dichloroethane	5u	5u	5u
1,1,1-Trichloroethane	5u	5u	5u
Carbon Tetrachloride	5u	5u	5u
Bromodichloromethane	5u	5u	5u
1,2-Dichloropropane	5u	5u	5u
1,3-Dichloropropene (Trans)	5u	5u	5u
Trichloroethene	5u	5u	5u
Dibromochloromethane	5u	5u	5u
1,1,2-Trichloroethane	5u	5u	5u
Benzene	5u	5u	5u
1,3-Dichloropropene(Cis)	5u	5u	5u
2-Chloroethylvinyl Ether	5u	5u	5u
Bromoform	5u	5u	5u
4-Methyl-2-pentanone(MIBK)	50u	50u	50u
2-Hexanone	50u	50u	50u
Tetrachloroethene	5u	5u	5u
1,1,1,2-Tetrachloroethane	5u	5u	5u
Toluene	5u	5u	5u
Chlorobenzene	5u	5u	5u

Analytical Results - ug/l

Quality Assurance/Quality Control data provided by General Testing Corporation

CITY OF AUBURN SANITARY LANDFILL NO. 1

GROUNDWATER MONITORING DATA

HSL VOLATILES BY EPA METHOD 8240*

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
Date Analyzed:	6/15/88	6/15/88	6/12/88
Ethylbenzene	5u	5u	5u
Styrene	5u	5u	5u
m-Xylene	5u	5u	5u
o + p-Xylene	5u	5u	5u
(m) Dichlorobenzene	5u	5u	5u
(p) Dichlorobenzene	5u	5u	5u
(o) Dichlorobenzene	5u	5u	5u

* SW846 Manual, Test Methods for Evaluating Solid Waste, 3rd Edition, 11/86.

Analytical Results - ug/l

- This is a compilation of data provided by General Testing Corporation.

CITY OF AUBURN SANITARY LANDFILL NO. 1

GROUNDWATER MONITORING DATA

SURROGATE RECOVERIES / EPA METHOD 8240*

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
Date Analyzed:	6/15/88	6/15/88	6/12/88
SURROGATE STANDARD RECOVERIES			
2-Bromo-1-Chloropropane (Acceptance Limits: 76-114%)	97%	108%	100%
Toluene d8 (Acceptance Limits: 88-110%)	90%	99%	101%
Bromoflurobenzene (Acceptance Limits: 86-115%)	98%	100%	106%

* SW846 Manual, Test Methods for Evaluating Solid Waste, 3rd Edition, 11/86.

Analytical Results %

- This is a compilation of data provided by General Testing Corporation.

CITY OF AUBURN SANITARY LANDFILL NO. 1

GROUNDWATER MONITORING DATA

HSL BASE NEUTRALS BY EPA METHOD 8270*

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
Date Extracted:	6/13/88	6/13/88	6/8/88
Date Analyzed:	6/18/88	6/18/88	6/18/88
N-Nitrosodimethylamine	10u	10u	10u
Bis(2-chloroethyl) ether	10u	10u	10u
1,3 Dichlorobenzene	10u	10u	10u
1,4 Dichlorobenzene	10u	10u	10u
1,2 Dichlorobenzene	10u	10u	10u
bis(-2-chloroisopropyl)ether	10u	10u	10u
N-Nitroso-Di-n-propylamine	10u	10u	10u
Hexachloroethane	10u	10u	10u
Nitrobenzene	10u	10u	10u
Isophorone	10u	10u	10u
bis(-2-chloroethoxy)methane	10u	10u	10u
1,2,4-Trichlorobenzene	10u	10u	10u
Naphthalene	10u	10u	10u
Hexachlorobutadiene	10u	10u	10u
Heaxachlorocyclopentadiene	10u	10u	10u
2-Chloronaphthalene	10u	10u	10u
Dimethyl phthalate	10u	10u	10u
Acenaphtylene	10u	10u	10u
Acenaphthene	10u	10u	10u
2,4-Dinitrotoluene	10u	10u	10u
2,6-Dinitrotoluene	10u	10u	10u
Diethyl phthalate	10u	10u	10u
4-Chlorophenyl-phenyl-ether	10u	10u	10u
Fluorene	10u	10u	10u
1,2-Diphenylhydrazine	10u	10u	10u
N-Nitrosodiphenylamine	10u	10u	10u
4-Bromophenyl-phenylether	10u	10u	10u
Hexachlorobenzene	10u	10u	10u
Phenanthrene	10u	10u	10u
Anthracene	10u	10u	10u
Di-n-butyl phthalate	10u	10u	10u
Benzidine	10u	10u	10u
Fluoranthene	10u	10u	10u
Pyrene	10u	10u	10u
Butyl benzyl phthalate	10u	10u	10u

Analytical Results - ug/l
- This is a compilation of data provided by General Testing Corporation.

CITY OF AUBURN SANITARY LANDFILL NO. 1

GROUNDWATER MONITORING DATA

HSL BASE NEUTRALS BY EPA METHOD 8270*

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
Date Extracted:	6/13/88	6/13/88	6/8/88
Date Analyzed:	6/18/88	6/18/888	6/18/88
3,3'-Dichlorobenzidine	20u	20u	20u
Benzo(a)anthracene	10u	10u	10u
Bis(2-ethylhexyl)phthalate	10u	10u	10u
Chrysene	10u	10u	10u
Di-n-octyl phthalate	371	305	164
Benzo(b)Fluoranthene	10u	10u	10u
Benzo(k)fluoranthene	10u	10u	10u
Benzene(a)pyrene	10u	10u	10u
Indeno(1,2,3-cd)pyrene	10u	10u	10u
Dibenzo(a,h)anthracene	10u	10u	10u
Benzo(g,h,i)perylene	10u	10u	10u
Aniline	20u	20u	20u
Benzyl Alcohol	20u	20u	20u
4-Chloroaniline	10u	10u	10u
2 Methyl Naphthalene	10u	10u	10u
2-Nitroaniline	20u	20u	20u
3-Nitroaniline	20u	20u	20u
Dibenzofuran	10u	10u	10u
4-Nitroaniline	50u	50u	50u

* SW846 Manual, Test Methods for Evaluating Solid Waste, 3rd Edition, 11/86.

Analytical Results ug/l

- This is a compilation of data provided by General Testing Corporation.

CITY OF AUBURN SANITARY LANDFILL NO. 1

GROUNDWATER MONITORING DATA

HSL ACID EXTRACTABLES BY EPA METHOD 8270

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
Date Extracted:	6/13/88	6/13/88	6/8/88
Date Analyzed:	6/18/88	6/18/88	6/18/88
Phenol	10u	10u	10u
2-Chlorophenol	10u	10u	10u
2-Nitrophenol	10u	10u	10u
2,4-Dimethylphenol	10u	10u	10u
2,4-Dichlorophenol	10u	10u	10u
4-Chloro-3-methylphenol	20u	20u	20u
2,4,6-Trichlorophenol	10u	10u	10u
2,4-Dinitrophenol	50u	50u	50u
4-Nitrophenol	50u	50u	50u
2-Methyl-4,6-dinitrophenol	50u	50u	50u
Pentachlorophenol	50u	50u	50u
2-Methyl Phenol	10u	10u	10u
4-Methyl phenol	10u	10u	10u
Benzoic Acid	100u	100u	100u
2,4,5-Trichlorophenol	20u	20u	20u

* SW846 Manual, Test Methods for Evaluating Solid Waste, 3rd Edition, 11/86.

Analytical Results - ug/l
- This is a compilation of data provided by General Testing Corporation.

CITY OF AUBURN SANITARY LANDFILL NO. 1

GROUNDWATER MONITORING DATA

SURROGATE RECOVERIES / EPA METHOD 8270*

Sample:	-017	-016	-007
Location:	MW-5A	MW-5B	MW-4A
Date Collected:	6/10/88	6/10/88	6/7/88
Time Collected:	13:00	14:00	15:15
Date Extracted:	6/13/88	6/13/88	6/8/88
Date Analyzed:	6/18/88	6/18/88	6/18/88
ACIDS			
2-Fluorophenol (Acceptance Limits: 25-100%)	56	41	26
Phenol-d5 (Acceptance Limits: 10-94%)	32	23	15
2,4,6-TriBromophenol (Acceptance Limits: 10-123%)	107	52	73
BASE NEUTRALS			
Nitrobenzene-d5 (Acceptance Limits: 35-114%)	76	65	36
2-Fluorobiphenyl (Acceptance Limits: 43-116%)	82	46	52
Terphenyl-d14 (Acceptance Limits: 33-141%)	85	44	43

* SW846 Manual, Test Methods for Evaluating Solid Waste, 3rd Edition, 11/86.
++ Outside Laboratory Control Limits

Analytical Results - %

- This is a compilation of data provided by General Testing Corporation.

Environmental LABORATORY, INC.
5854 Butternut Drive, East Syracuse, NY 13057

New York State
Approved Laboratory
(315) 446-8795

NATIONAL ENVIRONMENTAL TESTING NORTHEAST, INC.

To: AUBURN - CITY OF
24 SOUTH STREET
AUBURN, NY 13021

Date: Feb 24 1989

Attention: MR. MIKE O'NEILL

****

SAMPLE #845

LABORATORY ANALYSIS REPORT

****

SAMPLE SUMMARY

CLIENT	: AUBURN - CITY OF	DATE RECEIVED	: 01/26/89
JOB #	: 155.002.00	DATE COLLECTED	: 01/26/89
LOCATION	: 5B	TIME COLLECTED	: 1300
METHOD	:GRAB		

PARAMETER	RESULTS	UNITS
ACETONE/ISOPROPANOL	<1.0	ug/l
METHYLETHYLKETONE	<1.0	ug/l
METHYLISOBUTYLKETONE	<1.0	ug/l
CHLOROMETHANE	<1.0	ug/l
BROMOMETHANE	<1.0	ug/l
VINYL CHLORIDE	<1.0	ug/l
CHLOROETHANE	<1.0	ug/l
METHYLENE CHLORIDE	<1.0	ug/l
CHLOROBENZENE	<1.0	ug/l
1,1-DICHLOROETHYLENE	<1.0	ug/l
1,1-DICHLOROETHANE	<1.0	ug/l
TRANS-1,2-DICHLOROETHYLENE	<1.0	ug/l
ETHYLBENZENE	<1.0	ug/l
CHLOROFORM	<1.0	ug/l

Environmental
LABORATORY, INC.
5854 Butternut Drive, East Syracuse, NY 13057

New York State
Approved Laboratory
(315) 446-6795

NATIONAL ENVIRONMENTAL TESTING NORTHEAST, INC.

SAMPLE #845

LABORATORY ANALYSIS REPORT

PARAMETER	RESULTS	UNITS
1,2-DICHLOROETHANE	<1.0	ug/l
1,1,1-TRICHLOROETHANE	<1.0	ug/l
CARBON TETRACHLORIDE	<1.0	ug/l
BROMODICHLOROMETHANE	<1.0	ug/l
1,2-DICHLOROPROPANE	<1.0	ug/l
TRANS-1,3-DICHLOROPROPENE	<1.0	ug/l
TRICHLOROETHYLENE	<1.0	ug/l
DIBROMOCHLOROMETHANE	<1.0	ug/l
CIS-1,3-DICHLOROPROPENE	<1.0	ug/l
1,1,2-TRICHLOROETHANE	<1.0	ug/l
BENZENE	<1.0	ug/l
2-CHLOROETHYLVINYL ETHER	<1.0	ug/l
BROMOFORM	<1.0	ug/l
TETRACHLOROETHYLENE	<1.0	ug/l
1,1,2,2-TETRACHLOROETHANE	<1.0	ug/l
TOLUENE	<1.0	ug/l
1,2 DICHLOROBENZENE	<1.0	ug/l
1,3 DICHLOROBENZENE	<1.0	ug/l
1,4 DICHLOROBENZENE	<1.0	ug/l
TRICHLOROFLUOROMETHANE	<1.0	ug/l

ANALYSIS OF GROUND AND SURFACE WATER SAMPLES
CITY OF AUBURN LANDFILL
AUBURN, NEW YORK

PARAMETER	NEW YORK CLASS GA GROUNDWATER STANDARDS	MW-4 (09/10/85)	MW-5A (09/10/85)	MW-5B (09/10/86)	MW-6A (09/10/85)	MW-6B (09/10/85)	MW-7A (09/10/85)	MW-7B (09/10/85)	* SW-1 (09/10/85)	SW-2 (09/10/85)	SW-3 (09/10/85)
Alkalinity-S ($CaCO_3$)		800	316	309	4,050	281	290	265	429	327	444
BOD (5-day total)		4.0	12	16	26	24	26	13	12	19	71
COD		73	32	51	263	100	30	26	176	120	195
Chloride	250	42	356	342	2,720	682	10	45	580	493	1,310
Color		3,500	10,000	10,000	2,000	100,000	10,000	2,000	1,000	1,000	10,000
Conductance		2,700	3,000	2,320	13,500	2,700	2,200	2,500	1,450	1,280	2,100
Hardness		72	1,410	1,100	2,120	1,210	1,160	1,460	414	348	396
MBAS	0.5	1.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Ammonia (as N)		3.66	0.67	0.38	164.	14.1	0.29	0.29	9.47	10.9	22
Nitrate (as N)	10.0	0.83	0.10	0.24	0.28	0.17	0.63	0.61	5.08	3.43	1.62
Nitrite (as N)		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.17	0.07	0.03
TKN (as N)		4.8	1.3	1.2	156	16.6	0.5	0.5	18	12.5	22
pH	6.5-8.5	11.6	11.6	7.6	12.4	8.0	7.8	7.6	8.1	8.1	8.1
Phenol	0.001	0.089	0.01	0.01	0.077	0.023	0.01	0.01	0.01	0.01	0.01
Phosphorus (total)		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.26	0.05	0.05
TDS		1,700	2,090	2,550	4,250	2,500	2,370	2,820	1,020	756	1,360
Sulfate	250	662	1,050	1,240	7.8	1,390	1,307	1,580	88	86	94
TOC		16	14	38	68	48	40	22	98	66	95
Aluminum		0.01	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Arsenic	0.025		0.002	0.008	0.002	0.002	0.004	0.002	0.002	0.002	0.002
Calcium			500	390	800	270	330	550	77	76	100
Chromium (total)		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Chromium (hex)	0.05	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Copper	1.0	0.01	0.02	0.02	0.03	0.02	0.01	0.01	0.06	0.02	0.02
Iron	0.3	0.01	0.04	1.6	0.1	0.13	0.06	0.29	0.22	0.12	0.09
Lead	0.025		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Mercury	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Potassium		210	10	5.3	310	29	7	3.4	34	22	39
Silver	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Sodium			84	84	690	190	44	17	194	119	260
Coliform (total)		200	mat. growth	mat. growth	1	1	mat. growth	mat. growth	mat. growth	mat. growth	mat. growth
Cadmium	0.01	0.	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Source: Calocerinos & Spina Consulting Engineers, Liverpool, NY 13088; Hydrogeologic Assessment on Auburn City Landfill, December, 1985.

Notes:

*"Surface water sample SW-1 was taken from a seep on the notheast side of the landfill." This sampling location will not be included in the environmental monitoring plan under the ICMP.

ANALYSIS OF GROUND WATER SAMPLES
CITY OF AUBURN LANDFILL
AUBURN, NEW YORK

PARAMETER	MW-1 (08/07/84)	MW-1 (10/17/84)	MW-1 (12/19/84)	MW-1 (03/04/85)	MW-1 (06/25/85)	MW-2 (08/07/84)	MW-2 (10/17/84)	MW-2 (12/19/84)	MW-2 (03/19/85)	MW-2 (06/25/85)	MW-3 (08/07/84)	MW-3 (10/17/84)	MW-3 (12/19/84)	MW-3 (03/04/85)
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	<0.01	< 0.01	<0.01	< 0.01	<0.01	<0.01	< 0.01	< 0.01
Chromium (total)	<0.01		<0.01	<0.01		< 0.01		< 0.01	<0.01		<0.01		< 0.01	< 0.01
Chloride	14.4	50	72	6.0	11	5.1	20	7.0	2.0	4.8	6.2	3.0	5.0	5.0
Conductance	800	650	680	800	700	2300	2200	2000	2200	2300	2800	2600	1600	2600
pH	7.8	7.8	7.8	7.9	8.0	7.6	6.7	7.1	7.7	7.5	7.8	7.3	7.2	7.3
TOC	48	48	9.0	11	<3	7.0	6.0	9.0	< 3	< 3	22.5	2.0	12	9.4
Iron	0.11	0.6	0.05	0.03	< 0.01	6.12	5.3	3.3	7.3	5.5	1.7	3.3	1.5	1.3
Lead	< 0.02	< 0.05	< 0.05	<0.05	< 0.05	< 0.02	< 0.05	<0.05	< 0.05	< 0.05	< 0.02	< 0.05	< 0.05	< 0.05
Zinc	0.08	0.10	0.33	1.7	1.2	0.18	0.01	0.09	< 0.01	< 0.01	0.26	0.02	0.02	0.07
Chromium (hex)		< 0.004			< 0.004		< 0.004			< 0.004		< 0.004		
Manganese		0.05			< 0.01		0.69			0.15		0.21		
Mercury		< 0.002			< 0.002		< 0.002			< 0.002		< 0.002		
Phenol					< 0.01					< 0.01				

Source: Calocerinos &Spina Consulting Engineers, Liverpool, NY 13088;
Hydrogeologic Assessment on Auburn City Landfill, Deceomber, 1985.

MONITORING WELL DATA

WELL #1 (August 15, 1977)**

	Iron mg/l	Chloride mg/l	Zinc mg/l	Lead mg/l
11-20-80*total	7.2	13	.44	
4-17-81*total	47*	15		
2-19-82	3.7	12		
4-30-82	.05	12		
7-82*total	121	12	6.7	
5-27-83	.16	60		
6-23-83	3.88	8.91		
8-9-83	.43	7.9		
11-8-83	.07	64.4		
2-16-84	.58	6.9		
7-2-84	.11	14.4		
8-7-84	.11	14.4		
10-17-84	.60	50		
12-19-84	.05	72		
3-4-85	.03	6		
6-25-85	<.01	11		

**Samples are soluble portions unless indicated as total

AUBURN CITY ENGINEERING

Source: Calocerinos & Spina Consulting Engineers, Liverpool, NY 13088; Hydrogeologic Assessment on Auburn City Landfill, December, 1985.

WELL #2 (February 21, 1980)

	Iron mg/1	Chloride mg/1	Zinc mg/1	Lead mg/1
9-17-80*total	11.4	10		.10
11-20-80*total	11.1	8		.10
4-17-81*total	28*	15		
4-30-82	.06	11		
5-27-83	2.10	485		
7-12-83	.18	5.9		
7-12-83*total	14.1			
8-9-83	2.42	5.0		
11-8-83	.34	99		
2-16-84	2.59	5.9		
7-2-84	5.12	5.1		
8-7-84	5.12	5.1		
10-17-84	5.3	20		
12-19-84	3.3	4.8		
3-19-85	7.3	2.0		
6-25-85	5.5	4.8		

**Samples are soluble portions unless indicated as total

WELL #3

	Iron mg/1	Chloride mg/1	Zinc mg/1	Lead mg/1
5-27-83	.14	15.8		
6-23-83	.09	.87		
6-23-83*total	14.85	48.51		
6-25-83	1.9	5.3		
8-9-83	1.12	9.9		
10-17-83	3.3	3		
11-8-83	.05	29.7		
2-16-84	.17	6.9		
7-2-84	1.7	6.2		
8-7-84	1.7	6.2		
12-19-84	1.5	5.0		
3-4-85	1.3	5.0		

**Samples are soluble portions unless indicated as total

Source: Calocerinos & Spina Consulting Engineers, Liverpool, Ny 13088; Hydrogeologic Assessment on Auburn City Landfill, December, 1985.

APPENDIX B

RESULTS OF SURFACE WATER MONITORING PROGRAM

CITY OF AUBURN SANITARY LANDFILL NO. 1
SURFACE WATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
SW-2

PARAMETER	UNITS	STANDARD	1-21-87	7-15-87	10-15-87	1-20-88	4-13-88	7-22-88	10-21-88	1-20-89	4-14-89	7-21-89
pH	Stndrd Units	6.5 TO 8.5	7.3	7.7	6.9	7.8	7.9	7.9	7.9	8.1	7.7	7.6
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	341	392	342	250	540	650	780	760	630	540
TOTAL KIELDAHL NITROGEN	mg/l (ppm)	NL	9.0	12.5	6.7	3.6	9.5	18	5.3	11.5	8.8	23
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALKALAMITY AS CACO3	mg/l (ppm)	NL	353	428	358	202	550	446	480	380	314	670
BORON	mg/l (ppm)	NL	(0.25	0.54	0.29	(0.25	0.27	0.42	0.54	0.28	0.30	0.63
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	80	86	69	54	81	140	170	110	70	210
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA NITROGEN	mg/l (ppm)	NL	7.57	11.3	(0.04	(0.04	7.43	14.2	20	10.4	7.32	17.7
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	0.046	(0.010	0.014	(0.010	(0.010	(0.010	(0.010	(0.010	0.027	(0.010
COPPER	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	5.6	2.7	3.2	9.1	1.5	3.2	4.4	3.0	2.6	3.6
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	mg/l (ppm)	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	0.59	1.1	0.78	0.59	0.35	0.72	0.54	0.34	0.47	0.37
CADMIUM	mg/l (ppm)	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	mg/l (ppm)	0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	mg/l (ppm)	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	1000	1075	1200	520	1100	1400	1900	1550	1200	1500
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	126	90	22	28	45	54	100	70	71	68
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	876	90	844	514	970	1400	560	1100	1020	912

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This is a compilation summary of data collected by C&S/MET and provided by the City of Auburn.

CITY OF AUBURN SANITARY LANDFILL NO. 1
SURFACE WATER MONITORING DATA
METALS, INORGANICS AND WET CHEMISTRY RESULTS
SW-3

PARAMETER	UNITS	STANDARD	1-21-87	7-15-87	10-15-87	1-20-88	4-13-88	7-22-88	10-21-88	1-20-89	4-14-89	7-21-89
pH	Stndrd Units	6.5 TO 8.5	7.4	7.6	6.7	7.9	7.7	7.7	7.7	7.9	7.6	7.4
BOD5	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COD	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL HARDNESS	mg/l (ppm)	NL	329	466	284	255	310	500	480	510	500	480
TOTAL KJELDAHL NITROGEN	mg/l (ppm)	NL	8.0	19	8.7	3.6	14	27	7.1	14	11.4	21
DISSOLVED SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	mg/l (ppm)	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ODOR	Threshold #	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COLOR	Pt. Co. U	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ALKALANITY AS CACO3	mg/l (ppm)	NL	327	500	386	234	580	442	790	410	346	650
BORON	mg/l (ppm)	NL	(0.25	0.60	0.29	(0.25	0.35	0.62	0.78	0.31	0.30	0.62
TOTAL COLIFORM	MPN/100mls	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	mg/l (ppm)	250	75	108	76	54	103	140	220	130	75	210
DETERGENTS	MBAS	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM-HEXAVALENT	mg/l (ppm)	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA NITROGEN	mg/l (ppm)	NL	7.8	17.4	(0.04	0.08	11.1	20.8	30.1	12.3	9.25	16.1
NITRATE NITROGEN	mg/l (ppm)	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHENOLS	mg/l (ppm)	0.001	0.058	0.010	0.035	(0.010	(0.010	(0.010	(0.010	(0.010	0.040	(0.010
COPPER	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	mg/l (ppm)	0.3	3.4	4.7	4.6	3.8	2.5	9.3	200	0.86	3.7	2.2
ALUMINUM	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	mg/l (ppm)	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	mg/l (ppm)	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	mg/l (ppm)	0.3	0.55	1.2	0.80	0.46	0.37	1.1	9.0	0.38	0.53	0.30
CADMIUM	mg/l (ppm)	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	mg/l (ppm)	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	mg/l (ppm)	0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	mg/l (ppm)	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	mg/l (ppm)	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	mg/l (ppm)	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CYANIDE	mg/l (ppm)	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	mg/l (ppm)	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPECIFIC CONDUCTIVITY	uMHOS/cm	NL	780	950	990	500	1000	1300	1900	1300	1100	1250
TOTAL ORGANIC CARBON	mg/l (ppm)	NL	78	110	30	26	60	70	610	74	82	58
VOLATILE SOLIDS	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	mg/l (ppm)	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL SOLIDS	mg/l (ppm)	NL	632	800	588	446	740	1500	16000	760	850	840

NOTES:

1. NL means No Limits established
2. NA means Not Ascertained
3. Aluminum and Nickel Standards are from NYCRR 703.6 Effluent Standard for Discharge to Class GA Groundwater. All other standards are from NYCRR 703.5 Quality Standards for Class GA Groundwater.
4. This is a compilation summary of data collected by C&S/MET and provided by the City of Auburn.

APPENDIX C

ATTENUATION OF SOUND CALCULATIONS

O'BRIEN & GERE

SUBJECT	SHEET	BY	DATE	JOB NO
Appendix C	1	J.S.	8/18/89	178.232.203

City of Auburn Landfill No. 1

Sound Attenuation Calculations

"Sound attenuates according to the inverse square law: i.e. intensity decreases inversely with the square of the distance from the source. In other words each time the distance from the noise source doubles, the sound pressure is halved. This phenomenon produces a decrease of about 6 dB each time the distance from the source doubles."

References:

U.S. Environmental Protection Agency
Office of Noise Abatement and Control
Washington, D.C. 20460
May 1976

O'BRIEN & GERE

SUBJECT	SHEET	BY	DATE	JOB NO
Appendix C	2	JS.	8/8/89	18.C30.202

For the purpose of these calculations, the loudest piece of equipment to be used at the existing landfill was considered.

The Caterpillar D-7 Dozer has a sound rating of 87 Dba at 15m or about 50 ft. according to the society of Automotive Engineers (SAE) J-88 (test), as provided by the manufacturer.

As such, the following methodology was used:

Sound Rating	Distance from Source
87 Dba	50 ft.
81 Dba	100 ft.
75 Dba	200 ft.
69 Dba	400 ft.
63 Dba	800 ft.
57 Dba	1600 ft.

APPENDIX D

SAMPLE GROUNDWATER MONITORING PROTOCOL

GROUND WATER SAMPLING PROTOCOL

1. Identify the well and record the location on the Ground Water Sampling Field Log.
2. Put on a new pair of disposable gloves.
3. Cut a slit in the center of the plastic sheet, and slip it over the well creating a clean surface onto which the sampling equipment can be positioned.
4. Make sure that all meters, tools, equipment, etc., have been cleaned before placing on the plastic sheet.
5. Check for the presence of explosive gases or organic vapors with the aid of an explosive gas detector and an HNU photoionization meter respectively. If organic or explosive vapors are detected, follow the appropriate procedures specified in the laboratory firm's Health and Safety Plan.
6. Using an electric well probe, measure the depth to the water table and the bottom of the well to the nearest one-hundredth of a foot. If free-phase product is present, use an oil-water interface probe or clear bottom valve bailer to determine the thickness of the free product. Record this information in the Ground Water Sampling Field Log.
7. Clean the well depth probe with detergent and rinse it with distilled water after use.
8. Compute the volume of water in the well, and record this volume on the Ground Water Sampling Field Log.

9. Attach enough polypropylene rope to a bottom valve bailer to reach the bottom of the well, and lower the bailer slowly into the well making certain to submerge it only far enough to fill one-half full. The purpose of this is to recover any oil film, if one is present on the water table.

10. Pull the bailer out of the well keeping the polypropylene rope on the plastic sheet. Empty the ground water form the bailer into a glass quart container and observe its appearance.

11. Repeat the procedures in Step 9 only this time submerge the bottom loading bailer to the bottom of the well. The purpose of this is to recover any chemical compounds denser than water, if present in the ground water.

12. Pull the bailer out of the well keeping the polypropylene rope on the plastic sheet. Empty the ground water from the bailer into a glass quart container and observe its appearance.

    NOTE: These samples will undergo laboratory analysis, and are collected to check the physical appearance of the ground water for the presence of immiscible layers or other contaminants that are lighter or heavier than water.

13. Record the physical appearance of the ground water samples on the Ground Water Sampling Field Log.

14. Initiate evacuation of the well in such a way as to create the least possible turbidity in the well. All water should be dumped into a graduated pail to measure the quantity of water removed from the well.

15. Continue evacuating the well until a sufficient time for the well to recover before proceeding with Step 16. Record this information on the Ground Water Sampling Field Log.

16. Remove sampling bottles from their transport containers, and prepare the bottles for receiving samples. Inspect all labels to ensure proper sample identification. Sample bottles should be kept cool with their caps on until they are ready to receive samples. Arrange the sampling containers to allow convenient filling.

17. To minimize agitation of the water in the well, initiate sampling by lowering the bottom loading bailer slowly into the well making certain to submerge it only far enough to fill it completely.

18. The vials labeled "volatiles" should be filled from one bailer then securely capped. The vial should be turned upside down and checked for air bubbles. If properly filled, there should be no visible air bubbles. Place each container in a cooler and chill to four degrees Celcius. Samples must not be allowed to freeze. All samples must be collected and stored in the order of the parameter's volatilization sensitivity using methods which ensure sample integrity. After volatile organic samples have been collected, field parameters must be measured from the next sample collected. Filter and add preservatives to appropriate samples.

19. After the last sample has been collected, record the date, time, and if required, empty one bailer of water from the surface of the water in the well into the 200 ml beaker and measure and record the pH, conductivity, and temperature of the ground water following the procedures outlined in the equipment operation manuals. Record this information on the Ground Water Sampling

Field Log. The 200 ml beaker must then be rinsed with distilled water prior to reuse.

NOTE: Any blanks and replicate samples must be collected and analyzed in accordance with a method acceptable to the department.

20. Begin the Chain of Custody Record. Samples must be properly preserved and delivered to the laboratory within all appropriate holding times for the parameters to be analyzed and with the proper chain of custody.
21. Replace the well cap, and lock in the well protection assembly before leaving the well location.
22. Place the polypropylene rope, gloves, rags, and plastic sheeting into a plastic bag for disposal.
23. Clean the bailer by washing with detergent and a distilled water rinse, at a minimum. Store the clean bailer in a fresh plastic bag.

APPENDIX E

SAMPLE SURFACE WATER MONITORING PROTOCOL

SURFACE WATER SAMPLING PROTOCOL

When sampling from an open body of water (stream or pond) care must be exercised to collect a representative sample. The sample should cause as little disturbance to the water body as possible. Avoid taking a sample of water which shows evidence of sediment, debris or other material which may have been stirred up by the presence of the sampler.

Surface Water Sampling

Surface water samples should be taken from 2 to 5 (or more) points spaced equally across the width of the stream or pond. The specific number of points may be determined in the field and should be adequate to accurately reflect the size of the water body being sampled. At each point, subsamples should be collected, representative of the total depth of the stream. The subsamples may then be composited into a single sample for analysis dependent upon the intent of the sampling program. For small, shallow streams, a single sample, collected just below the surface at the stream's midpoint may be adequate for sampling and analyses purposes.

Whether samples are obtained from a boat, a bridge, or by wading into the water body, samples should be taken while facing upstream, away from the influence of the sampler on stream flow.

Collection is accomplished by submerging a clean container at the sampling point to the depth required. For deep streams or ponds, a Kemmer, VanDorn, or other sampler specifically designed for this purpose may be used. For shallow (i.e. less than three feet deep) locations, an inverted sample container may be carefully submerged by hand and than slowly allowed to fill.

Samples should then be placed in the proper containers, preserved as necessary for the analyses to be run and stored in an insulated ice cooler at 4 degrees Celcius. All pertinent information should be recorded including sample data and location, sample identification and chain-of-custody forms.

APPENDIX F

SAMPLE LEACHATE MONITORING PROTOCOL

LEACHATE SAMPLING PROTOCOL

1. Identify where the leachate is being sampled (i.e. which tank or the duplex pump station) and record this in the Leachate Sampling Field Log.
2. Put on a new pair of disposable gloves.
3. Remove sampling bottles from their transport containers, and prepare the bottles for receiving samples. Inspect all labels to ensure proper sample identification. Sample bottles should be kept cool with their caps on until they are ready to receive samples. Arrange the sampling containers to allow convenient filling.
4. When sampling from the tanks, use the sample port from each tank containing leachate to sample directly into each sampling container. When sampling from the pump stations, use a bailer with some type of handle attachment. Pour leachate from the bailer into each sampling container. Use a clean bailer for each tank and for each pump station sampled. Dispose of used bailers in plastic bags.
5. Before sampling from a pump station, check the atmosphere for the presence of explosive gases with an explosive gas detector and for organic vapors with an HNU photoionization meter. If warranted by readings from these meters, fresh air will be forced into the pump station with a portable blower until repeated readings on the explosive gas detector and HNU photoionization meter indicate that it is safe to sample. If this does not work, refer to the laboratory firm's Health and Safety Plan.

6. When sampling begins, the vials labeled "volatiles" should be filled from one bailer then securely capped. The vials should be turned upside down and checked for air bubbles. If properly filled, there should be no visible air bubbles. Place each container in a cooler and chill to 4 degrees Celcius. Samples must not be allowed to freeze. All samples must be collected and stored in the order of the parameter's volatilization sensitivity using methods which ensure sample integrity. After volatile organic samples have been collected, field parameters must be measured from the next sample collected. Add preservatives to appropriate samples.

7. After the last sample has been collected from each tank and from the pump station, record the date, time, and if required, empty one bailer of leachate from each tank and the pump station into 200 ml beakers and measure and record the pH, conductivity, and temperature of the leachate following the procedures outlined in the equipment operation manuals. Record this information on the Leachate Sampling Field Log. The 200 ml beaker must then be cleaned with detergent, rinsed with distilled water, cleaned with methanol, and rinsed again with distilled water prior to reuse. Store the clean beaker in a fresh plastic bag.

   NOTE: Any blanks and replicate samples must be collected and analyzed in accordance with a method acceptable with the department.

8. Begin the Chain of Custody Record. Samples must be properly preserved and delivered to the laboratory within all appropriate holding times for the parameters to be analyzed and with the proper chain of custody.

9. Close the entrance to the duplex pump station and lock it before leaving.

10. Place all gloves and bailers in a plastic bag for disposal after each sampling.

APPENDIX G

SAMPLING SCHEDULE

APPENDIX G
SAMPLING SCHEDULE

SAMPLING	QUARTERLY	ANNUALLY
1) Groundwater		
- baseline parameters		X
- routine parameters	X	
2) Surface Water		
- baseline parameters		X
- routine parameters	X	
3) Leachate		
- baseline parameters		X
- routine parameters	X	

(1) The groundwater monitoring wells, surface water monitoring points, and leachate monitoring locations will first be sampled for the baseline parameters. Subsequently, four quarterly samples will be taken from each for the routine parameters. Such a pattern where subsequent baseline samples are collected over a five year period will result in analysis of water quality during each of the four seasons.

(2) Analysis of groundwater, surface water, and leachate will continue for a minimum of five years. Requirements for further analysis will be established at the end of each five year period thereafter by the NYSDEC.