ATTACHMENT E-15

Details for the Groundwater Recovery and Treatment System

(Submitted on CD)

CONCEPTUAL CORRECTIVE ACTION PLAN

FOR

REMEDIATION OF VOC CONTAMINATED GROUNDWATER

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Sylvania, Georgia

Submitted to

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I. INTRODUCTION

A. Objective of the Corrective Action

As described in the permit application for The Torrington Company's Sylvania, Georgia facility, volatile organic compounds (VOCs) have been detected in both the perched water table and the uppermost aquifer at the site. Per the requirements of 40 CFR 270.14 (c) (8), since hazardous constituents at levels above background have been detected in the groundwater, a corrective action program must be established per 40 CFR 264.100.

A conceptual design of the corrective action for the facility was submitted in June 1988 with the facility's permit application; however, since that time additional information has been obtained regarding the extent of the VOC contamination and the hydrogeologic properties of the site. Thus, this report is an update of the original conceptual corrective action plan for the facility.

Areal Extent of the VOC Contamination-- Through a groundwater investigation at the facility, the lateral extent of the VOC contamination has been defined. Maps showing the lateral extent of the VOC contamination in the perched water table and the uppermost aquifer are included as Figures 1 and 2. The maps show the approximate plume boundaries from the 1988 investigation.

The approach for groundwater remediation that was proposed in the June 1988 conceptual corrective action plan remains unchanged; however, more recent groundwater quality data from March/April 1989 is now available. This data has been used in the modification of the groundwater remediation system.

Groundwater collection and treatment is planned for several areas at the facility: the property boundary, off-site at well W-20, the landfill area, and the underground storage tank (UST) area. A series of withdrawal wells is planned for the property boundary to prevent the further movement of VOC groundwater contamination off-site. Since VOC contamination has breached the property boundary, remediation is planned at the area of the W-20 well cluster. Remediation is also planned for two solid waste management units (SWMUs) at the facility, the landfill and the underground storage tank (UST) areas. A report on the recently completed phase II SWMU Investigation for the facility will be submitted to EPD during July.

Data on the specific VOC constituents detected in the groundwater has been included on Figures 1 and 2 for all of the wells that were sampled during March 1989. Data is included for the wells that were sampled as part of the compliance monitoring for the closed emergency and retention ponds in addition to the data for the monitoring wells at the areas that will be remediated.

Analytical data from the first quarter of compliance monitoring for the closed emergency and retention ponds and the CCSI and the DCSI areas (March 1989), plus analytical data for all of the wells that were sampled at the site during March/April 1989, are included as Attachment 1.

B. Site Hydrogeology

In the previous descriptions of the site's hydrogeologic setting, the perched water table and the uppermost aquifer were differentiated. It is important to note that the perched water

table is not present across the entire site and is limited to a maximum saturated thickness of approximately fifteen feet. The perched water table is often defined due to its thin saturated thickness which is not "capable of yielding a significant amount of ground water to wells or springs (per 40 CFR 260.10)" along with the difference in hydraulic head in the water table above the underlying aquifer's true water table. Monitoring of the perched water table does, however, allow for immediate detection of releases of hazardous wastes or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

All of the sediments at the Sylvania facility above the carbonate aquifer system are part of the Hawthorne Group of Miocene age. This aquifer, down to the carbonates of the Floridan aquifer system, is more appropriately defined as the uppermost aquifer for the facility since it is capable of yielding "significant" volumes of water. The uppermost aquifer at its greatest thickness (well W-15D) has been determined to be approximately one hundred feet thick. However, since guidance documents define "if zones of saturation capable of yielding significant amounts of water are interconnected, they all comprise the uppermost aquifer (U.S. EPA, 1986). The perched water table and the uppermost aquifer should more appropriately be considered part of the uppermost aquifer for the facility. Additionally, since VOC contamination has been found in both the perched water table and in the uppermost aquifer and it is both expensive and difficult to prove that there is no hydraulic interconnection, for purposes of this remediation from this point forward in the plan, the perched water table will be defined as part of the uppermost aquifer at the site.

The Hawthorne Group sediments are defined as all of the sediments present at the site above the Floridan aquifer. The contact of the Hawthorne Group with the underlying carbonates is a disconformity which is typical throughout most of Georgia (Huddlestun, 1988).

Additional data has been obtained on the depth to limestone at the site. A revised cross-section along the property boundary that shows the stratigraphic units encountered during drilling is included as Figure 3.

C. Timeframes for the Remedial Action

To date all of the deadlines that were specified in the facility's permit application and the facility's approved permit (December 27, 1989) have been met. The following activities have been conducted during the last nine months since the permit application was submitted.

- An aquifer pumping test was conducted at well TW-1 at the property boundary and the results of the test interpreted.
- Groundwater treatment alternatives were reviewed and the most favorable alternative, air stripping, was selected.
- A recovery well was installed at the landfill area.
- A pilot withdrawal well and groundwater treatment system was tested for its effectiveness at the property boundary (well TW-1) and at the landfill (well L-4).
- Based upon the testing, modifications to the system have been made.

A tentative schedule for implementation of the groundwater collection and treatment system for the facility through the end of 1989 is included as Table 1. Details on the proposed groundwater collection and treatment systems for the facility are included in section IV of this report.

D. Recent Groundwater Investigations at the Facility.

During the past several months, monitoring wells have been installed at the facility to aid in the definition of the vertical extent of the VOC contamination. Wells have been installed at the property boundary (W-15D, W-16D, W-16DD, W-17D, W-18D), landfill (L-1D) and UST (UST-1DD) areas. The wells are shown on the revised base map for the facility (3 sheets at a scale of 1"= 50'), which is included as Figure 4.

The results from this work show that the vertical extent of contamination has been defined at all locations except two. Monitoring wells W-15D and W-16DD, which are located at the property boundary and are screened at the base of the uppermost aquifer, show VOC contamination at levels of 8.2 and 21.2 ppb (ug/l) for total VOCs, respectively. Monitoring well UST-1DD, which is similarly screened at the base of the uppermost aquifer, shows VOC contamination at approximately 10 ppb for total VOCs (ug/l).

While VOC contamination is present in the groundwater at the base of the uppermost aquifer at these locations, it appears unlikely that the underlying carbonate aquifer would be contaminated due to the confined nature of the carbonate aquifer and the very low concentration of the contaminants. An additional monitoring well into the carbonate aquifer at each of these two locations is

planned. Work is scheduled to be completed by June 2, 1989 (See Table 1).

Test wells have been installed at TW-1, between W-16 and W-17 at the property boundary, and at L-4 at the landfill area. L-4 will be part of the permanent groundwater recovery system at the landfill. It appears likely that well TW-1 may also be used as part of the groundwater corrective action system.

II. CHARACTERIZATION OF CONTAMINATED GROUNDWATER

The horizontal and vertical extent of the VOC contamination in the uppermost aquifer at the facility has been identified at the facility except at the two locations previously mentioned through the ongoing groundwater assessment. Figures 1 and 2 show the horizontal extent of the VOC contamination in the perched water table and the uppermost aquifer at the facility. Also included on the maps are the specific constituents that have been detected in the monitoring wells and their concentrations at the areas that are to be remediated.

A. Identified Hazardous Constituents and their Concentrations

The analytical data for the parameters that are routinely monitored for as specified in the facility's permit for the emergency and retention ponds is summarized on Table 2.

Nickel was detected in only one well in the compliance monitoring system for the ponds, well RP-1, at a concentration of 0.012 ppm (mg/l). Since nickel was also detected in the shallow upgradient well at a similar concentration (0.011 ppm), it

appears that the presence of nickel in the well is the result of background concentrations at the site. No cyanide was detected in any of the wells.

VOC constituents detected at the facility include the following: 1,1,-dichloroethane, 1,1,-dichloroethylene, 1,1,1,-trichloroethane, and trichloroethylene. All of the constituents have been detected at the facility over the last several sampling periods. The constituents detected in the groundwater are solvents and/or degradation products of the solvents used at the facility.

B. Changes in the Plume

Since the original permit application was submitted in June 1988, additional groundwater sampling data has been obtained. A comparison of the groundwater analytical data from March/April 1988 and March/April 1989 for wells W-2, W-3, W-8, W-9, W-15, W-16, W-17, W-18, and W-20D has been included as Table 3.

Comparisons of the analytical data shows the same constituents to be present at both sampling periods. Also, the concentrations for the constituents appear to be very similar. Slight increases were noted at three locations (W-3, W-9 and W-20D) and decreases at two locations (W-2 and W-8). Otherwise, the concentrations remained fairly constant over the time period. These changes in concentration are not considered significant since the concentrations are all of the same order of magnitude.

The concentration of VOC contaminants is very low. The maximum level for total VOCs of 140 ppb was obtained from a point of compliance well in the perched water table (well W-3). Wells W-

15 and W-16 at the property boundary showed total VOC levels of 63 and 50.1 ppb, respectively. These levels are approximately the same as the previous quarter's sampling results. Wells W-17 and W-18 at the property boundary showed no contamination.

The plume boundaries have not changed since the last plume map was prepared in June 1988. Well W-20D is the only off-site monitoring well that has shown any VOC contamination. All of the other off-site wells are clean.

III. Concentration Limit for Each Hazardous Constituent

A. VOCs, CN and Ni -- Background from the permit

The proposed concentration limit for all VOC constituents is background. Background values are now being established for all VOC constituents in addition to total cyanide and total nickel as described in Section C-5(c) of the Post-Closure Care Permit Application (June 1988) for the facility. Duplicate samples from two upgradient wells (W-27S and W-27D) are being collected over a one year period in order to collect the necessary data for establishing background values.

Until background values can be established, the background value for VOCs is set at the detection limit, based upon the lowest practical quantitative limit (PQL) using Gas Chromatography/Mass Spectrometry. The background value for total cyanide and total nickel will also be set at the detection limit of the analytical equipment, based upon the lowest practical quantitative limit, until background levels have been determined for the site.

B. Appendix IX Constituents

The only constituents, as specified in the permit, that are presently being tested for, and for which background values are being established, are VOCs, total cyanide and total nickel. However, the compliance point groundwater monitoring wells at the closed emergency and retention ponds are also being tested for Appendix IX constituents on an annual basis.

As of the last Appendix IX testing of the POC wells, December 1988, several additional hazardous constituents not previously detected at the site were found at levels exceeding the detection limits. EPD was notified of these results in correspondence dated April 11, 1989. The Torrington Company is presently in the process of determining whether these constituents are actually a result of a release to the environment or whether the constituents are merely representative of background values.

It should be noted that the facility's permit only specifies groundwater protection standards for total cyanide, total nickel, and VOCs for the Retention and Emergency Ponds. In the event that additional hazardous constituents must be added to the permit application , the proposed groundwater protection standard for these additional constituents will be established at background. Background values will be determined as described in Section C-5(c) of the permit application.

IV. Conceptual Corrective Action Plan

A. Groundwater Collection System

1. Areas to be Remediated.

As previously described, several areas will be remediated. Figure 5 outlines the area of groundwater contamination and shows the areas to be remediated.

These areas include the property boundary where a series of withdrawal wells will be installed to prevent the further migration of contaminated groundwater off-site. Since VOC contamination has breached the property boundary, remediation is also planned off-site at the area of the W-20 well cluster. Additionally, remediation is planned for two solid waste management units (SWMUs) at the facility, the landfill and the underground storage tank (UST) areas.

2. Cross-sections at the property boundary, off-site at W-20, the landfill, and at the underground storage tank (UST) areas.

Figures 3, 6, 7 and 8 show geologic cross sections at the property boundary, off-site at W-20, at the landfill and the UST areas. These sections show the lithologies that are present in addition to the monitoring wells. Where groundwater withdrawal wells have been installed, this information is also shown on the cross-section.

3. Recovery Well and Piezometer Specifications.

The recovery wells and piezometers will be drilled using hollow-stem auger drilling for shallow wells in the perched water table and mud rotary drilling for the deeper wells and piezometers.

The wells will be screened so that they allow for capture of the contaminated groundwater. At the locations where both the perched water table and the deeper strata of the uppermost aquifer are contaminated (e.g. landfill and UST area), separate recovery well systems will be installed both above and below the clay.

The wells will be constructed of 4" PVC riser pipe and screen. The well screens will be continuous wire wrapped PVC screens of a slot size that is compatible with the formation characteristics adjacent to the intake zone for the well. The filter pack will be installed to a minimum depth of five feet above the top of the well screen. Above the filter pack, a two feet thick bentonite seal will be placed. Above the seal the well will be grouted to land surface using portland cement with 5% bentonite admixed.

If possible, the existing monitoring wells already on-site will be used as piezometers to monitor the drawdown and the radius of influence of the recovery wells. If additional piezometers are needed, they will be constructed of 2" PVC.

4. Recovery Well System Specifications.

a) Determination of the Areal Extent of the Contaminated Aquifer to be Treated

During the last several months, additional monitoring wells have been installed at the facility to define the extent of the contamination. A review of the data shows that there are only two areas that remain which presently need additional monitoring wells to define the vertical extent of VOC contamination. These

areas are at wells W-15 and W-16 (property boundary) and at the UST area.

Deeper monitoring wells, into the carbonate aquifer, are planned at these areas. The work should be completed by June 2, 1989 (see Table 1).

b) Determination of the Aquifer's Hydraulic characteristics

(1) Pump test results

The largest area of remediation is planned at the property boundary. Therefore, an aquifer test was conducted at this location on October 8-9, 1988. The test well location (TW-1) was chosen between wells W-16 and W-17. The well was installed into the uppermost (unconfined) aquifer at a location that was deemed representative of the property boundary. The well was screened over a clayey sand which is the dominant lithology in the uppermost aquifer.

The results of the test were submitted to Georgia EPD in a report dated January 27, 1989. The data was analyzed using several methods that were applicable to these conditions. For design purposes for the site remediation, values of Transmissivity (T) of 2,640 gallons/day/foot and Storativity (S) of 0.011 were calculated. Assuming the aquifer is approximately eighty feet thick at this location (see Figure 3), a hydraulic conductivity was calculated as 33 gallons/day/foot^2 or 1.56 x 10^{-3} cm/s.

(2) Slug test analyses

Slug tests were conducted at the facility from April 25-27, 1989. Tests were conducted at all of the property boundary wells, the UST wells (UST-1D and UST-1DD), the landfill wells (LF-2, L-1,

and L-1D), and at the off-site W-20 location (wells W-20S, W-20D, and W-20DD).

The results of the tests are presently being analyzed using several methods (time-lag permeability method, Cooper method, etc.). The data from the tests will be compared with the aquifer pumping test results.

(3) Additional Aquifer Testing Planned for the Site

As part of the additional site characterization activities that will be completed over the next few months, additional aquifer testing will be conducted at the site. As data from the testing is received, it will be used to more completely define the aquifer characteristics at the areas of interest.

The data from the tests will be used to adjust the location of future groundwater withdrawal wells such that they provide a complete hydraulic barrier to the further migration of VOC contamination off-site.

c) Preliminary Determination of the Volume of Water to be Collected and Treated

Preliminary estimates of the volumes of groundwater that will be treated for the facility were determined as part of the preliminary design of the groundwater withdrawal system. Volumes were only estimated for the property boundary area since it is by far the largest area of concern. As an example, the cross-sectional area at the property boundary that is contaminated is an area approximately 500 feet long as measured perpendicular to the direction of groundwater flow in the uppermost aquifer. This

area is several times larger than any of the other areas to be remediated. The other areas which are "hot spot" areas within the larger plume and that will be remediated include the landfill, the W-20 area off-site and the UST area.

The volume of groundwater that will be collected at the property boundary along the contaminated zone was estimated to be between 40,000 and 120,000 gallons per day.

As the data from the further hydrogeologic investigations at the facility is received, this number will be further refined and EPD will be apprised of significant changes to provide a more accurate treatment volume that will allow for the selection of the most appropriate size air stripping unit for the facility.

d) Recovery well system design

The proposed location of groundwater withdrawal wells at the facility is shown on Figure 5. As previously discussed, a minimum of five withdrawal wells is proposed at the property boundary, one at the UST area, one at W-20, and a minimum of 2 wells at the landfill area.

Where the perched water table is present at these locations, it is anticipated that wells will be installed both above and below the clay in the perched water table and the uppermost aquifer. As an example, separate systems are planned at the landfill area where "recoverable" amounts of groundwater are present above the confining clay layer. However, at the UST area a withdrawal well is not planned for the perched water table since "recoverable" amounts of groundwater are not present above the confining clay. Due to these conditions, remedial alternatives are presently

under review for the perched water table at the UST area. Remedial alternatives may include vapor extraction, etc.

(1) Capture Zone/ Area of Influence

From the pumping test that was conducted at test well TW-1 at the property boundary, the distance-drawdown graph showed a point of zero drawdown at approximately one hundred (100) feet. Based upon this test, it is anticipated that groundwater withdrawal wells will be spaced approximately 100-125 feet apart at the property boundary area.

A pumping test has not yet been conducted at the landfill area. However, due to the small specific capacity for well L-4 at the landfill, it is anticipated that a second recovery well at this location will be fifty to one hundred feet away. Additional aquifer testing is planned for the landfill area during June.

C. Groundwater Treatment System

1. Selection of Treatment Technology

In selecting the treatment technology for the groundwater corrective action work required at The Torrington site, the following treatment alternatives were evaluated: air stripping, steam stripping, carbon adsorption, biological treatment, oxidation, vapor extraction and combinations of these technologies. Each treatment alternative was examined for its effectiveness, cost, ease of operation and applicability to the specific set of circumstances at the Sylvania site.

Air stripping was selected as the most appropriate remedial alternative for the corrective action at the Torrington site. A

report summarizing the selection of the groundwater treatment alternative was submitted to EPD along with the results of the groundwater pumping test on January 27, 1989.

Air stripping is typically the most cost efficient treatment technology for groundwater applications with a VOC contamination range of 0-10,000 ug/l because of its simplicity of operation and operational dependability. A wide range of VOCs, including 1,1,1-trichloroethane, 1,1-dichloroethane, and 1,1-dichloroethene which are found at the site, can be readily removed from groundwater by air stripping. A packed tower air stripper of the type chosen for groundwater treatment at the site typically has a removal efficiency of 95-99.99%.

2. Feasibility Study

A pilot testing program was conducted at the site from March 20-April 14, 1989 to determine the effectiveness of air stripping for the groundwater remediation at the Sylvania site. The objectives of the testing program were as follows:

- To determine the overall effectiveness of air stripping at removing VOCs from the contaminated groundwater at the Sylvania site.
- To compare the treatment efficiency of air stripping groundwater with low levels of VOC contamination vs. stripping groundwater with elevated levels of contamination.
- To analyze the quality of the discharge water from the air stripper and determine if it is suitable for reuse in the manufacturing facility.
- To determine if the type of air stripper (Delta Cooling Towers) being used for the pilot test would be suitable for the permanent treatment installation.

The specific air stripping unit selected for the pilot test was a Delta Cooling Towers Model S1-140. This model is a packed column type air stripper which is designed to handle input water flows in the range of 2-30 GPM. The expected treatment efficiency of this unit is 95-99.99% for removal of VOCs. Figure 9 is a diagram of the air stripper which was used in the testing.

Prior to the installation of the air stripping unit, a pilot test protocol was developed in order to ensure consistency in testing for the duration of the pilot test. The test protocol covered the following:

0 The proper procedures for making water flow adjustments.
0 The proper procedures for making air flow adjustments.
0 The locations for collecting influent and effluent water samples.
0 Procedures for collecting grab samples of untreated and treated groundwater samples for VOC analysis.
0 Schedule for sample collection.
0 Data log for recording pilot test information.

The air stripping treatment unit was installed near the landfill area for the entire four week testing period. The pumping and piping apparatus was moved from one test well to the other.

Because the effluent from the pilot test was expected to have very low levels of contaminants, The Torrington Company applied for and received permission from EPD's Municipal Permitting Program to pipe the effluent from the air stripper directly to the plant's industrial wastewater treatment system which discharges to the Sylvania POTW.

The pilot test, which began on March 20, 1989 and concluded on April 14, 1989, involved the pumping and treatment of VOC contaminated groundwater from two separate well locations. The long-term design for treating groundwater at the site will consist of pumping water from a number of different withdrawal wells and pumping the various streams to a common treatment site for air stripping.

One of the main objectives of the pilot test was to demonstrate the effectiveness of air stripping on a low level VOC stream and a high level VOC stream from different areas of the plant site. The two areas in which the pilot test was conducted were the property boundary line (specifically Well TW-1) and the landfill area (Well L-4, which was installed for the pilot test). Figure 4 shows the location of these areas.

The submersible pump and piping system was initially set up at well TW-1 in order to test the removal efficiency of the air stripper with an incoming stream containing low levels of VOCs. Groundwater samples collected previously from wells in this area have historically contained total VOC levels less than 50 ppb.

The air stripper was operated for an eight hour period each day for a two week period. The groundwater withdrawn from Well TW-1 was pumped directly to the air stripper for treatment. The effluent from the air stripper gravity flowed to the existing cyanide collection sump. Water collected in this sump is pumped to the cyanide treatment component of The Torrington Company's industrial wastewater treatment system. A sampling tap was installed on the line leading from the well pump to the air stripper in order to collect influent samples. Effluent samples

were collected from the pipeline leading from the air stripper to the collection sump.

Samples of the influent to and the effluent from the stripper were collected on a daily basis and shipped on ice immediately to the analytical laboratory for determination of VOC levels. Sample collection, preservation, and analysis were conducted according to EPA methodology. Laboratory results were provided on a priority basis so that removal efficiencies could be calculated before the completion of the testing on Well TW-1.

The analytical results, which are shown on Table 4, show complete removal of VOCs during the air stripping process. The VOC constituents shown in Table 4 are only those which were detected during analysis. The complete laboratory reports are included as Attachment 2.

Once the air stripping technology was successfully proven on Well TW-1, the groundwater pumping apparatus was moved to well L-4 at the landfill area in order to determine the air stripper's treatment efficiency on incoming water streams with elevated VOC levels.

Two of the groundwater monitoring wells in the landfill area, L-1 and LF-3 (as shown on Figure 4), have shown total VOC levels of 2300-6700 ppb during quarterly sampling conducted in 1988. It was expected that withdrawal Well L-4, which was installed for the pilot test, would supply groundwater with lesser but still elevated VOC levels. However, due to the limited duration of the pumping test and the limited zone of influence of the withdrawal well, plus the dilution effect of clean water being pulled into the withdrawal well with contaminated water, the VOC

levels in well L-4 were very low and approximated the VOC levels found in Well TW-1.

Sampling and analysis was conducted for Well L-4 in the same manner as for Well TW-1. Samples were collected from the influent and effluent lines on a daily basis and sent to the laboratory for analysis. The period of testing for the landfill area was two weeks.

Table 5 shows the laboratory results of the landfill area testing. The table includes only those parameters which were detected during the laboratory analysis. The complete laboratory reports are included as Attachment 3. The air stripper removed all detectable levels of VOCs from the groundwater on each day.

3. Modifications to the Treatment System

In section C-8a(3) ("Conceptual Corrective Action Plan") of the Post-Closure Permit Application which was submitted to EPD on June 1,1988, the proposed groundwater collection system consisted of a series of recovery wells which would collect contaminated groundwater and pump it to a central area for treatment.

Based upon the investigations which have been conducted on-site since the 6/1/88 submittal, it has been determined that the general locations of the recovery wells will remain unchanged. However, it has also been determined that due to the hydrogeologic setting at the site, multiple wells will be required at several locations to produce a sufficiently large capture zone for each area of contamination. The modified groundwater collection system will likely include the following recovery wells:

- a minimum of 1 well at the underground storage tank (UST) area.
- 2-3 wells at the landfill area.
- a series of 5 wells (minimum) will likely be installed along the property line downgradient of the wastewater treatment system (WWTS) which would serve as plume containment wells.
- a minimum of 1 well off-site downgradient of the closed emergency and retention ponds near the location of the W-20 monitoring well cluster.

The locations of the recovery wells in the modified groundwater collection system are shown on Figure 5. The exact number of wells required to remediate these wells will be field modified. As wells are installed, they will be tested for well yield (specific capacity) and the aquifer parameters that will affect well spacing.

Over time, it is anticipated that the recovery wells located at the SWMUs (UST area, landfill) for source remediation could be shut down after the areas have been cleaned up to a significant extent, while the larger area of contamination would continue to be addressed with the plume containment wells at the property boundary.

Groundwater will be collected by means of a series of recovery wells, as explained above, and pumped to a central treatment area. An air stripping unit sized to handle the total combined flow from the recovery wells will provide treatment. At this time, more pump test work will be conducted to more precisely determine the total flow which will be treated by the air stripper. Once the flow evaluation is complete, an air stripping unit can be sized and ordered.

An air stripper will be the only treatment required to sufficiently clean up the groundwater for discharge or re-use. This was demonstrated in the pilot test by the 100 per cent removal of VOCs from the groundwater by a single pass through the air stripping unit. Although the levels of VOCs in the combined waste stream may be higher than the levels treated in the pilot test, the effluent from the air stripper should contain extremely low or non-detectable levels of VOCs. Any detectable remaining VOC levels are anticipated to be much less than the levels stipulated by the pre-treatment permit.

Due to the low levels of VOCs in the groundwater which will be treated, only a small amount of VOCs will be discharged to the atmosphere during the air stripping process. EPD's Air Quality Branch was consulted regarding emissions from air strippers. The Torrington Company was informed that EPD is establishing a set of guidelines for air stripper emissions, and that there is a proposed action level above which treatment will be required. An air stripping operation which emits greater than 3 tons of VOCs during its operational life will be required to apply air pollution control measures (e.g. carbon absorption). Air stripping operations with projected emissions levels of less than 3 tons would not be required to employ air pollution abatement measures.

The projected VOC emissions from the proposed air stripping operation at the Sylvania site have been calculated to be less than 23 pounds per year. This calculation is based upon an annual discharge volume of 72,000 gallons per day at an average concentration of 100 ppb. Based upon the treatability study, the waste stream will likely contain much less than 100 ppb of VOCs. Assuming that the corrective action at the Torrington facility

were to take thirty years, the VOC emissions would total less than 700 pounds. Consequently, air pollution control equipment will not be needed for the Torrington Company corrective action.

4. Testing Parameters and Frequency

The treated water from the air stripping operation will either be re-used in the manufacturing facility or discharged to the City of Sylvania POTW. If the water is re-used in the manufacturing operation, it will be processed through the plant's industrial wastewater treatment system and discharged to the City of Sylvania POTW. The testing parameters and frequency of testing for the effluent from the plant will be based upon the terms of Torrington's current POTW permit, which is included as Attachment 4.

Treated water discharged from the air stripping unit will be tested for the presence of VOCs and nickel on a weekly basis for a period of six months. After six months, if levels are consistently shown to be well below the facility's pre-treatment permit standards, testing will be conducted monthly from this point forward. The discharge limits for total VOCs and nickel under the facility's current discharge permit are 2.13 ppm (total toxic organics) and 0.69 ppm, respectively. Because the level of VOCs and nickel in the treated groundwater are expected to be much lower than the permitted levels, discharge to the POTW is a viable alternative to water re-use in the manufacturing facility.

V. Description of the Groundwater Monitoring Program that will be Sufficient to Assess the Adequacy of Corrective Action

A. Procedure to remove or treat constituents in groundwater between the compliance point and the downgradient facility boundary.

Per 40 CFR 264.100 (d), the facility will establish and implement a groundwater monitoring program to demonstrate the effectiveness of corrective action. The program will be based upon the requirements for a compliance monitoring program under 264.99 and will be effective in determining the success of the corrective action program. Sampling and analysis procedures to be performed during the corrective action period are included as Appendices C-3 and C-8 of Volume II of the Post-Closure Care Permit Application.

Wells will be monitored both downgradient of the area of contamination and within the plume. The following series of wells are part of the monitoring system for the ponds: W-2, W-3, W-3D, W-8, W-9, W-15, W-16, W-17, W-18, W-19, W-20S, W-20D, W-20DD, W-21S, W-21D, W-27S, W-27D, W-29, W-30, W-31, and RP-1. Monitoring wells W-2, W-3, W-8, W-9, and W-30 are the point of compliance monitoring wells.

These wells are monitored on a semi-annual basis, except for the point of compliance monitoring wells which are sampled on a quarterly basis. Additionally, the point of compliance monitoring wells are sampled annually for Appendix IX list of hazardous constituents. The wells are shown on Figure 4.

Compliance monitoring wells will be monitored downgradient of the plume to monitor the effectiveness of the remedial action. The wells to serve this function are listed above. If the compliance monitoring wells that are located downgradient of the VOC plume in areas that are presently clean eventually show the presence of VOC contamination at levels exceeding background, groundwater quality will be assessed and confirmed. The extent and amount of groundwater contamination will then be reevaluated. Remedial alternatives will be reviewed and, if required, remedial action will be implemented at the area of concern.

B. Procedure for the Semi-annual Submittal of a Written Report to the Director of EPD on the Program's Effectiveness.

The Torrington Company will submit a written report to Georgia EPD regarding the progress of the Corrective Action program and its effectiveness on a semi-annual basis. The report will include summaries of information on the following:

1) Information summarizing the work performed/ problems encountered with the recovery system and compliance monitoring well system during the past six months

2) Groundwater analytical results from the compliance monitoring well system-- both point of compliance and assessment/effectiveness wells. This section includes the annual Appendix IX data.

3) Semi-annual determination of the groundwater flow direction and rate. Potentiometric maps will be prepared and the flow rate calculations reviewed.

4) Demonstration that the corrective action system is decreasing contaminant levels in the groundwater and creating a hydraulic barrier. This section also includes maps showing the concentrations and isopleths for each contaminant of concern and constituent time-trend graphs.

5) Groundwater remediation system data. This section includes information on the volumes of groundwater collected and the groundwater treatment program.

As described in Section IV. b., a pilot test has been conducted at the property boundary and at the landfill to test the effectiveness of using air stripping for removal of VOC constituents. Based upon the results of the pilot test, The Torrington Company will move forward with the installation of additional withdrawal wells for the corrective action system.

Within 180 days from permit issuance (June 27, 1989), at least two permanent withdrawal wells will be installed at the facility. It is not anticipated that the water will be withdrawn and treated from these wells by that date. A tentative schedule for the next steps in implementing the corrective action program are shown on Table 1.

c. Schedule for Implementing Corrective Action (See Table 1).

d. Maintenance of System During Compliance Period

The groundwater removal and treatment system will be inspected on a weekly basis to assure that all components are operating properly. The wells will be inspected on a daily basis to assure that they are functioning as planned. Potentiometric data and

volumes of water collected will be recorded and reviewed to assure that the withdrawal wells are functioning properly. Holding tanks will be inspected to assure there are no leaks or other structural problems.

REFERENCES

Huddlestun, Paul F., 1988, The Miocene through Holocene: A Revision of the Lithostratigraphic Units of the Coastal Plain of Georgia : Georgia Geologic Survey Bulletin 104, 162 p.

U.S. Environmental Protection Agency, 1986, RCRA Ground-Water Monitoring Technical Enforcement Guidance Document: Office of Solid Waste and Emergency Response- 9950.1, 208 p.

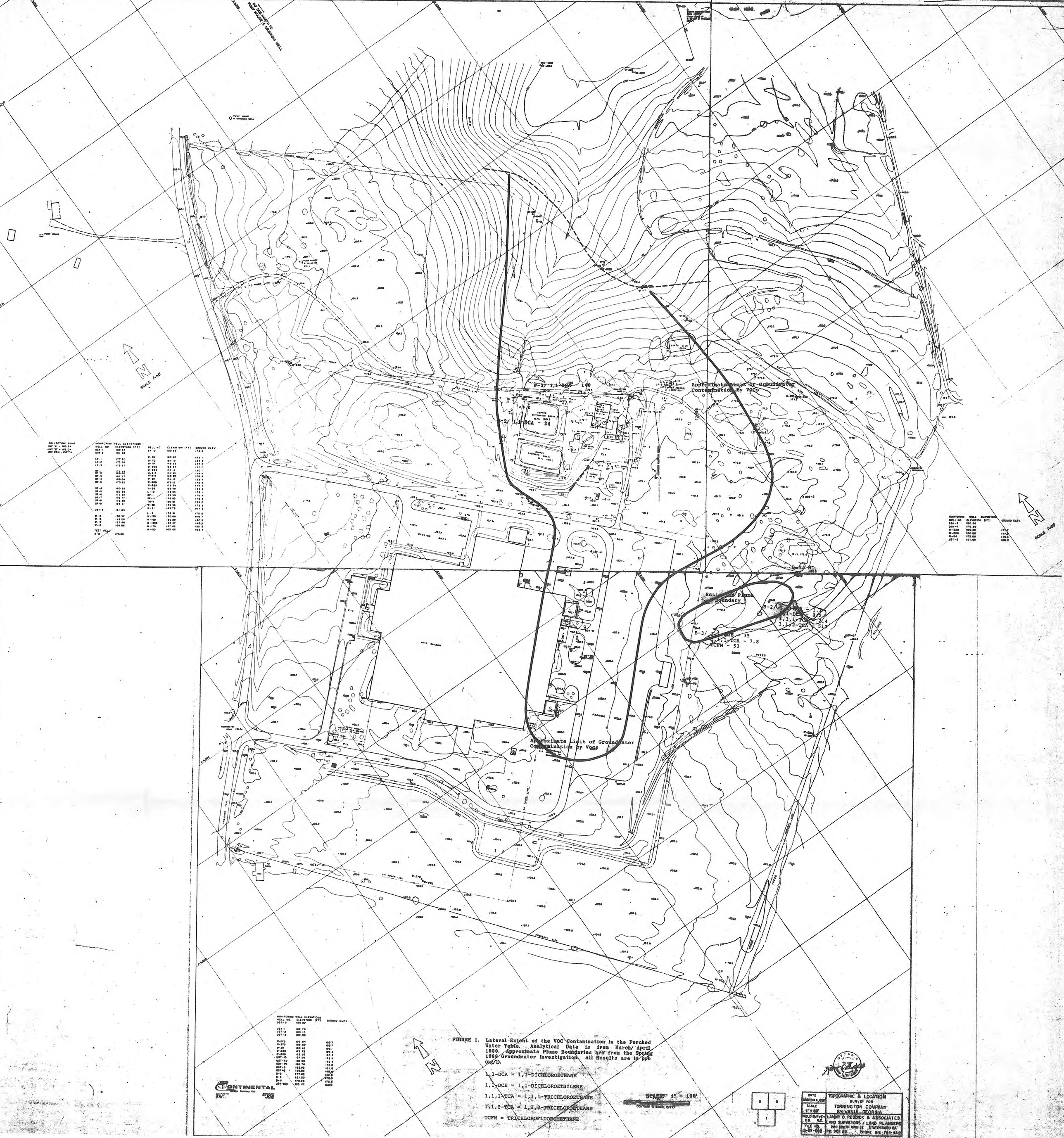

FIGURE 1. Lateral Extent of the VOC Contamination in the Perched Water Table. Analytical Data is from March/ April 1989. Approximate Plume Boundaries are from the Spring 1988 Groundwater Investigation. All Results are in ppb (µg/l).

1,1-DCA = 1,1-DICHLOROETHANE

1,1-DCE = 1,1-DICHLOROETHYLENE

1,1,1-TCA = 1,1,1-TRICHLOROETHANE

1,1,2-TCA = 1,1,2-TRICHLOROETHANE

TCFM = TRICHLOROFLUOROMETHANE

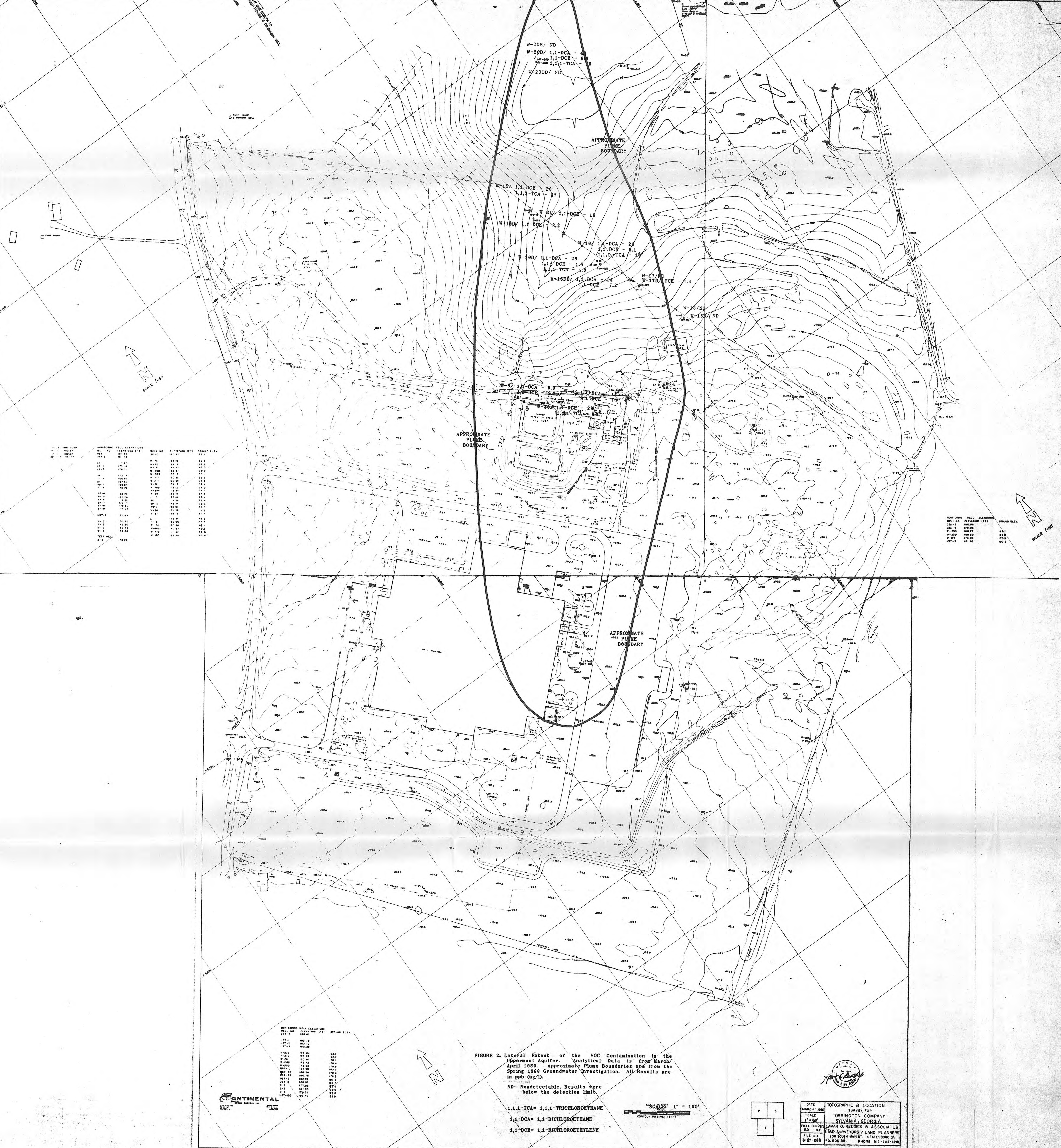

FIGURE 2. Lateral Extent of the VOC Contamination in the Uppermost Aquifer. Analytical Data is from March/April 1989. Approximate Plume Boundaries are from the Spring 1988 Groundwater Investigation. All Results are in ppb (ug/l).

ND= Nondetectable. Results were below the detection limit.

1,1,1-TCA= 1,1,1-TRICHLOROETHANE

1,1-DCA= 1,1-DICHLOROETHANE

1,1-DCE= 1,1-DICHLOROETHYLENE

STRATIGRAPHIC CROSS SECTION A-A'

(Parallel to Property Boundary)

The Torrington Bearing Plant

Sylvania, Georgia

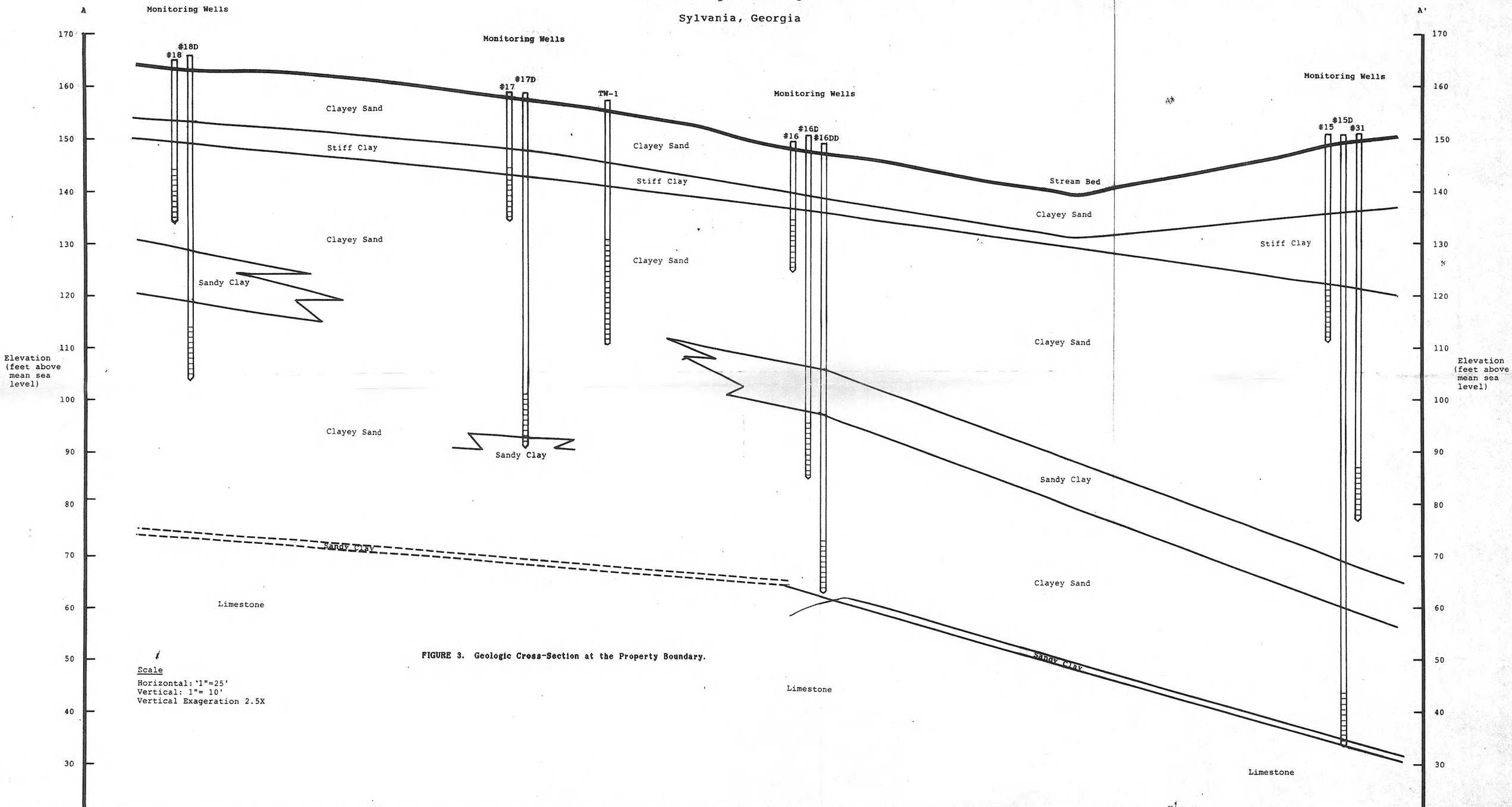

FIGURE 3. Geologic Cross-Section at the Property Boundary.

Scale

Horizontal: 1"=25'
Vertical: 1"= 10'
Vertical Exageration 2.5X

MAIN BUILDING

PARKING AREA

RAMP

DOCK

SIGN

SECURITY BLDG.

WASTE METER & MAIN SERVICE TO BLDG.

PIPES & A.C. UNITS

O.H. TERMINATES SERVICE TO BUILDING

TANK

RES.

UST-1
UST-2
UST-3
UST-6
UST-7S
UST-7D
UST-8
UST-10
UST-10D

B-2
B-3
B-4

TORRINGTON ROAD

FRIENDSHIP ROAD

O.H. POWER LINE

PROPERTY LINE

DENSE TREES

CONCRETE MONUMENT

W-25S
W-25D
W-26
W-27S
W-27D

W.L. 163.6

MONITORING WELL NO.	ELEVATION (FT.)	GROUND ELEV.
DSA-5	180.82	
UST-1	182.79	
UST-2	183.10	
UST-3	182.22	
W-27S	186.64	183.7
W-27D	185.69	183.7
W-26	180.10	178.1
W-25S	172.72	170.4
W-25D	172.95	170.5
UST-1D	184.96	182.9
UST-7D	180.96	178.4
UST-7S	180.76	178.3
UST-8	182.92	181.5
UST-6	168.06	165.0
B-2	177.82	175.9
B-3	181.00	179.0
B-4	178.56	176.2
UST-1DD	185.49	182.9

FIGURE 4. Site Base Map (3 sheets at a 1" = 50' scale). Also shown on the map are the locations of wells TW-1 (property boundary) and L-4 (landfill). The pilot treatability test was conducted at these two locations.

CONTINENTAL AERIAL SURVEYS, INC.
ALCOA, TENNESSEE P.O. BOX 500 (615) 970-3115
BARTOW, FLORIDA ROUTE 3, BOX 290 (813) 533-0586

SCALE IN FEET
1" = 50'
CONTOUR INTERVAL 2 FEET

GEORGIA REGISTERED No. 1397 LAND SURVEYOR LAMAR OLLIFF REDDICK

DATE: MARCH 4, 1987	TOPOGRAPHIC & LOCATION SURVEY FOR TORRINGTON COMPANY SYLVANIA, GEORGIA
SCALE: 1" = 50'	
FIELD SURVEY B.D. R.E.	LAMAR O. REDDICK & ASSOCIATES LAND SURVEYORS / LAND PLANNERS
FILE NO. 3-87-082	208 SOUTH MAIN ST. STATESBORO GA. P.O. BOX 85 PHONE. 912-764-4214

COLLECTION SUMP	
INV "A" - 163.6±	
INV "B" - 162.0±	
INV STM. - 157.7±	

MONITORING WELL ELEVATIONS	
WELL NO	ELEVATION (FT.)
DSA-1	180.92
DSA-2	181.38
LF-1	177.20
LF-2	175.86
LF-3	176.21
RP-1	172.75
RP-2	168.80
RP-3	167.57
RP-4	169.84
RP-5	170.82
SP-4	180.28
SP-5	182.26
SP-6	176.22
SP-7	178.17
SP-8	178.30
SP-9	177.11
UST-4	181.83
W-15	150.32
W-16	149.20
W-17	157.46
W-18	184.66
TEST WELL	
S-D	175.09

WELL NO	ELEVATION (FT)	GROUND ELEV
SP-10	180.93	178.8
W-7A	183.42	182.1
W-7D	184.12	182.2
W-19	149.63	147.0
W-20D	132.57	130.0
W-20S	132.12	130.1
W-21D	130.25	128.5
W-21S	130.29	128.5
W-22	134.18	132.4
W-28D	176.12	174.0
W-28S	176.34	174.1
W-29	136.49	134.4
L-10	178.65	176.1
SP-1	178.35	176.4
SP-11	179.99	178.3
TW-1	156.01	154.0
W-30	175.39	173.3
W-31	149.78	147.5
L-4	176.51	175.8
W-15D	150.66	148.7
W-16D	150.80	147.5
W-16DD	150.47	148.2
W-17D	157.82	155.8
W-18D	185.86	183.4

MONITORING WELL ELEVATIONS		
WELL NO	ELEVATION (FT.)	GROUND ELEV.
DSA-3	180.86	
DSA-4	179.83	177.7
W-23S	180.82	177.8
W-23D	180.20	177.8
W-24	173.09	170.3
UST-9	181.92	180.2

MONITORING WELL ELEVATIONS		
WELL NO	ELEVATION (FT.)	GROUND ELEV.
DSA-5	180.82	
UST-1	182.79	
UST-2	183.10	
UST-3	182.22	
W-27S	186.64	183.7
W-27D	185.69	183.7
W-26	180.10	178.1
W-25S	172.72	170.4
W-25D	172.95	170.5
UST-10	184.96	182.9
UST-7D	180.96	178.4
UST-7S	180.76	178.3
UST-8	182.92	181.0
UST-6	188.06	185.0
B-2	177.82	175.9
B-3	181.00	179.0
B-4	172.96	170.8
UST-10D	180.91	182.9

FIGURE 5. Areas that will be remediated as part of the groundwater collection and treatment system. Remediation is planned at the following areas: property boundary, off-site at W-20, landfill, and the underground storage tank (UST) area.

SCALE: 1" = 100'

⊗ - Recovery Well

CONTINENTAL Aerial Surveys Inc

SCALE IN FEET
1"=50'
CONTOUR INTERVAL 2 FEET

DATE	TOPOGRAPHIC & LOCATION SURVEY FOR
MARCH 4, 1987	TORRINGTON COMPANY
SCALE	SYLVANIA, GEORGIA
1" = 50'	
FIELD SURVEY	LAMAR O. REDDICK & ASSOCIATES
B.D. R.E.	LAND SURVEYORS / LAND PLANNERS
FILE NO.	208 SOUTH MAIN ST. STATESBORO GA.
S-87-002	P.O. BOX 88 PHONE 912-764-4216

WELL 20 AREA

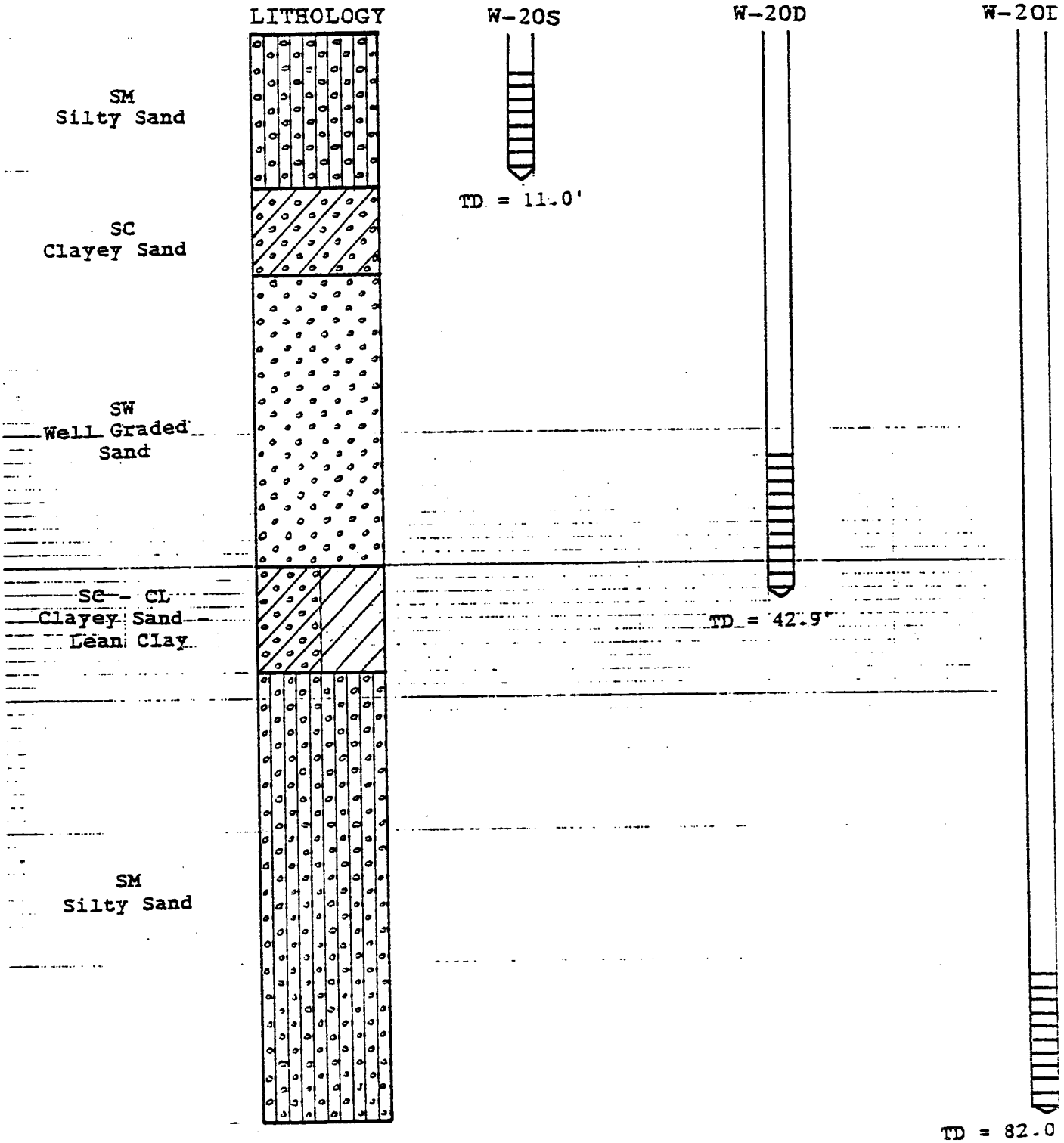

FIGURE 6. GEOLOGIC SECTION OFF-SITE AT W-20.

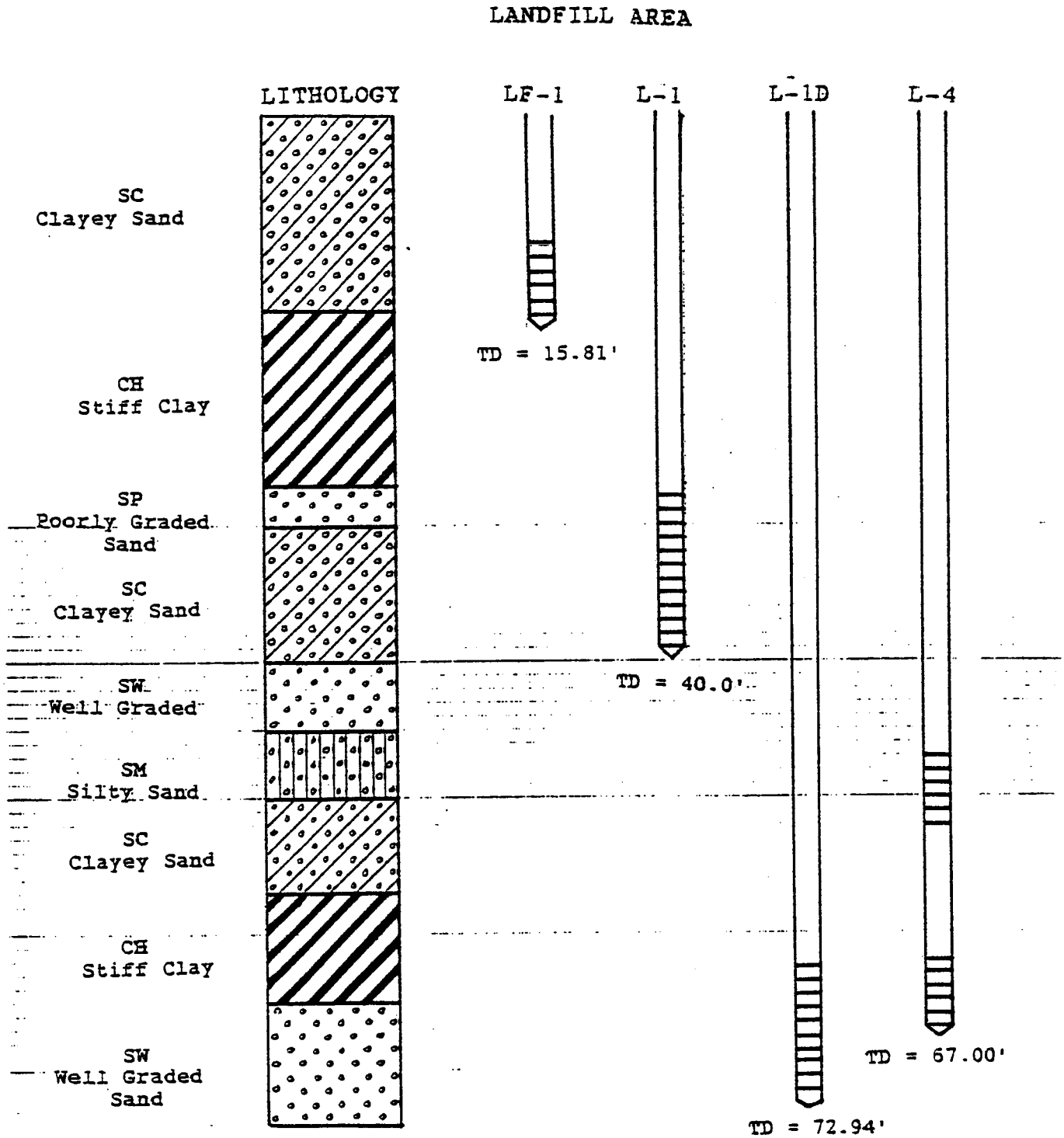

FIGURE 7. GEOLOGIC SECTION AT THE LANDFILL.

UNDERGROUND STORAGE TANK AREA

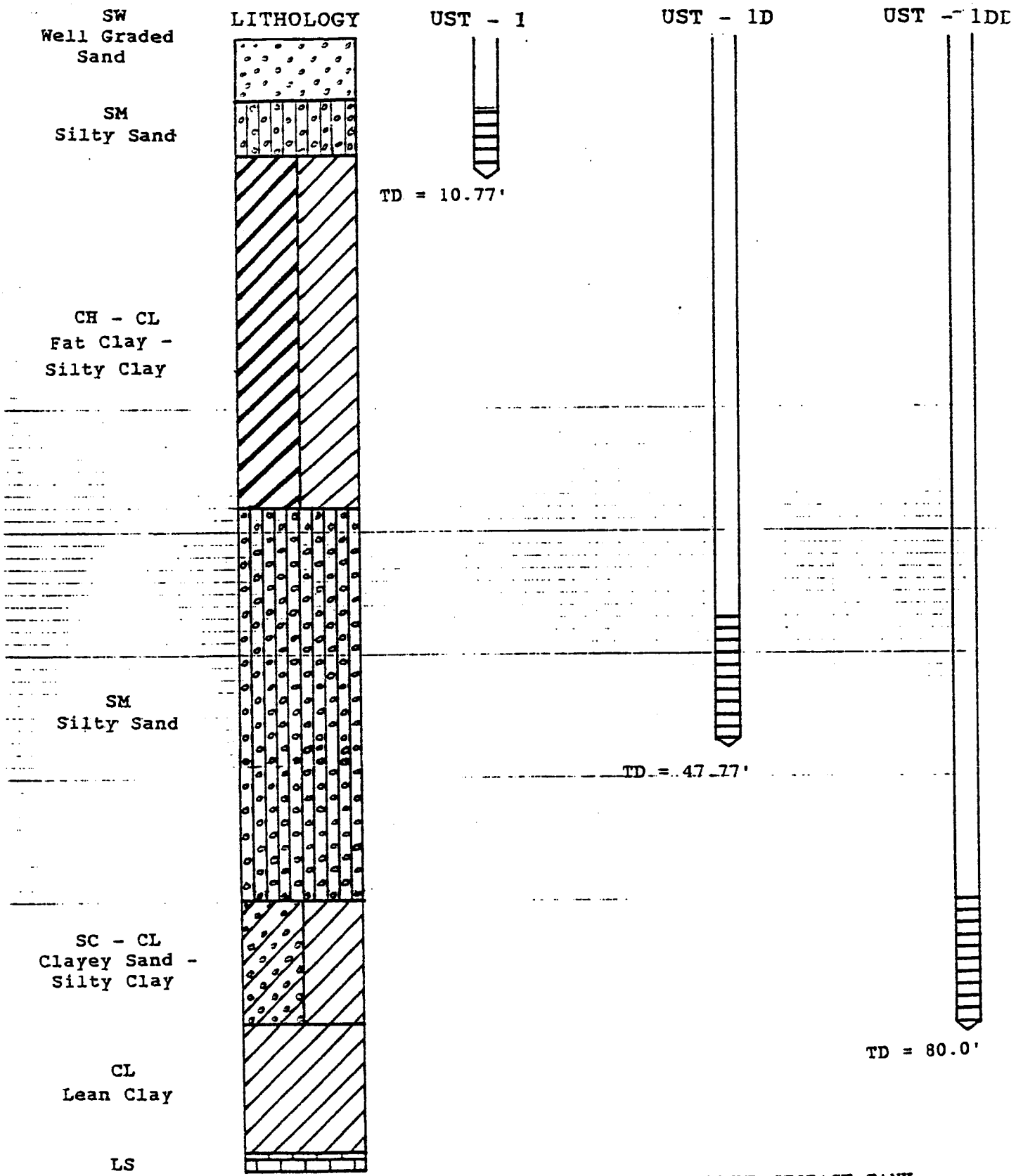

FIGURE 8. GEOLOGIC SECTION AT THE UNDERGROUND STORAGE TANK (UST) AREA.

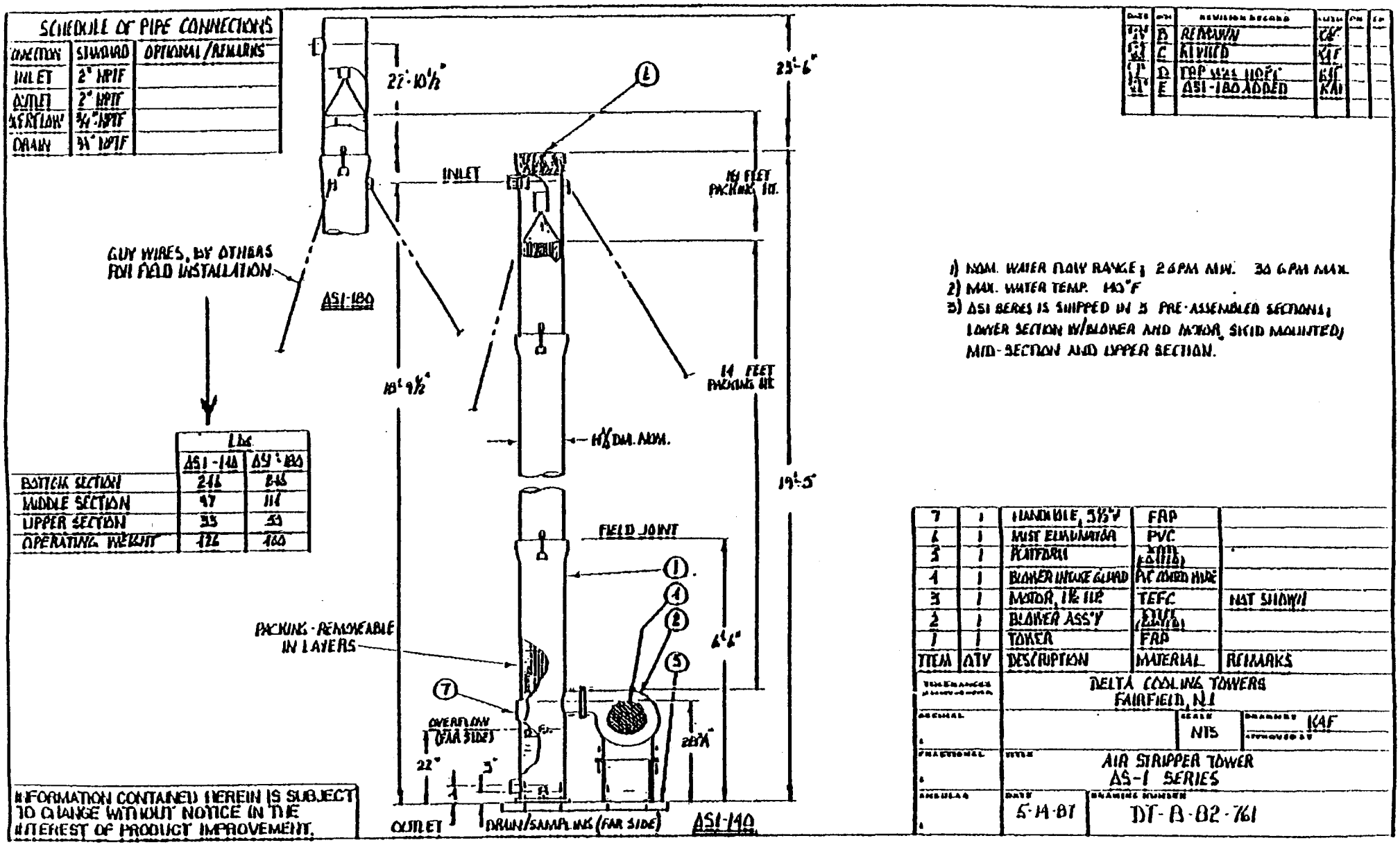

FIGURE 9. Air Stripper Layout.


MW-200
MW-205
MW-215
MW-210
MW-22
MW-19
MW-15
MW-21
MW-18
MW-180
MW-1600
MW-170
MW-17
MW-16
MW-180
MW-235
MW-230
MW-250
MW-255
MW-260
MW-275
MW-270
PROPERTY LINE
O.H. POWER LINE
MAIN BUILDING
PARKING AREA
DENSE TREES
CREEK
CONCRETE MONUMENT
W/L 163.6
W/L 172.3
W/L 169.3
W/L 166
TANK

TABLE 1.

THE TORRINGTON COMPANY
SYLVANIA, GEORGIA

TENTATIVE SCHEDULE FOR
CORRECTIVE ACTION ACTIVITIES

ACTION	DATE*
Installation of Monitoring Wells into the Carbonate Aquifer	June 2, 1989
Prepare Bid Specification Package For Air Stripping Equipment	June 15, 1989
Installation of Two Permanent Withdrawal Wells Ready for Water Withdrawal Pending Installation of Air Stripping Equipment	June 27, 1989
Select Vendor to Supply Air Stripping Equipment	July 25, 1989
Order Air Stripping Equipment	July 30, 1989
Additional Withdrawal Wells Installed to Complete System	August 1, 1989 thru November 25, 1989
Site Preparation	November 1, 1989
Air Stripping Equipment Received	November 25, 1989
Installation/Start up/Shakedown	November 15, 1989 thru December 15, 1989
System Fully Operational	December 28, 1989

* Note: All dates are tentative projections and goals, subject to standard potential delays in equipment fabrication and delivery, weather considerations, etc.

TABLE 2. Analytical Data for the VOC Constituents Detected in the Compliance Monitoring Well System for the Emergency and Retention Ponds During the December 1988 Quarterly Groundwater Sampling.

Well Number	Hazardous Constituents						
	1,1-DCA	1,1-DCE	1,1,1-TCA	TCE	Total VOCs	Total CN	Total Nickel
W-2	31	7.6	--	--	38.6	--	--
W-3	160	--	--	--	160	--	--
W-3D	--	--	--	--	--	--	--
W-8	--	--	--	--	--	--	--
W-9	19	45	--	--	64	--	--
W-15	--	21	57	--	78	--	--
W-16	--	--	--	--	--	--	--
W-17	--	--	--	--	--	--	--
W-18	--	--	5.1	--	5.1	--	--
W-19	--	--	--	--	--	--	--
W-20S	--	--	--	--	--	NA*	NA
W-20D	--	--	--	--	--	--	--
W-20DD	--	--	--	--	--	--	--
W-21S	--	--	--	--	--	NA	NA
W-21D	--	--	--	--	--	--	--
W-27S	--	--	--	--	--	--	.011
W-27D	--	--	--	--	--	--	--
W-29	--	--	--	--	--	--	--
W-30	--	19	15	--	34	--	--
W-31	--	37	9.9	8.4	55.3	--	--
RP-1	--	--	--	--	--	--	.012

-- Nondetectable. Results were below the Detection Limit.

*NA Not Analyzed for

1,1-DCA = 1,1-Dichloro ethane

1,1-DCE = 1,1-Dichloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethylene

TABLE 3. Groundwater Analytical Data From March/April 1988 and March/April 1989 for Wells W-2, W-3, W-8, W-9, W-15, W-16, W-17, W-18, and W-20D. All Results are in ppb (ug/l).

Well Number	Hazardous Constituents				
	Chloroform	1,1-Dichloroethane	1,1-Dichloroethylene	1,1,1-Trichloroethane	Total VOCs
W-2	--(--)*	24.0(27.0)	--(11.0)	--(--)	24.0(38.0)
W-3	--(--)	140.0(--)	--(12.0)	--(--)	140.0(12.0)
W-8	--(--)	9.9(22.0)	9.2(2.2)	--(--)	19.1(24.2)
W-9	--(--)	16 (26.0)	70 (34.0)	--(--)	86 (60.0)
W-15	--(1.3)	-- (26.0)	26 (11.0)	37(16.0)	63.(54.3)
W-16	--(1.3)	26 (23.0)	8.1(5.3)	16(21.0)	50.1(50.6)
W-17	--(--)	-- (--)	-- (1.3)	--(--)	-- (1.3)
W-18	--(--)	-- (--)	-- (1.4)	--(--)	-- (1.4)
W-20D	--(--)	46 (15.0)	8.3(5.5)	30(18.0)	84.3(38.5)

-- Nondetectable. Below Detection Limit

* The first result shown in each column is from March 1989. The result in parentheses is from March 1988.

TABLE 4

LABORATORY ANALYSIS RESULTS FOR AIR STRIPPING

OF GROUNDWATER FROM WELL TW-1

Parameter (ppb)	3/21		Removal Efficiency	3/22		Removal Efficiency
	In	Out		In	Out	
1,1-dichloroethylene	1.6	ND	100%	ND	ND	100%
trichloroethylene	3.2	ND	100%	1.4	ND	100%
1,1-dichloroethane	5.2	ND	100%	5.2	ND	100%
Total VOC	10.0	ND	100%	6.6	ND	100%

Parameter (ppb)	3/23		Removal Efficiency	3/24		Removal Efficiency
	In	Out		In	Out	
1,1-dichloroethylene	ND	ND	100%	1.8	ND	100%
trichloroethylene	1.4	ND	100%	1.9	ND	100%
1,1-dichloroethane	5.6	ND	100%	6.3	ND	100%
Total VOC	7.0	ND	100%	10.0	ND	100%

ND=None Detected

TABLE 4. (continued)

Parameter (ppb)	3/28		Removal Efficiency	3/29		Removal Efficiency
	In	Out		In	Out	
1,1-dichloroethylene	ND	ND	100%	1.4	ND	100%
trichloroethylene	2.3	ND	100%	2.5	ND	100%
1,1-dichloroethane	5.3	ND	100%	6.2	ND	100%
Total VOC	7.6	ND	100%	10.1	ND	100%

Parameter	3/30		Removal Efficiency	3/31		Removal Efficiency
	In	Out		In	Out	
1,1-dichloroethylene	2.0	ND	100%	2.4	ND	100%
trichloroethylene	3.5	ND	100%	4.3	ND	100%
1,1-dichloroethane	8.0	ND	100%	9.0	ND	100%
Total VOC	13.5	ND	100%	15.7	ND	100%

ND=None Detected

TABLE 5.

LABORATORY ANALYSIS RESULTS FOR AIR STRIPPING

OF GROUNDWATER FROM WELL L-4

Parameter (ppb)	4/3		Removal Efficiency	4/4		Removal Efficiency
	In	Out		In	Out	
1,1-dichloroethylene	2.0	ND	100%	3.3	ND	100%
trichloroethylene	2.1	ND	100%	3.2	ND	100%
1,1-dichloroethane	3.8	ND	100%	3.4	ND	100%
1,1,1-trichloroethane	ND	ND	100%	ND	ND	100%
Total VOC	7.9	ND	100%	9.9	ND	100%

Parameter (ppb)	4/5		Removal Efficiency	4/6		Removal Efficiency
	In	Out		In	Out	
1,1-dichloroethylene	1.5	ND	100%	4.7	ND	100%
trichloroethylene	1.9	ND	100%	4.9	ND	100%
1,1-dichloroethane	4.5	ND	100%	1.3	ND	100%
1,1,1-trichloroethane	ND	ND	100%	2.2	ND	100%
Total VOC	7.9	ND	100%	13.1	ND	100%

ND=None Detected

TABLE 5. (Continued)

Parameter (ppb)	4/7		Removal Efficiency	4/10		Removal Efficiency
	In	Out		In	Out	
1,1-dichloroethylene	5.0	ND	100%	ND	ND	100%
trichloroethylene	5.3	ND	100%	ND	ND	100%
1,1-dichloroethane	1.6	ND	100%	ND	ND	100%
1,1,1-trichloroethane	2.4	ND	100%	ND	ND	100%
Total VOC	16.3	ND	100%	ND	ND	100%

Parameter (ppb)	4/11		Removal Efficiency	4/12		Removal Efficiency
	In	Out		In	Out	
1,1-dichloroethylene	ND	ND	100%	ND	ND	100%
trichloroethylene	ND	ND	100%	ND	ND	100%
1,1-dichloroethane	ND	ND	100%	ND	ND	100%
1,1,1-trichloroethane	ND	ND	100%	ND	ND	100%
Total VOC	ND	ND	100%	ND	ND	100%

ND=None Detected

TABLE 5. (Continued)

Parameter (ppb)	4/13		Removal Efficiency
	In	Out	
1,1-dichloroethylene	ND	ND	100%
trichloroethylene	ND	ND	100%
1,1-dichloroethane	ND	ND	100%
1,1,1-trichloroethane	1.3	ND	100%
Total VOC	1.3	ND	100%

ND=None Detected

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-2383

Received: 23 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

— ATTACHMENT 1 —

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2383-1	W-2 (3-22-89)	Savannah Laboratories
2383-2	W-3 (3-22-89)	
2383-3	W-8 (3-22-89)	
2383-4	W-9 (3-22-89)	
2383-5	W-27D (3-22-89)	

PARAMETER	2383-1	2383-2	2383-3	2383-4	2383-5
Volatile Organic Compounds					
Acrolein, ug/l	<50	<50	<50	<50	<50
Acrylonitrile, ug/l	<50	<50	<50	<50	<50
Benzene, ug/l	<5	<5	<5	<5	<5
Bis(chloromethyl)Ether, ug/l	<10	<10	<10	<10	<10
Bromoform, ug/l	<5	<5	<5	<5	<5
Carbon Tetrachloride, ug/l	<5	<5	<5	<5	<5
Chlorobenzene, ug/l	<5	<5	<5	<5	<5
Chlorodibromomethane, ug/l	<5	<5	<5	<5	<5
Chloroethane, ug/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether, ug/l	<10	<10	<10	<10	<10
Chloroform, ug/l	<5	<5	<5	<5	<5
Dichlorobromomethane, ug/l	<5	<5	<5	<5	<5
Dichlorodifluoromethane, ug/l	<10	<10	<10	<10	<10
1,1-Dichloroethane, ug/l	24	140	9.9	16	<5
1,2-Dichloroethane, ug/l	<5	<5	<5	<5	<5
1,1-Dichloroethene, ug/l	<5	<5	9.2	70	<5
1,2-Dichloropropane, ug/l	<5	<5	<5	<5	<5
1,3-Dichloropropylene, ug/l	<5	<5	<5	<5	<5

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LOG NO: 89-2383

Received: 23 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2383-1	W-2 (3-22-89)	Savannah Laboratories
2383-2	W-3 (3-22-89)	
2383-3	W-8 (3-22-89)	
2383-4	W-9 (3-22-89)	
2383-5	W-27D (3-22-89)	

PARAMETER	2383-1	2383-2	2383-3	2383-4	2383-5
...ylbenzene, ug/l	<5	<5	<5	<5	<5
...hyl Bromide, ug/l	<10	<10	<10	<10	<10
Methyl Chloride, ug/l	<10	<10	<10	<10	<10
Methylene Chloride, ug/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane, ug/l	<5	<5	<5	<5	<5
Tetrachloroethylene, ug/l	<5	<5	<5	<5	<5
Toluene, ug/l	<5	<5	<5	<5	<5
1,2-Trans-Dichloroethylene, ug/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane, ug/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane, ug/l	<5	<5	<5	<5	<5
Trichloroethene, ug/l	<5	<5	<5	<5	<5
Trichlorofluoromethane, ug/l	<5	<5	<5	<5	<5
Vinyl Chloride, ug/l	<10	<10	<10	<10	<10
Surrogates - Volatiles					
Toluene-d8, % Rec.	89 %	89 %	88 %	89 %	93 %
4-Bromofluorobenzene (Surrogate), % Rec.	104 %	106 %	98 %	102 %	91 %
1,2-Dichloroethane-d4, % Rec.	102 %	105 %	104 %	91 %	104 %
Cyanide, Total, mg/l	<0.010	<0.010	<0.010	<0.010	<0.010

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2383-2	W-3 (3-22-89)	
2383-3	W-8 (3-22-89)	
2383-4	W-9 (3-22-89)	
2383-5	W-27D (3-22-89)	

PARAMETER	2383-1	2383-2	2383-3	2383-4	2383-5
Nickel, mg/l	<0.010	0.018	<0.010	<0.010	<0.010
[illegible]r Level (casing top), ft	10.77	8.99	29.16	29.87	21.78
[illegible]Taken in Field), units	4.77	5.06	4.85	5.17	5.39
Specific Conductance (Taken in Field), umhos/cm	90	450	60	60	50

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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2383-6	W-27D Duplicate (3-22-89)	Savannah Laboratories
2383-7	W-27S (3-22-89)	
2383-8	W-27S Duplicate (3-22-89)	
2383-9	W-30 (3-22-89)	
2383-10	W-31 (3-23-89)	

PARAMETER	2383-6	2383-7	2383-8	2383-9	2383-10
Volatile Organic Compounds					
Acrolein, ug/l	<50	<50	<50	<50	<50
Acrylonitrile, ug/l	<50	<50	<50	<50	<50
Benzene, ug/l	<5	<5	<5	<5	<5
Bis(chloromethyl)Ether, ug/l	<10	<10	<10	<10	<10
Bromoform, ug/l	<5	<5	<5	<5	<5
Carbon Tetrachloride, ug/l	<5	<5	<5	<5	<5
Chlorobenzene, ug/l	<5	<5	<5	<5	<5
Chlorodibromomethane, ug/l	<5	<5	<5	<5	<5
Chloroethane, ug/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether, ug/l	<10	<10	<10	<10	<10
Chloroform, ug/l	<5	<5	<5	<5	<5
Dichlorobromomethane, ug/l	<5	<5	<5	<5	<5
Dichlorodifluoromethane, ug/l	<10	<10	<10	<10	<10
1,1-Dichloroethane, ug/l	<5	<5	<5	<5	<5
1,2-Dichloroethane, ug/l	<5	<5	<5	<5	<5
1,1-Dichloroethene, ug/l	<5	<5	<5	29	18
1,2-Dichloropropane, ug/l	<5	<5	<5	<5	<5
1,3-Dichloropropylene, ug/l	<5	<5	<5	<5	<5

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2383-7	W-27S (3-22-89)	
2383-8	W-27S Duplicate (3-22-89)	
2383-9	W-30 (3-22-89)	
2383-10	W-31 (3-23-89)	

PARAMETER	2383-6	2383-7	2383-8	2383-9	2383-10
Ethylbenzene, ug/l	<5	<5	<5	<5	<5
hyl Bromide, ug/l	<10	<10	<10	<10	<10
thyl Chloride, ug/l	<10	<10	<10	<10	<10
Methylene Chloride, ug/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane, ug/l	<5	<5	<5	<5	<5
Tetrachloroethylene, ug/l	<5	<5	<5	<5	<5
Toluene, ug/l	<5	<5	<5	<5	<5
1,2-Trans-Dichloroethylene, ug/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane, ug/l	<5	<5	<5	18	<5
1,1,2-Trichloroethane, ug/l	<5	<5	<5	<5	<5
Trichloroethene, ug/l	<5	<5	<5	<5	<5
Trichlorofluoromethane, ug/l	<5	<5	<5	<5	<5
Vinyl Chloride, ug/l	<10	<10	<10	<10	<10
Surrogates - Volatiles					
Toluene-d8, % Rec.	92 %	98 %	82 %	104 %	94 %
4-Bromofluorobenzene (Surrogate), % Rec.	96 %	103 %	104 %	98 %	93 %
1,2-Dichloroethane-d4, % Rec.	84 %	115 %	80 %	91 %	84 %
Cyanide, Total, mg/l	<0.010	<0.010	<0.010	<0.010	<0.010

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2383-6	W-27D Duplicate (3-22-89)	Savannah Laboratories
2383-7	W-27S (3-22-89)	
2383-8	W-27S Duplicate (3-22-89)	
2383-9	W-30 (3-22-89)	
2383-10	W-31 (3-23-89)	

PARAMETER	2383-6	2383-7	2383-8	2383-9	2383-10
Nickel, mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Level (casing top), ft	21.78	9.75	9.75	29.71	23.20
aken in Field), units	5.38	4.83	4.86	5.62	5.06
Specific Conductance (Taken in Field), umhos/cm	50	60	60	80	90

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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2383-11	W-11 (3-22-89)	Savannah Laboratories
2383-12	W-12 (3-22-89)	
2383-13	W-13 (3-22-89)	
2383-14	SP-7 (3-22-89)	
2383-15	SP-10 (3-22-89)	

PARAMETER	2383-11	2383-12	2383-13	2383-14	2383-15
Cyanide, Total, mg/l	<0.010	<0.010	0.014	3500	9500
Nickel, mg/l	<0.010	<0.010	<0.010	0.47	0.61
Water Level (casing top), ft	32.97	32.98	33.08	6.48	7.77
pH (Taken in Field), units	5.80	5.70	5.50	9.64	10.05
Specific Conductance (Taken in Field), umhos/cm	80	100	70	60200	62500

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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2383-16	W-15 (3-23-89)	Savannah Laboratories
2383-17	W-16 (3-22-89)	
2383-18	W-17 (3-22-89)	
2383-19	W-18 (3-22-89)	
2383-20	W-20S (3-23-89)	

PARAMETER	2383-16	2383-17	2383-18	2383-19	2383-20
Volatile Organic Compounds					
Acrolein, ug/l	<50	<50	<50	<50	<50
Acrylonitrile, ug/l	<50	<50	<50	<50	<50
Benzene, ug/l	<5	<5	<5	<5	<5
Bis(chloromethyl)Ether, ug/l	<10	<10	<10	<10	<10
Bromoform, ug/l	<5	<5	<5	<5	<5
Carbon Tetrachloride, ug/l	<5	<5	<5	<5	<5
Chlorobenzene, ug/l	<5	<5	<5	<5	<5
Chlorodibromomethane, ug/l	<5	<5	<5	<5	<5
Chloroethane, ug/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether, ug/l	<10	<10	<10	<10	<10
Chloroform, ug/l	<5	<5	<5	<5	<5
Dichlorobromomethane, ug/l	<5	<5	<5	<5	<5
Dichlorodifluoromethane, ug/l	<10	<10	<10	<10	<10
1,1-Dichloroethane, ug/l	<5	26	<5	<5	<5
1,2-Dichloroethane, ug/l	<5	<5	<5	<5	<5
1,1-Dichloroethene, ug/l	26	8.1	<5	<5	<5
1,2-Dichloropropane, ug/l	<5	<5	<5	<5	<5
1,3-Dichloropropylene, ug/l	<5	<5	<5	<5	<5

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2383-17	W-16 (3-22-89)	
2383-18	W-17 (3-22-89)	
2383-19	W-18 (3-22-89)	
2383-20	W-20S (3-23-89)	

PARAMETER	2383-16	2383-17	2383-18	2383-19	2383-20
Ethylbenzene, ug/l	<5	<5	<5	<5	<5
Methyl Bromide, ug/l	<10	<10	<10	<10	<10
Methyl Chloride, ug/l	<10	<10	<10	<10	<10
Methylene Chloride, ug/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane, ug/l	<5	<5	<5	<5	<5
Tetrachloroethylene, ug/l	<5	<5	<5	<5	<5
Toluene, ug/l	<5	<5	<5	<5	<5
1,2-Trans-Dichloroethylene, ug/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane, ug/l	37	16	<5	<5	<5
1,1,2-Trichloroethane, ug/l	<5	<5	<5	<5	<5
Trichloroethene, ug/l	<5	<5	<5	<5	<5
Trichlorofluoromethane, ug/l	<5	<5	<5	<5	<5
Vinyl Chloride, ug/l	<10	<10	<10	<10	<10
Surrogates - Volatiles					
Toluene-d8, % Rec.	97 %	96 %	96 %	97 %	99 %
4-Bromofluorobenzene (Surrogate), % Rec.	100 %	98 %	104 %	98 %	100 %
1,2-Dichloroethane-d4, % Rec.	99 %	100 %	77 %	99 %	104 %
Water Level (casing top), ft	20.48	14.23	10.17	19.62	5.38

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2383-16	W-15 (3-23-89)	Savannah Laboratories
2383-17	W-16 (3-22-89)	
2383-18	W-17 (3-22-89)	
2383-19	W-18 (3-22-89)	
2383-20	W-20S (3-23-89)	

PARAMETER	2383-16	2383-17	2383-18	2383-19	2383-20
[illegible] (Taken in Field), units	4.72	4.88	4.95	4.95	4.16
[illegible]ific Conductance (Taken in Field), umhos/cm	80	150	80	70	100

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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2383-21	W-20D (3-23-89)	Savannah Laboratories
2383-22	W-20DD (3-23-89)	

PARAMETER	2383-21	2383-22
Volatile Organic Compounds		
Acrolein, ug/l	<50	<50
Acrylonitrile, ug/l	<50	<50
Benzene, ug/l	<5	<5
(chloromethyl)Ether, ug/l	<10	<10
Bromoform, ug/l	<5	<5
Carbon Tetrachloride, ug/l	<5	<5
Chlorobenzene, ug/l	<5	<5
Chlorodibromomethane, ug/l	<5	<5
Chloroethane, ug/l	<10	<10
2-Chloroethylvinyl Ether, ug/l	<10	<10
Chloroform, ug/l	<5	<5
Dichlorobromomethane, ug/l	<5	<5
Dichlorodifluoromethane, ug/l	<10	<10
1,1-Dichloroethane, ug/l	46	<5
1,2-Dichloroethane, ug/l	<5	<5
1,1-Dichloroethene, ug/l	8.3	<5
1,2-Dichloropropane, ug/l	<5	<5
1,3-Dichloropropylene, ug/l	<5	<5
Ethylbenzene, ug/l	<5	<5
Methyl Bromide, ug/l	<10	<10
Methyl Chloride, ug/l	<10	<10

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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2383-21	W-20D (3-23-89)	Savannah Laboratories
2383-22	W-20DD (3-23-89)	

PARAMETER	2383-21	2383-22
Methylene Chloride, ug/l	<5	<5
1,1,2,2-Tetrachloroethane, ug/l	<5	<5
Tetrachloroethylene, ug/l	<5	<5
uene, ug/l	<5	<5
-Trans-Dichloroethylene, ug/l	<5	<5
1,1,1-Trichloroethane, ug/l	30	<5
1,1,2-Trichloroethane, ug/l	<5	<5
Trichloroethene, ug/l	<5	<5
Trichlorofluoromethane, ug/l	<5	<5
Vinyl Chloride, ug/l	<10	<10
Surrogates - Volatiles		
Toluene-d8, % Rec.	91 %	90 %
4-Bromofluorobenzene (Surrogate), % Rec.	90 %	106 %
1,2-Dichloroethane-d4, % Rec.	85 %	83 %
Water Level (casing top), ft	7.50	16.10
pH (Taken in Field), units	4.00	3.96
Specific Conductance (Taken in Field), umhos/cm	60	80

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LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
2383-23	Detection Limits	Savannah Laboratories
2383-24	Accuracy (Mean % Recovery)	
2383-25	Precision (% RPD)	
2383-26	Date Analyzed	

PARAMETER		2383-23	2383-24	2383-25	2383-26
Volatile Organic Compounds					
Acrolein, ug/l		50	—	—	03.31.89
Acrylonitrile, ug/l		50	—	—	03.31.89
Benzene, ug/l		5	101 %	4.2 %	03.31.89
Bis(chloromethyl)Ether, ug/l		10	—	—	03.31.89
Bromoform, ug/l		5	—	—	03.31.89
Carbon Tetrachloride, ug/l		5	—	—	03.31.89
Chlorobenzene, ug/l		5	96 %	2.9 %	03.31.89
Chlorodibromomethane, ug/l		5	—	—	03.31.89
Chloroethane, ug/l		10	—	—	03.31.89
2-Chloroethylvinyl Ether, ug/l		10	—	—	03.31.89
Chloroform, ug/l		5	—	—	03.31.89
Dichlorobromomethane, ug/l		5	—	—	03.31.89
Dichlorodifluoromethane, ug/l		10	—	—	03.31.89
1,1-Dichloroethane, ug/l		5	—	—	03.31.89
1,2-Dichloroethane, ug/l		5	—	—	03.31.89
1,1-Dichloroethene, ug/l		5	93 %	6.5 %	03.31.89
1,2-Dichloropropane, ug/l		5	—	—	03.31.89
1,3-Dichloropropylene, ug/l		5	—	—	03.31.89
Ethylbenzene, ug/l		5	—	—	03.31.89

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LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
2383-23	Detection Limits	Savannah Laboratories
2383-24	Accuracy (Mean % Recovery)	
2383-25	Precision (% RPD)	
2383-26	Date Analyzed	

PARAMETER	2383-23	2383-24	2383-25	2383-26
Methyl Bromide, ug/l	10	—	—	03.31.89
Methyl Chloride, ug/l	10	—	—	03.31.89
Methylene Chloride, ug/l	5	—	—	03.31.89
1,1,2,2-Tetrachloroethane, ug/l	5	—	—	03.31.89
Tetrachloroethylene, ug/l	5	—	—	03.31.89
Toluene, ug/l	5	103 %	1.9 %	03.31.89
1,2-Trans-Dichloroethylene, ug/l	5	—	—	03.31.89
1,1,1-Trichloroethane, ug/l	5	—	—	03.31.89
1,1,2-Trichloroethane, ug/l	5	—	—	03.31.89
Trichloroethene, ug/l	5	88 %	14 %	03.31.89
Trichlorofluoromethane, ug/l	5	—	—	03.31.89
Vinyl Chloride, ug/l	10	—	—	03.31.89
Cyanide, Total, mg/l	0.010	95 %	11 %	03.28.89
Nickel, mg/l	0.010	95 %	0 %	04.05.89

Methods: EPA 40 CFR Part 136.

Janette D. Long

Janette D. Long

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: W-27D

WELL LOCKED: ✓ YES ___ NO BAILER PRESENT: ✓ YES ___ NO

* WATER LEVEL: 21.78 (0.01 ft) WELL DEPTH: 54.72 (ft)

WATER EVACUATION: 6l (liters) YIELD: H (L/H)

FLOATERS: ___ YES ✓ NO ___ (ft) SINKERS: ___ YES ✓ NO

** pH: 5.39 (units) CALIBRATED: 3/22/89 / 1206 (Date/Time)

** SC: 50 (µmhos/cm) CALIBRATED: 3/22/89 / 1206 (Date/Time)

TEMP: 18 (°C) CALIBRATED: 3/22/89 / 1206 (Date/Time)

BOTTLES LABELED: ✓ YES ___ NO

SAMPLING COMPLETED: 3/22/89 / 1215 (Date/Time)

BAILER RETURNED & WELL LOCKED: ✓ YES ___ NO

CUSTODY FORM COMPLETED: ✓ YES ___ NO

SAMPLES ICED: ✓ YES ___ NO

COOLERS SEALED: ✓ YES ___ NO SEAL NO: ___

CARRIER: SAV. LAB DATE/TIME: ___

COLLECTOR: V. Baisden (signature) DATE/TIME: 3/22/89 1231

NOTES: Very small amt. of silt in samples - relatively clear

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: W-27S

WELL LOCKED: ↘ YES ___ NO BAILER PRESENT: ↘ YES ___ NO

* WATER LEVEL: 9.75 (0.01 ft) WELL DEPTH: 20.53 (ft) (20.65)

WATER EVACUATION: 20 (liters) YIELD: H (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 4.83 (units) CALIBRATED: 3/22/89 / 1206 (Date/Time)

** SC: 60 (µmhos/cm) CALIBRATED: 3/22/89 / 1206 (Date/Time)

TEMP: 16 (°C) CALIBRATED: 3/22/89 / 1206 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 3/22/89 / 1223 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ↘ YES ___ NO SEAL NO: ___

CARRIER: SAV. LAB DATE/TIME: ___

COLLECTOR: V. Baisden (signature) DATE/TIME: 3/22/89 1229

NOTES: Some silt in samples

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington/Sylvania

WELL ID: W-275 Replicate

WELL LOCKED: ↘ YES ___ NO BAILER PRESENT: ↘ YES ___ NO

* WATER LEVEL: 9.75 (0.01 ft) WELL DEPTH: 20.53 (ft)

WATER EVACUATION: 20 (liters) YIELD: H (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 4.86 (units) CALIBRATED: 3/22/89 / 1206 (Date/Time)

** SC: 60 (µmhos/cm) CALIBRATED: 3/22/89 / 1206 (Date/Time)

TEMP: 16 (°C) CALIBRATED: 3/22/89 / 1206 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 3/22/89 / 1223 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ↘ YES ___ NO SEAL NO: ___

CARRIER: SAV. LAB DATE/TIME: ___

COLLECTOR: V. Baisden DATE/TIME: 3/22/89 1233
signature

NOTES: Some silt in samples (small amt)

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington/Sylvania

WELL ID: W-27 D replicate

WELL LOCKED: ↘ YES ____ NO BAILER PRESENT: ↘ YES ____ NO

* WATER LEVEL: 21.78 (0.01 ft) WELL DEPTH: 54.72 (ft)

WATER EVACUATION: 6l (liters) YIELD: H (L/H)

FLOATERS: ____ YES ↘ NO ____ (ft) SINKERS: ____ YES ↘ NO

** pH: 5.38 (units) CALIBRATED: 3/22/89 / 1206 (Date/Time)

** SC: 50 (µmhos/cm) CALIBRATED: 3/22/89 / 1206 (Date/Time)

TEMP: 18 (°C) CALIBRATED: 3/22/89 / 1206 (Date/Time)

BOTTLES LABELED: ↘ YES ____ NO

SAMPLING COMPLETED: 3/22/89 / 1215 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ____ NO

CUSTODY FORM COMPLETED: ↘ YES ____ NO

SAMPLES ICED: ↘ YES ____ NO

COOLERS SEALED: ↘ YES ____ NO SEAL NO: ____

CARRIER: SAV. LAB DATE/TIME: ____

COLLECTOR: V. Baisden (signature) DATE/TIME: 3/22/89 1234

NOTES: Small amt. of silt in samples - relatively clear

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington

WELL ID: SP-10

WELL LOCKED: ↘ YES ____ NO BAILER PRESENT: ↘ YES ____ NO

* WATER LEVEL: 7.77 (0.01 ft) WELL DEPTH: 12.04 (ft)

WATER EVACUATION: 3 (liters) YIELD: L (L/H)

FLOATERS: ____ YES ↘ NO ____ (ft) SINKERS: ____ YES ↘ NO

** pH: 10.05 (units) CALIBRATED: 3/22/89 / 1345 (Date/Time)

** SC: 62,500 (µmhos/cm) CALIBRATED: 3/22/89 / 1345 (Date/Time)

TEMP: 16 (°C) CALIBRATED: 3/22/89 / 1345 (Date/Time)

BOTTLES LABELED: ↘ YES ____ NO

SAMPLING COMPLETED: 3/22/89 / 1400 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ____ NO

CUSTODY FORM COMPLETED: ↘ YES ____ NO

SAMPLES ICED: ↘ YES ____ NO

COOLERS SEALED: ↘ YES ____ NO SEAL NO: ____

CARRIER: SAV. LAB DATE/TIME: ____

COLLECTOR: V. Baisden (signature) DATE/TIME: 3/22/89 1401

NOTES: dry at 3.0 l - color of purge H_2O & samples - dark orange
purge H_2O contained & emptied w/in retaining wall

* Fisher Electronic WL Meter
** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: SP-7

WELL LOCKED: VWB YES ↘ NO BAILER PRESENT: ↘ YES ___ NO

* WATER LEVEL: 6.48 (0.01 ft) WELL DEPTH: 6.98 (ft)

WATER EVACUATION: 1 (liters) YIELD: H (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 9.64 (units) CALIBRATED: 3/22/89 / 1345 (Date/Time)

** SC: 60,200 (µmhos/cm) CALIBRATED: 3/22/89 / 1345 (Date/Time)

TEMP: 16 (°C) CALIBRATED: 3/22/89 1345 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 3/22/89 / 1606 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ↘ YES ___ NO SEAL NO: ___

CARRIER: SAV. LAB DATE/TIME: ___

COLLECTOR: V. Basden (signature) DATE/TIME: 3/22/89

NOTES: PVC cap on ground beside well -
color of purge H_2O & samples - yellow-orange
contained purge H_2O & emptied w/in retaining wall

* Fisher Electronic WL Meter
** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: SP-8

WELL LOCKED: ____YES ↘ NO BAILER PRESENT: ↘ YES ____NO

* WATER LEVEL: dry (0.01 ft) WELL DEPTH: 6.45 (ft)

WATER EVACUATION: _____ (liters) YIELD: _____(L/H)

FLOATERS: ____YES ____NO ____(ft) SINKERS: ____YES ____NO

** pH: _____(units) CALIBRATED: ____/____(Date/Time)

** SC: _____(µmhos/cm) CALIBRATED: ____/____(Date/Time)

TEMP: _____(°C) CALIBRATED: ____/____(Date/Time)

BOTTLES LABELED: ____YES ____NO

SAMPLING COMPLETED: _____/_____(Date/Time)

BAILER RETURNED & WELL LOCKED: ____YES ____NO

CUSTODY FORM COMPLETED: ____YES ____NO

SAMPLES ICED: ____YES ____NO

COOLERS SEALED: ____YES ____NO SEAL NO: _____

CARRIER: _____ DATE/TIME: _____

COLLECTOR: V. Baisden DATE/TIME: 3/22/89 1855
signature

NOTES: < 1" of H_2O in well -

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington/Sylvania

WELL ID: W-11

WELL LOCKED: ↘ YES ___ NO BAILER PRESENT: ___ YES ↘ NO

* WATER LEVEL: 32.97 (0.01 ft) WELL DEPTH: 40.13 (ft)

WATER EVACUATION: 6 (liters) YIELD: 6 (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 5.80 (units) CALIBRATED: 3/22/89 1345 (Date/Time)

** SC: 80 (µmhos/cm) CALIBRATED: 3/22/89 1345 (Date/Time)

TEMP: 20 (°C) CALIBRATED: 3/22/89 1345 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 3/22/89 / 1346 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ↘ YES ___ NO SEAL NO: ___

CARRIER: SAV. LAB DATE/TIME: ___

COLLECTOR: V. Baisden DATE/TIME: 3/22/89 1346
signature

NOTES: Used SL Teflon bailer

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington/Sylvania

WELL ID: W-12

WELL LOCKED: ↘ YES ____ NO BAILER PRESENT: ____ YES ↘ NO

* WATER LEVEL: 32.98 (0.01 ft) WELL DEPTH: 40.34 (ft)

WATER EVACUATION: 14 (liters) YIELD: H (L/H)

FLOATERS: ____ YES ↘ NO ____ (ft) SINKERS: ____ YES ↘ NO

** pH: 5.70 (units) CALIBRATED: 3/22/89 1345 (Date/Time)

** SC: 100 (µmhos/cm) CALIBRATED: 3/22/89 1345 (Date/Time)

TEMP: 20 (°C) CALIBRATED: 3/22/89 1345 (Date/Time)

BOTTLES LABELED: ↘ YES ____ NO

SAMPLING COMPLETED: 3/22/89 1350 (Date/Time)

NO
BAILER RETURNED & WELL LOCKED: ↘ YES ____ NO

CUSTODY FORM COMPLETED: ↘ YES ____ NO

SAMPLES ICED: ↘ YES ____ NO

COOLERS SEALED: ↘ YES ____ NO SEAL NO: ____

CARRIER: SAV. LAB DATE/TIME: ____

COLLECTOR: V. Baisden (signature) DATE/TIME: 3/22/89 1350

NOTES: used SL Teflon bailer

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington/Sylvania

WELL ID: W-13

WELL LOCKED: ↘ YES ____ NO BAILER PRESENT: ____ YES ↘ NO

* WATER LEVEL: 33.08 (0.01 ft) WELL DEPTH: 40.43 (ft)

WATER EVACUATION: 14 (liters) YIELD: H (L/H)

FLOATERS: ____ YES ↘ NO ____ (ft) SINKERS: ____ YES ↘ NO

** pH: 5.50 (units) CALIBRATED: 3/22/89 / 1385 (Date/Time)

** SC: 70 (µmhos/cm) CALIBRATED: 3/22/89 / 1385 (Date/Time)

TEMP: 20 (°C) CALIBRATED: 3/22/89 / 1345 (Date/Time)

BOTTLES LABELED: ↘ YES ____ NO

SAMPLING COMPLETED: 3/22/89 / 1355 (Date/Time)

BAILER RETURNED & WELL LOCKED: No ↘ YES ____ NO

CUSTODY FORM COMPLETED: ↘ YES ____ NO

SAMPLES ICED: ↘ YES ____ NO

COOLERS SEALED: ↘ YES ____ NO SEAL NO: ____

CARRIER: Sav. Lab. DATE/TIME: ____

COLLECTOR: V. Baiden signature DATE/TIME: ____

NOTES: used SL teflon bailer

Some silt in purge H2O & samples

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: W-2

WELL LOCKED: ↘ YES ____ NO BAILER PRESENT: ____ YES ↘ NO

* WATER LEVEL: 10.77 (0.01 ft) WELL DEPTH: 17.09 (ft)

WATER EVACUATION: 5 (liters) YIELD: 2 (L/H)

FLOATERS: ____ YES ↘ NO ____ (ft) SINKERS: ____ YES ↘ NO

** pH: 4.77 (units) CALIBRATED: 3/22/89 1436 (Date/Time)

** SC: 90 (µmhos/cm) CALIBRATED: 3/22/89 1436 (Date/Time)

TEMP: 17 (°C) CALIBRATED: 3/22/89 1436 (Date/Time)

BOTTLES LABELED: ↘ YES ____ NO

SAMPLING COMPLETED: 3/22/89 1442 (Date/Time)

No
BAILER RETURNED & WELL LOCKED: ↘ YES ____ NO

CUSTODY FORM COMPLETED: ↘ YES ____ NO

SAMPLES ICED: ↘ YES ____ NO

COOLERS SEALED: ↘ YES ____ NO SEAL NO: ____

CARRIER: Sav. Lab. DATE/TIME: ____

COLLECTOR: V. Baisden (signature) DATE/TIME: 3/22/89 1442

NOTES: used SL Teflon bailer

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington/Sylvania

WELL ID: W-8

WELL LOCKED: ↘ YES ___ NO BAILER PRESENT: ___ YES ↘ NO

* WATER LEVEL: 29.16 (0.01 ft) WELL DEPTH: 42.66 (ft)

WATER EVACUATION: 25 (liters) YIELD: H (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 4.85 (units) CALIBRATED: 3/22/89 1459 (Date/Time)

** SC: 60 (µmhos/cm) CALIBRATED: 3/22/89 1459 (Date/Time)

TEMP: 20 (°C) CALIBRATED: 3/22/89 1459 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 3/22/89 1504 (Date/Time)

NO BAILER RETURNED & WELL LOCKED: ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ↘ YES ___ NO SEAL NO: ___

CARRIER: Sav. Lab DATE/TIME: ___

COLLECTOR: V. Baisden (signature) DATE/TIME: 3/22/89 1504

NOTES: used SL Teflon bailer

Silt in Samples

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: W-3

WELL LOCKED: ~~YES~~ ↘ YES ____ NO BAILER PRESENT: ____ YES ↘ NO

* WATER LEVEL: 8.99 (0.01 ft) WELL DEPTH: 15.18 (ft)

WATER EVACUATION: 6 (liters) YIELD: L (L/H)

FLOATERS: ____ YES ↘ NO ____ (ft) SINKERS: ____ YES ↘ NO

** pH: 5.06 (units) CALIBRATED: 3/22/89 / 1518 (Date/Time)

** SC: 450 (µmhos/cm) CALIBRATED: 3/22/89 / 1518 (Date/Time)

TEMP: 17 (°C) CALIBRATED: 3/22/89 / 1518 (Date/Time)

BOTTLES LABELED: ↘ YES ____ NO

SAMPLING COMPLETED: 3/22/89 / 1525 (Date/Time)

BAILER RETURNED & WELL LOCKED: ND ↘ YES ____ NO

CUSTODY FORM COMPLETED: ↘ YES ____ NO

SAMPLES ICED: ↘ YES ____ NO

COOLERS SEALED: ↘ YES ____ NO SEAL NO: ____

CARRIER: SAV. LAB. DATE/TIME: ____

COLLECTOR: U. Baisden (signature) DATE/TIME: 3/22/89 1525

NOTES: used SL Teflon bailer

Some Silt in Samples

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington/Sylvania

WELL ID: LV-30

WELL LOCKED: ↘ YES ___ NO BAILER PRESENT: ___ YES ↘ NO

* WATER LEVEL: 29.71 (0.01 ft) WELL DEPTH: 44.59 (ft)

WATER EVACUATION: 28 (liters) YIELD: H (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 5.62 (units) CALIBRATED: 3/22/89 / 1545 (Date/Time)

** SC: 80 (µmhos/cm) CALIBRATED: 3/22/89 / 1545 (Date/Time)

TEMP: 20 (°C) CALIBRATED: 3/22/89 / 1545 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 3/22/89 / 1550 (Date/Time)

BAILER RETURNED & WELL LOCKED: No ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ↘ YES ___ NO SEAL NO: ___

CARRIER: Sav. Lab. DATE/TIME: ___

COLLECTOR: V. Baisden (signature) DATE/TIME: 3/22/89 1550

NOTES: used SL teflon bailer

SiM in purge H2O & Samples

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: W-9

WELL LOCKED: ↘ YES ___ NO BAILER PRESENT: ___ YES ↘ NO

* WATER LEVEL: 29.87 (0.01 ft) WELL DEPTH: 46.28 (ft)

WATER EVACUATION: 31 (liters) YIELD: H (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 5.17 (units) CALIBRATED: 3/22/89 1545 (Date/Time)

** SC: 60 (µmhos/cm) CALIBRATED: 3/22/89 1545 (Date/Time)

TEMP: 21 (°C) CALIBRATED: 3/22/89 1545 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 3/22/89 1555 (Date/Time)

BAILER RETURNED & WELL LOCKED: No ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ↘ YES ___ NO SEAL NO: ___

CARRIER: Sav. Lab. DATE/TIME: ___

COLLECTOR: V. Beisler (signature) DATE/TIME: 3/22/89 1555

NOTES: Rain - air temp 11°C

used SL teflon bailer

some silt in samples

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: W-18

WELL LOCKED: ↘ YES ___ NO BAILER PRESENT: ↘ YES ___ NO

* WATER LEVEL: 19.62 (0.01 ft) WELL DEPTH: 30.55 (ft)

WATER EVACUATION: 20 (liters) YIELD: H (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 4.95 (units) CALIBRATED: 3/22/89 / 1652 (Date/Time)

** SC: 70 (µmhos/cm) CALIBRATED: 3/22/89 / 1652 (Date/Time)

TEMP: 19 (°C) CALIBRATED: 3/22/89 / 1652 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 3/22/89 / 1653 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ↘ YES ___ NO SEAL NO: ___

CARRIER: Sav. Lab. DATE/TIME: ___

COLLECTOR: V. Baisden (signature) DATE/TIME: 3/22/89 1653

NOTES: some SIM in samples

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: W-17

WELL LOCKED: ↘ YES ____ NO BAILER PRESENT: ↘ YES ____ NO

* WATER LEVEL: 10.17 (0.01 ft) WELL DEPTH: 25.35 (ft)

WATER EVACUATION: 15 (liters) YIELD: L (L/H)

FLOATERS: ____ YES ↘ NO ____ (ft) SINKERS: ____ YES ↘ NO

** pH: 4.95 (units) CALIBRATED: 3/22/89 / 1652 (Date/Time)

** SC: 80 (µmhos/cm) CALIBRATED: 3/22/89 / 1652 (Date/Time)

TEMP: 18 (°C) CALIBRATED: 3/22/89 1652 (Date/Time)

BOTTLES LABELED: ↘ YES ____ NO

SAMPLING COMPLETED: 3/22/89 / 1658 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ____ NO

CUSTODY FORM COMPLETED: ↘ YES ____ NO

SAMPLES ICED: ↘ YES ____ NO

COOLERS SEALED: ↘ YES ____ NO SEAL NO: ____

CARRIER: SAV. LABS. DATE/TIME: ____

COLLECTOR: V. Baesden (signature) DATE/TIME: 3/22/89 1658

NOTES: Silt in samples

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: W-16

WELL LOCKED: ↘ YES ___ NO BAILER PRESENT: ↘ YES ___ NO

* WATER LEVEL: 14.23 (0.01 ft) WELL DEPTH: 25.55 (ft)

WATER EVACUATION: 21 (liters) YIELD: H (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 4.88 (units) CALIBRATED: 3/22/89 1652 (Date/Time)

** SC: 150 (µmhos/cm) CALIBRATED: 3/22/89 1652 (Date/Time)

TEMP: 16 (°C) CALIBRATED: 3/22/89 1652 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 3/22/89 1705 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ↘ YES ___ NO SEAL NO: ___

CARRIER: SAU. LAB DATE/TIME: ___

COLLECTOR: V. Baisden (signature) DATE/TIME: 3/22/89 1705

NOTES: Some silt in Sample

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: W-205

WELL LOCKED: ↘ YES ___ NO BAILER PRESENT: ___ YES ___ NO

* WATER LEVEL: ~~7.50~~ 5.38 (0.01 ft) WELL DEPTH: 12.53 (ft)

WATER EVACUATION: 21 (liters) YIELD: 4 (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 4.16 (units) CALIBRATED: 3/23/89 / 0808 (Date/Time)

** SC: 100 (µmhos/cm) CALIBRATED: 3/23/89 / 0808 (Date/Time)

TEMP: 15 (°C) CALIBRATED: 3/23/89 / 0808 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 3/23/89 / 0818 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ___ YES ___ NO SEAL NO: ___

CARRIER: SAV. LAB. DATE/TIME: ___

COLLECTOR: V. Brisbon (signature) DATE/TIME: 3/23/89

NOTES: Rain - air temp 10°C

silt / sediment in well - bail to dry 2X

some silt in samples

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington/Sylvania

WELL ID: W-20 DD

WELL LOCKED: ↘ YES ____ NO BAILER PRESENT: ____ YES ↘ NO

* WATER LEVEL: 16.10 (0.01 ft) WELL DEPTH: 84.80 (ft)

WATER EVACUATION: 128 (liters) YIELD: 4 (L/H)

FLOATERS: ____ YES ↘ NO ____ (ft) SINKERS: ____ YES ↘ NO

** pH: 3.96 (units) CALIBRATED: 3/23/89 / 0808 (Date/Time)

** SC: 80 (µmhos/cm) CALIBRATED: 3/23/89 / 0808 (Date/Time)

TEMP: 18 (°C) CALIBRATED: 3/23/89 / 0808 (Date/Time)

BOTTLES LABELED: ↘ YES ____ NO

SAMPLING COMPLETED: 3/23/89 / 0808 (Date/Time)

BAILER RETURNED & WELL LOCKED: No ↘ YES ____ NO

CUSTODY FORM COMPLETED: ↘ YES ____ NO

SAMPLES ICED: ↘ YES ____ NO

COOLERS SEALED: ↘ YES ____ NO SEAL NO: ____

CARRIER: SAV. LAB DATE/TIME: ____

COLLECTOR: V. Bainda (signature) DATE/TIME: 3/23/89

NOTES: No bailer - used SL teflon bailer

Sampling clear

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington / Sylvania

WELL ID: W-15

WELL LOCKED: ↘ YES ___ NO BAILER PRESENT: ↘ YES ___ NO

* WATER LEVEL: 20.48 (0.01 ft) WELL DEPTH: 40.26 (ft)

WATER EVACUATION: 20 (liters) YIELD: L (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 4.72 (units) CALIBRATED: 3/23/89 / 0904 (Date/Time)

** SC: 80 (µmhos/cm) CALIBRATED: 3/23/89 / 0904 (Date/Time)

TEMP: 17 (°C) CALIBRATED: 3/23/89 10904 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 3/23/89 / 0900 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ↘ YES ___ NO SEAL NO: ___

CARRIER: SAV. LAB DATE/TIME: ___

COLLECTOR: V. Bucci DATE/TIME: 3/23/89
signature

NOTES: Drilling well next to W-15

* Fisher Electronic WL Meter

** DSPH-3 Meter

MONITORING WELL SAMPLING LOG

CLIENT/FACILITY: Torrington/Sylvania

WELL ID: W-31

WELL LOCKED: ↘ YES ___ NO BAILER PRESENT: ↘ YES ___ NO

* WATER LEVEL: 23.20 (0.01 ft) WELL DEPTH: 74.30 (ft)

WATER EVACUATION: 95 (liters) YIELD: H (L/H)

FLOATERS: ___ YES ↘ NO ___ (ft) SINKERS: ___ YES ↘ NO

** pH: 5.06 (units) CALIBRATED: 3/23/89 / 0904 (Date/Time)

** SC: 90 (µmhos/cm) CALIBRATED: 3/23/89 / 0904 (Date/Time)

TEMP: 18 (°C) CALIBRATED: 3/23/89 / 0904 (Date/Time)

BOTTLES LABELED: ↘ YES ___ NO

SAMPLING COMPLETED: 0905 / 3/23/89 (Date/Time)

BAILER RETURNED & WELL LOCKED: ↘ YES ___ NO

CUSTODY FORM COMPLETED: ↘ YES. ___ NO

SAMPLES ICED: ↘ YES ___ NO

COOLERS SEALED: ↘ YES ___ NO SEAL NO: ___

CARRIER: SAV. LAB DATE/TIME: ___

COLLECTOR: V. Baisden (signature) DATE/TIME: 3/23/89

NOTES: well drillers cranked up truck in the middle of filling bottles
may have sprayed area w/ mud/oil/H_2O

* Fisher Electronic WL Meter
** DSPH-3 Meter

CHAIN OF CUSTODY RECORD

SL SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, IN

COMPANY NAME/LOCATION: Torrington / Sylvania

SAMPLERS (Signature): V. Baisden

COLOR CODE: B [X] R [ ] [ ]

SL LOG NO	DATE	TIME	COMP.	GRAB	SAMPLE IDENTIFICATION	NO. OF CONTAINERS	WATER/WASTEWATER: 1 liter plastic jug	1 liter glass w/Tfe...	500 ml plastic w/Tfe...	500 ml plastic-gen.	250 ml plastic-mer.	250 ml plastic	130 ml oval glass	100 ml amber glass	40ml plastic	20 ml vial w/ins.	SOIL/SLUDGE: 1 liter wm glass	1 liter wm plastic	500 ml wm glass	500 ml wm plastic	40ml vial w/ins.	*Container sealed	Analyses Requested
2383	3/22/89	~~1653~~		✓	W-18	3								3									
	3/22/89	1658		✓	W-17	3								3									
	3/22/89	1705		✓	W-16	3								3									
	3/23/89	0818		✓	W-20S	3								3									
	3/23/89	0813		✓	W-20D	3								3									
	3/23/89	0808		✓	W-20DD	3								3									
	3/23/89	0905		✓	W-31	5	1				1			3									
	3/23/89	0900		✓	W-15	3								3									

Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time
V. Baisden	3/23/89 1333	Ylona Bonds	3/24/89 1:33 pm		
Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time

Color Code/Preservative
- Green - sulfuric acid
- Purple - no preservative
- Red - nitric acid
- Tan - zinc acetate
- Yellow - sodium thiosulfate
- Blue - sodium hydroxide
- Lt. Blue - hydrochloric acid

Container seal intact
Field _____
Lab _____

CHAIN OF CUSTODY RECORD

SL SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

COMPANY NAME/LOCATION: Torrington / Sylvania

SAMPLERS (Signature): V. Baisden

COLOR CODE: B R G P

WATER/WASTEWATER | SOIL/SLUDGE

SL LOG NO	DATE	TIME	COMP.	GRAB	SAMPLE IDENTIFICATION	NO. OF CONTAINERS	liter plastic jug	liter glass w/TFE	500 ml plastic-gen	500 ml plastic-met	250 ml plastic	250 ml oval glass	130 ml amber glass	100 ml plastic	40ml vial w/ins.	20 ml plastic vial	40ml vial	liter wm glass	liter wm plastic	500 ml wm glass	500 ml wm plastic	40ml vial w/ins.	#Container sealed	Analyses Requested
2383	3/22/89	1225		✓	W-27D	5	1			1			3											
	3/22/89	1225		✓	W-27D replicate	5	1			1			3											
	3/22/89	1223		✓	W-27S	5	1			1			3											
	3/22/89	1223		✓	W-27S replicate	5	1			1			3											
	3/22/89	1346		✓	W-11	2	1			1														
	3/22/89	1350		✓	W-12	2	1			1														
	3/22/89	1355		✓	W-13	2	1			1														
	3/22/89	1400		✓	SP-10	4	1						3											
	3/22/89	1606		✓	SP-7	4	1						3											
	3/22/89	1442		✓	W-2	5	1			1			3											
	3/22/89	1504		✓	W-8	5	1			1			3											
	3/22/89	1525		✓	W-3	5	1			1			3											
	3/22/89	1550		✓	W-30	5	1			1			3											
	3/22/89	1555		✓	W-9	5	1			1			3											
	3/22/89				SP-8	0																		DRY - insufficient H_2O to sample

Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time
V. Baisden	3/23/89 1333	Ilona Bond	3/23/89 1:33 pm		
Relinquished by:	Date/Time	Received by:	Date/Time	Relinquished by:	Date/Time

Color Code/Preservative
- Green - sulfuric acid
- Purple - no preservative
- Red - nitric acid
- Tan - zinc acetate
- Yellow - sodium thiosulfate
- Blue - sodium hydroxide
- Lt. Blue - hydrochloric acid

Container seal intact
Field _____
Lab _____

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES
AND ENVIRONMENTAL SERVICES, INC.
5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-2995

Received: 14 APR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2995-1	W 16DD (04.13.89)	Client
2995-2	W 15D (04.13.89)	

PARAMETER	2995-1	2995-2
Volatile Organic Compounds		
Acrolein, ug/l	<50	<50
Acrylonitrile, ug/l	<50	<50
Benzene, ug/l	<5	<5
Bis(chloromethyl)Ether, ug/l	<10	<10
Bromoform, ug/l	<5	<5
Carbon Tetrachloride, ug/l	<5	<5
Chlorobenzene, ug/l	<5	<5
Chlorodibromomethane, ug/l	<5	<5
Chloroethane, ug/l	<10	<10
2-Chloroethylvinyl Ether, ug/l	<10	<10
Chloroform, ug/l	<5	<5
Dichlorobromomethane, ug/l	<5	<5
Dichlorodifluoromethane, ug/l	<10	<10
1,1-Dichloroethane, ug/l	14	<5
1,2-Dichloroethane, ug/l	<5	<5
1,1-Dichloroethene, ug/l	7.2	8.2
1,2-Dichloropropane, ug/l	<5	<5
1,3-Dichloropropylene, ug/l	<5	<5
Ethylbenzene, ug/l	<5	<5
Methyl Bromide, ug/l	<10	<10
Methyl Chloride, ug/l	<10	<10

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REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2995-1	W 16DD (04.13.89)	Client
2995-2	W 15D (04.13.89)	

PARAMETER	2995-1	2995-2
Methylene Chloride, ug/l	<5	<5
1,1,2,2-Tetrachloroethane, ug/l	<5	<5
Tetrachloroethylene, ug/l	<5	<5
Toluene, ug/l	<5	<5
1,2-Trans-Dichloroethylene, ug/l	<5	<5
1,1,1-Trichloroethane, ug/l	<5	<5
1,1,2-Trichloroethane, ug/l	<5	<5
Trichloroethene, ug/l	<5	<5
Trichlorofluoromethane, ug/l	<5	<5
Vinyl Chloride, ug/l	<10	<10
Surrogates - Volatiles		
Toluene-d8, % Rec.	107 %	108 %
4-Bromofluorobenzene (Surrogate), % Rec.	108 %	111 %
1,2-Dichloroethane-d4, % Rec.	107 %	109 %

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LOG NO: 89-2995

Received: 14 APR 89

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Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES			SAMPLED BY
				Client
2995-3	Detection Limits			
2995-4	Accuracy (Mean % Recovery)			
2995-5	Precision (% RPD)			
PARAMETER		2995-3	2995-4	2995-5
Volatile Organic Compounds				
Acrolein, ug/l		50	---	---
Acrylonitrile, ug/l		50	---	---
Benzene, ug/l		5	111 %	13 %
Bis(chloromethyl)Ether, ug/l		10	---	---
Bromoform, ug/l		5	---	---
Carbon Tetrachloride, ug/l		5	---	---
Chlorobenzene, ug/l		5	109 %	9.2 %
Chlorodibromomethane, ug/l		5	---	---
Chloroethane, ug/l		10	---	---
2-Chloroethylvinyl Ether, ug/l		10	---	---
Chloroform, ug/l		5	---	---
Dichlorobromomethane, ug/l		5	---	---
Dichlorodifluoromethane, ug/l		10	---	---
1,1-Dichloroethane, ug/l		5	---	---
1,2-Dichloroethane, ug/l		5	---	---
1,1-Dichloroethene, ug/l		5	95 %	6.3 %
1,2-Dichloropropane, ug/l		5	---	---
1,3-Dichloropropylene, ug/l		5	---	---
Ethylbenzene, ug/l		5	---	---
Methyl Bromide, ug/l		10	---	---

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Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
2995-3	Detection Limits	Client
2995-4	Accuracy (Mean % Recovery)	
2995-5	Precision (% RPD)	

PARAMETER	2995-3	2995-4	2995-5
Methyl Chloride, ug/l	10	---	---
Methylene Chloride, ug/l	5	---	---
1,1,2,2-Tetrachloroethane, ug/l	5	---	---
Tetrachloroethylene, ug/l	5	---	---
Toluene, ug/l	5	115 %	12 %
1,2-Trans-Dichloroethylene, ug/l	5	---	---
1,1,1-Trichloroethane, ug/l	5	---	---
1,1,2-Trichloroethane, ug/l	5	---	---
Trichloroethene, ug/l	5	91 %	11 %
Trichlorofluoromethane, ug/l	5	---	---
Vinyl Chloride, ug/l	10	---	---
Surrogates - Volatiles			
Toluene-d8, % Rec.	---	---	---
4-Bromofluorobenzene (Surrogate), % Rec.	---	---	---
1,2-Dichloroethane-d4, % Rec.	---	---	---

Methods: EPA 40 CFR Part 136.

Janette D. Long

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James W. Andrews, Ph.D.
President

Janette Davis Long
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SAVANNAH LABORATORIES
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P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-1976

Received: 02 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
1976-1	W-16D (03.01.89)	Client

PARAMETER	1976-1
Purgeables	
Bromodichloromethane, ug/l	<1
Bromoform, ug/l	<1
Bromomethane, ug/l	<1
Carbon Tetrachloride, ug/l	<1
Chlorobenzene, ug/l	<1
Chloroethane, ug/l	<1
2-Chloroethylvinyl Ether, ug/l	<1
Chloroform, ug/l	<1
Chloromethane, ug/l	<1
Dibromochloromethane, ug/l	<1
1,2-Dichlorobenzene, ug/l	<1
1,3-Dichlorobenzene, ug/l	<1
1,4-Dichlorobenzene, ug/l	<1
Dichlorodifluoromethane, ug/l	<1
1,1-Dichloroethane, ug/l	28
1,2-Dichloroethane, ug/l	<1
1,1-Dichloroethylene, ug/l	1.5
trans-1,2-Dichloroethylene, ug/l	<1
1,2-Dichloropropane, ug/l	<1
Cis-1,3-Dichloropropene, ug/l	<1
Trans-1,3-Dichloropropene, ug/l	<1
Methylene Chloride, ug/l	<1

James W. Andrews, Ph.D.
President

Janette Davis Long
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LOG NO: 89-1976

Received: 02 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1567, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
1976-1	W-16D (03.01.89)	Client

PARAMETER	1976-1
1,1,2,2-Tetrachloroethane, ug/l	<1
Tetrachloroethylene, ug/l	<1
1,1,1-Trichloroethane, ug/l	1.8
1,1,2-Trichloroethane, ug/l	<1
Trichloroethylene, ug/l	<1
Trichlorofluoromethane, ug/l	<1
Vinyl Chloride, ug/l	<1
Benzene, ug/l	<1
Ethylbenzene, ug/l	<1
Toluene, ug/l	<1
Xylenes, ug/l	<1

Methods: EPA 40 CFR Part 136.

Janette D. Long

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James W. Andrews, Ph.D.
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SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
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LOG NO: 89-2192

Received: 13 MAR 89

Mr. Mark Potts
Atlanta Environmental Mgmt., Inc.
1920 Monroe Dr., NE, Suite 100
Atlanta, GA 30324

Project: Torrington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2192-1	Well-17D (03.10.89) 1330	Client

PARAMETER	2192-1
Volatile Organic Compounds	
Acrolein, ug/l	<50
Acrylonitrile, ug/l	<50
Benzene, ug/l	<1
Bis(chloromethyl)Ether, ug/l	<1
Bromoform, ug/l	<1
Carbon Tetrachloride, ug/l	<1
Chlorobenzene, ug/l	<1
Chlorodibromomethane, ug/l	<1
Chloroethane, ug/l	<1
2-Chloroethylvinyl Ether, ug/l	<1
Chloroform, ug/l	<1
Dichlorobromomethane, ug/l	<1
Dichlorodifluoromethane, ug/l	<1
1,1-Dichloroethane, ug/l	<1
1,2-Dichloroethane, ug/l	<1
1,1-Dichloroethylene, ug/l	<1
1,2-Dichloropropane, ug/l	<1
1,3-Dichloropropylene, ug/l	<1
Ethylbenzene, ug/l	<1
Methyl Bromide, ug/l	<1
Methyl Chloride, ug/l	<1
Methylene Chloride, ug/l	<1

James W. Andrews, Ph.D.
President

Janette Davis Long
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LOG NO: 89-2192

Received: 13 MAR 89

Mr. Mark Potts
Atlanta Environmental Mgmt., Inc.
1920 Monroe Dr., NE, Suite 100
Atlanta, GA 30324

Project: Torrington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2192-1	Well-17D (03.10.89) 1330	Client

PARAMETER	2192-1
1,1,2,2-Tetrachloroethane, ug/l	<1
Tetrachloroethylene, ug/l	<1
Toluene, ug/l	<1
1,2-Trans-Dichloroethylene, ug/l	<1
1,1,1-Trichloroethane, ug/l	<1
1,1,2-Trichloroethane, ug/l	<1
Trichloroethylene, ug/l	1.4
Trichlorofluoromethane, ug/l	<1
Vinyl Chloride, ug/l	<1

Methods: EPA 40 CFR Part 136.

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LOG NO: 89-2192

Received: 13 MAR 89

Mr. Mark Potts
Atlanta Environmental Mgmt., Inc.
1920 Monroe Dr., NE, Suite 100
Atlanta, GA 30324

Project: Torrington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
2192-2	Detection Limits	Client
2192-3	Accuracy (Mean % Recovery)	
2192-4	Precision (% RPD)	

PARAMETER	2192-2	2192-3	2192-4
Volatile Organic Compounds			
Acrolein, ug/l	50	—	—
Acrylonitrile, ug/l	50	—	—
nzene, ug/l	1	107 %	2.2 %
s(chloromethyl)Ether, ug/l	1	—	—
Bromoform, ug/l	1	—	—
Carbon Tetrachloride, ug/l	1	—	—
Chlorobenzene, ug/l	1	112 %	1.8 %
Chlorodibromomethane, ug/l	1	—	—
Chloroethane, ug/l	1	—	—
2-Chloroethylvinyl Ether, ug/l	1	—	—
Chloroform, ug/l	1	—	—
Dichlorobromomethane, ug/l	1	—	—
Dichlorodifluoromethane, ug/l	1	—	—
1,1-Dichloroethane, ug/l	1	—	—
1,2-Dichloroethane, ug/l	1	—	—
1,1-Dichloroethylene, ug/l	1	89 %	2.2 %
1,2-Dichloropropane, ug/l	1	—	—
1,3-Dichloropropylene, ug/l	1	—	—
Ethylbenzene, ug/l	1	—	—
Methyl Bromide, ug/l	1	—	—

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-2192

Received: 13 MAR 89

Mr. Mark Potts
Atlanta Environmental Mgmt., Inc.
1920 Monroe Dr., NE, Suite 100
Atlanta, GA 30324

Project: Torrington

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , QC SAMPLES	SAMPLED BY
2192-2	Detection Limits	Client
2192-3	Accuracy (Mean % Recovery)	
2192-4	Precision (% RPD)	

PARAMETER	2192-2	2192-3	2192-4
Methyl Chloride, ug/l	1	—	—
Methylene Chloride, ug/l	1	—	—
1,1,2,2-Tetrachloroethane, ug/l	1	—	—
Tetrachloroethylene, ug/l	1	—	—
Toluene, ug/l	1	108 %	1.8 %
1,2-Trans-Dichloroethylene, ug/l	1	—	—
1,1,1-Trichloroethane, ug/l	1	—	—
1,1,2-Trichloroethane, ug/l	1	—	—
Trichloroethylene, ug/l	1	121 %	1.6 %
Trichlorofluoromethane, ug/l	1	—	—
Vinyl Chloride, ug/l	1	—	—

Methods: EPA 40 CFR Part 136.

Janette D. Long

Janette D. Long

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES
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5102 LaRoche Avenue (31404)
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LOG NO: 89-2040

Received: 04 MAR 89

Mr. Mark Potts
Atlanta Environmental Mgmt., Inc.
1920 Monroe Dr., NE, Suite 100
Atlanta, GA 30324

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2040-6	W-18D (03.02.89) 02:00 pm	Client

PARAMETER	2040-6
Purgeables	
Bromodichloromethane, ug/l	<1
Bromoform, ug/l	<1
Bromomethane, ug/l	<1
Carbon Tetrachloride, ug/l	<1
Chlorobenzene, ug/l	<1
Chloroethane, ug/l	<1
2-Chloroethylvinyl Ether, ug/l	<1
Chloroform, ug/l	<1
Chloromethane, ug/l	<1
Dibromochloromethane, ug/l	<1
1,2-Dichlorobenzene, ug/l	<1
1,3-Dichlorobenzene, ug/l	<1
1,4-Dichlorobenzene, ug/l	<1
Dichlorodifluoromethane, ug/l	<1
1,1-Dichloroethane, ug/l	<1
1,2-Dichloroethane, ug/l	<1
1,1-Dichloroethylene, ug/l	<1
trans-1,2-Dichloroethylene, ug/l	<1
1,2-Dichloropropane, ug/l	<1
Cis-1,3-Dichloropropene, ug/l	<1
Trans-1,3-Dichloropropene, ug/l	<1
Methylene Chloride, ug/l	<1

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES
AND ENVIRONMENTAL SERVICES, INC.
5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-2040

Received: 04 MAR 89

Mr. Mark Potts
Atlanta Environmental Mgmt., Inc.
1920 Monroe Dr., NE, Suite 100
Atlanta, GA 30324

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2040-6	W-18D (03.02.89) 02:00 pm	Client

PARAMETER	2040-6
1,1,2,2-Tetrachloroethane, ug/l	<1
Tetrachloroethylene, ug/l	<1
1,1,1-Trichloroethane, ug/l	<1
1,1,2-Trichloroethane, ug/l	<1
Trichloroethylene, ug/l	<1
Trichlorofluoromethane, ug/l	<1
Vinyl Chloride, ug/l	<1
Benzene, ug/l	<1
Ethylbenzene, ug/l	<1
Toluene, ug/l	<1
Xylenes, ug/l	<1

Methods: EPA 40 CFR Part 136.

Janette D. Long

Janette D. Long

SAMPLING ANALYSI_ REQUEST

Part I: Field Section

Collector Ron Yarborough Date Sampled 3/10/89 Time 1330 (hours

Affiliation of Sampler Atlanta Environmental

Address Atlanta GA
number street city state zip

Telephone 404 892 7911 Company Contact Mark Potts

TYPE OF
SAMPLE/SAMPLES* FIELD INFORMATION

2 - 40mL Well - 170 WATER

*Indicate whether sample is soil, sludge, water, etc.

Additional Analysis Requested VOCs

Special Handling and/or Storage 24 HR Rush

Part II: Bottles Required for Analyses Requested

The number, color and type of sampling containers we have provided you is listed below. The color codes correspond with specific preservatives (See reverse side of form), please handle with caution. Please fill in all

SAVANNAH LABORATORIES
AND ENVIRONMENTAL SERVICES, INC.

COLOR CODE	WATER/WASTEWATER											SOIL/SLUDGE					Analyses Requested
	liter plastic lug	liter glass w/TFE	500 ml plastic-gen	500 ml plastic-met	250 ml plastic-gen	250 ml plastic-met	130 ml oval glass	100 ml amber glass	40ml vial w/ins.	20 ml plastic vial	liter wm glass	liter wm plastic	500 ml wm glass	500 ml wm plastic	40ml vial w/ins.	*Container sealed	
							X										VOAs

linquished by:	Date/Time	Color Code/Preservative	Container seal intact
		Green - sulfuric acid Purple - no preservative Red - nitric acid Tan - zinc acetate Yellow - sodium thiosulfate Blue - sodium hydroxide Lt. Blue - hydrochloric acid	Field _____
linquished by:	Date/Time		Lab _____

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Janette Davis Long
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5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-2345

Received: 22 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

— ATTACHMENT 2 —

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2345-1	UST 1DD	Client
2345-2	TW1 Eff. Sample Taken 3-21-89	
2345-3	Air Stripper Eff.	

PARAMETER	2345-1	2345-2	2345-3
Purgeables			
Bromodichloromethane, ug/l	<1	<1	<1
Bromoform, ug/l	<1	<1	<1
Bromomethane, ug/l	<1	<1	<1
Carbon Tetrachloride, ug/l	<1	<1	<1
Chlorobenzene, ug/l	<1	<1	<1
Chloroethane, ug/l	<1	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1	<1
Chloroform, ug/l	<1	<1	<1
Chloromethane, ug/l	<1	<1	<1
Dibromochloromethane, ug/l	<1	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1	<1
Dichlorodifluoromethane, ug/l	<1	<1	<1
1,1-Dichloroethane, ug/l	<1	5.2	<1
1,2-Dichloroethane, ug/l	<1	<1	<1
1,1-Dichloroethylene, ug/l	<1	1.6	<1
trans-1,2-Dichloroethylene, ug/l	<1	<1	<1
1,2-Dichloropropane, ug/l	<1	<1	<1
Cis-1,3-Dichloropropene, ug/l	<1	<1	<1

James W. Andrews, Ph.D.
President

Janette Davis Long
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LOG NO: 89-2345

Received: 22 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2345-1	UST 1DD	Client
2345-2	TW1 Eff.	
2345-3	Air Stripper Eff.	

PARAMETER	2345-1	2345-2	2345-3
Trans-1,3-Dichloropropene, ug/l	<1	<1	<1
Methylene Chloride, ug/l	<1	<1	<1
),1,2,2-Tetrachloroethane, ug/l	<1	<1	<1
etrachloroethylene, ug/l	<1	<1	<1
1,1,1-Trichloroethane, ug/l	<1	<1	<1
1,1,2-Trichloroethane, ug/l	<1	<1	<1
Trichloroethylene, ug/l	<1	3.2	<1
Trichlorofluoromethane, ug/l	10	<1	<1
Vinyl Chloride, ug/l	<1	<1	<1
Benzene, ug/l	<1	<1	<1
Ethylbenzene, ug/l	<1	<1	<1
Toluene, ug/l	<1	<1	<1
Xylenes, ug/l	<1	<1	<1

Methods: EPA 40 CFR Part 136.

Janette D. Long

Janette D. Long

James W. Andrews, Ph.D.
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(912) 354-7858

LOG NO: 89-2381

Received: 23 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2381-1	TWI Eff. (3-22-89) 1500	Client
2381-2	Air Stripper Eff. (3-22-89) 1515	
2381-3	TWI Eff. (3-23-89) 1020	
2381-4	Air Stripper Eff. (3-23-89) 1020	

PARAMETER	2381-1	2381-2	2381-3	2381-4
Purgeables				
Bromodichloromethane, ug/l	<1	<1	<1	<1
Bromoform, ug/l	<1	<1	<1	<1
Bromomethane, ug/l	<1	<1	<1	<1
Carbon Tetrachloride, ug/l	<1	<1	<1	<1
Chlorobenzene, ug/l	<1	<1	<1	<1
Chloroethane, ug/l	<1	<1	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1	<1	<1
Chloroform, ug/l	<1	<1	<1	<1
Chloromethane, ug/l	<1	<1	<1	<1
Dibromochloromethane, ug/l	<1	<1	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1	<1	<1
Dichlorodifluoromethane, ug/l	<1	<1	<1	<1
1,1-Dichloroethane, ug/l	5.2	<1	5.6	<1
1,2-Dichloroethane, ug/l	<1	<1	<1	<1
1,1-Dichloroethylene, ug/l	<1	<1	<1	<1
trans-1,2-Dichloroethylene, ug/l	<1	<1	<1	<1
1,2-Dichloropropane, ug/l	<1	<1	<1	<1

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(912) 354-7858

LOG NO: 89-2381

Received: 23 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2381-1	TWI Eff. (3-22-89) 1500	Client
2381-2	Air Stripper Eff. (3-22-89) 1515	
2381-3	TWI Eff. (3-23-89) 1020	
2381-4	Air Stripper Eff. (3-23-89) 1020	

PARAMETER	2381-1	2381-2	2381-3	2381-4
Cis-1,3-Dichloropropene, ug/l	<1	<1	<1	<1
Trans-1,3-Dichloropropene, ug/l	<1	<1	<1	<1
Methylene Chloride, ug/l	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane, ug/l	<1	<1	<1	<1
Tetrachloroethylene, ug/l	<1	<1	<1	<1
1,1,1-Trichloroethane, ug/l	<1	<1	<1	<1
1,1,2-Trichloroethane, ug/l	<1	<1	<1	<1
Trichloroethylene, ug/l	1.4	<1	1.4	<1
Trichlorofluoromethane, ug/l	<1	<1	<1	<1
Vinyl Chloride, ug/l	<1	<1	<1	<1
Benzene, ug/l	<1	<1	<1	<1
Ethylbenzene, ug/l	<1	<1	<1	<1
Toluene, ug/l	<1	<1	<1	<1
Xylenes, ug/l	<1	<1	<1	<1

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5102 LaRoche Avenue (31404)
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LOG NO: 89-2433

Received: 25 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2433-1	TW1 (3-24-89)	Client
2433-2	Air Stripper Eff. (3-24-89)	

PARAMETER	2433-1	2433-2
Purgeables		
Bromodichloromethane, ug/l	<1	<1
Bromoform, ug/l	<1	<1
Bromomethane, ug/l	<1	<1
Carbon Tetrachloride, ug/l	<1	<1
Chlorobenzene, ug/l	<1	<1
Chloroethane, ug/l	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1
Chloroform, ug/l	<1	<1
Chloromethane, ug/l	<1	<1
Dibromochloromethane, ug/l	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1
Dichlorodifluoromethane, ug/l	6.3	<1
1,1-Dichloroethane, ug/l	<1	<1
1,2-Dichloroethane, ug/l	1.8	<1
1,1-Dichloroethylene, ug/l	<1	<1
trans-1,2-Dichloroethylene, ug/l	<1	<1
1,2-Dichloropropane, ug/l	<1	<1
Cis-1,3-Dichloropropene, ug/l	<1	<1
Trans-1,3-Dichloropropene, ug/l		

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LOG NO: 89-2433

Received: 25 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2433-1	TW1 (3-24-89)	Client
2433-2	Air Stripper Eff. (3-24-89)	

PARAMETER	2433-1	2433-2
Methylene Chloride, ug/l	<1	<1
1,1,2,2-Tetrachloroethane, ug/l	<1	<1
Tetrachloroethylene, ug/l	<1	<1
1,1,1-Trichloroethane, ug/l	<1	<1
1,1,2-Trichloroethane, ug/l	<1	<1
Trichloroethylene, ug/l	1.9	<1
Trichlorofluoromethane, ug/l	<1	<1
Vinyl Chloride, ug/l	<1	<1
Benzene, ug/l	<1	<1
Ethylbenzene, ug/l	<1	<1
Toluene, ug/l	<1	<1
Xylenes, ug/l	<1	<1

Methods: EPA 40 CFR Part 136.

Janette D. Long

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5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-2619

Received: 31 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2619-1	TW 1 (03.28.89) 0900	Client
2619-2	Air Stripper (03.28.89) 0900	
2619-3	TW 1 (03.29.89) 1015	
2619-4	Air Stripper (03.29.89) 1020	

PARAMETER	2619-1	2619-2	2619-3	2619-4
Purgeables				
Bromodichloromethane, ug/l	<1	<1	<1	<1
Bromoform, ug/l	<1	<1	<1	<1
Bromomethane, ug/l	<1	<1	<1	<1
Carbon Tetrachloride, ug/l	<1	<1	<1	<1
Chlorobenzene, ug/l	<1	<1	<1	<1
Chloroethane, ug/l	<1	<1	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1	<1	<1
Chloroform, ug/l	<1	<1	<1	<1
Chloromethane, ug/l	<1	<1	<1	<1
Dibromochloromethane, ug/l	<1	<1	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1	<1	<1
Dichlorodifluoromethane, ug/l	5.3	<1	6.2	<1
1,1-Dichloroethane, ug/l	<1	<1	<1	<1
1,2-Dichloroethane, ug/l	<1	<1	1.4	<1
1,1-Dichloroethylene, ug/l	<1	<1	<1	<1
trans-1,2-Dichloroethylene, ug/l	<1	<1	<1	<1
1,2-Dichloropropane, ug/l				

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Janette Davis Long
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P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-2619

Received: 31 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2619-1	TW 1 (03.28.89) 0900	Client
2619-2	Air Stripper (03.28.89) 0900	
2619-3	TW 1 (03.29.89) 1015	
2619-4	Air Stripper (03.29.89) 1020	

PARAMETER	2619-1	2619-2	2619-3	2619-4
Cis-1,3-Dichloropropene, ug/l	<1	<1	<1	<1
Trans-1,3-Dichloropropene, ug/l	<1	<1	<1	<1
Methylene Chloride, ug/l	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane, ug/l	<1	<1	<1	<1
Tetrachloroethylene, ug/l	<1	<1	<1	<1
1,1,1-Trichloroethane, ug/l	<1	<1	<1	<1
1,1,2-Trichloroethane, ug/l	<1	<1	<1	<1
Trichloroethylene, ug/l	2.3	<1	2.5	<1
Trichlorofluoromethane, ug/l	<1	<1	<1	<1
Vinyl Chloride, ug/l	<1	<1	<1	<1
Benzene, ug/l	<1	<1	<1	<1
Ethylbenzene, ug/l	<1	<1	<1	<1
Toluene, ug/l	<1	<1	<1	<1
Xylenes, ug/l	<1	<1	<1	<1

Methods: EPA 40 CFR Part 136.

Janette D. Long

Janette D. Long

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-2644

Received: 31 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2644-1	TW1 3-30-89	Client
2644-2	Air Stripper 3-30-89	
2644-3	TW1 3-31-89	
2644-4	Air Stripper 3-31-89	

PARAMETER	2644-1	2644-2	2644-3	2644-4
Purgeables				
Bromodichloromethane, ug/l	<1	<1	<1	<1
Bromoform, ug/l	<1	<1	<1	<1
Bromomethane, ug/l	<1	<1	<1	<1
Carbon Tetrachloride, ug/l	<1	<1	<1	<1
Chlorobenzene, ug/l	<1	<1	<1	<1
Chloroethane, ug/l	<1	<1	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1	<1	<1
Chloroform, ug/l	<1	<1	<1	<1
Chloromethane, ug/l	<1	<1	<1	<1
Dibromochloromethane, ug/l	<1	<1	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1	<1	<1
Dichlorodifluoromethane, ug/l	8.0	<1	9.0	<1
1,1-Dichloroethane, ug/l	<1	<1	<1	<1
1,2-Dichloroethane, ug/l	2.0	<1	2.4	<1
1,1-Dichloroethylene, ug/l	<1	<1	<1	<1
trans-1,2-Dichloroethylene, ug/l	<1	<1	<1	<1
1,2-Dichloropropane, ug/l				

James W. Andrews, Ph.D.
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LOG NO: 89-2644

Received: 31 MAR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2644-1	TW1 3-30-89	Client
2644-2	Air Stripper 3-30-89	
2644-3	TW1 3-31-89	
2644-4	Air Stripper 3-31-89	

PARAMETER	2644-1	2644-2	2644-3	2644-4
Cis-1,3-Dichloropropene, ug/l	<1	<1	<1	<1
Trans-1,3-Dichloropropene, ug/l	<1	<1	<1	<1
Methylene Chloride, ug/l	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane, ug/l	<1	<1	<1	<1
Tetrachloroethylene, ug/l	<1	<1	<1	<1
1,1,1-Trichloroethane, ug/l	<1	<1	<1	<1
1,1,2-Trichloroethane, ug/l	<1	<1	<1	<1
Trichloroethylene, ug/l	3.5	<1	4.3	<1
Trichlorofluoromethane, ug/l	<1	<1	<1	<1
Vinyl Chloride, ug/l	<1	<1	<1	<1
Benzene, ug/l	<1	<1	<1	<1
Ethylbenzene, ug/l	<1	<1	<1	<1
Toluene, ug/l	<1	<1	<1	<1
Xylenes, ug/l	<1	<1	<1	<1

Methods: EPA 40 CFR Part 136

Janette D. Long

Janette D. Long

James W. Andrews, Ph.D.
President

Janette Davis Long
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SAVANNAH LABORATORIES
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5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-2680

Received: 04 APR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

ATTACHMENT 3

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2680-1	L 4 (04.03.89)	Client
2680-2	Air Stripper (04.03.89)	

PARAMETER	2680-1	2680-2
Purgeables		
Bromodichloromethane, ug/l	<1	<1
Bromoform, ug/l	<1	<1
Bromomethane, ug/l	<1	<1
Carbon Tetrachloride, ug/l	<1	<1
Chlorobenzene, ug/l	<1	<1
Chloroethane, ug/l	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1
Chloroform, ug/l	<1	<1
Chloromethane, ug/l	<1	<1
Dibromochloromethane, ug/l	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1
Dichlorodifluoromethane, ug/l	3.8	<1
1,1-Dichloroethane, ug/l	<1	<1
1,2-Dichloroethane, ug/l	2.0	<1
1,1-Dichloroethylene, ug/l	<1	<1
trans-1,2-Dichloroethylene, ug/l	<1	<1
1,2-Dichloropropane, ug/l	<1	<1
Cis-1,3-Dichloropropene, ug/l	<1	<1
Trans-1,3-Dichloropropene, ug/l		

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES
AND ENVIRONMENTAL SERVICES, INC.
5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-2680

Received: 04 APR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2680-1	L 4 (04.03.89)	Client
2680-2	Air Stripper (04.03.89)	

PARAMETER	2680-1	2680-2	
Methylene Chloride, ug/l	<1	<1	
1,1,2,2-Tetrachloroethane, ug/l	<1	<1	
Tetrachloroethylene, ug/l	<1	<1	
1,1,1-Trichloroethane, ug/l	<1	<1	
1,1,2-Trichloroethane, ug/l	<1	<1	
Trichloroethylene, ug/l	2.1	<1	
Trichlorofluoromethane, ug/l	<1	<1	
Vinyl Chloride, ug/l	<1	<1	
Benzene, ug/l	<1	<1	
Ethylbenzene, ug/l	<1	<1	
Toluene, ug/l	<1	<1	
Xylenes, ug/l	<1	<1	

Methods: EPA 40 CFR Part 136 and Standard Methods, 16th Edition.

Janette D. Long

James W. Andrews, Ph.D.
President

Janette Davis Long
Vice-President

SAVANNAH LABORATORIES AND ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue (31404)
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LOG NO: 89-2706

Received: 05 APR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2706-1	L4 (04.04.89) 0845	Client
2706-2	Air Stripper (04.04.89) 0855	

PARAMETER	2706-1	2706-2
Purgeables		
Bromodichloromethane, ug/l	<1	<1
Bromoform, ug/l	<1	<1
Bromomethane, ug/l	<1	<1
Carbon Tetrachloride, ug/l	<1	<1
Chlorobenzene, ug/l	<1	<1
Chloroethane, ug/l	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1
Chloroform, ug/l	<1	<1
Chloromethane, ug/l	<1	<1
Dibromochloromethane, ug/l	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1
Dichlorodifluoromethane, ug/l	<1	<1
1,1-Dichloroethane, ug/l	3.3	<1
1,2-Dichloroethane, ug/l	<1	<1
1,1-Dichloroethene, ug/l	3.4	<1
trans-1,2-Dichloroethylene, ug/l	<1	<1
1,2-Dichloropropane, ug/l	<1	<1
Cis-1,3-Dichloropropene, ug/l	<1	<1
Trans-1,3-Dichloropropene, ug/l	<1	<1

James W. Andrews, Ph.D.
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LOG NO: 89-2706

Received: 05 APR 89

Mr. Bruce Peake
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P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2706-1	L4 (04.04.89) 0845	Client
2706-2	Air Stripper (04.04.89) 0855	

PARAMETER	2706-1	2706-2
Methylene Chloride, ug/l	<1	<1
1,1,2,2-Tetrachloroethane, ug/l	<1	<1
Tetrachloroethylene, ug/l	<1	<1
1,1,1-Trichloroethane, ug/l	<1	<1
1,1,2-Trichloroethane, ug/l	<1	<1
Trichloroethene, ug/l	3.2	<1
Trichlorofluoromethane, ug/l	<1	<1
Vinyl Chloride, ug/l	<1	<1
Benzene, ug/l	<1	<1
Ethylbenzene, ug/l	<1	<1
Toluene, ug/l	<1	<1
Xylenes, ug/l	<1	<1

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LOG NO: 89-2736

Received: 06 APR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2736-2	L4 (04.05.89)	Client
2736-3	Air Stripper (04.05.89)	

PARAMETER	2736-2	2736-3
Purgeables		
Bromodichloromethane, ug/l	<1	<1
Bromoform, ug/l	<1	<1
Bromomethane, ug/l	<1	<1
bon Tetrachloride, ug/l	<1	<1
lorobenzene, ug/l	<1	<1
Chloroethane, ug/l	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1
Chloroform, ug/l	<1	<1
Chloromethane, ug/l	<1	<1
Dibromochloromethane, ug/l	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1
Dichlorodifluoromethane, ug/l	<1	<1
1,1-Dichloroethane, ug/l	4.5	<1
1,2-Dichloroethane, ug/l	<1	<1
1,1-Dichloroethene, ug/l	1.5	<1
trans-1,2-Dichloroethylene, ug/l	<1	<1
1,2-Dichloropropane, ug/l	<1	<1
Cis-1,3-Dichloropropene, ug/l	<1	<1
Trans-1,3-Dichloropropene, ug/l	<1	<1

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LOG NO: 89-2736

Received: 06 APR 89

Mr. Bruce Peake
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P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2736-2	L4 (04.05.89)	Client
2736-3	Air Stripper (04.05.89)	

PARAMETER	2736-2	2736-3
Methylene Chloride, ug/l	<1	<1
1,1,2,2-Tetrachloroethane, ug/l	<1	<1
Tetrachloroethylene, ug/l	<1	<1
1,1,1-Trichloroethane, ug/l	<1	<1
1,2-Trichloroethane, ug/l	<1	<1
Trichloroethene, ug/l	1.9	<1
Trichlorofluoromethane, ug/l	<1	<1
Vinyl Chloride, ug/l	<1	<1
Benzene, ug/l	<1	<1
Ethylbenzene, ug/l	<1	<1
Toluene, ug/l	<1	<1
Xylenes, ug/l	<1	<1

Methods: EPA 40 CFR Part 136.

Janette D. Long
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James W. Andrews, Ph.D.
President

Janette Davis Long
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5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
(912) 354-7858

LOG NO: 89-2791

Received: 07 APR 89

RECEIVED 4-24-89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2791-1	Air Stripper (04.06.89)	Client
2791-2	Air Stripper (04.07.89)	
2791-3	L4 (04.06.89)	
2791-4	L4 (04.07.89)	

PARAMETER	2791-1	2791-2	2791-3	2791-4
Purgeables				
Bromodichloromethane, ug/l	<1	<1	<1	<1
Bromoform, ug/l	<1	<1	<1	<1
Bromomethane, ug/l	<1	<1	<1	<1
Carbon Tetrachloride, ug/l	<1	<1	<1	<1
Chlorobenzene, ug/l	<1	<1	<1	<1
Chloroethane, ug/l	<1	<1	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1	<1	<1
Chloroform, ug/l	<1	<1	<1	<1
Chloromethane, ug/l	<1	<1	<1	<1
Dibromochloromethane, ug/l	<1	<1	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1	<1	<1
Dichlorodifluoromethane, ug/l	<1	<1	<1	<1
1,1-Dichloroethane, ug/l	<1	<1	1.3	1.6
1,2-Dichloroethane, ug/l	<1	<1	<1	<1
1,1-Dichloroethene, ug/l	<1	<1	4.7	5.0
trans-1,2-Dichloroethylene, ug/l	<1	<1	<1	<1
1,2-Dichloropropane, ug/l	<1	<1	<1	<1

James W. Andrews, Ph.D.
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LOG NO: 89-2791

Received: 07 APR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2791-1	Air Stripper (04.06.89)	Client
2791-2	Air Stripper (04.07.89)	
2791-3	L4 (04.06.89)	
2791-4	L4 (04.07.89)	

PARAMETER	2791-1	2791-2	2791-3	2791-4
Cis-1,3-Dichloropropene, ug/l	<1	<1	<1	<1
Trans-1,3-Dichloropropene, ug/l	<1	<1	<1	<1
thylene Chloride, ug/l	<1	<1	<1	<1
,1,2,2-Tetrachloroethane, ug/l	<1	<1	<1	<1
Tetrachloroethylene, ug/l	<1	<1	<1	<1
1,1,1-Trichloroethane, ug/l	<1	<1	2.2	2.4
1,1,2-Trichloroethane, ug/l	<1	<1	<1	<1
Trichloroethene, ug/l	<1	<1	4.9	5.3
Trichlorofluoromethane, ug/l	<1	<1	<1	<1
Vinyl Chloride, ug/l	<1	<1	<1	<1
Benzene, ug/l	<1	<1	<1	<1
Ethylbenzene, ug/l	<1	<1	<1	<1
Toluene, ug/l	<1	<1	<1	<1
Xylenes, ug/l	<1	<1	<1	<1

James W. Andrews, Ph.D.
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LOG NO: 89-2815

Received: 11 APR 89

Mr. Bruce Peake
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P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2815-1	L-4 (04.10.89)	Client
2815-2	Air Stripper (04.10.89)	

PARAMETER	2815-1	2815-2
Purgeables		
Bromodichloromethane, ug/l	<1	<1
Bromoform, ug/l	<1	<1
Bromomethane, ug/l	<1	<1
Carbon Tetrachloride, ug/l	<1	<1
Chlorobenzene, ug/l	<1	<1
Chloroethane, ug/l	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1
Chloroform, ug/l	<1	<1
Chloromethane, ug/l	<1	<1
Dibromochloromethane, ug/l	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1
Dichlorodifluoromethane, ug/l	<1	<1
1,1-Dichloroethane, ug/l	<1	<1
1,2-Dichloroethane, ug/l	<1	<1
1,1-Dichloroethylene, ug/l	<1	<1
trans-1,2-Dichloroethylene, ug/l	<1	<1
1,2-Dichloropropane, ug/l	<1	<1
Cis-1,3-Dichloropropene, ug/l	<1	<1
Trans-1,3-Dichloropropene, ug/l	<1	<1

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LOG NO: 89-2815

Received: 11 APR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2815-1	L-4 (04.10.89)	Client
2815-2	Air Stripper (04.10.89)	

PARAMETER	2815-1	2815-2
Methylene Chloride, ug/l	<1	<1
1,1,2,2-Tetrachloroethane, ug/l	<1	<1
Tetrachloroethylene, ug/l	<1	<1
1,1,1-Trichloroethane, ug/l	<1	<1
1,1,2-Trichloroethane, ug/l	<1	<1
Trichloroethylene, ug/l	<1	<1
Trichlorofluoromethane, ug/l	<1	<1
Vinyl Chloride, ug/l	<1	<1
Benzene, ug/l	<1	<1
Ethylbenzene, ug/l	<1	<1
Toluene, ug/l	<1	<1
Xylenes, ug/l	<1	<1

Methods: EPA 40 CFR Part 136.

Janette D. Long

Janette D. Long

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Janette Davis Long
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SAVANNAH LABORATORIES
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LOG NO: 89-2963

Received: 13 APR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2963-1	L4 (04.11.89)	Client
2963-2	Air Stripper (04.11.89)	
2963-3	L4 (04.12.89)	
2963-4	Air Stripper (04.12.89)	

PARAMETER	2963-1	2963-2	2963-3	2963-4
Purgeables				
Bromodichloromethane, ug/l	<1	<1	<1	<1
Bromoform, ug/l	<1	<1	<1	<1
Bromomethane, ug/l	<1	<1	<1	<1
Carbon Tetrachloride, ug/l	<1	<1	<1	<1
Chlorobenzene, ug/l	<1	<1	<1	<1
Chloroethane, ug/l	<1	<1	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1	<1	<1
Chloroform, ug/l	<1	<1	<1	<1
Chloromethane, ug/l	<1	<1	<1	<1
Dibromochloromethane, ug/l	<1	<1	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1	<1	<1
Dichlorodifluoromethane, ug/l	<1	<1	<1	<1
1,1-Dichloroethane, ug/l	<1	<1	<1	<1
1,2-Dichloroethane, ug/l	<1	<1	<1	<1
1,1-Dichloroethene, ug/l	<1	<1	<1	<1
trans-1,2-Dichloroethylene, ug/l	<1	<1	<1	<1
1,2-Dichloropropane, ug/l	<1	<1	<1	<1

James W. Andrews, Ph.D.
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5102 LaRoche Avenue (31404)
P. O. Box 13548 • Savannah, GA 31416-0548
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LOG NO: 89-2963

Received: 13 APR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2963-1	L4 (04.11.89)	Client
2963-2	Air Stripper (04.11.89)	
2963-3	L4 (04.12.89)	
2963-4	Air Stripper (04.12.89)	

PARAMETER	2963-1	2963-2	2963-3	2963-4
Cis-1,3-Dichloropropene, ug/l	<1	<1	<1	<1
Trans-1,3-Dichloropropene, ug/l	<1	<1	<1	<1
Methylene Chloride, ug/l	<1	<1	<1	<1
1,2,2-Tetrachloroethane, ug/l	<1	<1	<1	<1
Tetrachloroethylene, ug/l	<1	<1	<1	<1
1,1,1-Trichloroethane, ug/l	<1	<1	<1	<1
1,1,2-Trichloroethane, ug/l	<1	<1	<1	<1
Trichloroethene, ug/l	<1	<1	<1	<1
Trichlorofluoromethane, ug/l	<1	<1	<1	<1
Vinyl Chloride, ug/l	<1	<1	<1	<1
Benzene, ug/l	<1	<1	<1	<1
Ethylbenzene, ug/l	<1	<1	<1	<1
Toluene, ug/l	<1	<1	<1	<1
Xylenes, ug/l	<1	<1	<1	<1

Methods: EPA 40 CFR Part 136.

Janette D. Long

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LOG NO: 89-2994

Received: 14 APR 89

Mr. Bruce Peake
The Torrington Company
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Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2994-1	L4 (04.13.89)	Client
2994-2	Air Stripper (04.13.89)	

PARAMETER	2994-1	2994-2
Purgeables		
Bromodichloromethane, ug/l	<1	<1
Bromoform, ug/l	<1	<1
...momethane, ug/l	<1	<1
...bon Tetrachloride, ug/l	<1	<1
Chlorobenzene, ug/l	<1	<1
Chloroethane, ug/l	<1	<1
2-Chloroethylvinyl Ether, ug/l	<1	<1
Chloroform, ug/l	<1	<1
Chloromethane, ug/l	<1	<1
Dibromochloromethane, ug/l	<1	<1
1,2-Dichlorobenzene, ug/l	<1	<1
1,3-Dichlorobenzene, ug/l	<1	<1
1,4-Dichlorobenzene, ug/l	<1	<1
Dichlorodifluoromethane, ug/l	<1	<1
1,1-Dichloroethane, ug/l	<1	<1
1,2-Dichloroethane, ug/l	<1	<1
1,1-Dichloroethene, ug/l	<1	<1
trans-1,2-Dichloroethylene, ug/l	<1	<1
1,2-Dichloropropane, ug/l	<1	<1
Cis-1,3-Dichloropropene, ug/l	<1	<1
Trans-1,3-Dichloropropene, ug/l	<1	<1

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P. O. Box 13548 • Savannah, GA 31416-0548
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LOG NO: 89-2994

Received: 14 APR 89

Mr. Bruce Peake
The Torrington Company
P. O. Box 1667, Friendship Road
Sylvania, GA 30467

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SAMPLED BY
2994-1	L4 (04.13.89)	Client
2994-2	Air Stripper (04.13.89)	

PARAMETER	2994-1	2994-2
Methylene Chloride, ug/l	<1	<1
1,1,2,2-Tetrachloroethane, ug/l	<1	<1
Tetrachloroethylene, ug/l	<1	<1
1,1-Trichloroethane, ug/l	<1	<1
1,2-Trichloroethane, ug/l	<1	<1
Trichloroethene, ug/l	1.3	<1
Trichlorofluoromethane, ug/l	<1	<1
Vinyl Chloride, ug/l	<1	<1
Benzene, ug/l	<1	<1
Ethylbenzene, ug/l	<1	<1
Toluene, ug/l	<1	<1
Xylenes, ug/l	<1	<1

Methods: EPA 40 CFR Part 136.

Janette D. Long

Janette D. Long

STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

A. Effluent Limitations and Monitoring Requirements

Such discharges shall be limited and monitored by the permittee as prescribed below:

Effluent Characteristics	Discharge Limitations mg/l (kg/day) unless otherwise specified		Monitoring Requirements		
	Thirty Day Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location
Flow-m³/Day (MGD)	606(0.16)	757(0.20)	Daily	Continuous Recording	Effluent
Chromium (T)	0.41(0.25)	0.61(0.31)	One/Month	Composite	Effluent
Copper	0.67(0.40)	1.0(0.50)	Two/Week	Composite	Effluent
Cyanide, Free	0.30(0.18)	0.30(0.18)	One/Week	Composite	Effluent
Silver	0.24(0.15)	0.36(0.18)	Two/Year	Composite	Effluent
Nickel	0.46(0.28)	0.69(0.35)	One/Month	Composite	Effluent
Zinc	1.48(0.89)	2.61(1.12)	One/Month	Composite	Effluent
Lead	0.14(0.09)	0.21(0.11)	One/Month	Composite	Effluent
Cadmium	0.14(0.09)	0.21(0.11)	One/Month	Composite	Effluent
Chlorine Residual	0.50	1.00	Daily	Grab	Effluent
Oil and Grease	100(61)	100(61)	Two /Month	Composite	Effluent
Total Toxic Organics	2.13(1.29)	2.13(1.29)	Two/Year	Composite	Effluent

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored on the final effluent by a grab sample daily. (The Discharge Limitations outlined above are subject to revision if dictated by Title 40, Code of Federal Regulations, Part 403, (40 CFR 403) or Environmental Protection Division determinations. The Permittee will be notified in writing of any changes in the above listed discharge limitations.)