CHESTER
ENVIRONMENTAL

February 28, 1995

Ref. No. QHCO-100

Mr. Paul R. Counterman
Chief, Bureau of Western
Hazardous Waste Programs
Division of Hazardous Substance Regulations
NYSDEC
50 Wolf Road
Albany, New York 12233

Dear Mr. Counterman:

Re: Transmittal of the "***Supplemental Sampling Visit Investigation Report***"
Former Philips Display Components Facility
Seneca Falls, New York
NYD002246015

Enclosed is the "***Supplemental Sampling Visit Investigation Report***" for the Seneca Falls facility in Seneca Falls, New York. Chester is submitting this report on behalf of the Philips Display Components Company (Philips) and in accordance with the Supplemental ***Sampling Visit Work Plan*** dated July 1992.

If I can be of further assistance or should there be any questions, please contact me at (412) 269-7615.

Sincerely,

Dennis L. Middleton
Project Manager

DLM:les S-2025

Enclosure

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PHILIPS DISPLAY COMPONENTS COMPANY

SENECA FALLS, NEW YORK

SUPPLEMENTAL

SAMPLING VISIT INVESTIGATION REPORT

MARCH 1995

CHESTER
ENVIRONMENTAL

Prepared for:

PHILIPS DISPLAY COMPONENTS COMPANY

SENECA FALLS, NEW YORK

SUPPLEMENTAL SAMPLING VISIT INVESTIGATION REPORT

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Project No.: **320000**

CHESTER ENVIRONMENTAL

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PHILIPS DISPLAY COMPONENTS COMPANY
SENECA FALLS, NEW YORK

SUPPLEMENTAL
SAMPLING VISIT INVESTIGATION REPORT

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PHILIPS DISPLAY COMPONENTS COMPANY
SENECA FALLS, NEW YORK

SUPPLEMENTAL SAMPLING VISIT INVESTIGATION REPORT

1.0 INTRODUCTION

Field activities were completed at the Philips Display Components Company former facility at Seneca Falls, New York, according to the scope of work presented in the Supplemental Sampling Visit Work Plan (SSVWP) and the site specific Quality Assurance Project Plan (QAPjP). Both plans were approved by the New York State Department of Environmental Conservation (NYSDEC) on September 25, 1992. The scope of work for the SSVWP was divided into three work tasks: investigation of outside process sewer lines, investigation of nine former underground storage tanks (UST) locations, and the abandonment of the inside process sewer lines.

The task to investigate the outside process sewer lines was subdivided into two work parts: collection of soil samples adjacent to the outside process sewer lines near building exit points and collection of a soil sample at the past discharge point at the end of each abandoned outfall line. An Interim Supplemental Sampling Visit Investigative Report (SSVIR), dated March 1994, reports the findings for this portion of the scope of work and was submitted to the New York State Department of Environmental Conservation (NYSDEC).

The nine former USTs contained petroleum hydrocarbons during plant operations and were investigated by placing soil borings at each former UST location. The report of findings associated with the investigation of the USTs were presented in the Interim SSVIR.

The areas beneath the plant floors were designated an inaccessible SWMU, and accordingly, the inside process sewers were not investigated. Instead, Philips eliminated potential recharge from surface waters by; rerouting roof drain lines; sealing and/or plugging all floor drains, sumps and pits; sealing the walls and floors of two concrete water storage reservoir tanks; and installing ten monitoring wells around the plant buildings to monitor the local groundwater regime. Activities associated with the sealing of the water reservoir tanks and the installation of the monitoring wells are discussed in the Interim SSVIR.

The rerouting of the roof drains necessitated the installation of new storm sewers and the associated sewer lines for the facility. As soils were excavated during the storm sewer line installation, they were field screened using a organic volatile analyzer

(OVA) and classified as impacted or nonimpacted. Impacted soils excavated east and north of the plant buildings and all soils south of the plant were staged in specially constructed soil staging cells. Nonimpacted soils south of the plant buildings were segregated into separate soil staging cells. Soil samples were collected from the soil piles within the staging cells for laboratory analysis. Impacted soils were analyzed for volatile organic compounds (VOCs) and metals; nonimpacted soils were analyzed for metals only.

This report presents a discussion of the field activities performed during the process of eliminating potential recharge to the areas beneath the plant floors. The analytical results for the soil samples collected during the excavation activities are presented in Tables 1-1 through Tables 9-1 and Appendix A.

1.1 Site History

The facility, originally owned by the Rumsey Pump Company, was sold to Sylvania in 1948. Sylvania manufactured television picture tubes at the facility from 1948 to 1960. In 1960, the plant was sold to GTE, who in turn sold it to Philips in 1981.

The original manufacturing by Sylvania was performed in Buildings 1 through 5. Over time, the facility was expanded to include Buildings 6 through 13. By 1972, GTE was conducting most of its manufacturing operations in Buildings 8, 10, 10A, 11, and 13 (Figure 1).

In 1981, Philips manufactured television picture tubes at the facility, which also served as headquarters for other Philips operations. Process waste was generated in television glass and metal tube component fabrication, cleaning, finishing, coating, and tube salvage operations. Philips ceased manufacturing activities in 1986 and sold the facility to the Seneca County Industrial Development Agency in 1989.

From 1948 to 1972, during Sylvania and GTE ownership and operation, the facility sewers discharged process waters to Van Cleef Lake or the Seneca River through several outfalls along the escarpment located south of the facility. The outfalls were not monitored prior to 1972. The sewers, sumps, and pits at the site conveyed all the process wastewaters to the discharge points during this period. Many of the sumps, pits, and the drains in the original sewer system were filled with concrete and abandoned prior to Philips' ownership.

In 1971 and 1972, GTE segregated the process sewer lines handling nonprocess water (stormwater and floor drain runoff) from those sewer lines handling process wastewater requiring treatment. These changes were accomplished by the construction of an interceptor sewer line to the south of the facility and the construction of an Industrial Wastewater Treatment Plant (IWTP). The interceptor

line was installed to stop the discharge of wastewaters directly to the Seneca River Barge Canal at outfalls 2, 3, 4 and 5. A manhole was constructed around each of the connections to the subject outfalls. When the interceptor line was complete, the sewer line connection to the outfall was sealed inside the manhole, allowing nonprocess water from the facility buildings to enter the interceptor line. The remaining portions of the sewer lines to outfalls 2, 3, 4 and 5 from the interceptor line to the discharge point were abandoned.

All process wastewater to be treated was directed to the IWTP. The wastewater was treated in the IWTP and discharged through a six-inch effluent pipe line to the interceptor line. All plant water discharges were conveyed by the interceptor line to the wastewater treatment settling lagoon (impoundment). The overflow from the Effluent Lagoon discharged to the New York State Pollution Discharge Elimination System (NYSPDES) outfall 001, which discharged to the Seneca River Barge Canal. The water discharged at NYSPDES 001 was monitored for pH, suspended solids, BOD, fluoride, cadmium, total chrome, zinc, lead, and TCE prior to being released to the canal.

2.0 INACCESSIBLE SOLID WASTE MANAGEMENT UNIT DESIGNATION

During a meeting conducted on May 13, 1992 with the NYSDEC, Philips, GTE and Chester Environmental (Chester), Philips and the NYSDEC agreed to designate the areas beneath the plant buildings at the Seneca Falls Facility as an Inaccessible Solid Waste Management Unit (SWMU). Philips also agreed to eliminate, to the extent possible, all potential recharge from surface waters, which may serve to transport potential constituents of concern from beneath the plant buildings. Surface water recharge would be repressed by: rerouting roof drain lines to newly installed storm sewers, plugging and sealing all floor drains, sumps and pits, and sealing the walls and floor of two underground concrete water reservoirs with water tight materials. The NYSDEC also presented Philips with the option to fill former process sewers inside and outside of the buildings with cement, if the former process sewer lines were below the water table.

Additionally, ten monitoring wells would be installed around the plant buildings in order to monitor the groundwater regime in the vicinity of the plant buildings. The installation of monitoring wells and sealing of concrete reservoir tanks were reported in the Interim Supplemental Sampling Visit Investigative Report dated March 1994.

The elimination of recharge by surface waters, to the extent possible, described in this section became the scope of work for the field activities completed and presented in this report.

2.1 Provisions for Future Demolition

In the event that certain buildings or portions of buildings were demolished, a proposal included in the Supplemental Sampling Visit Work Plan (SSVWP) stated that the NYSDEC would be notified and an investigation program would be developed in accordance with the facility QAPjP, dated July 1992, prior to any future demolition activities.

3.0 FIELD ACTIVITIES

Field work for the tasks associated with the abandonment of the inside process sewer lines, outlined in Section 1.0, was completed from July through September, 1993 and December 1993 through February, 1994.

3.1 Backfilling and Sealing of Interior Drainage Structures

The interior drainage structures, i.e., floor drains, sumps and pits, were located and identified prior to the initiation of flushing, backfilling and sealing activities. Once identified, these structures were cleaned and filled with concrete. A flushwater recovery system was constructed to contain and collect flushwaters. The following sections provide details on how backfilling and sealing activities were completed.

3.1.1 Flushwater Recovery System

Prior to initiating flushing and sealing activities at the facility, the floor drains, sumps and pits were located using available plant drawings and by visually inspecting every building.

O.H. Materials Corporation (OHM), Buffalo, New York was selected to perform the grouting and sealing operations. The work plan for these operations, dated June 22, 1993, was submitted to the NYSDEC on July 14, 1993 (Appendix B).

As part of the flushing activities for floor drains, a flushwater recovery system (Figure 2) was constructed to contain the water used during the flushing activities. The flushwater recovery system was established in a manhole located on the interceptor line at the farthest point downstream. The manhole was constructed with a 36-inch butterfly valve which, when closed, prevents flow through the interceptor line and discharge to the Seneca River. Thus, when the valve was closed, flushwater collected in the manhole.

A sump pump was placed in the manhole to remove the water as it collected. The pumped water was discharged to a 450-gallon plastic holding tank located on the ground surface. The holding tank served as a temporary reservoir and sediment basin so that any sediment contained in the flushwater would settle out. The water was then pumped from the holding tank to storage in the IWTP.

Prior to beginning flushing operations each day, the butterfly valve in the manhole was closed and the discharge of normal flow from the interceptor line to the Seneca River was halted. The normal flow rate of water entering the manhole from the interceptor line was measured by recording the time required to fill a one-gallon bucket. The flow was also measured at the end of the flushing operations each day, after allowing time for any flushwater to clear the line. Flow rates were recorded in

the field log book. A comparison of the flow rates between the start of flushing operations and the end of flushing operations was used to determine if all flushwater had drained from the system. When the two flow rates were similar or the evening flow was less than the morning flow, the interceptor line was reopened. Flushwater captured in the flushwater recovery system was pumped to storage in the IWTP for subsequent disposal to the local sanitary sewers.

Flushwater from the cleaning and flushing of the pits and sumps in Buildings 13 and 13A discharged to the Outside Lift Station No. 1 Sump. Flushwater captured in the Outside Lift Station No. 1 Sump during the flushing operations was pumped directly to the IWTP for subsequent disposal.

The flushwaters were analyzed for constituents required by the Village of Seneca Falls prior to release of flushwaters to the Village sanitary sewers. After review and evaluation of the analytical results by the Village, Philips received permission to discharge the flushwater to the Village sanitary sewers.

3.1.2 Flushing and Sealing of Floor Drains

All floor drain grates and blank covers were removed, and the floor drains were inspected prior to flushing operations. Any large pieces of material were removed from each drain by hand. The drains were then vacuumed to remove the finer material.

After each drain was free of extraneous material, it was flushed with 20 gallons of potable water. Flushing was accomplished by using a clean 85-gallon steel overpack drum as a water reservoir. The inside of the drum was marked in 20-gallon increments, allowing for a consistent volume of water to be discharged into each drain. A rubber hose was attached to a ball valve at the base of the drum. The hose was placed into each drain, and the valve was opened allowing the predetermined volume of water to be discharged into each drain.

After flushing, an expandable plug was placed inside of each drain, approximately one foot below floor grade. In instances where a plug could not be adapted to a drain, newspaper was used as a plug. Sakrete was then placed in the space above the plug and finished to floor grade.

3.1.3 Flushing and Sealing of Sumps and Pits

Sumps and pits were identified and marked for cleaning. Equipment and/or construction debris placed in the sumps and pits by the current tenants was removed, and placed adjacent to each area. The sumps and pits were then vacuumed to remove finer sediment. A trailer mounted water tank was used as a water reservoir during rinsing operations. A garden hose attached to the tank was used to flush the

side walls and floor. Flush water was allowed to flow to former process sewers and eventually to the flushwater recovery manhole. Each drain at the end of each sump or pit was flushed a second time with 20 gallons of water using the same procedure was used to clean the floor drains. After the flushing, the sumps and pits were filled with concrete to floor surface.

3.2 Re-route of Roof Drain Lines

The roof drain lines inside the plant were identified. Design drawings were prepared by Pfitzenmaier & Jablonski, Inc., which delineated the new routes of the roof drain lines. O'Brien & Gere, Inc. (OBG), Syracuse, New York was contracted to install the new roof drain lines at the facility.

Roof drain lines were rerouted along the roof trusses and down the inside walls of the buildings. The new roof drain lines were diverted just above the floor to the outside of the building, and were connected to new outside storm sewer lines. The new storm sewer lines were installed at the same time as the roof drain lines.

The original down spouts that drained to the former process sewers under the facility floors were removed, and the associated floor drains were sealed with concrete to floor surface.

3.3 Installation of New Storm Sewer Lines

Prior to 1994, stormwater run off from the facility roofs was diverted through the former process sewer lines to the interceptor line. To comply with the inaccessible SWMU designation, new storm sewer lines were installed north, south and east of the facility at the locations shown on Figure 3. Design drawings prepared by Pfitzenmaier & Jablowski, Inc. delineated the routes of the new storm sewer lines. OBG was contracted to install the new storm sewer lines at the facility. The storm sewer lines were connected to the newly installed roof drain lines at the completion of the roof drain rerouting.

Because of the possibility of encountering impacted soil, primarily south of the facility buildings, a work plan was prepared to address the sampling, handling and staging of impacted soils. The work plan, dated October 1993, was submitted to the NYSDEC for review and is presented as Appendix B. The work plan discusses in detail the following:

- Soil Staging Cells - Construction and Size;
- Field Screening of Soil Samples;
- Classification of Soils - Nonimpacted, Questionable and Impacted;

- Placement of Soils in Staging Cells;
- Excavation North and East of the Facility;
- Excavation South of the Facility; and
- Sampling and Analysis of Staged Soils.

3.3.1 Trenching activities

Trenching activities for new storm sewer lines east and north of the plant buildings began at the flushwater recovery system manhole, located south of Building 13, and proceeded continuously east of Building 13 to the northwest corner of the plant near Building 1. As trenches were excavated, soils were placed on plastic adjacent to the trench. Soil samples were collected at the predetermined intervals described in the soil sampling work plan dated October 1993 (submitted and approved by the NYSDEC): at ten-foot intervals in the north and east of the buildings, and in five-foot intervals south of the buildings. Sampling was more at frequent intervals in the southern area due to the presence of former sewer process lines. Each soil sample was field screened using a Organic Volatile Analyzer-Flame Ionization Detector (OVA) as detailed in the soil sampling work plan.

Staged soils were sampled for chemical analysis. Soils classified as impacted were analyzed for volatile organic compounds (EPA Method 8021) and total cadmium, chromium, lead and zinc. Soil samples that were classified as nonimpacted were analyzed for metals only. Analytical results are presented and discussed in the following sections. No soils were classified as questionable.

The purpose for field screening the soil samples using the headspace procedure, was to classify soils as nonimpacted, questionable and impacted. Each soil sample was placed in a glass jar, then aluminum foil was placed over the mouth of the jar. The jar was then capped and set aside. The headspace measurement was obtained by inserting the probe end of the OVA through the aluminum foil and collecting the vapors just under the foil. Headspace readings were recorded in a field notebook. If OVA measurements for a particular soil sample were 0-5 ppm over background, that sample was considered to be (or classified as) nonimpacted. If OVA measurements for a particular soil sample were five ppm to ten ppm above the daily background measurement, that sample was considered to be (or classified as) questionable. If OVA measurements for a particular soil sample were ten ppm above the daily background measurement, that was considered to be (or classified as) impacted. However, during the trenching activities, no soils that could be classified as questionable were encountered.

The depth of each trench varied due to local topography. The trenches east and northeast of Buildings 10, 13 and 13 A ranged from 10 to 12 feet deep. The trenches north of Buildings 2, 4, 7, 9 and 10 A range from 14 feet at the northeast corner of Building 10 A to approximately three feet deep in the area north of Building 2. Trenches south of the facility ranged from six to eight feet deep at the interceptor line to three to four feet deep adjacent to the building walls.

Once an excavation was at the design depth, gravel was placed in the bottom, and the new sewer line was placed on top of the gravel. Additional gravel was placed around and on top of the pipe. As stipulated in the sampling and analysis work plan for excavated soils, nonimpacted soils from the trenches east and north of the facility were used as backfill. In areas where potentially impacted soil was encountered, the trenches were lined with plastic prior to placement of backfill material in the excavation. The backfill material was gravel obtained from a local distributor.

Soil staging cells were constructed in the northeast parking lot by placing geofabric on top of asphalt. Hay bales were placed around the perimeter of the geofabric, encompassing an area approximately 30 feet by 60 feet. A four mil fiberglass reinforced plastic sheet was placed over the hay bales and geofabric to complete each staging cell. Twelve soil staging cells were constructed; each cell contained 12 to 15 soil piles. Accordingly, there are approximately 150 soil piles currently at the Seneca Falls facility.

Excavated soils not used as backfill were classified as impacted or nonimpacted, loaded into plastic lined dump trucks and placed in the appropriate staging cell. Multiple truck loads of soil were placed in a single soil pile, accordingly, any single soil pile may have soils from several different segments of excavated trench. To provide an evaluation of the site constituents of concern, a composite soil sample was collected from each soil pile. Soil samples were submitted to the Huntingdon Analytical Laboratory in Middleport, New York for analysis of the constituents of concern.

Areas east and north of the facility were landscaped and seeded with grass at the completion of excavation activities. Areas south of the facility covered with asphalt were reasphalted and sealed along the edges.

3.4 Abandon Historical Outfall Lines

The historical outfall lines were abandoned in 1972 after completion of the interceptor line. As part of the corrective action program, NYSDEC required that these abandoned outfall lines be located, cleaned of debris and filled with concrete. The outfall lines of concern, historic outfall #2, historic outfall #3, historic outfall #4 and historic outfall #5, are shown on Figure 3.

The manhole for the connection of each abandoned outfall along the interceptor line was located by excavating adjacent to the manhole line. A small portion of the top of the abandoned line was removed, allowing for the visual inspection of each line. All four lines were inspected and found to be free of debris.

The distance from the manhole to the discharge point of each abandoned line was measured. Using that measurement, the volume of concrete required to fill each abandoned line was calculated. The abandoned lines were filled by pouring concrete in a slurry through the visual inspection opening. The concrete was mixed very wet, allowing the concrete to flow to the end of the line. The volume of concrete used to fill the line was measured and compared to the estimated fill volume to determine if the line had been completely filled. After it was determined that the line was filled and no further settling of the concrete was observed, the excavation was backfilled with gravel to ground surface.

3.5 Abandonment of Former Process Sewer Lines

After connection of the new storm sewer lines and roof drains, the former process sewers were abandoned by filling them with concrete. This task was accomplished by excavating at the building exit point of the process line, removing a small portion of the top of the line and pouring a wet concrete slurry into the line. Concrete was added until it reached the manhole. If the concrete was not observed at the manhole, one or more excavations were made along the line to determine how far the concrete had flowed and to pour additional concrete, if necessary.

4.0 RESULTS OF SAMPLE VALIDATION

This section summarizes the findings of the third party independent data validation reports for the analyses of soil samples from each soil pile collected in the winter of 1993 for the Seneca Falls, New York RFA under the SSVWP. Since the site-specific quality assurance project plan (QAPjP) required that only 25 percent of one-time sampling data be validated by a third party, a representative portion of the additional SSVWP data was arbitrarily selected for data validation. Data validation reports were generated by AWD Technologies, Inc. for two of the soil pile data packages produced by the analytical laboratory, Huntington Analytical Services (data package numbers 94-0192 and 93-1895).

Data package number 94-0192 consisted of nine soils collected from the excavated soil piles located on-site. These samples were analyzed for total cadmium, chromium, lead, and zinc. Data package number 93-1895 consisted of 35 soil samples collected from the excavated soil piles located on-site, including two field duplicates. All 35 soil samples were analyzed for total cadmium, chromium, lead, and zinc. In addition, 20 of the 35 soil samples were also analyzed for VOCs by EPA Method 8021.

First, the data was reviewed for technical completeness according to the requirements specified in the applicable analytical methods and/or the site-specific QAPjP. Following evaluation of the technical completeness of the additional SSVWP analytical data selected for data validation, the following minor issues concerning data usability were noted.

- Several sample results throughout the two data packages reviewed were calculated or transcribed incorrectly from the raw sample data. The validator corrected those identified reporting errors on the data summaries.
- Several VOC positive sample results were reported above the highest calibration standard in 93-1895 and were not reanalyzed at a greater dilution within holding times.
- The laboratory reported all solid sample results for organic analyses on a wet weight basis, requiring the validator to make appropriate adjustments to the data prior to subsequent evaluations, including prior to blank contamination evaluations. Upon a subsequent request, and after completion of the data validation, the laboratory reissued the organic results using a dry weight basis.
- The laboratory provided QC data on the continuing calibration verifications (CCVs) and check sample analyses for the VOC analyses in the form of percent recoveries instead of percent differences (%Ds) for both of the data packages reviewed. The validator examined the acceptance of these

calibration checks by evaluating the percent recovery at 85-115 percent for CCVs and 80-120 percent for the check samples.

- Several compounds were detected by both gas chromatographic (GC) detectors for the VOC analyses in data package 93-1895. However, the validator could not identify the procedure used by the analyst in selecting the appropriate result.
- ICP interference check sample (ICS) analyses were performed in both of the metals data packages. However, the laboratory did not provide the level of interferents present in the ICS sample. As a result, the impact based on the ICS could not be evaluated by the validator.

It should also be noted that field QC analyses (field blanks or duplicates) were not always performed or available in each of the packages reviewed. However, this was due to the fact that these QC analyses were collected in the field and/or analyzed by the laboratory based on the order that the samples were received from the field or segregated into sample delivery groups (SDGs). In particular, since only a minimal number of field blanks were collected (as will be discussed below), most SDGs do not contain field blanks. This issue should not adversely impact the results reported as the va idator would be able to review the associated QC analyses from alternate packages, whenever necessary.

The validator also identified several very minor technical issues that had little or no impact on the reliability or reportability of the analytical data. The validator did not believe that any of the minor issues related to technical completeness of the additional SSVWP soil pile analytical data were singularly or cumulatively significant enough to reject any sample data. However, some of the problems listed above in bullet fashion resulted in the validator qualifying the associated sample results and/or detection limits as estimated. In some cases, the validator recalculated sample results and/or the associated QC analyses results from either the raw laboratory data or an alternative QC evaluation measure. The validator concluded that the data in the two validation reports should be accepted for intended uses as qualified based on technical completeness. No data were rejected based on technical completeness issues in the two reviewed data packages.

Along with the review for technical completeness, the validator evaluated QC analyses associated with chemical analyses of the environmental samples in the two referenced data packages. This evaluation provides an examination of the precision and/or accuracy of the analytical data based on the results of the associated QC analyses in accordance with the requirements specified in the QAPjP, the analytical method, and/or the National Functional Guidelines for Evaluating Organic (Viar & Co., Eds. 6/91) and Inorganic (Viar & Co., Eds. 7/88) Analyses (NFGs), whichever is

applicable. The following major problem, resulting in data being rejected by the validator, was noted.

- A Method 8021 surrogate recovery was less than 10 percent in one volatile organic soil sample in data package number 93-1895. As a result, the validator qualified all nondetected sample results in that one volatile organic sample only as rejected. One positive result in the affected sample was qualified as estimated.

The following minor and typical QC issues were noted by the validator, but did not result in data rejection. However, they may have resulted in sample result corrections and/or data qualifications indicating estimated or nondetected data.

- Volatile organic blank contamination of methylene chloride, chloromethane, n-butylbenzene, benzene, toluene, trichloroethene and 1,1,1-trichloroethane were identified in laboratory and/or field blanks in one or more blanks in data package number 93-1895. The validator qualified impacted results as nondetected in accordance with guidance from the U.S. EPA NFGs. The validator had to identify some of these blank contaminants from raw data, due to the facts that the laboratory reported client-specified detection limits for the VOC analyses, and reported low level results detected below these limits but above the instrument detection limits (IDLs) as nondetected.
- Two soil samples in data package number 93-1895 had Method 8021 surrogate recoveries below the lower recovery limits. The validator qualified impacted results as estimated.
- Minor qualification actions were taken based on the initial calibration performance for several Method 8021 target compounds in data package number 93-1895. The validator qualified associated results as estimated.
- Minor qualifications for continuing calibration and/or reference check standard limit exceedances were noted for several VOC target compounds in both data packages. The validator qualified impacted results as estimated.
- Several low level positively detected VOC results in two soil field duplicate pairs in data package number 93-1895 exceeded either the proposed QC limit of plus or minus two times the method detection limit (MDL) difference or the 35 percent relative percent difference (RPD) limit. On the basis of this variability, the validator qualified the affected compound results in each of the associated field duplicate pairs as estimated.

- Calibration and/or preparation blank contamination of chromium, lead, and zinc was identified in data package number 93-1895. The validator qualified impacted results as nondetected.
- The percent differences (%Ds) between the original and serial dilution results for zinc exceeded the ten percent QC limit in the total metals analyses in both data packages. All affected total zinc results were qualified as estimated in the respective data packages.
- The soil laboratory duplicate RPD for total cadmium exceeded the 35 percent QC limit in data package number 94-0192. Similarly, the soil laboratory duplicate RPD for total chromium, lead, and zinc exceeded the 35 percent QC limit in data package number 93-1895. Associated positive affected results were qualified as estimated in the respective sample sets.
- A total cadmium matrix spike recovery was below the 75 percent lower QC recovery limit in data package number 94-0192. Similarly, the total lead and zinc matrix spike recoveries were outside the 75-125 percent QC recovery range in data package number 93-1895. All impacted associated results in the respective sample sets were qualified as estimated.
- Triplicate injection percent relative standard deviations (%RSDs) for total lead in two samples in data package number 93-1895 were outside the QC limits. As a result, the affected sample results for these parameters were qualified as estimated.

All of the bullet items listed immediately above involved qualification actions that were typical in nature for the types of analyses validated. None of these QC limit exceedances were severe enough to require rejection of environmental sample results. The validator took the appropriate qualification actions according to requirements of the U.S. EPA NFGs. The validator also noted, during data review, that several other minor QC limit exceedances occurred in the data packages, but stated that they were not significant enough to require any data qualification actions. These issues were not listed above.

The two data packages selected for independent third party represented approximately 25 percent of the total analytical data for the soil piles. This independent data validation was performed in accordance with the site-specific QAPP and under requirement of the NYSDEC. A general assumption was then implied that if the 25 percent of the data did not have significant data quality issues and the laboratory would perform an unbiased and professional internal data quality review, the remaining unvalidated should be acceptable without further data evaluations.

Following submission of other site investigation reports for the Philips Seneca Falls facility, comments were received from the NYSDEC regarding data reporting and QC check results of data that were either not selected for data validation or were not required to be validated other than the laboratory's internal review of the data. To address the concern regarding the data that were not being independently validated, Chester has performed a general data quality screening of those data packages associated with the soil pile analytical data that were not selected for independent data validation. There are six data packages that were screened. They are numbered 93-1673, 93-1837, 93-1889, 93-1891, 93-1916, and 94-0113.

The data quality screening was performed using data evaluation criteria specified in the QAPjP and/or the NFGs. Only those criteria having the greatest potential to impact the reliability and usability of the analytical data were examined. These criteria included evaluation of sample holding times, surrogate recoveries, laboratory and field blanks, matrix spike/matrix spike duplicates (MS/MSDs) or matrix spike and laboratory duplicates, field duplicates, and inorganic specific QC checks such as serial dilutions, method of standard additions (MSA) analyses, and post digestion spikes.

Following the data quality screening, a number of minor QC issues and laboratory performance issues were identified. These issues were typically similar in frequency and nature to those issues described above for the two data packages that were independently validated. However, the outcome of data qualification actions for most of these types of issues would only result in data being qualified as estimated but still usable. For purposes of potential impact to the reliability and usability of the data, only data qualification actions that would result in data being qualified as nondetected due to blank contamination or rejected for any reason following the data quality screening will be discussed herein. Additionally, these data qualification actions will be taken on the analytical data tables in this report. The following are issues noted in the internal data quality screening that resulted in nondetected or rejected data qualification actions:

- Zinc was detected in a continuing calibration blank (CCB) for the total metals analyses in data package number 93-1673. Zinc was detected in a preparation blank (PB) for the total metals analyses in data package numbers 93-1916 and 94-0113. Chromium was detected in a CCB and zinc was detected in a PB for the total metals analyses in data package number 93-1889. Associated positive detections for the affected analytes in each data package will be qualified as nondetected, "U".
- Methylene chloride was detected in method and/or laboratory blanks at high enough concentrations to qualify all of the positive methylene chloride results

in data package numbers 93-1673, 93-1916, 93-1889, and 93-1891 as nondetected, "U". In addition, n-butylbenzene and trichloroethene were detected in associated blanks high enough to qualify one or more field sample results for these compounds in data package number 93-1916 as nondetected, "U".

- An inorganic matrix spike for the total metals analyses of cadmium, chromium, lead, and zinc in data package number 93-1837 had extremely low (%R less than 30%) recoveries. Consequently, all nondetected total metals results in this data package would normally be qualified as unreliable, "UR". However, none of the impacted inorganic results were nondetected.

- One of the two total chromium matrix spike recoveries in data package 93-1891 was reported as extremely low (-174%). However, the analytical problem was not likely as severe as the recovery would indicate. There were varying matrix spike recovery results for the lead and zinc matrix spike recoveries in this same matrix spiked sample and also in the chromium and lead duplicate results for the duplicate of the same sample. Therefore, the recovery problem appeared to be a matrix related problem and not an analytical problem, as the other matrix spike and duplicate in this data package were within acceptable limits. Consequently, the chromium results in this data package are not qualified as unreliable.

None of the problems identified by the independent validator or by the internal data reviewer appears to be significant enough to limit the use of the data for site characterization purposes except for the rejected analytical results described above. Rejected results should not be used for any site-related evaluation purposes including use for site characterization. Although a number of minor analytical and QC problems were noted and a few major issues were noted impacting only a small percentage of the overall data set, the data generally appear to be reproducible and comparable. This conclusion is based on consistency noted in sample parameters and concentrations reported in site areas of concern and by evaluation of the majority of the QC measures that indicate that the precision and accuracy of the data are acceptable.

One additional point regarding data quality and reporting should be noted. Review of the organic data summary tables in this report reveal constituent concentrations with an "E" qualifier, indicating that the result reported, exceeded the linear calibration range of the instrument. These qualifiers affect only unvalidated data. In these cases, the laboratory reported that additional dilutional analyses were performed but not reported due to holding time exceedances. In a few of these cases, the laboratory included both the dilutional analyses and the original or lesser

dilution analyses in the data package. Data were summarized in the data summary tables in this report, in these cases, as reported by the laboratory. The analyst decided which results were more appropriate to report. These values can be considered estimated quantitations.

5.0 ANALYTICAL RESULTS

Analytical results from soils were compared to two criteria: (1) the NYSDEC Action Levels, and (2) the background analytical results for metals from soil samples collected during the investigative phase of the Supplemental Sampling Visit Assessment. The NYSDEC action levels are presented in Tables 1-1 through 9-1 for each constituent detected.

A comparison of the NYSDEC action levels for metals to the site's background analytical results was completed in the Interim Supplemental Sampling Visit Investigation Report, dated March 1994 (Section 4.1). The result of the comparison indicated that chromium and zinc concentrations in background samples were consistently higher than the NYSDEC action levels. Accordingly, a statistical analysis of the background analytical results for metals was completed.

Mean concentration and standard deviations were calculated using the background analytical results for each metal. Two standard deviations above the average were used to approximate a 95 percent confidence interval. The results were that chromium and zinc concentrations were 26.3 mg/Kg and 61.7 mg/Kg, respectively. Chester used the higher concentrations for chromium and zinc as the action levels on site, in the SVIR and SSVIR submitted to the NYSDEC, accordingly, those concentrations will be used in the evaluation in the following sections.

The locations on site where impacted soils were encountered during the excavation activities have been sub-divided into nine areas for discussion purposes and are shown on Figure 3.

Analytical results from the soil samples collected from the soil piles located in the staging cells are presented in Tables 1-1 through 9-1, and in Appendix A.

Each area was evaluated based on a composite analytical results of the soil sample collected from each soil pile within each soil staging cell. Because each soil pile can consist of one or more excavated trench segments, the exact location of a particular impacted soil can not be precisely determined. As a result, the boundary lines for the areas presented on Figure 3 are conservatively drawn.

Additionally, soil borings were completed as part of the RFA assessments in May 1993 through July 1993, and are located in the vicinity of some of the areas where trenching occurred. Analytical results for soil samples collected from previous RFA soil borings are compared to analytical results for excavated soils from that area where appropriate. Analytical results for the soil samples from previous RFA borings can be found in the Interim Supplemental Sampling Investigative Report, dated March 1994.

5.1 Area 1

Area 1 is located in the court yard south of Building 1 and north of Building 2 as shown on Figure 3. Visibly stained soil was encountered during excavation activities in this area. Three soils samples were collected from Area 1 soil piles and analyzed for VOCs and metals. The analytical results are presented in Table 1-1 and Table 1-2.

Former underground storage tank UST 008, which was used to store fuel oil when the plant was operating, is located approximately 25 feet west of Area 1. Soils adjacent to former UST 008 were investigated as part of the RCRA Facility Assessment (RFA) completed in August 1993. Analytical results for the RFA assessment are presented in the Interim Supplemental Sampling Visit Investigative Report (ISSVIR), dated March 1993.

5.1.1 Volatile Organics

The constituent cis-1,2-dichloroethene was detected in two of the three samples at concentrations of 170 ug/Kg and 190 ug/Kg, which are above the NYSDEC action level of 100 ug/Kg. This was the only VOC that exceeded NYSDEC action levels.

5.1.2 Metals

Cadmium was detected in all three soil samples at concentrations slightly above the NYSDEC action level of 1 mg/Kg. Concentrations ranged from 4 mg/Kg to 7.6 mg/Kg.

Chromium was detected in all three soil samples at concentrations above the NYSDEC action level of 10 mg/Kg. Concentrations ranged from 13.7 mg/Kg to 23.4 mg/Kg. However, none of these exceeds the average background concentration deviations of 26.3 mg/Kg.

Lead was detected in all three soil samples at concentrations above the NYSDEC action level of 30 mg/Kg. Concentrations ranged from 64.9 mg/Kg to 88.8 mg/Kg.

Zinc was detected in all three soil samples at concentrations above the average background concentration of 61.7 mg/Kg. Concentrations ranged from 123 mg/Kg to 136 mg/Kg.

5.2 Area 2

Area 2 is located in the court yard area south of Building 8 and north of Building 4, as shown in Figure 3. During the excavation, what appeared to be foundry sand was encountered. Six soil samples were collected from Area 2 soil piles and analyzed for

VOCs and metals. The analytical results are presented in Table 2-1 and Table 2-2. No soil borings were completed in this area as part of the SSVWP RFA assessment.

5.2.1 Volatile Organics

No volatile organics were detected above the NYSDEC action levels.

5.2.2 Metals

Cadmium was detected in all six soil samples at concentrations slightly above the NYSDEC action level of 1 mg/Kg . Concentrations ranged from 3.8 mg/Kg to 5.3 mg/Kg.

Chromium was detected in all six samples at concentrations above the NYSDEC action level of 10 mg/Kg. Concentrations ranged from 12.3 mg/Kg to 20.6 mg/Kg. However, none of these concentrations exceeds the average background concentration of 26.3 mg/Kg.

Lead was detected in five of the six soil samples at concentrations above the NYSDEC action level of 30 mg/Kg . Concentrations ranged from 36.5 mg/Kg to 178 mg/Kg.

Zinc was detected in all six soil samples at concentrations above the average background concentration of 61.7 mg/Kg. Concentrations ranged from 78.5 mg/Kg to 372 mg/Kg.

5.3 Area 3

Area 3 is located north of Building 9 and south of the former UST 009 as shown on Figure 3. UST 009 was closed in place and is located 35 feet north of the trenching activities. During the trenching activities, fill lines from UST 009 were encountered, and the soils adjacent to the fill lines were stained. Four soil samples were collected from Area 3 soil piles and analyzed for VOCs and metals. The analytical results are presented in Table 3-1 and Table 3-2. Soils adjacent to UST 009 were investigated as part of the RFA assessment completed in August 1993. Analytical results for the assessment are presented in the ISSVIR.

5.3.1 Volatile Organics

The constituent cis-1,2-dichloroethene was detected in one of the four soil pile samples at a concentration of 190 ug/Kg, which is slightly above the NYSDEC action level of 100 ug/Kg. This was the only VOC that exceeded NYSDEC action levels from all soil samples in Area 3.

5.3.2 Metals

Cadmium was detected in all four soil samples at concentrations above the NYSDEC action level of 1 mg/Kg. Concentrations ranged from 4.5 mg/Kg to 17.9 mg/Kg.

Chromium was detected in all four samples at concentrations above the NYSDEC action level of 10 mg/Kg. Concentrations ranged from 11.7 mg/Kg to 21.2 mg/Kg. However, none of these concentrations exceeds the average background concentration of 26.3 mg/Kg.

Lead was detected in all four of the soil samples at concentrations below the NYSDEC action level of 30 mg/Kg. Concentrations ranged from 20.2 mg/Kg to 26.9 mg/Kg.

Zinc was detected in all four soil samples above the average background concentration of 61.7 mg/Kg. Concentrations ranged from 67.5 mg/Kg to 149 mg/Kg.

5.4 Area 4

Area 4 is located east of Building 10 and north of Building 13 as shown on Figure 3. However, visibly stained soils were encountered in the area adjacent to the former fuel oil tank (FOT) location during trenching activities.

Fifteen soil samples were collected from the Area 4 soil piles and analyzed for VOCs and metals. Eight additional soil samples were collected and analyzed only for metals. Five soil samples also were collected from the side walls of the trench excavation adjacent to the west wall of the truck dock north of Building 13, and were analyzed only for VOCs. Analytical results are presented in Table 4-1 and Table 4-2.

Soils adjacent to the FOT were investigated as part of the RFA assessment completed in August 1993. Analytical results for the assessment are presented in the ISSVIR.

5.4.1 Volatile Organics

No volatile organics were detected from soil pile samples or sidewall samples that exceeded the NYSDEC action levels.

5.4.2 Metals

A total of 23 soil samples were collected from the Area 4 soil piles and analyzed for metals. Cadmium was detected in all soil samples at concentrations above the NYSDEC action level of 1 mg/Kg. Concentrations ranged from 2.9 mg/Kg to 50.6 mg/Kg, near action levels.

Chromium concentrations were detected in 21 of the 23 soil samples above the NYSDEC action level of 10 mg/Kg. Sample concentrations ranged from 10 mg/Kg to 25.2 mg/Kg. However, none of these concentrations exceeds the average background concentration of 26.3 mg/Kg.

Lead was detected in two of 23 soil samples at concentrations slightly above the NYSDEC action level of 30 mg/Kg. Concentrations were 32.7 mg/Kg and 33.3 mg/Kg.

Zinc was detected in all the soil samples above the NYSDEC action level of 20 mg/Kg. Concentrations ranged from 32.8 mg/Kg to 137 mg/Kg. Thirteen of the 23 samples exceeding the NYSDEC action level are below the average background concentration of 61.7 mg/Kg.

5.5 Area 5

Area 5 is located south of Building 11 as shown on Figure 3. A total of 19 soil samples were collected from Area 5 soil piles. Seven of the samples were analyzed for VOCs; all 19 samples were analyzed for metals. Analytical results are presented in Tables 5-1 through 5-2.

Soil samples were collected from soil borings completed as part of the RFA assessment in the area of trenching activities. Analytical results from these borings is presented in the ISSVIR.

5.5.1 Volatile Organics

No volatile organic constituents were detected in the soil pile samples which exceeded NYSDEC action levels.

5.5.2 Metals

A total of 19 soil samples were analyzed for metals. Cadmium was detected in all soil samples at concentrations above the NYSDEC action level of 1 mg/Kg. Concentrations ranged from 2.6 mg/Kg to 21.2 mg/Kg.

Chromium was detected in 18 of 19 soil samples at concentrations above the NYSDEC action level of 10 mg/Kg. However, only two of these concentrations exceeds the average background concentration of 26.3 mg/Kg. Concentrations ranged from 11.9 mg/Kg to 32.2 mg/Kg.

Lead was detected in three of 19 soil samples at a concentration of 41.8 mg/Kg, 36.6 mg/Kg and 41 mg/Kg, which are slightly above the NYSDEC action level of 30 mg/Kg.

Zinc was detected in all the soil samples above the NYSDEC action level of 20 mg/Kg. Concentrations ranged from 35.6 mg/Kg to 104 mg/Kg. Twelve of the 19 samples exceeding the NYSDEC action level were below the average background concentration of 61.3 mg/Kg.

5.6 Area 6

Area 6 is located to the south of Building 9 as shown on Figure 3. Former USTs 005, 006, and 007 were located in this area. During trenching activities in this area, visibly impacted soils were encountered within the former backfill area of the USTs. A total of 24 soil samples were collected from Area 6 soil piles. Eight soil samples were analyzed for VOCs, and all 24 soil samples were analyzed for metals only. Analytical results are presented in Tables 6-1 through 6-2.

The soils adjacent to USTs 005, 006 and 007 were investigated as part of the RFA assessment. Analytical results for the soil assessment are presented in the ISSVIR.

5.6.1 Volatile Organics

Benzene was detected in two soil pile samples at concentrations of 170 ug/Kg and 180 ug/Kg, which exceed the NYSDEC action level of 60 ug/Kg. Toluene was detected in one soil sample at a concentration of 1,800 ug/Kg, which exceeds the NYSDEC action level of 1,500 ug/Kg. Total xylene was detected in two soil samples at a concentration of 1,510 ug/Kg and 11,700 ug/Kg, which exceeds the NYSDEC action level for total xylenes of 1,200 ug/Kg.

5.6.2 Metals

Cadmium was detected in 19 of 24 soil samples at concentrations slightly above the NYSDEC action level of 1 mg/Kg. Concentrations ranged from 2.4 mg/Kg to 10.3 mg/Kg.

Chromium was detected in 19 of 24 soil samples at or above concentrations above the NYSDEC action level of 10 mg/Kg. Concentrations ranged from 10 mg/Kg to 26.8 mg/Kg. However, only one of these concentrations slightly exceeds the average background concentration of 26.3 mg/Kg.

Lead was detected in two of the 24 soil samples at concentrations of 30.4 mg/Kg and 36.5 mg/Kg, which slightly exceed the NYSDEC action level of 30 mg/Kg.

Zinc was detected in 19 of 24 soil samples above the NYSDEC action level of 20 mg/Kg. Concentrations range from 30.4 mg/Kg to 80.1 mg/Kg. However, only two of these concentrations exceed the average background concentration of 61.3 mg/Kg.

5.7 Area 7

Area 7 is located west of Building 7 and south of Building 3. Former UST 011, which stored gasoline, was located adjacent to of the trenching operation on the east side as shown on Figure 3. Trenching activities encountered both visual impacted soils and those identified as impacted by head space analysis. A total of 26 soil samples were collected from soil piles in Area 7. Thirteen soil samples were analyzed for VOCs and all 26 samples were analyzed for metals. Analytical results are found in Tables 7-1 through 7-2.

The soils adjacent to UST 011 were investigated as part of the RFA assessment. Analytical results for the soil assessment are presented in the ISSVIR.

5.7.1 Volatile Organics

Thirteen samples for VOC analysis were collected from Area 7 soil piles. Two constituents of concern were detected; cis-1,2-dichloroethene was detected in six soil samples at a concentrations ranging from 100 ug/Kg to 1,300 ug/Kg, which were either at or exceeded the action level of 100 ug/Kg. Trichloroethene was detected in one soil sample at a concentration of 12,000 ug/Kg, which exceeds the NYSDEC action level of 700 ug/Kg.

5.7.2 Metals

Cadmium was detected in all soil samples at concentrations above the NYSDEC action level of 1 mg/Kg. Concentrations ranged from 2.4 mg/Kg to 9 mg/Kg.

Chromium was detected in 25 of 26 samples at concentrations above the NYSDEC action level of 10 mg/Kg. Concentrations ranged from 14.2 mg/Kg to 47.7 mg/Kg. Six of the concentrations exceed the average background concentration of 26.3 mg/Kg.

Lead was detected in 12 of the 26 soil samples at concentrations above the NYSDEC action level of 30 mg/Kg. Concentrations ranged from 32.5 mg/Kg to 314 mg/Kg.

Zinc was detected in all soil samples above the NYSDEC action level of 20 mg/Kg. Concentrations range from 41.9 mg/Kg to 2,100 mg/Kg. Twenty-one of the 26 concentrations exceed the average background concentration of 61.3 mg/Kg.

5.8 Area 8

Area 8 is located south of Building 2. During trenching activities, impacted soils identified by visual observations and head space analysis were encountered. Additionally, a previously unknown UST was encountered during trenching activities. The Building 2 UST and surrounding impacted soils were removed in January 1994.

A total of 19 soil samples were collected from Area 8 soil piles and analyzed for volatile organics and metals. One of the samples was collected from soils adjacent to the Building 2 UST when it was first encountered and analyzed for VOCs only. Analytical results can be found in Tables 8-1 through 8-2.

Soil samples were collected as part of the RFA assessment in the vicinity of trenching activities and former Building 2 UST. Analytical results for the assessment are presented in the ISSVIR.

5.8.1 Volatile Organics

Twenty soil samples were collected from Area 8 and analyzed for volatile organic compounds. Benzene was detected in two soil samples at a concentrations of 140 ug/Kg and 1,800 ug/Kg, which exceeds the NYSDEC action level of 60 ug/Kg.

Cis-1,2-dichloroethene was detected in four soil samples at a concentrations ranging from 140 ug/Kg to 370 ug/Kg, which exceed the NYSDEC action level of 100 ug/Kg.

1,2-dichloroethene was detected in one soil sample at a concentration of 78,000 ug/Kg, which exceeds the NYSDEC action level of 7,900 ug/Kg.

1,3-Dichlorobenzene was detected in one soil sample at a concentration of 4,900 ug/Kg, which exceeds the NYSDEC action level of 1,550 ug/Kg.

1,4-dichlorobenzene was detected in one soil sample at a concentration of 9,200 ug/Kg, which exceeds the NYSDEC action level of 8,500 ug/Kg.

Trichloroethene was detected in five soil samples at concentrations of ranging from 1,000 ug/Kg to 14,000 ug/Kg, which exceeds the NYSDEC action level of 700 ug/Kg.

Total xylenes were detected in one soil sample at a concentration of 4,900 ug/Kg, which exceeds the NYSDEC action level of 1,200 ug/Kg.

5.8.2 Metals

Cadmium was detected in all soil samples at concentrations slightly above the NYSDEC action level of 1 mg/Kg. Concentrations ranged from 3 mg/Kg to 8.2 mg/Kg.

Chromium was detected in 15 of 19 samples at concentrations above the NYSDEC action level of 10 mg/Kg. Concentrations ranged from 10.4 mg/Kg to 67.7 mg/Kg. Of the chromium concentrations that exceed the NYSDEC action level, only four concentrations exceed the average background concentration of 26.3 mg/Kg. These concentrations range from 27.4 mg/Kg to 67.7 mg/Kg.

Lead was detected in 15 of the 19 soil samples at concentrations above the NYSDEC action level of 30 mg/Kg. Concentrations ranged from 34.8 mg/Kg to 287 mg/Kg.

Zinc was detected in all soil samples above the NYSDEC action level of 20 mg/Kg. Concentrations range from 32 mg/Kg to 407 mg/Kg. Thirteen of these concentrations exceed the average background concentration of 61.3 mg/Kg.

5.9 Area 9

Area 9 is located west of the Guardhouse and Building 12. A total of 16 soil samples were collected from Area 9 soil piles. Head space analysis of soil samples collected during the trenching activities did not indicate that any of the excavated soils required analysis for volatile organics, therefore, soil samples were analyzed for metals only. Analytical results can be found in Table 9-1.

5.9.1 Metals

Cadmium was detected in all soil samples at concentrations slightly above the NYSDEC action level of 1 mg/Kg. Concentrations ranged from 2.4 mg/Kg to 10.9 mg/Kg.

Chromium was detected in 12 of 16 samples at concentrations above the NYSDEC action level of 10 mg/Kg. Concentrations ranged from 15 mg/Kg to 27.9 mg/Kg. Only one concentration of 27.9 ug/Kg exceeded the average background concentration of 26.3 mg/Kg.

Lead was detected in three of the 16 soil samples at concentrations above the NYSDEC action level of 30 mg/Kg. Concentrations ranged from 38 mg/Kg to 51.7 mg/Kg.

Zinc was detected in all soil samples above the NYSDEC action level of 20 mg/Kg. Concentrations range from 32.6 mg/Kg to 93.5 mg/Kg. Two of these concentrations exceeded the average background concentration of 61.3 mg/Kg.

6.0 SUMMARY AND CONCLUSIONS

The conclusions presented in this section are based upon the data from the Interim Supplemental Sampling Visit Investigation report, dated March 1994 and analytical results of soil samples resulting from excavation activities completed from November 1993 through February 1994. The results presented in the Interim Supplemental Sampling Visit Report and in this report indicate the need for further evaluation in some areas. The areas requiring further evaluation are addressed in the sections which follow. Details of the evaluations will be presented in the RCRA Facility Investigation Workplan, which will be prepared following the review and acceptance of this report by the NYSDEC.

6.1 Inorganic Concentrations

A review of data from the Interim Supplemental Sampling Visit Report suggests that metal concentrations above NYSDEC action levels typically occur in the top 4 feet of the soil column, with few exceptions. This observation is confirmed by the results from the background sampling, soil boring samples collected for the Interim Supplemental Sampling Visit investigation and the results presented in this report from the sampling of the soil piles. However, Chester maintains that metals concentrations in soils are not of environmental concern at the facility.

The risk of metal contamination from subsurface soils is directly related to the potential for metals to leach into groundwater. A review of analytical results (Appendix D) from two rounds of groundwater sampling indicates that none of the inorganic constituents of interest exceed regulatory criteria in groundwater, although some metals concentrations in soils are above either action levels or average background. Chester concludes, based upon the low concentrations of metals in groundwater, that the soils will not degrade groundwater quality with respect to metals.

In determining whether metals are an environmental issue at this site, soil boring concentrations were also compared to the NYSDEC action levels, site background concentrations, literature background concentrations (Dragun, 1991), and risk-based criteria derived by the EPA (1994a). In some instances, specific soil boring concentrations may exceed these criteria, but a single exceedance does not necessarily constitute a basis for continued investigation or remedial action. An individual is exposed to soil over a given area, not a given boring. Consequently, an individual is exposed to an average soil concentration over a given area. When soil exposure is considered in evaluating a need for further investigation, average concentrations provide the basis for comparison.

Average metals concentrations in soils were derived using data collected only from soil borings; data collected from soil piles were not included. The concentrations present in the soil borings are representative of a potential receptor's exposure. Soil samples from soil piles provide an indication of what was present in the soil, but removal of this soil eliminates the likelihood for a potential receptor's exposure. The amount of soil boring data provides an adequate statistical representation of the site. Therefore, the soil pile data will only be compared directly to the criteria and not be incorporated into the average exposure concentrations.

The soil borings were collected from interim storage areas, satellite storage areas, monitoring well locations, and soils adjacent to outside sewer lines. In addition, averages were calculated to assess exposure to soil at all depths, and to assess exposure to surface soil (0 to 2 feet). After calculating an arithmetic mean and standard deviation for the data, a statistical test of the data was conducted to determine if the data were normally distributed, i.e., follow the shape of a bell curve. Generally, if the coefficient of variation, the ratio of the standard deviation to the arithmetic mean, is less than one, it is an indication that the data are normally distributed (EPA 1992) and the arithmetic mean and standard deviation can be used to define the exposure concentration. If the coefficient of variation is greater than one, it is likely that the data are not normally distributed, and that the arithmetic mean would not be an appropriate indicator of an exposure concentration.

With environmental data, it is typical that within some areas of investigation a limited number of data points will be much higher than the majority of the values, thus resulting in an average concentration that is biased high and not representative of an exposure concentration. This distribution is referred to as lognormal because the distribution of logarithms of the data is normal. The lognormal distribution is generally verified by evaluating the coefficient of variation of the log-transformed data. With lognormal distributions, the mean concentration is referred to as a geometric mean and is defined as the antilogarithm of the mean of the log-transformed data. When the data suggest that they are lognormally distributed, the geometric mean is used as the indicator of the exposure concentration. The mean concentrations, maximum concentrations and comparison criteria for all soils evaluated and for surface soils are presented in Tables 10-1 and 10-2, respectively.

The geometric mean cadmium concentration for soil from all boring samples is less than the NYSDEC action level, suggesting that cadmium is not an environmental concern at the facility. The geometric mean cadmium concentration for surface soils exceeds the NYSDEC action level and mean site background concentration, but it falls within the range of literature background concentrations for soils in New York (Dragun 1991). For all soils, there are some cadmium concentrations that exceed the NYSDEC action level and background concentrations for the various constituents,

but all concentrations are less than the risk-based concentration (RBC) for cadmium which is derived in accordance with a procedure that is outlined in the Draft Soil Screening Level Guidance (EPA 1993). Therefore, cadmium is not a constituent that poses a concern to human health or the environment at this facility.

The arithmetic mean chromium concentrations for soil from all borings and for surface soils (Tables 10-1 and 10-2) are greater the respective NYSDEC action level, but are not significantly greater than the mean site background concentration suggesting that chromium is not an environmental concern at the facility. Moreover, the mean chromium concentrations fall within the range of literature background concentrations for New York (Dragun 1991). Some specific samples contain chromium concentrations exceeding the action level, but no sample exceeds the literature background or the EPA's RBC (EPA 1994a). Chromium, at this facility, does not pose a threat to human health or the environment.

The geometric mean lead concentrations for soil from all borings and for surface soils (Tables 10-1 and 10-2) are less than the NYSDEC action levels and are not significantly greater than the mean site background concentrations. The mean concentrations also fall within the range of literature background concentrations for New York (Dragun 1991). Some specific samples contain lead concentrations that exceed the NYSDEC action level, but no sample concentration exceeds the EPA's revised interim soil guidance for lead for residential land use of 400 mg/Kg (EPA 1994b). Therefore, lead does not pose a threat to human health or the environment at the Seneca Falls site.

The geometric mean zinc concentrations for soil from all borings and for surface soils (Tables 10-1 and 10-2) exceeds the NYSDEC action level, but not significantly greater than the mean site background concentrations. The mean zinc concentrations also fall within the range of literature background concentrations for New York (Dragun 1991). Some specific samples contain zinc concentrations that exceed the NYSDEC action level, but no sample concentration exceeds the EPA's RBC ((EPA 1994a). Therefore, zinc is not a constituent at this facility that poses a threat to human health or the environment.

The geometric mean fluoride concentrations for soil from all borings and for surface soils (Tables 10-1 and 10-2) are less than the NYSDEC action levels and are not significantly greater than the mean site background concentrations. The mean concentrations also fall below the range of literature background concentrations for New York (Dragun 1991). Some specific samples contain fluoride concentrations that exceed the NYSDEC action level, but no sample concentration exceeds the EPA's RBC of 61,000 mg/Kg (EPA 1994b). Therefore, fluoride is not a constituent at this facility that poses a threat to human health or the environment. Furthermore,

any nonvolatile organic compound impacted soil in the soil cells should be released for use on the site as general backfill.

In summary, no metals are present in collected soil samples collected soil samples at concentrations that would adversely effect human health or the environment. Similarly, none of the metals are present in the soil piles at a concentration that exceeds an RBC. Consequently, no further action is required with respect to metals at the Seneca Falls facility.

6.2 Locations of Additional Evaluation

Several locations at the site will require further evaluation, which will be addressed in the RFI Workplan. The locations discussed in the following sections have been selected based upon information presented in this report and the Interim Supplemental Sampling Visit report. A summary of those areas requiring additional investigation is presented on Table 11-1.

6.2.1 Area 1

Soils visibly impacted with petroleum hydrocarbons were encountered in Area 1 during excavation activities. One volatile organic, cis-1,2-dichloroethene (cis-1,2-DCE), was detected above NYSDEC action levels in two of the three soil pile samples. Because impacted soils were encountered and cis-1,2-DCE was detected above action levels, further evaluation of the impacted soils in Area 1 is recommended.

6.2.2 Area 2

No volatile organics exceeding the NYSDEC action levels were detected in soil samples from Area 2, therefore no further action is required with respect to volatile organics.

6.2.3 Area 3

Former underground storage tank UST 009, a former fuel oil tank, is located north of the trench excavations completed in Area 3. During excavation activities the fill lines were uncovered and the soils adjacent to the fill lines were visually impacted with petroleum hydrocarbons. Cis-1,2-DCE was detected in one of four soil samples collected from Area 3, at a concentration of 150 ug/Kg. This concentration is slightly above the NYSDEC action level of 100 ug/Kg.

Because of the detection of cis-1,2-DCE, the presence of semivolatile compounds and the visibly stained soils encountered during trench excavation, further investigation in the vicinity of UST 009 is recommended.

6.2.4 Area 4

Soils impacted with petroleum related compounds were visible during excavation activities through the former location of the Underground Fuel Storage Tank in Area 4. The Underground Fuel Storage Tank contained #2 fuel oil. Analytical results from soil samples collected from soil piles did not indicate the presence of volatile organics above the NYSDEC action levels.

The presence of the stained soils in the excavation indicate that additional investigations will be required in the vicinity of the former Underground Fuel oil Storage Tank.

6.2.5 Area 5

No volatile organics were detected in soil pile samples. Additional evaluation will not be required in Area 5 for volatile organics.

6.2.6 Area 6

Soils visibly impacted with petroleum related compounds were encountered during trenching activities in Area 6. Impacted soils were encountered adjacent to an area where three former USTs, 005, 006 and 007, were located. Based on field observations, the impacted soils appeared to be confined to the backfill that originally surrounded the former USTs.

Concentrations of benzene, toluene and total xylenes exceeding NYSDEC action levels were detected from soil pile samples. Based upon the impacted soils encountered and the analytical results from soil pile samples, further evaluation of this area for petroleum related compounds is recommended.

6.2.7 Area 7

Soils excavated in the vicinity of UST 011 in Area 7 were visibly stained and classified as impacted based on visual observations and head space analyses. The volatile organics cis-1,2-dichloroethene and trichloroethene were detected above NYSDEC action levels from soil pile samples.

Based upon visual observations, head space analysis and soil analytical results, additional investigations in the area of UST 011 are required for petroleum related compounds.

6.2.8 Area 8

The volatile organics benzene, cis-1,2-dichloroethene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, trichloroethene and total xylenes were detected in soil pile samples at concentrations exceeding the NYSDEC action levels. Further evaluation for volatile organics is required in Area 8.

6.2.9 Area 9

No organic compounds were detected above the NYSDEC action levels from soil pile samples. No further action is required.

7.0 REFERENCES

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U.S. Environmental Protection Agency (EPA), "Draft Soil Screening Level Guidance", Office of Solid Waste and Emergency Response, 1993.

U.S. Environmental Protection Agency (EPA)", Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities", from Elliott P. Laws, Assistant Administrator to Regional Administrators, OSWER Directive #9355 4-12, 1994b.

TABLES

Table 1-1
AREA 1 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			U08-GS-023		SSC6-GSSP13-101		SSC6-GSSP14-102	
DATE SAMPLED:			12-09-93		12-20-93		12-20-93	
	NYSDEC ACTION LEVELS	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	2.9	U	0.62	J	1.1	U
BROMOMETHANE	—	1.0	5.7	U	1.0	UJ	4.1	
n-BUTYLBENZENE	—	0.50	150		1.1	J	1.4	UJ
sec-BUTYLBENZENE	—	0.50	60		0.62	J	0.63	U
CHLOROFORM	300	0.50	2.9	U	1.4	J	1.2	U
1,1-DICHLOROETHANE	200	0.50	2.9	U	2.6	J	5.5	
1,2-DICHLOROETHANE	100	0.50	2.9	U	4.8	J	8.4	
1,1-DICHLOROETHENE	200	0.50	2.9	U	2.1	J	2.5	
cis-1,2-DICHLOROETHENE	100	0.50	2.9	U	170	J	190	J
trans-1,2-DICHLOROETHE	300	0.50	2.9	U	4.6	J	2.1	
ETHYLBENZENE	5500	0.50	29		0.62	UJ	0.63	U
ISOPROPYLBENZENE	3000	0.50	15		0.62	UJ	0.63	U
METHYLENE CHLORIDE	100	0.50	4.7		2.3	J	2.2	UJ
n-PROPYLBENZENE	—	0.50	72		0.62	UJ	0.63	U
TOLUENE	1500	0.50	2.9	U	0.67	J	0.63	U
1,1,1-TRICHLOROETHANE	800	0.50	2.9	U	0.80	J	0.75	
TRICHLOROETHENE	700	0.50	5.5		140	J	29	
1,2,4-TRIMETHYLBENZEN	—	1.0	45		0.80	J	0.63	U
VINYL CHLORIDE	200	0.50	5.7	U	73	J	105	J
O-XYLENE	1200**	1.0	31		1.2	UJ	1.3	U

** Total xylenes action level
— Not applicable
J = Positive estimate result
UJ = Nondetected Estimated result
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 1-2
AREA 1 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			U08-GS-023		SSC6-GSSP13-101		SSC6-GSSP14-102	
DATE COLLECTED:	NYSDEC ACTION LIMIT	AVER. BACK. CONC.*	12/09/93		12/20/93		12/20/93	
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg	
CADMIUM	1.0	—	4.0		7.6		5.1	
CHROMIUM	10.0	26.3	23.4		14.0	J	13.7	J
LEAD	30.0	—	88.8		85.5	J	64.9	J
ZINC	20.0	61.7	136		126	J	123	J

— Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

Table 2-1
Area 2 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			CYFS-GS-022		SSC6-GSSP9-096		SSC6-GSSP9D-097		SSC6-GSSP10-098		SSC6-GSSP12-100	
DATE SAMPLED:			12-09-93		12-20-93		12-20-93		12-20-93		12-20-93	
	NYSDEC ACTION LIMIT	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	0.63	U	0.59	U	0.61	U	0.60	UJ	0.58	U
n-BUTYLBENZENE	---	0.50	0.63	U	330	J	240	J	1.9	UJ	590	J
sec-BUTYLBENZENE	---	0.50	0.63	U	0.59	U	0.61	U	0.60	UJ	500	J
CHLOROETHANE	1900	1.0	31		1.2	UJ	1.2	UJ	1.2	UJ	1.2	UJ
CHLOROFORM	300	0.50	1.6		0.59	U	0.61	U	0.88	UJ	0.58	U
1,1-DICHLOROETHANE	200	0.50	71		0.59	U	0.61	U	0.60	UJ	0.58	U
1,2-DICHLOROETHANE	100	0.50	53		0.59	U	0.61	U	1.9	J	0.58	U
cis-1,2-DICHLOROETHENE	100	0.50	6.1		9.5		6.7		114	J	0.59	
trans-1,2-DICHLOROETHENE	300	0.50	0.63	U	0.59	U	0.61	U	1.4	J	0.58	U
ETHYLBENZENE	5500	0.50	0.63	U	45		37		0.60	UJ	100	J
ISOPROPYLBENZENE	3000	0.50	0.63	U	31		24		0.60	UJ	83	J
METHYLENE CHLORIDE	100	0.50	2.6		1.5	UJ	1.5	UJ	0.60	UJ	1.3	UJ
NAPHTHALENE	13000	1.0	1.3	U	20	J	24	J	1.2	UJ	33	J
n-PROPYLBENZENE	---	0.50	0.63	U	170	J	120	J	0.60	UJ	370	J
TETRACHLOROETHENE	---	0.50	0.63	U	0.59	U	0.61	U	0.73	J	0.58	U
TRICHLOROETHENE	700	0.50	1.8		11	J	5.9	J	133	J	6.2	
1,2,4-TRIMETHYLBENZENE	---	0.50	0.63	U	81	J	63	J	2.3	J	590	J
VINYL CHLORIDE	200	1.0	120		1.2	U	1.2	U	17	J	1.2	U
O-XYLENE	1200 **	0.50	0.63	U	101	J	73	J	0.6	UJ	220	J
M/P-XYLENE	1200 **	1.0	1.3	U	1.2	UJ	7.9	J	1.2	UJ	1.2	U

** = Total xylenes action limit
--- = Not applicable
J = Positive estimated result
UJ = Nondetected estimated result
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 2-2
AREA 2 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC2-GSSPS-017		SSC5-GSSP9-096		SSC6-GSSP9D-097		SSC6-GSSP10-098	
DATE COLLECTED:	NYSDEC ACTION LIMIT	AVER. BACK. CONC.*	12/10/93		12/20/93		12/20/93		12/20/93	
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg	
CADMIUM	1.0	--	3.8		3.9		3.9		5.0	
CHROMIUM	10.0	26.3	20.6		12.3	J	16.1	J	19.6	J
LEAD	30.0	--	36.5		178	J	44.8	J	29.5	J
ZINC	20.0	67.1	90.1		372	J	95.3	J	78.4	J

FIELD SAMPLE ID:			SSC6-GSSP11-099		SSC6-GSSP12-100	
DATE COLLECTED:	NYSDEC ACTION LIMIT	AVER. BACK. CONC.*	12/20/93		12/20/93	
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg		RESULT mg/Kg	
CADMIUM	1.0	--	5.3		3.9	
CHROMIUM	10.0	26.3	16.3	J	14.8	J
LEAD	30.0	--	73.5	J	80.1	J
ZINC	20.0	67.1	95.5	J	109	J

-- Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

TABLE 3-1
AREA 3 (Volatile Organics))
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC1-GSSP4-004		SSC1-GSSP5-005		SSC1-GSSP6-006		SSC4-GSSP3-034	
DATE SAMPLED:			11-24-93		11-24-93		12-01-93		12-16-93	
	NYSDEC ACTION LIMIT	MDL ug/kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
n-BUTYLBENZENE	---	0.5	0.56	U	5.4		0.57	U	0.63	U
sec-BUTYLBENZENE	---	0.5	1.2		1.8		0.57	U	0.63	U
CHLOROFORM	300	0.5	0.56	U	0.57	U	0.57	U	1.2	
cis-1,2-DICHLOROETHENE	100	0.5	0.56		0.57	U	14		190	E
trans-1,2-DICHLOROETHENE	300	0.5	0.56	U	0.57	U	0.57	U	1.5	
ETHYLBENZENE	5500	0.5	1.1		2.3		0.57	U	0.63	U
ISOPROPYLBENZENE	3000	0.5	0.87		1.2		0.57	U	0.63	U
METHYLENE CHLORIDE	100	0.5	0.81	U	0.57	U	0.57	U	1.5	U
NAPTHALENE	13000	1.0	2.9		8.6		1.1	U	1.9	
n-PROPYLBENZENE	---	0.5	1.6		2.6		0.57	U	0.63	U
TOLUENE	---	0.5	1.1	U	0.78		0.57	U	1.9	
1,1,1-TRICHLOROETHANE	800	0.5	0.62		0.71		0.91		0.63	U
TRICHLOROETHENE	700	0.5	0.56	U	0.57	U	0.64		140	E
1,2,4-TRIMETHYLBENZENE	---	0.5	0.74		0.57	U	0.57	U	0.63	U
1,3,5-TRIMETHYLBENZENE	---	0.5	1.1		0.57	U	0.57	U	0.63	U
VINYL CHLORIDE	200	1.0	1.1	U	1.1	U	1.1	U	15	
O-XYLENE	1200**	0.5	0.71		1.1		0.57	U	0.63	U
M/P-XYLENE	1200**	1.0	1.1	U	1.1	U	1.1	U	1.4	

** = Total Xylene Action Limits
E = Exceeded linear calibration range
U = Reported or qualified as nondetect
MDLs are in wet weight

Table 3-2
AREA 3 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC1-GSSP4-004	SSC1-GSSP5-005	SSC1-GSSP6-006	SSC4-GSSP3-034
DATE COLLECTED:	NYSDEC ACTION LIMIT	AVER. BACK. CONC.*	11/24/93	11/24/93	12/01/93	12/16/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	---	17.9	8.7	4.5	16.0
CHROMIUM	10.0	26.3	12.3	13.8	11.7	21.2
LEAD	30.0	---	22.3	20.2	24.3	26.9
ZINC	20.0	61.7	98.5	70.7	67.5	149

--- = Not applicable
* = Average Background concentration plus two standard deviations

Table 4-1
AREA 4 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC1-GSSP7-007		SSC1-GSSP8-008		ST3-GS-079		ST3-GS-080		ST3-GS-081	
DATE SAMPLED:			12-15-93		12-15-93		12/15/93		12/15/93		12/15/93	
PARAMETER	NYSDEC ACTION LIMITS	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	0.55	U	0.56	U	0.56	U	0.56	U	0.55	U
n-BUTYLBENZENE	---	0.50	0.55	U	0.56	U	0.56	U	0.56	U	0.55	U
sec-BUTYLBENZENE	---	0.50	0.55	U	0.56	U	0.56	U	0.56	U	0.55	U
cis-1,2-DICHLOROETHENE	100	0.50	0.99		17		11		4.3		6.7	
trans-1,2-DICHLOROETHENE	300	0.50	0.55	U	0.56	U	0.81		0.56	U	0.55	U
ETHYLBENZENE	5500	0.50	0.58		0.56	U	0.56	U	0.56	U	0.55	U
ISOPROPYLBENZENE	3000	0.50	0.55	U	0.56	U	0.56	U	0.56	U	0.55	U
METHYLENE CHLORIDE	100	0.50	0.55	U	0.56	U	5.3	U	4.4	U	6.0	U
NAPHTHALENE	13000	1.0	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
n-PROPYLBENZENE	---	0.50	0.55	U	0.56	U	0.56	U	0.56	U	0.55	U
TETRACHLOROETHENE	1400	0.50	0.55	U	0.56	U	0.56	U	0.56	U	0.55	U
TOLUENE	1500	0.50	0.55	U	0.56	U	0.56	U	0.56	U	0.55	U
1,1,1-TRICHLOROETHANE	800	0.50	0.55	U	1.0		0.56	U	0.56	U	0.55	U
TRICHLOROETHENE	700	0.50	0.55	U	1.8		0.56	U	0.56	U	0.55	U
1,2,4-TRIMETHYLBENZENE	---	0.50	0.55	U	0.56	U	0.56	U	0.56	U	0.55	U
1,3,5-TRIMETHYLBENZENE	---	0.50	0.55	U	0.56	U	0.56	U	0.56	U	0.55	U
VINYL CHOLRIDE	200	1.0	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
O-XYLENE	1200**	0.50	0.55	U	0.56	U	0.56	U	0.56	U	0.55	U
M/P-XYLENE	1200**	1.0	1.1		1.1	U	1.1	U	1.1	U	1.1	U

** Action limits for total xylenes
--- Not applicable
J = Positive estimated result
UJ = Nondetected estimated result
U = Reported or qualified as nondetected
UR = Nondetected rejected result
MDLs are in wet weight

Table 4-1 (Cont)
AREA 4 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			ST3-GS-082		ST3-GS-083		SSC9-GSSP1-106		SSC9-GSSP2-107		SSC9-GSSP3-108	
DATE SAMPLED:			12/15/93		12/15/93		12-20-93		12-20-93		12-20-93	
PARAMETER	NYSDEC ACTION LIMITS	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	0.55	U	0.56	U	0.64	U	0.96	U	0.59	U
n-BUTYLBENZENE	---	0.50	0.55	U	0.56	U	0.76	UJ	20	J	4.5	UJ
sec-BUTYLBENZENE	---	0.50	0.55	U	0.56	U	0.64	U	0.56	U	0.59	U
cis-1,2-DICHLOROETHENE	100	0.50	22		1.3		2.2		0.76		0.91	
trans-1,2-DICHLOROETHENE	300	0.50	1.2		0.56	U	0.64	U	0.56	U	0.59	U
ETHYLBENZENE	5500	0.50	0.55	U	0.56	U	0.64	U	0.67		0.89	
ISOPROPYLBENZENE	3000	0.50	0.55	U	0.56	U	0.64	U	0.56	U	0.59	U
METHYLENE CHLORIDE	100	0.50	6.0	U	0.94	U	1.8	UJ	1.3	UJ	1.3	UJ
NAPHTHALENE	13000	1.0	1.1	U	1.1	U	1.3	UJ	1.1	UJ	1.2	UJ
n-PROPYLBENZENE	---	0.50	0.55	U	0.56	U	0.64	U	0.56	U	0.59	U
TETRACHLOROETHENE	1400	0.50	0.55	U	0.56	U	0.64	U	0.56	U	0.59	U
TOLUENE	1500	0.50	0.55	U	0.56	U	1.1		1.1		1.3	
1,1,1-TRICHLOROETHANE	800	0.50	0.55	U	0.56	U	0.64	U	0.56	U	0.59	U
TRICHLOROETHENE	700	0.50	0.55	U	0.56	U	0.64	U	0.69	U	1.0	U
1,2,4-TRIMETHYLBENZENE	---	0.50	0.55	U	0.56	U	0.64	U	0.84		1.8	
1,3,5-TRIMETHYLBENZENE	---	0.50	1.4		0.56	U	0.64	U	1.1		4.7	
VINYL CHLORIDE	200	1.0	1.1	U	1.1	U	1.3	U	1.1	U	1.2	U
O-XYLENE	1200**	0.50	0.55	U	0.56	U	0.64	U	1.1		1.6	
M/P-XYLENE	1200**	1.0	1.1	U	1.1	U	1.3	U	1.1		1.5	

** Action limits for total xylenes
--- = Not applicable
J = Positive estimated result
UJ = Nondetected estimated result
U = Reported or qualified as nondetected
UR = Nondetected rejected result
MDLs are in wet weight

Table 4-1 (Cont)
AREA 4 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC9-GSSP4-109		SSC9-GSSP5-110		SSC9-GSSP6-111		SSC9-GSSP7-112		SSC9-GSSP8-113	
DATE SAMPLED:			12-20-93		12-20-93		12-20-93		12-20-93		12-20-93	
PARAMETER	NYSDEC ACTION LIMITS	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	0.60	U	0.56	U	0.55	U	0.56	U	0.57	U
n-BUTYLBENZENE	---	0.50	1.6	UJ	7.1	UJ	3.1	UJ	130	J	5.0	UJ
sec-BUTYLBENZENE	---	0.50	0.60	U	0.56	U	0.55	U	31		0.57	U
cis-1,2-DICHLOROETHENE	100	0.50	0.60	U	0.63	J	1.0	J	0.56	U	0.57	U
trans-1,2-DICHLOROETHENE	300	0.50	0.60	U	0.56	U	0.55	U	0.56	U	0.57	U
ETHYLBENZENE	5500	0.50	0.60	U	0.56	U	0.55	U	21		0.57	U
ISOPROPYLBENZENE	3000	0.50	0.60	U	0.56	U	0.55	U	20		0.57	U
METHYLENE CHLORIDE	100	0.50	0.60	U	0.56	U	0.55	U	0.56	U	0.57	U
NAPHTHALENE	13000	1.0	1.2	U	1.1	U	1.1	U	130	J	1.1	U
n-PROPYLBENZENE	---	0.50	0.60	U	0.56	U	0.55	U	36		0.57	U
TETRACHLOROETHENE	1400	0.50	0.60	U	0.56	U	0.55	U	1.6		0.57	U
TOLUENE	1500	0.50	0.60	U	0.63		0.63		1.3		0.57	U
1,1,1-TRICHLOROETHANE	800	0.50	0.60	U	0.56	U	0.55	U	0.56	U	0.57	U
TRICHLOROETHENE	700	0.50	0.78	J	0.71	J	0.55	U	0.69	J	0.57	U
1,2,4-TRIMETHYLBENZENE	---	0.50	0.60	U	0.56	U	0.55	U	7.8		0.57	U
1,3,5-TRIMETHYLBENZENE	---	0.50	0.60	U	0.56	U	0.55	U	0.56	U	0.57	U
VINYL CHLORIDE	200	1.0	1.2	U	1.1	U	1.1	U	1.1	U	1.1	U
O-XYLENE	1200**	0.50	0.60	UJ	0.56	UJ	0.55	UJ	13	J	0.57	UJ
M/P-XYLENE	1200**	1.0	1.2	U	1.1	U	1.1	U	6.8		1.1	U

** Action limits for total xylenes
--- = Not applicable
J = Positive estimated result
UJ = Nondetected estimated result
U = Reported or qualified as nondetected
UR = Nondetected rejected result
MDLs are in wet weight

Table 4-1 (Cont)
AREA 4 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC9-GSSP9-114		SSC9-GSSP10-115		SSC9-GSSP11-116		SSC9-GSSP12-117		SSC9-GSSP12-D118	
DATE SAMPLED:			12-20-93		12-20-93		12-20-93		12-20-93		12-20-93	
PARAMETER	NYSDEC ACTION LIMITS	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	0.58	UR	0.56	U	2.6		0.59	U	0.72	
n-BUTYLBENZENE	---	0.50	1.6	UJ	0.63	UJ	0.63	UJ	9.2	UJ	62	J
sec-BUTYLBENZENE	---	0.50	0.58	UR	0.56	U	14		0.59	J	31	J
cis-1,2-DICHLOROETHENE	100	0.50	0.58	UR	0.56	U	1.1	J	0.59	U	0.58	U
trans-1,2-DICHLOROETHENE	300	0.50	0.58	UR	0.56	U	0.63	U	0.59	U	0.58	U
ETHYLBENZENE	5500	0.50	0.58	UR	0.56	U	26		4.0	J	21	J
ISOPROPYLBENZENE	3000	0.50	0.58	UR	0.56	U	12		1.9	J	21	J
METHYLENE CHLORIDE	100	0.50	0.58	UR	0.56	U	0.63	U	0.74	UJ	0.58	U
NAPHTHALENE	13000	1.0	1.2	UR	1.1	U	93	J	13	J	100	J
n-PROPYLBENZENE	---	0.50	0.58	UR	0.56	U	20		4.8	J	38	J
TETRACHLOROETHENE	1400	0.50	0.58	UR	0.56	U	0.63	U	0.59	U	0.58	U
TOLUENE	1500	0.50	0.58	UR	0.56	U	1.0		1.2		0.58	U
1,1,1-TRICHLOROETHANE	800	0.50	0.58	UR	0.64	UJ	0.86	UJ	0.66	UJ	0.84	J
TRICHLOROETHENE	700	0.50	0.58	UR	0.56	U	0.63	U	2.8	J	0.70	J
1,2,4-TRIMETHYLBENZENE	---	0.50	0.58	UR	0.56	U	2.5		1.1	J	7.2	J
1,3,5-TRIMETHYLBENZENE	---	0.50	0.58	UR	0.56	U	0.63	U	0.59	U	0.587	U
VINYL CHLORIDE	200	1.0	1.2	UR	1.1	U	1.3	U	1.2	U	1.2	U
O-XYLENE	1200**	0.50	0.58	UR	0.56	UJ	4.4	J	2.0	J	8.3	J
M/P-XYLENE	1200**	1.0	1.2	UR	1.1	U	2.8		2.2		2.6	

** Action limits for total xylenes
--- = Not applicable
J = Positive estimated result
UJ = Nondetected estimated result
U = Reported or qualified as nondetected
UR = Nondetected rejected result
MDLs are in wet weight

Table 4-2
AREA 4 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC1-GSSP7-007	SSC1-GSSP8-008	SSC3-GSSP1-054	SSC3-GSSP2-055	SSC3-GSSP3-056
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/02/93	12/02/93	12/15/93	12/15/93	12/15/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	--	5.4	3.4	3.6	3.4	3.2
CHROMIUM	10.0	26.3	11.8	10.9	18.9	20.8	18.5
LEAD	30.0	--	27.7	21.5	25.1	26.1	24.8
ZINC	20.0	61.7	104	78.9	35.9	42.6	32.8

FIELD SAMPLE ID:			SSC9-GSSP1-106	SSC9-GSSP2-107	SSC9-GSSP3-108	SSC9-GSSP4-109	SSC9-GSSP5-110
DATE SAMPLED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/20/93	12/20/93	12/20/93	12/20/93	12/20/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	--	2.9	3.5	34.0	13.5	2.9
CHROMIUM	10.0	26.3	25.2 J	10.2 J	9.8 J	13.1 J	14.2 J
LEAD	30.0	--	18.3 J	22.5 J	33.3 J	27.0 J	18.7 J
ZINC	20.0	61.7	67.0 J	44.8 J	84.3 J	88.6 J	49.1 J

-- Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

Table 4-2 (CONT.)
AREA 4 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC9-GSSP6-111		SSC9-GSSP8-112		SSC9-GSSP8-113		SSC9-GSSP9-114		SSC9-GSSP10-115	
DATE SAMPLED:	NYSDEC ACTION LIMITS mg/Kg	AVER. BACK. CONC.* mg/Kg	12/20/93 RESULT mg/Kg		12/20/93 RESULT mg/Kg		12/20/93 RESULT mg/Kg		12/20/93 RESULT mg/Kg		12/20/93 RESULT mg/Kg	
CADMIUM	1.0	--	4.5		3.8		4.2		3.2		6.9	
CHROMIUM	10.0	26.3	11.5	J	10.5	J	11.4	J	13.0	J	9.7	J
LEAD	30.0	--	22.1	J	19.5	J	24.4	J	21.2	J	25.2	J
ZINC	20.0	61.7	43.2	J	43.9	J	60.8	J	42.4	J	49.7	J

FIELD SAMPLE ID:			SSC9-GSSP11-116		SSC9-GSSP12-117		SC9-GSSP12D-118		SC10-GSSP5-131		SSC10-GSSP6-132	
DATE SAMPLED:	NYSDEC ACTION LIMITS mg/Kg	AVER. BACK. CONC.* mg/Kg	12/20/93 RESULT mg/Kg		12/20/93 RESULT mg/Kg		12/20/93 RESULT mg/Kg		12/21/93 RESULT mg/Kg		12/21/93 RESULT mg/Kg	
CADMIUM	1.0	--	11.9		3.9		5.5		7.9		6.8	
CHROMIUM	10.0	26.3	13.5	J	13.6	J	16.1	J	10.6		10.0	
LEAD	30.0	--	32.7	J	22.1	J	22.3	J	19.0		20.8	
ZINC	20.0	61.7	102	J	69.8	J	87.3	J	64.1		53.7	

— Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

Table 4-2 (CONT.)
AREA 4 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC10-GSSP7-133	SSC3-GSSP-134	SSC3-GSSP1-135D
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/21/93	12/21/93	12/21/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	—	50.6	3.5	3.7
CHROMIUM	10.0	26.3	10.9	11.6	10.0
LEAD	30.0	—	21.5	21.4	15.5
ZINC	20.0	61.7	137	49.8	39.2

— Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

TABLE 5-1
AREA 5 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC4-GSSP10-42		SSC4-GSSP11-043		SSC4-GSSP12-044		SSC4-GSSP13-045		SSC2-GSSP6-084	
DATE SAMPLED:			12-16-93		12-16-93		12-16-93		12-16-93		12-20-93	
	NYSDEC ACTION LIMITS	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
n-BUTYLBENZENE	---	0.50	0.54	U	0.60	U	0.56	U	0.57	U	5.1	UJ
cis-1,2-DICHLOROETHENE	100	0.50	0.54	U	0.60	U	1.1		3.2		24	
ETHYLBENZENE	5500	0.50	0.76		0.64		0.92		0.57	U	0.59	
METHYLENE CHLORIDE	100	0.50	0.69	U	0.75		0.62		0.89	U	0.57	U
TETRACHLOROETHENE	1400	0.50	0.54	U	0.60	U	0.56	U	0.57	U	0.57	U
TOLUENE	1500	0.50	0.54	U	0.7		0.77		0.57	U	0.69	U
TRICHLOROETHENE	700	0.50	0.54	U	0.60	U	2.6		0.57	U	17	
1,2,4-TRIMETHYLBENZEN	---	0.50	0.54	U	0.60	U	0.56	U	0.57	U	0.57	U
O-XYLENE	1200 **	0.50	0.54	U	0.60	U	0.56	U	0.57	U	0.57	U
M/P-XYLENE	1200 **	1.0	1.1	U	1.4		2.0		1.1	U	1.1	U

** = Action limits for total xylenes
-- Not applicable
J = Positive estimated result
UJ = Nondetected estimated result
U = Qualified as nondetected
MDLs are in wet weight

TABLE 5-1 (Cont)
AREA 5 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC4-GSSP14-138		SSC4-GSSP14-139D	
DATE SAMPLED:			12-21-93		12-21-93	
	NYSDEC ACTION LIMITS	MDL ug/Kg				
n-BUTYLBENZENE	---	0.50	9.0	U	9.4	U
cis-1,2-DICHLOROETHENE	100	0.50	5.9		4.7	
ETHYLBENZENE	5500	0.50	2.2		0.66	
METHYLENE CHLORIDE	100	0.50	1.3	U	1.1	U
TETRACHLOROETHENE	1400	0.50	2.0		0.58	
TOLUENE	1500	0.50	1.1		0.56	
TRICHLOROETHENE	700	0.50	4.1	U	2.2	U
1,2,4-TRIMETHYLBENZENE	---	0.50	0.57	U	0.56	U
O-XYLENE	1200 **	0.50	0.84		0.56	U
M/P-XYLENE	1200 **	1.0	3.8		1.1	

** = Action limits for total xylenes
— Not applicable
J = Positive estimated result
UJ = Nondetected estimated result
U = Qualified as nondetected
MDLs are in wet weight

Table 5-2
AREA 5 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC4-GSSP10-042	SSC4-GSSP11-043	SSC4-GSSP12-044	SSC4GSSP13-045	SSC4-GSSP14-046
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/16/93	12/16/93	12/16/93	12/16/93	12/16/93
MDL PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	—	21.2	13.5	8.4	6.0	4.4
CHROMIUM	10.0	26.3	9.1	18.4	15.5	15.7	16.3
LEAD	30.0	—	22.5	15.8	24.0	22.0	19.0
ZINC	20.0	61.7	99.1	91.9	69.5	55.0	54.9

FIELD SAMPLE ID:			SSC7-GSSP2-062	SSC7-GSSP3-063	SSC7-GSSP4-064	SSC7-GSSP5-065	SSC2-GSSP6-084	
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/15/93	12/15/93	12/15/93	12/15/93	12/20/93	
MDL PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	
CADMIUM	1.0	—	3.8	5.9	4.5	4.3	6.1	
CHROMIUM	10.0	26.3	22.5	24.8	23.9	28.5	18.2	J
LEAD	30.0	—	22.1	36.6	24.4	26.7	41.8	J
ZINC	20.0	61.7	42.9	35.6	58.3	45.1	104	J

— Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

Table 5-2 (Cont)
AREA 5 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

PARAMETER	NYSDEC ACTION LIMITS mg/Kg	AVER. BACK. CONC.* mg/Kg	SSC8-GSSP8-119 12/21/93 RESULT mg/Kg	SSC8-GSSP9-120 12/21/93 RESULT mg/Kg	SSC8-GSSP10-121 12/21/93 RESULT mg/Kg	SSC8-GSSP11-122 12/21/93 RESULT mg/Kg	SSC10-GSSP1-127 12/21/93 RESULT mg/Kg
CADMIUM	1.0	—	2.6	8.6	2.6	2.9	12.5
CHROMIUM	10.0	26.3	17.5	14.4	18.2	20.8	13.5
LEAD	30.0	—	7.8	19.1	7.3	7.7	15.7
ZINC	20.0	61.7	50.9	56.9	52.6	55.0	75.2

FIELD SAMPLE ID: / DATE COLLECTED: / MDL PARAMETER	NYSDEC ACTION LIMITS mg/Kg	AVER. BACK. CONC.* mg/Kg	SSC10-GSSP2-128 12/21/93 RESULT mg/Kg	SSC10-GSSP3-129 12/21/93 RESULT mg/Kg	SSC4-GSSP14-138 12/21/93 RESULT mg/Kg	SC4-GSSP14-139D 12/21/93 RESULT mg/Kg
CADMIUM	1.0	—	10.1	3.8	5.6	5.9
CHROMIUM	10.0	26.3	32.2	13.3	11.9	12.3
LEAD	30.0	—	15.0	12.1	19.4	17.1
ZINC	20.0	61.7	70.4	46.4	45.6	71.7

— Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

Table 6-1
AREA 6 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC1-GSSP10-010		SSC1-GSSP11-011		SSC1-GSSP12-012		SSC2-GSSP1-013		SSC2-GSSP2-014	
DATE SAMPLED:			12-04-93		12-04-93		12-04-93		12-04-93		12-04-93	
	NYSDEC ACTION LIMIT ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	0.76		0.67		180		170		5.5	
n-BUTYLBENZENE	---	0.50	11		3.2		61	U	56	U	28	
sec-BUTYLBENZENE	---	0.50	0.57	U	0.56	U	360		420		8.0	
CHLOROFORM	1900	0.50	0.57	U	0.56	U	0.61	U	0.56	U	0.66	U
1,2-DICHLOROETHANE	100	0.50	0.57	U	0.56	U	0.61	U	0.56	U	0.66	U
cis-1,2-DICHLOROETHENE	100	0.50	0.57	U	0.56	U	0.61	U	0.56	U	0.66	U
ETHYLBENZENE	5500	0.50	1.9		4.2		1600		1000		13	
ISOPROPYLBENZENE	3000	0.50	0.57	U	0.56	U	430		590		6.6	
4-ISOPROPYLTOLUENE	---	0.540	0.57	U	0.56	U	61	U	220		0.66	U
METHYLENE CHLORIDE	100	0.50	0.57	U	0.56	U	0.61	U	0.56	U	0.66	U
NAPHTHALENE	13000	1.0	2.9		1.6		2400		2900		39	
n-PROPYLBENZENE	---	0.50	0.57	U	1.2		860		870		7.7	
TOLUENE	1500	0.50	1.1		1.4		1800		230		2.1	
TRICHLOROETHENE	700	0.50	0.57	U	0.56	U	0.61	U	0.56	U	0.66	U
1,2,4-TRIMETHYLBENZENE	---	0.50	18		11		5900		5200		16	
1,3,5-TRIMETHYLBENZENE	---	0.50	9.1		3.2		2200		1300		6.8	
O-XYLENE	1200**	0.50	1.5		4.0		3900		310		0.66	U
M/P-XYLENE	1200**	1.0	4.7		9.7		8800		1200		12	

** = Total xylenes action levels
— Not applicable
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 6-1 (Cont)
AREA 6 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SS-GS-015		SS-GS-016		SSC2-GSSP5-017	
DATE SAMPLED:			12-04-93		12-04-93		12-10-93	
	NYSDEC ACTION LIMIT ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	8.0		3.6		8.9	
n-BUTYLBENZENE	---	0.50	34		0.56	U	2.9	U
sec-BUTYLBENZENE	---	0.50	8.1		0.56	U	25	
CHLOROFORM	1900	0.50	0.50	U	0.56	U	1.3	
1,2-DICHLOROETHANE	100	0.50	0.50	U	5.8		2.9	U
cis-1,2-DICHLOROETHENE	100	0.50	0.50	U	0.58		2.9	U
ETHYLBENZENE	5500	0.50	9.6		0.56	U	45	
ISOPROPYLBENZENE	3000	0.50	7.7		0.56	U	18	
4-ISOPROPYLTOLUENE	---	0.540	0.50	U	0.56	U	16	
METHYLENE CHLORIDE	100	0.50	0.50	U	0.56	U	57	
NAPTHALENE	13000	1.0	36		1.1	U	200	
n-PROPYLBENZENE	---	0.50	7.6		0.56	U	32	
TOLUENE	1500	0.50	0.50	U	3.1		11	
TRICHLOROETHENE	700	0.50	0.50	U	0.56	U	4.2	
1,2,4-TRIMETHYLBENZENE	---	0.50	15		0.56	U	380	
1,3,5-TRIMETHYLBENZENE	---	0.50	8.7		0.56	U	280	
O-XYLENE	1200**	0.50	0.50	U	0.56	U	21	
M/P-XYLENE	1200**	1.0	9.7		1.1	U	260	

** = Total xylenes action levels
-- Not applicable
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 6-2
AREA 6 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC1-GSSP10-010	SSC1-GSSP11-011	SSC1-GSSP12-012	SSC2-GSSP1-013	SSC2-GSSP2-014
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/04/93	12/04/93	12/04/93	12/04/93	12/04/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	--	5.5	0.74 U	0.80 U	0.73 U	10.3
CHROMIUM	10.0	26.3	7.7	9.1	6.4	6.1	13.3
LEAD	30.0	--	10.9	10.9	13.1	11.2	27.2
ZINC	20.0	61.7	35.8	35.4	50.3	52.0	67.7

FIELD SAMPLE ID:			SS-GS-016	SSC2-GSSPS-017	SSC3-GSSP8-047	SSC3-GSSP9-048	SSC3-GSSP10-049
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/04/93	12/10/93	12/15/93	12/15/93	12/15/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	--	0.74 U	3.8	3.6	3.5	3.4
CHROMIUM	10.0	26.3	11.1	20.6	20.2	19.2	20.0
LEAD	30.0	--	11.5	36.5	21.7	23.6	18.6
ZINC	20.0	61.7	39.6	90.1	36.9	40.5	41.4

-- Not applicable
* = Average background concentration plus two standard deviations
U = Reported or qualified as nondetected

Table 6-2 (Cont)
AREA 6 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC3-GSSP11-050	SSC3-GSSP12-051	SSC3-GSSP13-052	SSC3-GSSP14-053	SSC3-GSSP4-057
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/15/93	12/15/93	12/15/93	12/15/93	12/15/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	—	3.4	3.3	4.3	4.1	3.4
CHROMIUM	10.0	26.3	18.9	18.8	19.3	19.9	18.4
LEAD	30.0	—	22.3	23.4	24.2	30.4	21.3
ZINC	20.0	61.7	42.8	36.5	38.3	32.6	31.8

FIELD SAMPLE ID:			SSC3-GSSP5-058	SSC3-GSSP6-059	SSC3-GSSP9-060	SSC10-GSSP10-152	SC10-GSSP11-153
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/15/93	12/15/93	12/15/93	01/20/94	01/20/94
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	—	3.7	3.1	2.4	6.2	5.9
CHROMIUM	10.0	26.3	19.6	19.0	26.8	9.0	12.1
LEAD	30.0	—	25.8	19.2	12.0	26.8	23.2
ZINC	20.0	61.7	33.7	41.6	62.8	38	68.9

— Not applicable
* = Average background concentration plus two standard deviations
U = Reported or qualified as nondetected

Table 6-2 (Cont)
AREA 6 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC10-GSSP12-154	SSC10-GSSP13-155	SC10-GSSP14-156	SC10-GSSP15-157
DATE COLLECTED:			01/20/94	01/20/94	01/20/94	01/20/94
PARAMETER	NYSDEC ACTION LIMITS mg/Kg	AVER. BACK. CONC.* mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	---	4.0	2.9	3.0	3.0
CHROMIUM	10.0	26.3	9.6	9.3	9.0	9.3
LEAD	30.0	---	25.8	23.9	24.3	24.0
ZINC	20.0	61.7	41.8	32.2	31.8	31.6

--- Not applicable
* = Average background concentration plus two standard deviations
U = Reported or qualified as nondetected

Table 7-1
AREA 7 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC5-GSSP3-020		SSC6-GSSP1-024		SSC6-GSSP2-025	
DATE SAMPLED:			12-10-93		12-16-93		12-16-93	
	NYSDEC ACTION LIMIT ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.5	59	U	0.57	U	0.62	U
n-BUTYLBENZENE	—	0.5	59	U	0.57	U	78	E
sec-BUTYLBENZENE	—	0.5	59	U	0.57	U	26	
tert-BUTYLBENZENE	—	0.5	59	U	0.57	U	0.62	U
CHLOROFORM	30	0.5	59	U	0.57	U	0.62	U
1,1-DICHLOROETHANE	200	0.5	59	U	0.69		0.62	U
1,2-DICHLOROETHANE	100	0.5	59	U	0.57	U	0.62	U
1,1-DICHLOROETHENE	400	0.5	59	U	0.57	U	0.62	U
cis-1,2-DICHLOROETHENE	100	0.5	1300		3.2		2.3	
trans-1,2-DICHLOROETHENE	300	0.5	59	U	0.57	U	0.62	U
1,3-DICHLOROPROPANE	300	0.5	59	U	0.57	U	0.62	U
ETHYLBENZENE	5500	0.5	59	U	0.83		14	
ISOPROPYLBENZENE	3000	0.5	59	U	0.57	U	15	
4-ISOPROPYLTOLUENE	—	0.5	59	U	0.57	U	0.62	U
METHYLENE CHLORIDE	100	0.5	59	U	0.93	U	1.9	U
NAPHTHALENE	13000	1.0	120	U	2.2		20	
n-PROPYLBENZENE	—	0.5	59	U	0.57	U	36	
TETRACHLOROETHENE	1400	0.5	59	U	0.74		0.64	
TOLUENE	1500	0.5	59	U	0.57	U	0.62	U
1,2,4-TRICHLOROBENZENE	—	1.0	120	U	1.1	U	1.2	U
1,1,1-TRICHLOROETHANE	800	0.5	59	U	0.57	U	0.57	U
TRICHLOROETHENE	700	0.5	12000		1.8		25	
TRICHLOROFLUOROMETHA	20000	0.5	120	U	1.1	U	1.2	U
1,2,4-TRIMETHYLBENZENE	—	0.5	59	U	0.57	U	17	
1,3,5-TRIMETHYLBENZENE	—	0.5	59	U	0.57	U	22	
VINYL CHLORIDE	200	1.0	120	U	1.1	U	1.2	U
O-XYLENE	1200**	0.5	59	U	0.57	U	21	
M/P-XYLENE	1200**	1.0	120	U	1.7		3.1	

** TOTAL XYLENE ACTION LIMITS
— Not applicable
E = Exceeded linear calibrtaion range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 7-1 (Cont)
AREA 7 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC6-GSSP3-026		SSC6-GSSP3-027		SSC6-GSSP5-028	
DATE SAMPLED:			12-16-93		12-16-93		12-16-93	
	NYSDEC ACTION LIMIT ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.5	1.2		0.7		1.3	
n-BUTYLBENZENE	—	0.5	53		52		0.6	U
sec-BUTYLBENZENE	—	0.5	14		16		0.6	U
tert-BUTYLBENZENE	—	0.5	0.6	U	0.58	U	0.6	U
CHLOROFORM	300	0.5	0.77		0.66		1.0	
1,1-DICHLOROETHANE	200	0.5	0.6	U	0.58	U	0.6	U
1,2-DICHLOROETHANE	100	0.5	0.6	U	0.58	U	0.6	U
1,1-DICHLOROETHENE	400	0.5	0.6	U	0.58	U	0.6	U
cis-1,2-DICHLOROETHENE	100	0.5	16		9.7		7.5	
trans-1,2-DICHLOROETHENE	300	0.5	0.6	U	0.58	U	0.6	U
1,3-DICHLOROPROPANE	300	0.5	0.6	U	0.58	U	0.6	U
ETHYLBENZENE	5500	0.5	6.7		6.2		1.9	
ISOPROPYLBENZENE	3000	0.5	7.5		7.1		0.6	U
4-ISOPROPYLTOLUENE	—	0.5	7.7		8.8		0.6	U
METHYLENE CHLORIDE	100	0.5	3.6	U	3.3	U	8.3	U
NAPHTHALENE	13000	1.0	7.7		12		1.2	U
n-PROPYLBENZENE	—	0.5	19		19		1.4	
TETRACHLOROETHENE	1400	0.5	8.3		74	E	27	
TOLUENE	1500	0.5	0.86		0.72		1.5	
1,2,4-TRICHLOROBENZENE	—	1.0	1.2	U	1.2	U	1.2	U
1,1,1-TRICHLOROETHANE	800	0.5	0.6	U	0.58	U	1.4	
TRICHLOROETHENE	700	0.5	120	E	110	E	130	E
TRICHLOROFLUOROMETHA	20000	0.5	1.2	U	1.2	U	1.2	U
1,2,4-TRIMETHYLBENZENE	—	0.5	28		31		1.1	
1,3,5-TRIMETHYLBENZENE	—	0.5	35		30		1.5	
VINYL CHLORIDE	200	1.0	1.2	U	1.2	U	1.2	U
O-XYLENE	1200**	0.5	11		10		1.3	
M/P-XYLENE	1200**	1.0	2.3		1.9		2.7	

** TOTAL XYLENE ACTION LIMITS
— Not applicable
E = Exceeded linear calibrtaion range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 7-1 (Cont)
AREA 7 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC6-GSSP6-029		SSC6-GSSP7-030		SSC6-GSSP8-031	
DATE SAMPLED:			12-16-93		12-16-93		12-16-93	
	NYSDEC ACTION LIMIT ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.5	1.3		1.1		1.4	
n-BUTYLBENZENE	—	0.5	0.61	U	10		0.62	U
sec-BUTYLBENZENE	—	0.5	0.61	U	0.63	U	0.62	U
tert-BUTYLBENZENE	—	0.5	0.61	U	0.63	U	0.62	U
CHLOROFORM	300	0.5	0.90		2.0		0.62	U
1,1-DICHLOROETHANE	200	0.5	0.61	U	0.63	U	0.62	U
1,2-DICHLOROETHANE	100	0.5	0.61	U	5.0		6.3	
1,1-DICHLOROETHENE	400	0.5	0.61	U	1.3		0.70	
cis-1,2-DICHLOROETHENE	100	0.5	9.6		280	E	350	E
trans-1,2-DICHLOROETHENE	300	0.5	0.61	U	5.1		6.7	
1,3-DICHLOROPROPANE	300	0.5	0.61	U	0.63	U	0.62	U
ETHYLBENZENE	5500	0.5	2.0		2.3		2.3	
ISOPROPYLBENZENE	3000	0.5	0.61	U	0.63	U	0.62	U
4-ISOPROPYLTOLUENE	—	0.5	0.61	U	0.63	U	0.62	U
METHYLENE CHLORIDE	100	0.5	5.2		2.5		2.3	
NAPHTHALENE	13000	1.0	4.3		1.3	U	2.0	
n-PROPYLBENZENE	—	0.5	1.0		3.9		3.3	
TETRACHLOROETHENE	1400	0.5	9.1		1.4		0.60	
TOLUENE	1500	0.5	1.7		1.6		1.7	
1,2,4-TRICHLOROBENZENE	—	1.0	1.2	U	1.3	U	1.2	U
1,1,1-TRICHLOROETHANE	800	0.5	0.61	U	1.5		1.6	
TRICHLOROETHENE	700	0.5	70	E	550	E	410	E
TRICHLOROFLUOROMETHA	20000	0.5	1.2	U	3.6		2.6	
1,2,4-TRIMETHYLBENZENE	—	0.5	1.0		0.63	U	3.3	
1,3,5-TRIMETHYLBENZENE	—	0.5	0.79		0.63	U	0.60	U
VINYL CHLORIDE	200	1.0	1.2	U	54		85	E
O-XYLENE	1200**	0.5	1.3		3.0		3.8	
M/P-XYLENE	1200**	1.0	3.4		1.6		2.6	

** TOTAL XYLENE ACTION LIMITS
— Not applicable
E = Exceeded linear calibrtaion range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 7-1 (Cont)
AREA 7 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC4-GSSP4-035		SSC4-GSSP5-036		SSC4-GSSP7-039	
DATE SAMPLED:			12-16-93		12-16-93		12-16-93	
	NYSDEC ACTION LIMIT ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.5	0.78		1.1		0.94	
n-BUTYLBENZENE	—	0.5	8.1		7.9		93	E
sec-BUTYLBENZENE	—	0.5	0.63	U	0.61	U	0.58	U
tert-BUTYLBENZENE	—	0.5	0.63	U	0.61	U	35	U
CHLOROFORM	300	0.5	1.3		1.3		0.85	
1,1-DICHLOROETHANE	200	0.5	0.63	U	0.61	U	0.58	U
1,2-DICHLOROETHANE	100	0.5	0.63	U	0.61	U	0.58	U
1,1-DICHLOROETHENE	400	0.5	0.63	U	0.61	U	0.58	U
cis-1,2-DICHLOROETHENE	100	0.5	200	E	150	E	66	E
trans-1,2-DICHLOROETHENE	300	0.5	2.2		3.2		2.1	
1,3-DICHLOROPROPANE	300	0.5	0.63	U	0.61	U	0.58	U
ETHYLBENZENE	5500	0.5	1.9		1.8		17	
ISOPROPYLBENZENE	3000	0.5	0.63	U	0.61	U	0.58	U
4-ISOPROPYLTOLUENE	—	0.5	0.63	U	0.61	U	0.58	U
METHYLENE CHLORIDE	100	0.5	1.6	U	3.0	U	1.9	U
NAPHTHALENE	13000	1.0	4.6		1.5		15	
n-PROPYLBENZENE	—	0.5	2.9		2.0		51	
TETRACHLOROETHENE	1400	0.5	0.63	U	0.61	U	0.58	U
TOLUENE	1500	0.5	1.6		1.1		1.2	
1,2,4-TRICHLOROBENZENE	—	1.0	1.3	U	1.2	U	1.2	U
1,1,1-TRICHLOROETHANE	800	0.5	0.63	U	0.61	U	0.58	U
TRICHLOROETHENE	700	0.5	120	E	230	E	120	E
TRICHLOROFLUOROMETHA	20000	0.5	1.3	U	1.2	U	1.2	U
1,2,4-TRIMETHYLBENZENE	—	0.5	0.91		0.61	U	0.58	U
1,3,5-TRIMETHYLBENZENE	—	0.5	0.63	U	0.84		0.58	U
VINYL CHLORIDE	200	1.0	13		3.5		13	
O-XYLENE	1200**	0.5	3.2		0.61	U	38	
M/P-XYLENE	1200**	1.0	1.6		2.2		1.2	U

** TOTAL XYLENE ACTION LIMITS
— Not applicable
E = Exceeded linear calibrtaion range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 7-1 (Cont)
AREA 7 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC4-GSSP9-041	
DATE SAMPLED:			12-16-93	
	NYSDEC ACTION LIMIT ug/Kg	MDL ug/Kg	RESULT ug/Kg	
BENZENE	60	0.5	0.6	U
n-BUTYLBENZENE	---	0.5	63	E
sec-BUTYLBENZENE	---	0.5	20	
tert-BUTYLBENZENE	---	0.5	0.6	U
CHLOROFORM	300	0.5	1.2	
1,1-DICHLOROETHANE	200	0.5	0.96	
1,2-DICHLOROETHANE	100	0.5	0.6	U
1,1-DICHLOROETHENE	400	0.5	1.1	
cis-1,2-DICHLOROETHENE	100	0.5	100	
trans-1,2-DICHLOROETHENE	300	0.5	3.0	
1,3-DICHLOROPROPANE	300	0.5	0.6	U
ETHYLBENZENE	5500	0.5	11	
ISOPROPYLBENZENE	3000	0.5	11	
4-ISOPROPYLTOLUENE	---	0.5	11	
METHYLENE CHLORIDE	100	0.5	1.7	U
NAPHTHALENE	13000	1.0	11	
n-PROPYLBENZENE	---	0.5	29	
TETRACHLOROETHENE	1400	0.5	0.6	U
TOLUENE	1500	0.5	2.1	
1,2,4-TRICHLOROBENZENE	---	1.0	1.2	U
1,1,1-TRICHLOROETHANE	800	0.5	1.4	
TRICHLOROETHENE	700	0.5	100	E
TRICHLOROFLUOROMETHA	20000	0.5	1.2	U
1,2,4-TRIMETHYLBENZENE	---	0.5	31	
1,3,5-TRIMETHYLBENZENE	---	0.5	35	
VINYL CHLORIDE	200	1.0	67	E
O-XYLENE	1200**	0.5	23	
M/P-XYLENE	1200**	1.0	4.0	

** TOTAL XYLENE ACTION LIMITS
— Not applicable
E = Exceeded linear calibrtaion range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 7-2
AREA 7 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC5-GSSP3-020	SSC6-GSSP1-024	SSC6-GSSP2-025	SSC6GSSP3-026	SSC6-GSSP4-027
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/10/93	12/16/93	12/16/93	12/16/93	12/16/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	—	5.8	4.6	2.9	5.8	4.0
CHROMIUM	10.0	26.3	24.9	14.8	23.9	23.4	18.9
LEAD	30.0	—	108	20.4	21.2	100	82.4
ZINC	20.0	61.7	108	57.4	134	444	528

FIELD SAMPLE ID:			SSC6-GSSP5-028	SSC6-GSSP6-029	SSC6-GSSP7-030	SSC6-GSSP8-031	SSC4-GSSP4-035
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/16/93	12/16/93	12/16/93	12/16/93	12/16/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	—	8.9	6.4	6.7	9.0	3.7
CHROMIUM	10.0	26.3	40.8	29.7	23.5	19.0	34.5
LEAD	30.0	—	314	155	28.4	58.2	18.9
ZINC	20.0	61.7	2100	699	83.9	111	90.3

— Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

Table 7-2 (Cont)
AREA 7 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC4-GSSP5-036		SSC4-GSSP6-037		SSC4-GSSP7-039		SSC4-GSSP8-040		SSC4-GSSP9-041	
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/16/93		12/16/93		12/16/93		12/16/93		12/16/93	
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg	
CADMIUM	1.0	--	3.5		4.3		3.4		2.4		4.6	
CHROMIUM	10.0	26.3	30.3		20.5		19.8		20.8		22.9	
LEAD	30.0	--	18.0		37.9		18.8		14.2		47.2	
ZINC	20.0	61.7	94.1		149		67.5		71.1		79.1	

FIELD SAMPLE ID:			SSC7-GSSP1-061		SSC5-GSSP4-085		SSC5-GSSP5-086		SSC5-GSSP6-087		SSC5-GSSP7-088	
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/15/93		12/20/93		12/20/93		12/20/93		12/20/93	
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg	
CADMIUM	1.0	--	3.7		3.5		3.4		5.2		6.6	
CHROMIUM	10.0	26.3	22.5		8.8	J	16.9	J	33.8	J	47.7	J
LEAD	30.0	--	20.8		24.1	J	61.3	J	77.5	J	152	J
ZINC	20.0	61.7	44.9		41.9	J	58.4	J	167	J	239	J

-- Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

Table 7-2 (Cont)
AREA 7 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC5-GSSP8-089		SSC5-GSSP9-090		SSC5-GSSP11-092		SSC5-GSSP12-093		SSC5-GSSP13-094	
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/20/93		12/20/93		12/20/93		12/20/93		12/20/93	
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg	
CADMIUM	1.0	—	3.8		3.9		2.8		4.8		2.5	
CHROMIUM	10.0	26.3	18.2	J	20.8	J	25.7	J	25.0	J	14.2	J
LEAD	30.0	—	32.5	J	25.9	J	14.9	J	15.3	J	21.3	J
ZINC	20.0	61.7	64.7	J	65.8	J	66.3	J	69.9	J	49.7	J

FIELD SAMPLE ID:			SSC5-GSSP14-095	
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/20/93	
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	
CADMIUM	1.0	—	2.9	
CHROMIUM	10.0	26.3	22.3	J
LEAD	30.0	—	17.5	J
ZINC	20.0	61.7	63.2	J

— Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

Table 8-1
AREA 8 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC5-GSSP1-018		SSC5-GSSP2-019		U15-GST9-021	
DATE SAMPLED:			12-10-93		12-10-93		12-10-93	
	NYSDEC ACTION LIMITS ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULTS ug/Kg	
BENZENE	60	0.50	0.57	U	55	U	47	
n-BUTYLBENZENE	—	0.50	0.57	U	55	U	2.8	U
sec-BUTYLBENZENE	—	0.50	0.57	U	55	U	8.9	
tert-BUTYLBENZENE	—	0.50	0.57	U	55	U	2.8	U
CHLOROETHANE	1900	0.50	0.57	U	110	U	5.6	U
CHLOROFORM	300	0.50	1.60		55	U	2.8	U
cis-1,2-DICHLOROETHENE	100	0.50	39		260		60	
trans-1,2-DICHLOROETHENE	300	0.50	2.5		55	U	2.8	U
DICHLORODIFLUOROMETH	—	0.50	0.57	U	55	U	5.6	U
1,2-DICHLOROBENZENE	7900	0.50	0.57	U	55	U	2.8	U
1,3-DICHLOROBENZENE	1550	0.50	0.57	U	55	U	2.8	U
1,4-DICHLOROBENZENE	8500	0.50	0.57	U	55	U	2.8	U
1,2-DICHLOROETHANE	—	0.50	11		55	U	8.3	
1,2-DICHLOROPROPANE	—	0.50	0.57	U	55	U	2.8	U
ETHYLBENZENE	5500	0.50	0.57	U	55	U	150	
ISOPROPYLBENZENE	3000	0.50	0.57	U	55	U	36	
4-ISOPROPYLTOLUENE	—	0.50	0.57	U	55	U	15	
METHYLENE CHLORIDE	100	0.50	1.9		55	U	5.3	
NAPHTHALENE	13000	1.0	1.1	U	110	U	5.6	U
n-PROPYLBENZENE	—	0.50	0.57	U	55	U	45	
TETRACHLOROETHENE	1400	0.50	0.57	U	55	U	2.8	U
TOLUENE	1500	0.50	0.57	U	55	U	120	
TRICHLOROETHENE	700	0.50	87		4800		120	
1,2,4-TRIMETHYLBENZENE	—	0.50	0.57	U	55	U	350	
1,3,5-TRIMETHYLBENZENE	—	0.50	0.57	U	55	U	210	
VINYL CHLORIDE	200	1.0	4.4	U	110	U	5.6	U
O-XYLENE	1200**	0.50	0.57	U	55	U	250	
M/P-XYLENE	1200**	1.0	1.1	U	110	U	530	

** Total xylene action limits
— Not applicable
B = Detected in laboratory blank
E = Exceeded linear range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 8-1 (Cont)
AREA 8 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC4-GSSP2-033		SSC4-GSSP1-136		SSC4-GSSP1-137D	
DATE SAMPLED:			12-16-93		12-21-93		12-21-93	
	NYSDEC ACTION LIMITS ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	0.77		0.63	U	0.57	U
n-BUTYLBENZENE	---	0.50	13		6.6	U	11	U
sec-BUTYLBENZENE	---	0.50	0.56	U	0.63	U	0.57	U
tert-BUTYLBENZENE	---	0.50	0.56	U	0.63	U	0.57	U
CHLOROETHANE	1900	0.50	0.56	U	1.3	U	1.1	U
CHLOROFORM	300	0.50	3.0		0.63	U	0.63	
cis-1,2-DICHLOROETHENE	100	0.50	90	E	26		26	
trans-1,2-DICHLOROETHENE	300	0.50	7.7		1.4		1.1	
DICHLORODIFLUOROMETH	—	0.50	1.1	U	1.3	U	1.1	U
1,2-DICHLOROBENZENE	7900	0.50	0.56	U	0.63	U	0.57	U
1,3-DICHLOROBENZENE	1550	0.50	0.56	U	0.63	U	0.57	U
1,4-DICHLOROBENZENE	8500	0.50	0.56	U	0.63	U	0.57	U
1,2-DICHLOROETHANE	---	0.50	7.6		5.1		4.4	
1,2-DICHLOROPROPANE	—	0.50	0.56		0.63	U	0.57	U
ETHYLBENZENE	5500	0.50	0.56	U	2.6		3.4	
ISOPROPYLBENZENE	3000	0.50	0.56	U	0.63	U	0.57	U
4-ISOPROPYLTOLUENE	---	0.50	0.56	U	0.63	U	0.57	U
METHYLENE CHLORIDE	100	0.50	5.3	U	2.3	U	4.0	U
NAPHTHALENE	13000	1.0	1.1	U	1.3	U	1.1	U
n-PROPYLBENZENE	—	0.50	0.56	U	1.1		1.0	
TETRACHLOROETHENE	1400	0.50	1.3		2.4		4.7	
TOLUENE	1500	0.50	0.56	U	1.6		2.0	
TRICHLOROETHENE	700	0.50	490	E	73	E	60	E
1,2,4-TRIMETHYLBENZENE	—	0.50	0.56	U	1.9		1.0	
1,3,5-TRIMETHYLBENZENE	—	0.50	0.56	U	0.63	U	0.57	U
VINYL CHLORIDE	200	1.0	13		1.3	U	1.1	U
O-XYLENE	1200**	0.50	0.56	U	1.2		1.6	
M/P-XYLENE	1200**	1.0	0.31		4.3		5.1	

** Total xylene action limits
— Not applicable
B = Detected in laboratory blank
E = Exceeded linear range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 8-1 (Cont)
AREA 8 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			WS-TB-145		SSC6-GSSP15-146		WS-BB—147	
DATE SAMPLED:			12-21-93		12-21-93		12-21-93	
	NYSDEC ACTION LIMITS ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESUL ug/Kg	
BENZENE	60	0.50	0.50	U	1800	E	0.50	U
n-BUTYLBENZENE	—	0.50	1.2	B	0.59	U	4.6	B
sec-BUTYLBENZENE	—	0.50	0.50	U	47		0.50	U
tert-BUTYLBENZENE	—	0.50	0.50	U	0.59	U	0.50	U
CHLOROETHANE	1900	1.0	1.0	U	1.2	U	1.0	U
CHLOROFORM	300	0.50	0.50	U	0.84		0.50	U
cis-1,2-DICHLOROETHENE	100	0.50	0.50	U	280	E	0.50	U
trans-1,2-DICHLOROETHENE	300	0.50	0.50	U	0.59	U	0.50	U
DICHLORODIFLUOROMETH	—	0.50	1.0	U	1.4		1.0	U
1,2-DICHLOROBENZENE	7900	0.50	0.50	U	0.59	U	0.50	U
1,3-DICHLOROBENZENE	1550	0.50	0.50	U	0.59	U	0.50	U
1,4-DICHLOROBENZENE	8500	0.50	0.50	U	0.59	U	0.50	U
1,2-DICHLOROETHANE	—	0.50	0.50	U	24		0.50	U
1,2-DICHLOROPROPANE	—	0.50	0.50	U	14		0.50	U
ETHYLBENZENE	5500	0.50	0.50	U	0.59	U	0.50	U
ISOPROPYLBENZENE	3000	0.50	0.50	U	1100	E	0.50	U
4-ISOPROPYLTOLUENE	—	0.50	0.50	U	38		0.50	U
METHYLENE CHLORIDE	100	0.50	0.67	B	1.2	U	0.50	U
NAPHTHALENE	13000	1.0	1.0	U	29		1.0	U
n-PROPYLBENZENE	—	0.50	0.50	U	1300	E	0.50	U
TETRACHLOROETHENE	1400	0.50	0.50	U	1.0		0.50	U
TOLUENE	1500	0.50	0.50	U	0.59	U	0.50	U
TRICHLOROETHENE	700	0.50	0.50	U	670	E	0.92	
1,2,4-TRIMETHYLBENZENE	—	0.50	0.50	U	0.59	U	0.50	U
1,3,5-TRIMETHYLBENZENE	—	0.50	0.50	U	0.59	U	0.50	U
VINYL CHLORIDE	200	1.0	1.0	U	4.9		1.0	U
O-XYLENE	1200**	0.50	0.50	U	0.59	U	0.50	U
M/P-XYLENE	1200**	1.0	1.0	U	1.2	U	1.0	U

** Total xylene action limits
— Not applicable
B = Detected in laboratory blank
E = Exceeded linear range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 8-1 (Cont)
AREA 8 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC11-GSSP1-147		SSC11-GSSP2-148		SSC11-GSSP3-149	
DATE SAMPLED:			01-20-94		01-20-94		01-20-94	
	NYSDEC ACTION LIMITS ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	3.3	U	0.61	U	0.56	U
n-BUTYLBENZENE	—	0.50	66		0.61	U	0.56	U
sec-BUTYLBENZENE	—	0.50	3.3	U	0.61	U	0.56	U
tert-BUTYLBENZENE	—	0.50	3.3	U	0.61	U	0.56	U
	1900	0.50	6.6	U	1.2	U	1.1	U
CHLOROFORM	300	0.50	3.6		0.61	U	0.56	U
cis-1,2-DICHLOROETHENE	100	0.50	140		11		28	
trans-1,2-DICHLOROETHENE	300	0.50	3.3	U	0.61	U	0.56	U
DICHLORODIFLUOROMETH	—	1.0	6.6	U	1.2	U	1.1	U
1,2-DICHLOROBENZENE	7900	0.50	3.3	U	0.61	U	0.56	U
1,3-DICHLOROBENZENE	1550	0.50	3.3	U	0.61	U	0.56	U
1,4-DICHLOROBENZENE	8500	0.50	3.3	U	0.61	U	0.56	U
1,2-DICHLOROETHANE	—	0.50	3.3	U	0.61	U	0.56	U
1,2-DICHLOROPROPANE	—	0.50	3.3	U	0.61	U	0.56	U
ETHYLBENZENE	5500	0.50	13		0.61	U	0.56	U
ISOPROPYLBENZENE	3000	0.50	3.3	U	0.61	U	0.56	U
4-ISOPROPYLTOLUENE	—	0.50	3.3	U	0.61	U	0.56	U
METHYLENE CHLORIDE	100	0.50	2.1		1.0		0.78	
NAPHTHALENE	13000	1.0	6.6	U	1.2	U	1.1	U
n-PROPYLBENZENE	—	0.50	26		1.7		0.56	U
TETRACHLOROETHENE	1400	0.50	3.3	U	0.61	U	0.56	U
TOLUENE	1500	0.50	3.3	U	0.61	U	0.56	U
TRICHLOROETHENE	700	0.50	9200	E	160	E	11	
1,2,4-TRIMETHYLBENZENE	—	0.50	4.3		0.61	U	0.56	U
1,3,5-TRIMETHYLBENZENE	—	0.50	3.3	U	0.85		0.56	U
VINYL CHLORIDE	200	1.0	6.6	U	1.2	U	16	
O-XYLENE	1200**	0.50	22		1.8		0.56	U
M/P-XYLENE	1200**	1.0	6.6	U	1.2	U	1.1	U

** Total xylene action limits
— Not applicable
B = Detected in laboratory blank
E = Exceeded linear range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 8-1 (Cont)
AREA 8 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC11-GSSP4-150		SSC11-GSSP5-151		SSC11-GSSP6-160	
DATE SAMPLED:			01-20-94		01-20-94		1-31-94	
	NYSDEC ACTION LIMITS ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	0.54	U	0.55	U	60	U
n-BUTYLBENZENE	—	0.50	0.54	U	25		60	U
sec-BUTYLBENZENE	—	0.50	0.54	U	4.6		60	U
tert-BUTYLBENZENE	—	0.50	0.54	U	0.55	U	1100	
CHLOROETHANE	1900	0.50	1.1	U	1.1	U	120	U
CHLOROFORM	300	0.50	0.54	U	0.55	U	60	U
cis-1,2-DICHLOROETHENE	100	0.50	1.1		4.7		60	U
trans-1,2-DICHLOROETHENE	300	0.50	0.54	U	0.55	U	60	U
DICHLORODIFLUOROMETH	—	0.50	1.1	U	1.1	U	120	U
1,2-DICHLOROBENZENE	7900	0.50	0.54	U	0.55	U	60	U
1,3-DICHLOROBENZENE	1550	0.50	0.54	U	0.55	U	60	U
1,4-DICHLOROBENZENE	8500	0.50	0.54	U	0.55	U	60	U
1,2-DICHLOROETHANE	—	0.50	0.54	U	0.55	U	60	U
1,2-DICHLOROPROPANE	—	0.50	0.54	U	0.55	U	60	U
ETHYLBENZENE	5500	0.50	0.54	U	2.0		400	
ISOPROPYLBENZENE	3000	0.50	0.54	U	0.55	U	60	U
4-ISOPROPYLTOLUENE	—	0.50	0.54	U	0.55	U	60	U
METHYLENE CHLORIDE	100	0.50	0.54	U	0.55	U	290	U
NAPHTHALENE	13000	1.0	1.1	U	1.1	U	130	
n-PROPYLBENZENE	—	0.50	0.54	U	6.4		200	
TETRACHLOROETHENE	1400	0.50	0.54	U	0.55	U	60	U
TOLUENE	1500	0.50	0.54	U	0.55	U	120	
TRICHLOROETHENE	700	0.50	1.4		1.2		400	
1,2,4-TRIMETHYLBENZENE	—	0.50	0.54	U	7.3		60	U
1,3,5-TRIMETHYLBENZENE	—	0.50	0.54	U	4.1		550	
VINYL CHLORIDE	200	1.0	1.1	U	1.3		120	U
O-XYLENE	1200**	0.50	0.54	U	8.7		480	
M/P-XYLENE	1200**	1.0	1.1	U	1.1	U	670	

** Total xylene action limits
— Not applicable
B = Detected in laboratory blank
E = Exceeded linear range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 8-1 (Cont)
AREA 8 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC11-GSSP7-161		SSC11-GSSP8-162		SSC11-GSSP9-163	
DATE SAMPLED:			1-31-94		1-31-94		1-31-94	
	NYSDEC ACTION LIMITS ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	57	U	64	U	140	
n-BUTYLBENZENE	---	0.50	57	U	64	U	2000	
sec-BUTYLBENZENE	---	0.50	57	U	64	U	270	
tert-BUTYLBENZENE	---	0.50	530		64	U	4300	
CHLOROETHANE	1900	1.0	120	U	130	U	110	U
CHLOROFORM	300	0.50	57	U	99	U	120	U
cis-1,2-DICHLOROETHENE	100	0.50	57	U	64	U	370	
trans-1,2-DICHLOROETHENE	300	0.50	57	U	64	U	56	U
DICHLORODIFLUOROMETH	---	1.0	120	U	130	U	110	U
1,2-DICHLOROBENZENE	7900	0.50	57	U	470		78000	
1,3-DICHLOROBENZENE	1550	0.50	57	U	64	U	4900	
1,4-DICHLOROBENZENE	8500	0.50	57	U	64	U	9200	E
1,2-DICHLOROETHANE	---	0.50	57	U	64		56	U
1,2-DICHLOROPROPANE	---	0.50	57	U	64	U	56	U
ETHYLBENZENE	5500	0.50	260		64	U	1400	
ISOPROPYLBENZENE	3000	0.50	57	U	64	U	340	
4-ISOPROPYLTOLUENE	---	0.50	57	U	64	U	540	
METHYLENE CHLORIDE	100	0.50	280	U	190	U	56	U
NAPHTHALENE	13000	1.0	57	U	130	U	1000	
n-PROPYLBENZENE	---	0.50	57	U	64	U	840	
TETRACHLOROETHENE	1400	0.50	57	U	64	U	56	U
TOLUENE	1500	0.50	57	U	64	U	630	
TRICHLOROETHENE	700	0.50	110		1000		14000	E
1,2,4-TRIMETHYLBENZENE	---	0.50	57	U	64	U	56	U
1,3,5-TRIMETHYLBENZENE	---	0.50	310		64	U	2100	
VINYL CHLORIDE	200	1.0	120	U	130	U	110	U
O-XYLENE	1200**	0.50	280		64	U	1700	
M/P-XYLENE	1200**	1.0	370		130	U	3200	

** Total xylene action limits
--- Not applicable
B = Detected in laboratory blank
E = Exceeded linear range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 8-1 (Cont)
AREA 8 (Volatile Organics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC11-GSSP10-164		SSC11-GSSP11-165	
DATE SAMPLED:			1-31-94		1-31-94	
	NYSDEC ACTION LIMITS ug/Kg	MDL ug/Kg	RESULT ug/Kg		RESULT ug/Kg	
BENZENE	60	0.50	63	U	57	U
n-BUTYLBENZENE	—	0.50	63	U	57	U
sec-BUTYLBENZENE	—	0.50	63	U	57	U
tert-BUTYLBENZENE	—	0.50	63	U	140	
CHLOROETHANE	1900	1.0	120	U	120	U
CHLOROFORM	300	0.50	98	U	86	U
cis-1,2-DICHLOROETHENE	100	0.50	63	U	57	U
trans-1,2-DICHLOROETHENE	300	0.50	63	U	57	U
DICHLORODIFLUOROMETH	---	1.0	120	U	120	U
1,2-DICHLOROBENZENE	7900	0.50	63	U	630	
1,3-DICHLOROBENZENE	1550	0.50	63	U	57	U
1,4-DICHLOROBENZENE	8500	0.50	63	U	57	U
1,2-DICHLOROETHANE	—	0.50	63	U	57	U
1,2-DICHLOROPROPANE	—	0.50	63	U	57	U
ETHYLBENZENE	5500	0.50	63	U	57	U
ISOPROPYLBENZENE	3000	0.50	63	U	57	U
4-ISOPROPYLTOLUENE	—	0.50	63	U	57	U
METHYLENE CHLORIDE	100	0.5	190	U	170	U
NAPHTHALENE	13000	1.0	120	U	120	U
n-PROPYLBENZENE	---	0.50	63	U	57	U
TETRACHLOROETHENE	1400	0.50	63	U	57	U
TOLUENE	1500	0.50	63	U	57	U
TRICHLOROETHENE	700	0.50	1800		590	
1,2,4-TRIMETHYLBENZENE	—	0.50	63	U	57	U
1,3,5-TRIMETHYLBENZENE	—	0.50	63	U	57	U
VINYL CHLORIDE	200	1.0	63	U	120	U
O-XYLENE	1200**	0.50	63	U	57	U
M/P-XYLENE	1200**	1.0	63	U	150	

** Total xylene action limits
— Not applicable
B = Detected in laboratory blank
E = Exceeded linear range
U = Reported or qualified as nondetected
MDLs are in wet weight

Table 8-2
AREA 8 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC5-GSSP1-018	SSC5-GSSP -019	U15-GST9-021	SSC4-GSSP1 -032	SSC4-GSSP2 -033
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/10/93	12/10/93	12/10/93	12/16/93	12/16/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	--	4.9	5.7	5.2	6.3	4.0
CHROMIUM	10.0	26.3	27.4	21.9	30.5	14.7	67.7
LEAD	30.0	--	223	128	251	139	287
ZINC	20.0	61.7	199	141	188	168	132

FIELD SAMPLE ID:			SSC4-GSSP1-136	SSC4-GSSP1-137D	SSC6-GSSP15-146	SSC11-GSSP1-147	SSC11-GSSP2-148
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/21/93	12/21/93	12/21/93	01/20/94	01/20/94
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	--	8.2	4.0	3.1	6.4	3.9
CHROMIUM	10.0	26.3	29.7	16.8	17.7	23.3	12.7
LEAD	30.0	--	130	79.2	48.7	250	96.3
ZINC	20.0	61.7	214	97.2	80.8	407	171

-- Not applicable
* = Average background concentration plus two standard deviations

Table 8-2 (Cont)
AREA 8 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC11-GSSP3-149	SSC11-GSSP4-150	SSC11-GSSP5-151	SSC11-GSSP6-160	SSC11-GSSP7-161
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	01/20/94	01/20/94	01/20/94	01/31/94	01/31/94
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	--	3.1	3.2	3.0	3.7	3.4
CHROMIUM	10.0	26.3	8.1	8.3	9.0	11.5	10.4
LEAD	30.0	--	25.2	26.4	26.8	34.8	27.6
ZINC	20.0	61.7	32.0	101	38.0	56.3	32.4

FIELD SAMPLE ID:			SSC11-GSSP8-162	SSC11-GSSP9-163	SC11-GSSP10-164	SC11-GSSP11-165
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	01/31/94	01/31/94	01/31/94	01/31/94
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	--	3.3	3.2	3.6	4.5
CHROMIUM	10.0	26.3	13.2	13.8	16.9	8.0
LEAD	30.0	--	35.8	86.9	49.9	69.8
ZINC	20.0	61.7	55.2	87.0	80.2	59.2

-- Not applicable
* = Average background concentration plus two standard deviations

Table 9-1
AREA 9 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC7-GSSP9-069	SSC7-GSSP10-070	SSC7-GSSP11-071	SSC8-GSSP1-072	SSC8-GSSP2-073
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/15/93	12/15/93	12/15/93	12/15/93	12/15/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	—	4.1	3.7	3.6	7.6	9.4
CHROMIUM	10.0	26.3	24.6	24.6	22.5	21.3	27.9
LEAD	30.0	—	25.1	23.8	22.5	23.3	51.7
ZINC	20.0	61.7	40.8	44.0	40.5	51.7	93.5

FIELD SAMPLE ID:			SSC8-GSSP3-074	SSC8-GSSP4-075	SSC8-GSSP5-076	SSC8-GSSP6-077	SSC8-GSSP7-078
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/15/93	12/16/93	12/16/93	12/16/93	12/16/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg	RESULT mg/Kg
CADMIUM	1.0	—	10.9	5.6	3.9	3.8	4.1
CHROMIUM	10.0	26.3	24.9	22.1	22.4	21.1	21.7
LEAD	30.0	—	38.0	23.2	23.0	24.7	23.1
ZINC	20.0	61.7	82.1	44.4	37.6	41.2	40.2

— Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

Table 9-1
AREA 9 (Total Inorganics)
Philips Display Components Company
Seneca Falls, New York

FIELD SAMPLE ID:			SSC7-GSSP12-103		SSC7-GSSP13-104		SSC7-GSSP14-105		SSC10-GSSP8-142		SC10-GSSP8-143D
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.*	12/20/93		12/20/93		12/20/93		12/21/93		12/21/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/K		RESULT g/Kg		RESULT mg/Kg		RESULT mg/Kg		RESULT mg/Kg
CADMIUM	1.0	—	3.4		2.4		3.4		6.2		8.9
CHROMIUM	10.0	26.3	8.9	J	15.0	J	8.2	J	8.0		10.0
LEAD	30.0	—	22.3	J	13.3	J	24.0	J	28.3		38.2
ZINC	20.0	61.7	38.5	J	45.8	J	32.6	J	44.4		55.1

FIELD SAMPLE ID:			SSC10-GSSP9-144
DATE COLLECTED:	NYSDEC ACTION LIMITS	AVER. BACK. CONC.	12/21/93
PARAMETER	mg/Kg	mg/Kg	RESULT mg/Kg
CADMIUM	1.0	—	5.0
CHROMIUM	10.0	26.3	18.4
LEAD	30.0	—	18.8
ZINC	20.0	61.7	54.0

— Not applicable
* = Average background concentration plus two standard deviations
J = Positive estimated result

TABLE 10-1

COMPARISON OF SOILS FROM ALL BORINGS

PHILIPS DISPLAY COMPONENTS COMPANY
SENECA FALLS, NEW YORK

	Cd mg/Kg	Cr mg/Kg	Pb mg/Kg	Zn mg/Kg	F mg/Kg
NYSDEC Action Level	1.0	10.0	30.0	20.0	0.4
Site Background [1]	1.4	26.3	30.1	61.7	2.6
NY Literature Background [2]	0-4	7-100	0-50	20-120	60-950
USEPA RBC [3]	510	5,100 [4]	400 [5]	310,000	61,000
Mean Surface Soil Conc.	0.8 [6]	16.1 [7]	17.6 [6]	47.3 [6]	2.7 [6]
Max Surface Soil Conc.	405.3	47.9	275.5	1,113.1	89.1

1 This value represents the mean concentration plus two standard deviation units.
2 Dragun 1991.
3 RBC Region III 1994a.
4 Refer to Cr (VI) only.
5 Lead Guidance 1994b.
6 Represents geometric mean because lognormal.
7 Represents arithmetic mean because lognormal.

TABLE 10-2

COMPARISON OF SURFACE SOILS (0-2 FEET)

PHILIPS DISPLAY COMPONENTS COMPANY
SENECA FALLS, NEW YORK

	Cd mg/Kg	Cr mg/Kg	Pb mg/Kg	Zn mg/Kg	F mg/Kg
NYSDEC Action Level	1.0	10.0	30.0	20.0	30.0
Site Background [1]	2.8	33.7	37.4	100.2	2.4
NY Alternative Background [2]	0-4	7-100	0-50	20-120	60-950
USEPA RBC [3]	510	5,100 [4]	400 [5]	310,000	61,000
Mean Surface Soil Conc.	1.9 [6]	19.6 [7]	24.4 [6]	59.9 [6]	3.8 [6]
Max Surface Soil Conc.	405.3	47.9	247.5	1,113.1	24.4

1 This value represents the mean concentration plus two standard deviation units.
2 Dragun 1991.
3 RBC Region III 1994a.
4 Refer to Cr (VI) only.
5 Lead Guidance 1994b.
6 Represents geometric mean because lognormal.
7 Represents arithmetic mean because lognormal.

TABLE 11-1

Areas for Further Investigation
Supplemental Sampling Visit Investigation

Philips Display Components Company
Seneca Falls, New York

Area of Concern	Constituents of Interest
Area 1	Cis-1,2-dichloroethene
Area 3	Cis-1,2-dichloroethene
Area 4	Semivolatile Organics
Area 5	Cis-1,2-dichloroethene
Area 6	Benzene, Toluene, Ethylbenzene, Total Xylenes
Area 7	Cis-1,2-dichlorothene, Trichloroethene
Area 8	Benzene, Cis-1,2-dichloroethene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, Trichloroethene, Total Xylenes

TABLE 11-1 (continued)

Areas For Further Investigation
Supplemental Sampling Visit Investigation

Philips Display Components Company
Seneca, Falls New York

SOILS

Area Of Concern		Constituents of Interest
HO1-SB2	Discharge Outfall	Cadmium, Lead, Zinc
HO2-SB1		Cis-1,2,-Dichloroethene
HO2-SB2, HO2-SB3		Cis-1,2,-Dichloroethene Chromium, Lead, Zinc, Fluoride
H02-SB4	Discharge Outfall	Cadmium, Chromium, Lead, Zinc
HO3-SB6		Chromium, Lead, Zinc
HO3-SB1	Discharge Outfall	Cadmium, Lead, Zinc
HO4-SB1		Cis-1,2,-Dichloroethene
HO4-SB2	Discharge Outfall	Cadmium, Zinc
HO5-SB1		Cis-1,2,-Dichloroethene
HO6-SB2		Cis-1,2,-Dichloroethene
HO7-SB3	Discharge Outfall	Cadmium, Lead, Zinc
UST U09		Chrysene, Benzo(a)anthracene, Benzo(a)pyrene

TABLE 11-1 (continued)

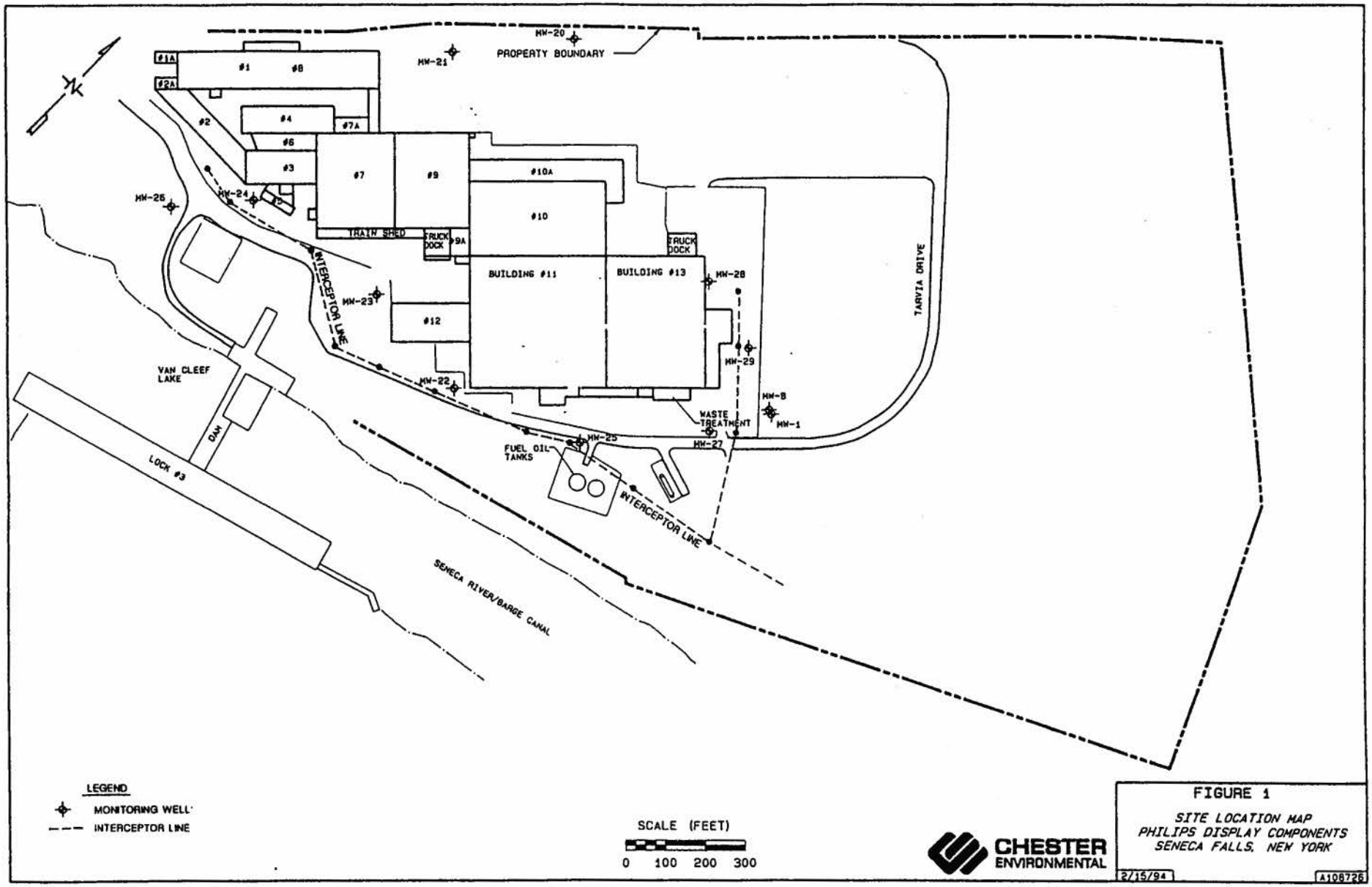
Areas For Further Investigation
Supplemental Sampling Visit Investigation

Philips Display Components Company
Seneca, Falls New York

GROUNDWATER

Area Of Concern	Constituents of Interest
MW-20	Vinyl Chloride Cis-1,2,-Dichloroethene 1,2,-Dichloroethene (total)
MW-22	Cis-1,2,-Dichloroethene 1,2,-Dichloroethene (total) Trichloroethene
MW-23	Cis-1,2,-Dichloroethene 1,2,-Dichloroethane Trichloroethene 1,2-Dichloroethene (total)
MW-24	Halogenated/Aromatic Organics
MW-25	Halogenated/Aromatic Organics
MW-26	Vinyl Chloride Cis-1,2,-Dichloroethene 1,2,-Dichloroethane Trichloroethene
MW-29	Halogenated/Aromatic Organics

FIGURES


MW-20
PROPERTY BOUNDARY
MW-21
#1A
#1
#8
#2A
#2
#4
#7A
#6
#3
#7
#9
#10A
#10
MW-26
MW-24
TRAIN SHED
TRUCK DOCK
#9A
TRUCK DOCK
INTERCEPTOR LINE
BUILDING #11
BUILDING #13
MW-28
TARVIA DRIVE
MW-23
#12
MW-29
VAN CLEEF LAKE
MW-22
MW-8
MW-1
WASTE TREATMENT
MW-27
MW-25
FUEL OIL TANKS
DAM
LOCK #3
INTERCEPTOR LINE
SENECA RIVER/BARGE CANAL
LEGEND
MONITORING WELL
INTERCEPTOR LINE
SCALE (FEET)
0 100 200 300
CHESTER ENVIRONMENTAL
FIGURE 1
SITE LOCATION MAP
PHILIPS DISPLAY COMPONENTS
SENECA FALLS, NEW YORK
2/15/94
A108726

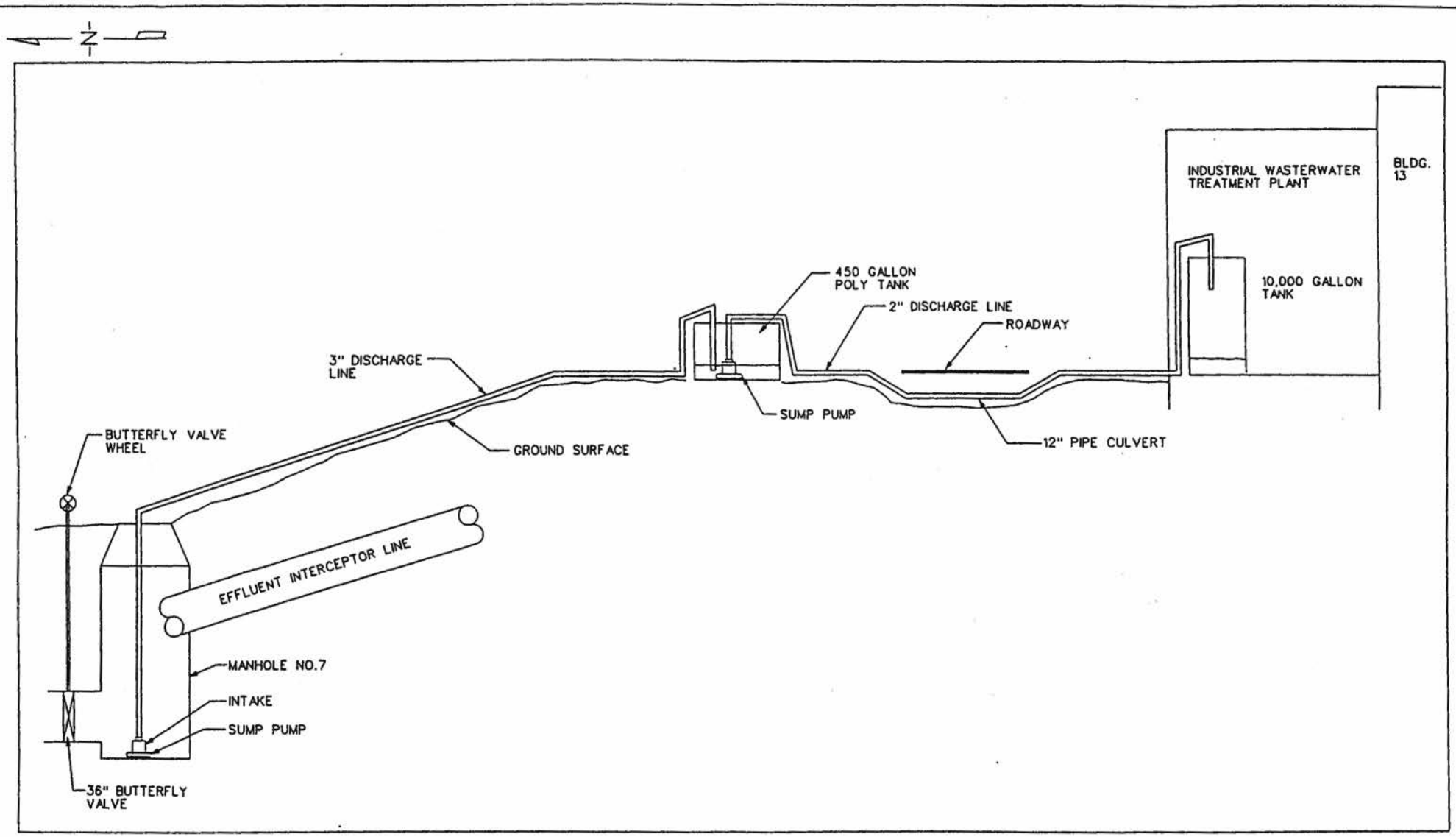


FIGURE 2

FLUSHWATER RECOVERY SYSTEM
SCHEMATIC DRAWING
SENECA FALLS, NEW YORK

CHESTER ENVIRONMENTAL

04/15/94 320000

320000\3200-2 .S/T 28 SEP 1994 /09:25

APPENDIX A

OHM WORK PLAN

CHESTER
ENVIRONMENTAL

July 14, 1993 Ref. No. 320000-15

Mr. Paul R. Counterman, P. E.
New York State Department of Environmental Conservation
Chief, Bureau of Western Hazardous Waste Programs
Division of Hazardous Waste Substances Regulation
50 Wolf Road
Albany, NY 12233

Dear Mr. Counterman:

RE: Transmittal of Workplan for Flushing and Grouting Floor Drains, Sumps and Pits
Philips Display Components Company
Seneca Falls, New York NYD002246015

We are presently in the process of flushing and backfilling with cement the floor drains, pits and sumps at the Seneca Falls facility. The work is being completed in compliance with the work scope presented in the Supplemental Sampling Visit Workplan.

Mr. Vimal Minocha was verbally notified of the work on June 30, 1993 by Mr. Mike Hursky. As a follow-up to their conversation, I have enclosed for your information, the document entitled "Work Plan For Philips Display Components Company, Seneca Falls, New York" dated June 22, 1993, prepared by OHM Corporation. The work plan details the procedures for flushing and grouting the floor drains, pits and sumps at the Seneca Falls facility.

I am submitting this document on behalf Mr. Jim Crutch of Philips Display Company. If you have any questions please contact me at (412) 825-9804.

Sincerely,

Dennis L. Middleton
Senior Project Manager
DLM:rb b3042

cc: James Crutch - Philips Components
Jack Kelly - North American Philips
Annette Russo - North American Philips
Vincent Gallogly - GTE
Richard Reynolds - GTE
James Jensen - Dames & Moore
A. Michael Hanna - Seneca Falls Specialty
Alex Kidaloski - Seneca County Development
Vimal Minocha - NYSDEC
D. Rollins - NYSDEC

3000 Tech Center Drive
Monroeville, Pennsylvania 15146
412-825-9600; Fax 412-825-9699

OHM Corporation

WORK PLAN
FOR
PHILIPS DISPLAY COMPONENTS COMPANY
SENECA FALLS, NEW YORK

PHILIPS P.O. #407883

Prepared for:

Chester Environmental
Monroeville, Pennsylvania

Prepared by:

OHM Remediation Services Corp.
Trenton, New Jersey

Kenneth W. Kukkonen, PE
Senior Project Manager

June 22, 1993
OHM Project 14548

WORK PLAN

SCOPE OF WORK

The Philips Display Components Company (PHILIPS) facility in Seneca Falls, New York is approximately 518,000 square feet, and enclosed under roof. The project consists of flushing all drains, sumps, and trenches; removing all collected sediment from the designated effluent discharge manhole; and plugging and concreting all drains, sumps, and trenches. All drains feed into one manhole with a valve to control effluent flow. All water will be fed to this manhole and mechanically pumped to PHILIP's on-site storage tanks.

During our detailed site walk on April 2, 1993, the drains were counted and the size of the trenches and sumps were measured. There are a total of 568 drain openings, 2433 lineal feet of floor trenches, and 80 sumps.

Major project tasks consist of the following:

- Mobilization
- Water collection/pumping system
- Rinse drains
- Plug drains
- Fill plugged drains with gravel concrete mix
- Rinse trenches/sumps
- Fill trenches/sumps with concrete
- Demobilization

Mobilization

OHM will mobilize all personnel, equipment, and supplies to the project site from our Clarence Center, New York office. All OHM on-site employees are 40-hour OSHA trained and are medically monitored.

OHM is not planning to use any subcontractors on this project. It is expected that mobilization will occur sometime during the week of June 21, 1993.

Water Collection/Transport System

Before any flushing/rinsing can take place in the buildings, the water collection/transport system needs to be in place. The transport system will consist of a submersible pump suspended above the sediment layer in the designated effluent manhole on site. This pump will move the collected rinse/flush water to an intermediate poly tank located near the large holding tank. Another pump at the poly tank will transfer the water up into the designated large holding tank for testing and subsequent handling/disposal by others. The system will operate as follows:

1. Each morning, the butterfly valve in the effluent manhole will be closed to prevent water from leaving the site.

2. The effluent manhole and intermediate pumps will be turned on.

3. Rinsing/flushing in the buildings will continue during the day. In the event of rain, a determination will be made by the client's site representative whether or not rinsing/flushing can continue.

4. In case of rain, or at the end of the work day, pumping will continue for at least 15 minutes after the stop of rinsing/flushing to ensure that all rinsate has been collected and pumped to the storage tank.

5. Just prior to stopping the pumps, the pump in the effluent manhole will be carefully lowered to just above the sediment to ensure the maximum practical amount of rinsate is removed from the system.

6. After the pumps are turned off, the butterfly valve will be opened and secured to allow discharge of water during the night or during periods of rain.

Rinse Drains

OHM will attempt to rinse each drain with 20-25 gallons of water. Some drains are clogged internally and will be unable to be flushed. No attempt will be made to unclog these drains as there is a concern about the structural integrity of the lines. The clogged drains will be noted and then plugged/filled with gravel concrete mix. The water used for flushing will be potable water obtained from a fire hydrant located off the site. A tanker truck will be used to transport the water to the site where it will be unloaded into smaller tanks on carts for use in the building. There will be a marked site tube on each of the smaller tanks to ensure that the proper quantity of water is used for flushing/rinsing. Flushing of drains/sumps will be via gravity feed. For trench/sump rinsing, a small pump may be used to surficially clean the walls and floors.

Debris and sediment from the trenches and sumps will be drummed in 17H drums and staged in a location designated by the Philips site representative. Any pumps/piping that is removed will be rinsed and placed in a central location in each building. Some trenches and sumps have been filled in with demolition debris consisting mainly of concrete block. In accordance with the direction received during the preconstruction site tour, OHM will remove this debris and leave it adjacent to the sumps/trenches it was removed from. Further transport and disposal of the demolition debris will be by others.

Trench/sump covers will be removed for access. OHM was informed during the preconstruction site tour that some of the trenches that were welded shut with steel plate may not need to be accessed, as there are no drains inside. This determination would be made in the field by the Philips representative. OHM was requested to try and keep the floor drain covers intact, if possible, so they can be put back into position after the gravel concrete mix is installed as a plug. The continued use of the drain covers would provide an additional measure of protection from heavy loads passing on top of the plugs.

Plug Drains

Each flushed/rinsed drain will be fitted with an appropriate size removable/expandable pipe plug. The plug will be installed approximately 12 inches down from the floor surface or just before the first bend for shallow drains.

For those drains that are recessed below the floor, such as in the bottom of a trench or sump, a PVC pipe of appropriate size and length will be inserted as a form. The concrete fill will be placed around the tube. After the concrete has set, the tube will be withdrawn, leaving a "concrete" drain extension that will then be plugged as previously described. The PVC tube will be placed in two pieces. The shorter, lower piece remaining will provide a suitable surface/diameter for the pipe plug to properly seat.

Fill Plugged Drains with Gravel Concrete Mix

In accordance with previous direction by Chester Environmental, the drains will be sealed above the plugs with a gravel concrete mix. This mix was selected in lieu of the originally requested 10% bentonite/grout mix, in the interest of providing a more structurally sound seal.

The concrete/gravel mix we are to use is a prepackaged mix similar to a "Sakrete" brand, commonly available through most building supply centers. The mixture will be mixed with water at the facility using a small portable mixer. The concrete mix will be transported to the drains in wheel barrows and/or other appropriate means.

The concrete will be shoveled/troweled into the drains to fill the space above the previously installed pipe plug. The concrete will be struck off flush with the floor or at an appropriate elevation to allow the continued use of the drain cover, if it was reusable.

Rinse Trenches and Sumps

The sumps and trenches will each be rinsed/flushed with 20-25 gallons of water. The water will be transported in a similar manner as for rinsing the drains. However, we may elect to use water directly from the large tanker truck for those trenches/sumps close enough to reach with its hose.

Fill Trenches/Sumps with Concrete

After cleaning, the trenches/sumps will be filled with concrete. The concrete will have a compressive strength of 3,500 psi. The concrete will be struck level at the elevation appropriate with respect to the surrounding floor and structures.

The concrete will be delivered to the appropriate building via large concrete trucks from a local concrete supplier. The concrete trucks will be off-loaded into motorized concrete buggies, a bobcat loader, or an other device for transport within the buildings.

In accordance with discussions held at the preconstruction meeting, the surface of the concrete will not need to receive a steel trowel finish. A screeded surface using 2x lumber will be acceptable.

Demobilization

At the completion of the project, OHM will remove the water collection/pumping system. All sediment collected in the bottom of the effluent discharge manhole will be placed into 17H drums and transported to a location designated on site by the Philips representative. All OHM equipment will be decontaminated by rinsing clean, and it will be returned to our Clarence Center, New York office. Rental equipment will likewise be cleaned prior to its return to the supplier.

Schedule/Work Phasing

OHM understands that there is a priority to the phasing of the work. Once mobilized to the job site, the OHM project supervisor and the Philips representative will develop the most practical approach that minimizes "leap frogging" around the site.

OHM is planning to do all the buildings on the east side of the site (Nos. 6-13) first, to allow Philips to complete the rerouting of the roof drains in buildings 1-5 prior to sealing off the floor drains. OHM is prepared to demobilize and remobilize to the project site should the rerouting of the roof drains not be completed by the time buildings 6-13 are finished.

Our work is presently scheduled with a hard start and stop access to the buildings. The building access time is currently 7:00 a.m. - 4:30 p.m. We presently estimate that it will take 3 to 5 weeks to complete the first phase of this project. We will refine our estimate after the first full week of effort.

APPENDIX B

SOIL SAMPLING PLAN - CHESTER

SAMPLING AND ANALYSIS WORK PLAN FOR THE SOILS EXCAVATED DURING THE INSTALLATION OF THE STORM SEWER LINES

Prepared for:

PHILIPS DISPLAY COMPONENTS COMPANY
SENECA FALLS FACILITY
SENECA FALLS, NEW YORK

Prepared by:

CHESTER ENVIRONMENTAL
3000 TECH CENTER DRIVE
MONROEVILLE, PENNSYLVANIA 15146

PROJECT NO. 320000-17

OCTOBER 1993

CHESTER
ENVIRONMENTAL

3000 Tech Center Dr. · Monroeville, PA 15146
412-825-9600· Fax 412-825-9699

TABLE OF CONTENTS

LIST OF FIGURES

1.0 INTRODUCTION

Philips Display Components Company (Philips) has contracted Chester Environmental (Chester) to provide oversight for re-routing of the roof drains at the Seneca Falls Facility, Seneca Falls, New York. The re-routing of the roof drains is being completed under the Supplemental Sampling Visit Work Plan (dated July 1992) which has been approved by the New York State Department of Environmental Conservation and is part of the RCRA Facility Assessment for the Seneca Falls Facility.

A portion of the work task for re-routing the roof drain, requires the installation of new storm sewer discharge lines north, east and south of the facility buildings at the locations shown on the attached drawing P-1. The sewer line excavations north and east of the facility (highlighted in yellow) are in areas not affected by past process sewer lines and are not suspected of being impacted based upon past plant operational history. Soils excavated in these areas will be re-used as backfill where necessary.

Soils removed during excavation activities south of the facility (highlighted in blue) are presently capped by asphalt, and are in areas which may be potentially impacted. The constituents of interest that may be impacting the soils are volatile organic compounds and metals (cadmium, chromium, lead and zinc). The excavations for the storm sewer lines in the southern portion of the facility will be backfilled with structural backfill, that will allow for the recapping of the excavated areas with asphalt. Thus the excavated soils will be staged in the areas indicated on Figure 2, and further analyzed to determine potential impacts.

This work plan has been developed to provide guidance for the management of excavated soils from the southern portion of the facility. The work plan addresses the construction of soil staging cells, staging of soils.

2.0 FIELD ACTIVITIES

Due to the potential for encountering impacted soils that may be removed during excavation activities, all excavated soils will undergo a preliminary field screening. A head space analysis will be performed on excavated soils using a Organic Vapor Analyzer (OVA). The head space analysis is intended as a preliminary screening tool that will be used to classify soils for staging in the appropriate staging cell. The constituents that will be used for this preliminary screening were selected from a list of constituents of interest that have been detected during previous investigations at the facility. The constituents of interest are volatile organic compounds (VOCs), cadmium, chromium, lead and zinc. Of these constituents, VOCs were selected because they are easily detected in the soils using a head space analysis. Metal concentrations that may be present in the excavated soil will be addressed during the sampling of the soil pile for chemical analysis, as discussed in Section 3.0.

2.1 Soil Staging Cells

Prior to the excavation activities being initiated, five soil storage cells will be constructed at the Seneca Falls Facility. These cells will be used to store soils excavated during the installation of the storm sewer lines in areas which are suspected to be impacted. Staging cells will be located in the areas indicated on Figure 2.

Each cell dimension will be approximately 20 feet by 60 feet. A diagram of a typical cell construction is shown on Figure 3. The construction of each cells will be as follows:

- The asphalt beneath each cell location will be swept to remove loose debris and to decrease the potential for the cell liner to be perforated. Woven geofabric will then be placed on the asphalt.

- Bales of hay will be placed on the geofabric along the perimeter of the cell.

- A fiberglass string plastic liner will be placed over the woven geofabric and the hay bales. The plastic will be secured along the sides to prevent the wind from moving the plastic.

Once the soil excavation is initiated, soils that are visually impacted (stained) or are suspected to be impacted based on the head space analysis will be placed in the staging cell labeled as A (Figure 2). The remainder of the soils will be transported to the cells labeled B through E (Figure 2), located in the northeast parking lot. Staging cells will be clearly marked according to their classification to prevent improper placement of soils in the wrong cell.

During periods of rain or in the evening before leaving the site, all soils in the cells will be covered with fiberglass string plastic, which will be secured to prevent the wind from blowing it off the soil pile.

2.2 Field Screening of the Soils Samples

Staged soils excavated during storm sewer line installation will be initially classified as nonimpacted, questionable and impacted in the field using the head space analysis. The location of the excavation and the assigned soil classification will be noted in a field log book. Additionally, the location of staging cell and the location of the excavated soil within the staging cell will be noted in a field log book.

The soil sample for head space analysis will be placed in a clean glass jar such that two thirds of the jar is filled. The mouth of the glass jar will be covered with aluminum foil, then capped with a jar lid. The jar will be kept in a area heated to a temperature greater than 60°F for a minimum of 20 minutes. The head space will be measured by inserting the OVA probe end through the aluminum foil and collecting the vapors immediately above the samples. All head space readings will be recorded in a field log book. The OVA and all sampling and analytical procedures used for these activities will conform to the approved Quality Assurance Project Plan (QAPjP) dated July 1992, which was developed specifically for the Seneca Falls Facility.

The concentrations of VOCs used to determine soil classification for staging are as follows:

- Nonimpacted Soils - Readings that are at background to 5 ppm above background concentrations
- Questionable Soils Readings that are 5 ppm to 15 ppm above background concentrations
- Impacted Soils Readings that are 15 ppm or greater above background concentrations.

Background air concentrations will be measured with the OVA four (4) times a day outside the area of excavation activities. All measured to concentrations will be recorded in the field log book.

2.3 Soil Excavation North and East of the Facility

The trench excavations north and east of the facility are located in areas that are not expected to be impacted from previous plant operations or by past process sewer lines. Soils excavated from these trenches will be placed back into the excavation as needed, if not impacted.

Excavated soils will be placed on plastic adjacent to the excavations and covered during the construction activities. A composite soil sample will be prepared for every 20 lineal feet of trench excavated. Four soil grab samples, one from each five-foot segment of the 20-foot interval, will be collected and composited into one sample for head space analysis. Decontamination of sampling equipment will be according to the procedures stipulated in the QAPjP.

Soils will be backfilled in the excavations if classified as not impacted. Should the soils be classified as questionable or impacted, and/or are visually impacted, these soils will be staged and will be placed in the appropriate staging cell.

2.4 Soil Excavation South of the Facility

Soils located south of the facility are presently capped by asphalt, and when excavated will not be re-used as immediate trench backfill. Excavated soils will be placed in the appropriate staging cell for further management, based on the results from the head space analysis (see Section 2.2).

The soils will be classified by collecting a composite soil sample for every 20 lineal feet of trench excavated. Grab samples will be collected from the center of the excavator bucket. Four grab samples, one from each five-foot segment of the 20-foot interval, will be collected and composited into one sample for the head space analysis. Decontamination of sampling equipment will be according to the procedures stipulated in the QAPjP.

If visually impacted soils are encountered, a grab sample will be collected from the visual impacted area for head space analysis. Based upon the head space analysis, soils will be placed in the appropriate staging cell.

3.0 SAMPLING AND ANALYSIS OF STAGED SOILS

All soil placed in staging cells will be sampled and analyzed using the procedures specified in the QAPjP. A single composite soil sample will be collected from each soil pile for chemical analysis. Soils that are classified as non-impacted will be analyzed for the following parameters:

- Cadmium (EPA Method 200.7/6010)
- Chromium (EPA Method 200.7/6010)
- Lead (EPA Method 239.2.7/6010)
- Zinc (EPA Method 200.7/6010)

Soils that are classified as questionable or impacted will be analyzed for the following parameters:

- Volatile Organic Compounds (EPA Method 8020)
- Cadmium (EPA Method 200.7/6010)
- Chromium (EPA Method 200.7/6010)
- Lead (EPA Method 239.2.7/6010)
- Zinc (EPA Method 200.7/6010)

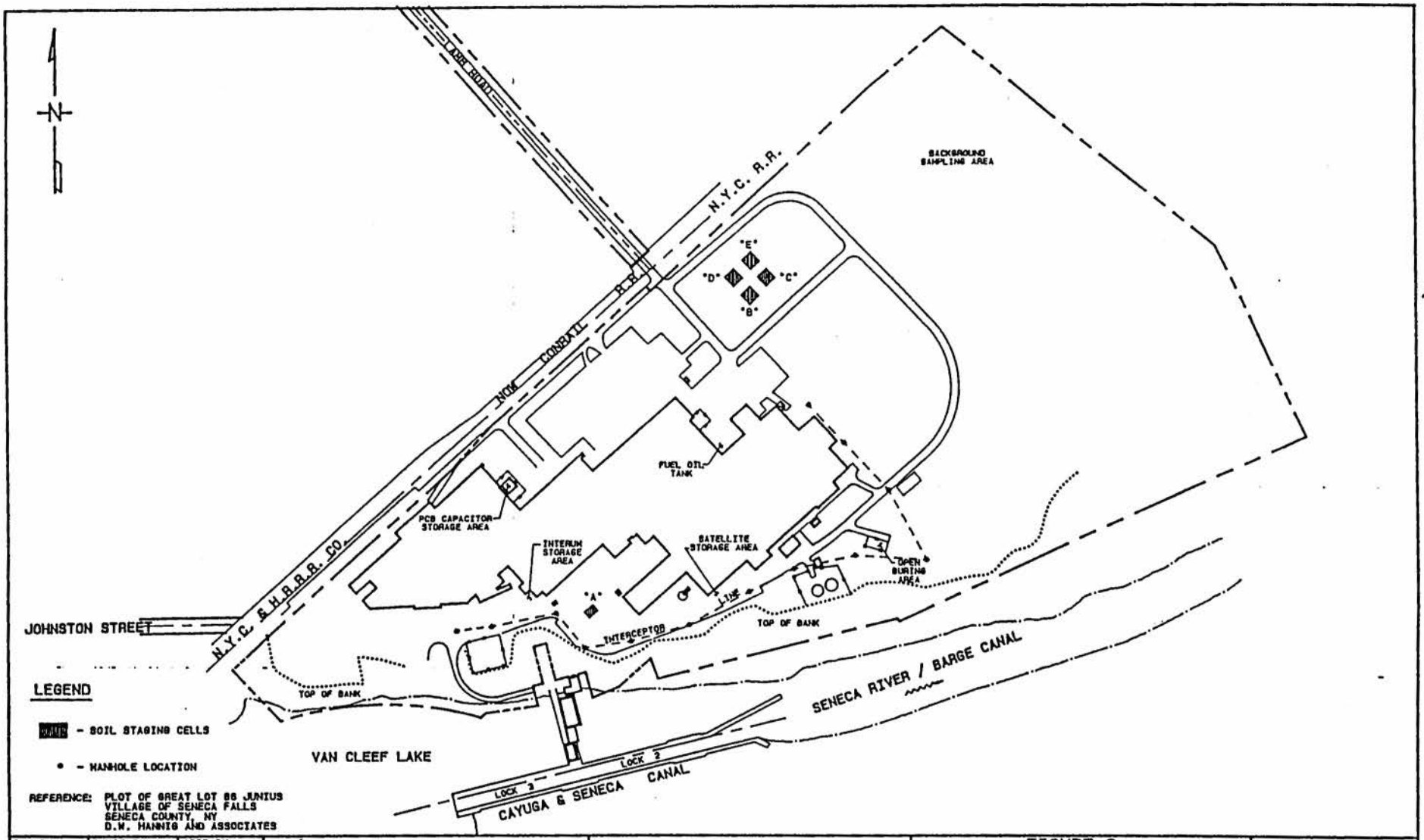
Samples for chemical analysis will be collected at the completion of field activities for that day, after the soil has been placed in the appropriate staging cell. Each soil pile will be divided vertically, into four (4) equal quadrants. A hole approximately one-foot deep will be made in the side of the soil pile in each quadrant, and a soil sample will be collected from each quadrant from the bottom of the hole. The four soil samples will be composited and submitted to the designated laboratory for analysis of the appropriate parameters. All sampling, chain-of-custody and decontamination procedures specified in the QAPjP will be adhered to at all times.

3.1 Analytical Results

Analytical results obtained from the soil samples from each staging pile will be evaluated so that arrangements can be made for the proper management of the soils.

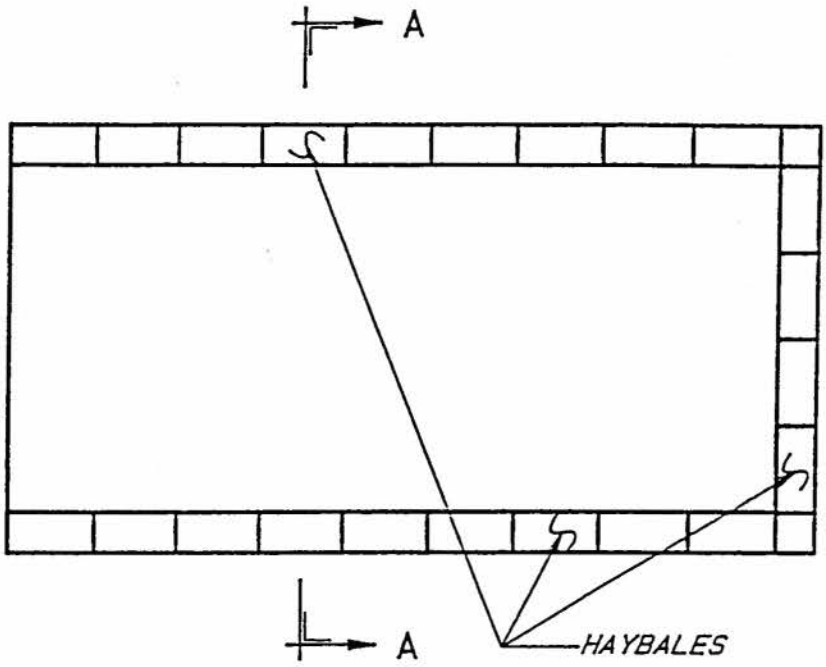
4.0 REPORT

The field activities will be documented in the field log book and will be included as part of the Supplemental Sampling Visit Work Plan.

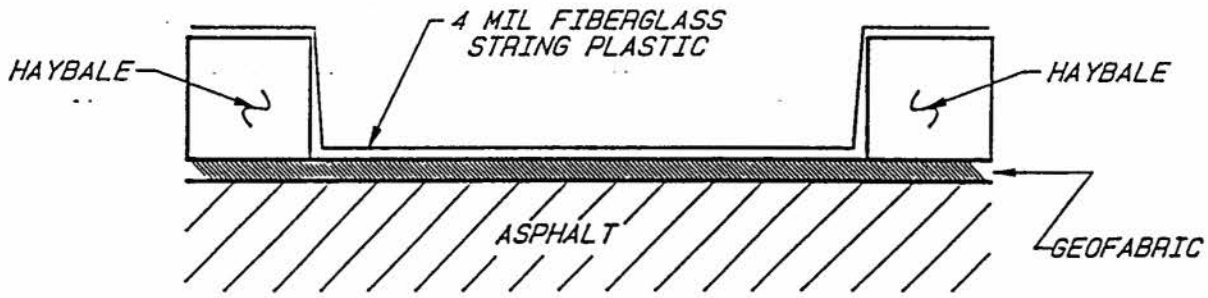


DWN BY:	CHK'D BY:	APPR BY:	SCALE (FEET)				FIGURE 2	DWG NO.
AMA			300	0	300	600	SOIL STAGING CELL LOCATION MAP PHILIPS DISPLAY COMPONENTS CO. SENECA FALLS, NY	C69782
FILE NAME	SCALE	DATE 10/15/93						

CHESTER ENVIRONMENTAL



PLAN VIEW



SECTION A -A

NOT TO SCALE

CHESTER
ENVIRONMENTAL

FIGURE 3

SOIL STORAGE CELL
PHILIPS
DISPLAY COMPONENTS CO.
SENECA FALLS, NEW YORK

10/11/93

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