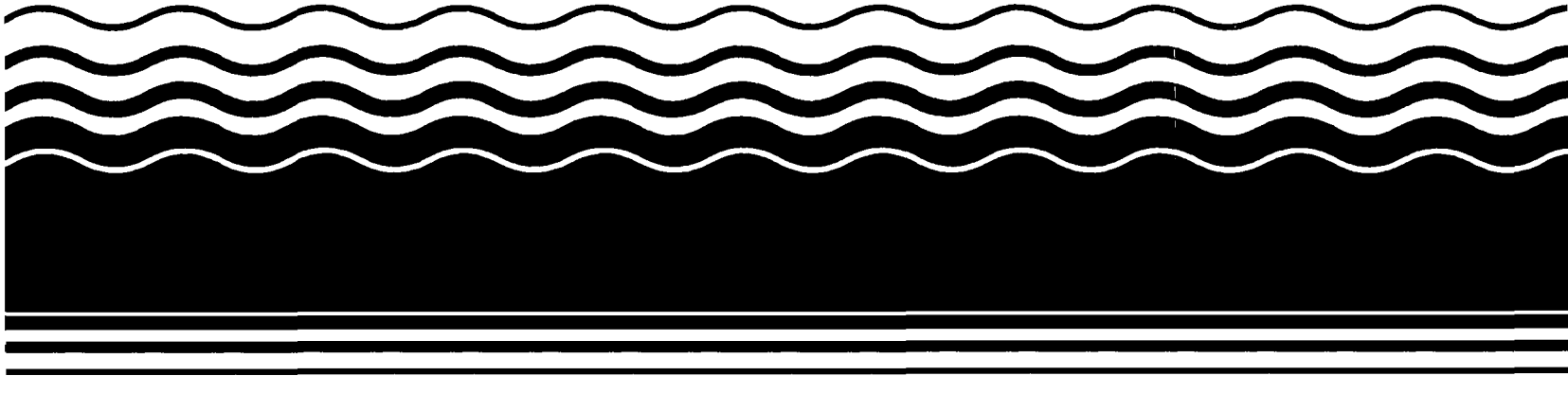
EPA/ROD/R02-95/250
August 1995

# EPA Superfund Record of Decision:

## Chemical Insecticide Corp., OU2
## Edison Township, NJ
## 3/28/95



# DECLARATION FOR THE RECORD OF DECISION

## SITE NAME AND LOCATION

Chemical Insecticide Corporation

Edison Township, Middlesex County, New Jersey

## STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for addressing contaminated soil and sediment in off-site residential areas and areas in and immediately adjacent to the unnamed tributary and Mill Brook associated with the Chemical Insecticide Corporation site. The remedial action was chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan. This decision document explains the factual and legal basis for selecting the remedy for the site.

The New Jersey Department of Environmental Protection concurs with the selected remedy. The information supporting this remedial action decision is contained in the administrative record for the site.

## ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from the Chemical Insecticide Corporation site, if not addressed by implementing the response action selected in this Record of Decision, may present an imminent and substantial endangerment to public health, welfare, or the environment.

## DESCRIPTION OF THE SELECTED REMEDY

The response action described in this document represents the second of three planned remedial phases for the Chemical Insecticide Corporation site. It addresses contaminated soil and sediment in residential areas and areas in and adjacent to the unnamed tributary and Mill Brook.

A previous Record of Decision, signed on September 29, 1989, selected an interim remedial action to control contaminated runoff from the site. Construction of this interim action, representing the first remedial phase for the site, was completed in September 1994.

The final remedy for the site will be selected after the completion of additional soil washing treatability studies. It will address contaminated soil on the site and in off-site industrial areas as well as any associated groundwater contamination.

The major components of the selected remedy for this second remedial phase include the following:

- excavation of approximately 10,000 cubic yards of soil and sediment containing arsenic at levels greater than 20 parts per million;
- appropriate off-site disposal of contaminated soil and sediment; and
- restoration of the excavated areas to the extent practicable.

The selected remedy provides protection of human health and the environment by removing contaminated soil and sediment from the above-described areas and restoring such areas.

Because this remedy does not include on-site containment of contaminated material, long-term management and controls will not be necessary.

**DECLARATION OF STATUTORY DETERMINATIONS**

The selected remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate, and is cost-effective. It utilizes permanent solutions and alternative treatment (or resource recovery) to the maximum extent practicable for the areas to be remediated. However, treatment of the principal threats associated with the areas to be remediated was not found to be practicable due to the unavailability of an effective treatment technology at the present time. Therefore, this remedy does not satisfy the statutory preference for treatment as a principal element.

A five-year review of the remedy will not be necessary, because it will not result in hazardous substances remaining in the remediated areas above health-based levels.

William J. Muszynski, P.E.
Deputy Regional Administrator

3-28-95
Date

# RECORD OF DECISION
# DECISION SUMMARY

Chemical Insecticide Corporation Site

Edison Township, Middlesex County, New Jersey

United States Environmental Protection Agency
Region II
New York, New York

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ATTACHMENTS

## SITE LOCATION AND DESCRIPTION

The Chemical Insecticide Corporation (CIC) site is located at 30 Whitman Avenue in Edison Township, Middlesex County, New Jersey. The site occupies approximately 6 acres, bordered on the north by Route 287 and on the east, west and south by industrial properties. There are no permanent surface water bodies on the CIC site. After heavy precipitation, the surface water runoff drains toward the northeast corner of the site where it discharges into an underground conduit which flows into an unnamed tributary of Mill Brook. Mill Brook, in turn, flows into the Raritan River approximately four miles downstream of the site. Both the unnamed tributary and Mill Brook run through residential areas, including two apartment complexes (Edison Glen and Edison Woods). Figure 1 of Appendix I indicates the site location and the surface water flow pathway. The residents of these complexes obtain potable water from a public water supply system and none of these water bodies are used as a drinking water source downstream of the site.

## SITE HISTORY AND ENFORCEMENT ACTIVITIES

CIC owned and operated the site from 1954 to 1970. During this time, the site was used for manufacturing insecticides, fungicides, rodenticides and herbicides. These manufacturing activities combined with poor housekeeping led to widespread chemical contamination at the site, as well as migration of contaminants to off-site areas.

Over the period of CIC operations, the Edison Department of Health and Human Resources (EDHHR) became concerned about activities on the site due to numerous neighborhood complaints of odors, documented off-site discharges and releases, and the frequency of on-site fires. In the late 1960s, EDHHR ordered the cessation of on-site discharges of wastewater, required the disposal of leaking drums to eliminate the odor problem, and the closing of on-site lagoons. CIC declared bankruptcy in 1970. The property was purchased in anticipation of future development by Piscataway Associates, which demolished the production facilities on the site in 1975.

Triggered primarily by the potential for the presence of dioxin (a contaminant generated in the production of 2,4,5-trichlorophenoxyacetic acid, a herbicide which was handled on the premises), both the U.S. Environmental Protection Agency (EPA) and the New Jersey Department of Environmental Protection (NJDEP) performed on-site and off-site field investigations at CIC, testing soils and surface water for dioxin in 1983. In 1984, NJDEP further sampled on-site soils for the presence of other pollutants.

Based upon the analytical results from these investigations, EPA Region II authorized a remedial investigation and feasibility

study (RI/FS) for the site. On-site and off-site field investigations were performed over the period from July 1987 through March 1988. In August 1990, EPA included the CIC site on its National Priorities List of Superfund sites.

Concurrent with the RI/FS work, EPA conducted several immediate actions to mitigate risks associated with the continuing problem of contaminated surface water runoff from the site. These included installation of a fence around site drainage areas, improvements to site drainage controls and cleanup of contaminated runoff from the adjacent Metroplex parking lot. However, these limited response actions only partially addressed the surface water runoff problem, in that the contaminated runoff would continue to migrate to downstream waterways (i.e., the unnamed tributary and Mill Brook), creating the potential for adverse impacts to human health and the environment.

Interim Remedy

On September 29, 1989, EPA issued a Record of Decision (ROD) selecting an interim remedial action to control contaminated runoff from the CIC site. The major features of the selected interim remedial action include: clearing and grading of the site; covering the site with a surficial cap; construction of a surface water runon diversion system; and controlled release of collected, uncontaminated surface water runoff from the site. This action represents the first cleanup phase for the entire site. Construction of this interim remedy was completed in September 1994. Although it was anticipated that this interim action would be completed in 1992, remedial construction was delayed due to contractual problems as well as to address concerns regarding the potential for buried explosives at the site. Based on a subsequent explosives investigation, no buried explosives were identified within the top two feet of surface soil.

Final Remedy

While proceeding with the interim remedial action, EPA continued with the RI/FS, collecting additional samples and evaluating final solutions for site-wide contamination. The combination of chemical contaminants at the CIC site (herbicides, pesticides and metals) requires the performance of treatability tests prior to the identification of appropriate alternatives to remedy the site. EPA has performed bench-scale incineration, solidification and soil washing treatability testing since the issuance of the interim remedy ROD in September 1989. Soil washing was determined to be ineffective in remediating site soils using the soil washing procedure applied during the treatability test. Therefore, the draft final feasibility study, which EPA issued in March 1994, dismissed soil washing from further evaluation as a potential remedial alternative for the CIC site.

EPA has been working closely with the CIC Technical Assistance Grant (TAG) Committee and its technical advisor regarding the selection of a final remedy for the site. Based on its review of the draft feasibility study, the TAG Committee suggested further study of soil washing as a potential viable remedial alternative for the CIC site. EPA has also further explored the viability of soil washing with experts at its Office of Research and Development which recommended pursuit of further optimization tests based on new information. In addition, on July 27, 1994, the Municipal Council of the Township of Edison adopted a resolution requesting that EPA further evaluate the feasibility of soil washing at CIC. Consequently, EPA has decided to perform a follow-up soil washing treatability study involving the soils on the CIC site. EPA expects that the additional treatability study will be completed in 1996.

If, upon further study, soil washing appears effective as a potential remedial alternative, it will be evaluated in a revised draft feasibility study report. Based on the results of the feasibility study, EPA will release another proposed plan for public comment which will identify the Agency's preferred final remedy to address contaminated soil and groundwater. EPA expects to propose this final remedy during 1997.

Remedy for Off-site Areas

Concurrent with the RI/FS and construction of the interim remedy, EPA performed additional investigations in off-site areas to determine the nature and extent of off-site contamination. Based on the data generated during these investigations, EPA is documenting its selected remedy for addressing contaminated soil and sediment in residential areas and areas in and immediately adjacent to the unnamed tributary and Mill Brook.

Enforcement Activities

Since the Chemical Insecticide Corporation is no longer in existence, EPA has not been able to take enforcement action against CIC for the problems caused by the company. However, EPA has notified Mr. Arnold M. Livingston, who was the president of CIC, of his potential liability with respect to the site.

## HIGHLIGHTS OF COMMUNITY PARTICIPATION

EPA has been working closely with the Edison Wetlands Association, CIC Technical Assistance Grant (TAG) Committee, CIC Citizen's Advisory Committee, public officials and all other interested and concerned members of the community. Their participation and contributions to the site investigation/ remediation process have been and continue to be beneficial towards achieving the Agency's goal of effectively protecting

human health and the environment.

The Proposed Plan and supporting documentation for the second cleanup phase associated with the CIC site were released to the public for comment on November 7, 1994. These documents were made available to the public in the administrative record repositories maintained at the EPA Region II office (formerly, 26 Federal Plaza and currently, 290 Broadway, New York, New York), the Edison Township Municipal Complex (100 Municipal Boulevard, Edison, New Jersey), the Edison Library (340 Plainfield Avenue, Edison, New Jersey), and the Metuchen Library (480 Middlesex Avenue, Metuchen, New Jersey). A notice of availability for these documents was published in The Star-Ledger on November 7, 1994. A public comment period on the documents was held from November 7, 1994 to December 7, 1994.

On November 28, 1994, EPA and the New Jersey Department of Environmental Protection conducted a public meeting at the Edison Township Municipal Building, to inform local officials and interested citizens about the Superfund process, to review the planned remedial activities at the site, and to respond to any questions from area residents and other attendees.

Responses to the comments recieved at the public meeting and in writing during the public comment period are included in the Responsiveness Summary (see Appendix V).

**SCOPE AND ROLE OF ACTION**

The CIC site, as characterized by the field investigations, is extremely complex due to the number and variety of contaminants present, the concentrations of contaminants, the physical and geological characteristics of the site, and the many potential migration routes for these contaminants. Consequently, EPA has divided the response actions for the site into several remedial phases as follows:

Interim Remedy: this remedial phase addressed the contaminated surface water runoff conditions at the CIC site.

Final Remedy: this remedial phase will address contaminated soil on the site and in off-site industrial areas, as well as groundwater contamination associated with the CIC site. A final remedy will be selected after the completion of additional soil washing treatability studies, as described above.

Off-Site Remedy: this will address the remediation of contaminated soil and sediment in off-site areas associated with the CIC site, as outlined in this ROD.

Since the purpose of this ROD is to document EPA's selected

remedy for addressing soil and sediment contamination in off-site areas, the subsequent summary of site characteristics focuses only on the off-site investigation efforts.

## SUMMARY OF SITE CHARACTERISTICS

Prior to construction of the above-described interim remedy, contaminated surface water runoff drained toward the northeast corner of the site where it discharged into an underground conduit which flows into an unnamed tributary of Mill Brook. As a result, off-site areas in and around the unnamed tributary and Mill Brook are contaminated with contaminants from the CIC site.

Arsenic was used in pesticides produced by CIC during the 1950s and 1960s and is the primary contaminant of concern involving the off-site areas. Arsenic also occurs naturally in soil. NJDEP has determined the upper limit of naturally occurring arsenic for New Jersey soils to be 20 parts per million (ppm).

In October 1992, EPA collected five soil samples in residential areas near the unnamed tributary and Mill Brook and found elevated levels of arsenic. Although the levels detected (up to 79.7 ppm) did not indicate an immediate risk to human health, additional soil sampling to evaluate the long-term risk due to exposure to arsenic contaminated soils was considered appropriate.

As a result, in July 1993, the EPA Environmental Response Team (ERT) conducted additional soil sampling in areas near the aforementioned streams. These areas included the Edison Glen and Edison Woods developments, areas in Metuchen near Route 287, and properties on Prince Street, Patrick Street and Cortlandt Street in Edison, New Jersey. Four samples of dirt and/or dust from building interiors and one well water sample were also collected.

The July 1993 sampling results indicated arsenic concentrations were below 20 ppm in all but one off-site residential surface soil sample (located within the Edison Glen condominium complex), while higher levels (up to 720 ppm) were found in and immediately adjacent to the unnamed tributary and Mill Brook. The analytical results of the dirt and/or dust samples indicated arsenic levels consistent with background, or naturally occurring concentrations. These results are summarized in EPA's October 20, 1993 correspondence in Appendix II.

In an attempt to define the extent of off-site contamination associated with the CIC site, additional soil, sediment, surface water, groundwater and interior dust sampling was performed by EPA during March and April 1994. EPA conducted extensive sampling at a number of locations including: 1) certain residential properties located along Wilshire Road and Rodak Circle, 2)

the Edison Glen and Edison Woods residential complexes in Edison, 3) areas in and immediately adjacent to the unnamed tributary and Mill Brook, and 4) areas in a Mill Brook tributary located along the southern edge of the Edison Woods residential complex.

During this investigation, soil and sediment samples were obtained in and around the unnamed tributary and Mill Brook at thirty-one specific transect locations. Each transect location is shown in Figure 1 (see Appendix I) as a solid line, designated with an alphabetical letter or letters (A to Z and AA, BB, CC, DD and EE), running perpendicularly through the unnamed tributary and Mill Brook.

The following data resulting from the March/April 1994 sampling effort indicate a similar distribution of arsenic as the July 1993 data:

- All but one of the residential surface soil samples (those samples taken from a residential yard or common ground within the Edison Glen and Edison Woods residential complexes) indicated arsenic concentrations below 20 ppm.

- The analyses of soil samples taken from areas immediately adjacent to the unnamed tributary and Mill Brook revealed arsenic concentrations ranging from 0.2 to 1110 ppm. The majority of the detected arsenic concentrations were below 20 ppm.

- The analyses of sediment samples taken from areas in the unnamed tributary and Mill Brook generated arsenic concentrations ranging from 1.1 to 366 ppm. The majority of the detected arsenic concentrations were below 20 ppm.

- The analyses of interior dirt and/or dust samples taken from several apartments within the Edison Glen residential complex revealed arsenic concentrations ranging from 0.8 ppm up to 11.3 ppm, indicating levels consistent with background, or naturally occurring concentrations.

EPA analyzed approximately ten percent of the samples for other contaminants, in addition to arsenic. None of the residential surface soil samples indicated the presence of any other contaminants at levels of concern. The soil and sediment samples taken in and immediately adjacent to the unnamed tributary and Mill Brook revealed elevated levels of several compounds, including semi-volatile organic compounds [benzo(b)flouranthene-1.2 ppm, benzo(a)pyrene-0.77-1.4 ppm, benzo(g,h,i)perylene-0.68 ppm, benzo(k)flouranthene-1.7 ppm, benzo(a)anthracene-1.3 ppm], one pesticide (dieldrin-0.005-0.099 ppm) and several inorganic compounds (antimony-25 ppm, beryllium- 1.1-1.9 ppm, lead-103-244 ppm).

The three surface water samples which were collected from specific locations along the unnamed tributary and Mill brook revealed the presence of several volatile organic compounds, herbicides, pesticides, and inorganic compounds, some of which exceeded applicable federal or state surface water quality criteria.

The results of EPA's 1994 sampling effort are summarized in EPA's July 11, 1994 correspondence and data tables in Appendix II.

## SUMMARY OF SITE RISKS

Based upon the results of the off-site investigations and assuming a reasonable maximum exposure scenario (as described below), a baseline risk assessment (see Appendix IV) was conducted to estimate the risks associated with current and future exposure to soils and sediments in and around the unnamed tributary and Mill Brook. The baseline risk assessment estimates the human health and ecological risk which could result from the contamination in these off-site areas if no remedial action were taken. Based on a residential exposure scenario, which assumes daily direct contact with contaminants, EPA also evaluated the risks associated with the one residential area where elevated levels of arsenic were detected (see Appendix IV).

### Human Health Risk Assessment

As part of the Human Health Risk Assessment, the reasonable maximum human exposure is evaluated by utilizing a four step process for assessing site-related human health risks. The four steps consist of: Hazard Identification--identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration. Exposure Assessment--estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways (e.g., ingesting contaminated wellwater) by which humans are potentially exposed. Toxicity Assessment--determines the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response). Risk Characterization--summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site-related risks.

### Unnamed Tributary and Mill Brook Areas

The baseline risk assessment began with selecting contaminants of concern which would be representative of off-site risks. In this case, arsenic was determined to be the primary contaminant of concern. Risk posed by other contaminants (excluding arsenic) which were detected in soils and sediment in off-site areas was

insignificant in comparison to arsenic and would not change the conclusions of EPA's risk assessment.

The baseline risk assessment then identified the reasonable maximum exposure scenario; it was presumed that adolescents playing at the tributary or the Brook would be the most sensitive potential receptors to the contamination. Adolescents (ages 7-18) were assumed to play at the unnamed tributary or Mill Brook once a week throughout the year, for 12 years. Exposure is primarily related to the incidental ingestion of soils and sediments contaminated with arsenic. Under current EPA guidelines, the likelihood of carcinogenic (cancer-causing) and non-carcinogenic effects due to exposure to site chemicals are considered separately. It is assumed that the toxic effects of site-related chemicals are additive. Thus, carcinogenic and non-carcinogenic risks associated with exposures to individual compounds of concern are respectively summed, to indicate the potential risks associated with mixtures of potential carcinogens and non-carcinogens. A summary of the potential carcinogenic and non-carcinogenic health effects is provided below.

o **Carcinogenic Risk**

Potential carcinogenic risks were evaluated using the cancer slope factors developed by EPA for the contaminants of concern. Cancer slope factors (SFs) have been developed by EPA's Carcinogenic Risk Assessment Verification Endeavor for estimating excess lifetime cancer risks associated with exposure to potentially carcinogenic chemicals. SFs, which are expressed in units of kilogram-day/milligrams (kg-day/mg), are multiplied by the estimated intake of a potential carcinogen, in mg/kg-day, to generate an upper-bound estimate of the excess lifetime cancer risk associated with exposure to the compound at that intake level. The term "upper bound" reflects the conservative estimate of the risks calculated from the SF. Use of this approach makes underestimation of the risk highly unlikely. The oral SF for arsenic is presented in Appendix V.

For known or suspected carcinogens, EPA considers excess upper-bound individual lifetime cancer risks of between $10^{-4}$ to $10^{-6}$ to be acceptable. This level indicates that an individual has not greater than approximately one in ten thousand to one in a million chance of developing cancer as a result of site-related exposure to a carcinogen over a 70-year lifetime under the specific exposure conditions at the site.

The excess cancer risk for an adolescent exposed to arsenic in the soils and sediment of the unnamed tributary and Mill Brook (using the reasonable maximum scenario described above) is $5 \times 10^{-6}$, which is within EPA's acceptable risk range. This can be interpreted to mean that an individual would have a five in a million excess risk of developing cancer if exposed to arsenic

under the above-described scenario.

o **Non-Carcinogenic Risk**

Non-carcinogenic risks were assessed using a hazard index (HI) approach, based on a comparison of expected contaminant intakes and safe levels of intake (Reference Doses). Reference doses (RfDs) have been developed by EPA for indicating the potential for adverse health effects. RfDs, which are expressed in units of milligrams/kilogram-day (mg/kg-day), are estimates of daily exposure levels for humans which are thought to be safe over a lifetime (including sensitive individuals). Estimated intakes of chemicals from environmental media (e.g., the amount of a chemical ingested from contaminated drinking water) are compared to the RfD to derive the hazard quotient for the contaminant in the particular medium. The HI is obtained by adding the hazard quotients for all compounds across all media that impact a particular receptor population.

An HI greater than 1.0 indicates that the potential exists for non-carcinogenic health effects to occur as a result of site-related exposures. The HI for non-carcinogenic effects from ingestion of arsenic in soils and sediments of the unnamed tributary and Mill Brook (using the reasonable maximum exposure scenario) was calculated to be 0.05 (see Appendix V). Therefore, non-carcinogenic effects are highly unlikely to occur from the exposure scenario evaluated in the risk assessment.

**Residential Areas**

In addition to the reasonable maximum exposure scenario evaluated for the areas in and around the unnamed tributary and Mill Brook, EPA also evaluated the risks associated with the one residential area where elevated levels of arsenic were detected. Based on a purely residential exposure scenario, which assumes daily direct contact with contaminants, an area with arsenic contamination significantly above 20 ppm (the upper concentration limit of naturally occurring arsenic for New Jersey soils) in a residential area may pose a human health threat on a long-term exposure basis. For the area behind Building 14 of the Edison Glen Condominium complex, based on the reasonable maximum exposure scenario, the carcinogenic risk was estimated to be $2 \times 10^{-4}$, which is at the high-risk end of EPA's acceptable risk range (see Appendix V). In addition, the non-carcinogenic risk to a child receptor was estimated, and an HI of 3.2 was calculated. This indicates the potential for adverse non-carcinogenic effects.

**Ecological Risk Assessment**

A four-step process is utilized for assessing site-related ecological risks for a reasonable maximum exposure scenario: Problem Formulation--a qualitative evaluation of contaminant

release, migration, and fate; identification of contaminants of concern, receptors, exposure pathways, and known ecological effects of the contaminants; and selection of endpoints for further study. Exposure Assessment--a quantitative evaluation of contaminant release, migration, and fate; characterization of exposure pathways and receptors; and measurement or estimation of exposure point concentrations. Ecological Effects Assessment--literature reviews, field studies, and toxicity tests, linking contaminant concentrations to effects on ecological receptors. Risk Characterization--measurement or estimation of both current and future adverse effects.

As with the Human Health Risk Assessment, arsenic was identified as the contaminant of concern in the ecological risk assessment (see Appendix IV). The assessment quantitatively evaluated the exposure pathways through which ecological receptors could be exposed to arsenic. The most probable exposure pathways for species inhabiting the areas in and immediately adjacent to the unnamed tributary and Mill Brook include ingestion of contaminated biota in the food chain and contact with or ingestion of contaminants present in surface soils, surface water and sediments. Receptor species, such as the deer mouse and eastern cottontail rabbit, could be directly exposed to arsenic through burrowing and grooming activities.

Potential risks to ecological receptors from arsenic present in surface soil and sediments were assessed by calculating the ratio of the medium-specific average and maximum contaminant concentrations to the criteria. Criteria utilized include a benchmark arsenic concentration at which the potential for chronic risk to small mammals exists. If the resulting ratio or hazard index is greater than 1.0, the biota may be at risk of an adverse effect from the arsenic. When there is more than one contaminant of concern in a media, a total hazard index is calculated by summing all the chemical-specific hazard indices for each media. In this case, since arsenic is the only contaminant of concern, there is only one hazard index per media of concern. It follows that a total hazard index greater than 1.0 indicates that exposure to all contaminants (in this case, only arsenic) of ecological concern within that medium may pose a risk to organisms. A literature search was also performed to gather and use all the valuable existing information regarding arsenic effects on the environment.

Results of the ecological risk assessment indicate that the average and maximum total chronic hazard indices for the surface soils are 2.0 and 27.4, respectively (calculated for small mammals as represented by the deer mouse). This indicates that adverse chronic ecological effects may occur in small mammals such as the deer mouse. This risk is driven by arsenic, which is the primary contaminant of concern. However, acute effects to small mammals are unlikely as the receptor would not likely

forage exclusively at locations where the potential exists for an acute effect to begin in the small mammal population (only 6 in over 115 locations with arsenic concentrations in surface soil exceeded 245 milligrams per kilogram (mg/kg)-- the potential threshold for acute effects).

Based on a chronic exposure scenario, it was determined that, at approximately 25 mg/kg of arsenic in surface soil, the potential for risk to the deer mouse population exists. As a result of a review of the existing information regarding arsenic effects in the environment, it was also determined that chronic microbiota effects begin at 375 mg/kg, acute earthworm effects begin at 150 to 165 mg/kg, and reduced plant productivity is noted at 25 to 85 mg/kg.

Risk to organisms at higher trophic levels (for example, at levels above the deer mouse) via exposure through the food chain was also assessed. It was determined that no risk to such organisms via this pathway of exposure is anticipated.

**Uncertainties**

The procedures and inputs used to assess risks in this evaluation, as in all such assessments, are subject to a wide variety of uncertainties. In general, the main sources of uncertainty include:

- environmental chemistry sampling and analysis
- environmental parameter measurement
- fate and transport modeling
- exposure parameter estimation
- toxicological data.

Uncertainty in environmental sampling arises in part from the potentially uneven distribution of chemicals in the media sampled. Consequently, there is significant uncertainty as to the actual levels present. Environmental chemistry-analysis error can stem from several sources including the errors inherent in the analytical methods and characteristics of the matrix being sampled.

Uncertainties in the exposure assessment are related to estimates of how often an individual would actually come in contact with the chemicals of concern, the period of time over which such exposure would occur, and in the models used to estimate the concentrations of the chemicals of concern at the point of exposure.

Uncertainties in toxicological data occur in extrapolating both from animals to humans and from high to low doses of exposure, as well as from the difficulties in assessing the toxicity of a mixture of chemicals. These uncertainties are addressed by

making conservative assumptions concerning risk and exposure parameters throughout the assessment. As a result, the Risk Assessment provides upper-bound estimates of the risks to populations near the site, and is highly unlikely to underestimate actual risks related to the site.

### Summary of Human Health and Ecological Risk

The results of the human health risk assessment indicate that, based on the reasonable maximum exposure scenario evaluated for the soils and sediments in and around the unnamed tributary and Mill Brook, the excess carcinogenic risk is within EPA's acceptable risk range, and adverse non-carcinogenic effects are not likely to occur. However, under a residential exposure scenario, an area with arsenic contamination significantly above 20 ppm may pose a human health threat on a long-term exposure basis.

The ecological risk assessment concluded that the analytical results of surface soil samples collected in the vicinity of the unnamed tributary and Mill Brook indicate the presence of arsenic at levels sufficient to generate acute risk to soil invertebrates and chronic risk to soil microbiota and small mammals. Contaminants other than arsenic which were found in soil during the investigation do not pose any significant risk to the terrestrial community. In addition, surficial stream sediments in some areas of the unnamed tributary and Mill Brook contain sufficient arsenic to pose a risk to the benthic community (organisms living on the tributary and brook bottoms). Isolated sediment sampling locations also indicated sufficient levels of semi-volatile organic compounds, pesticides and inorganic compounds to generate risk to the benthic community.

Actual or threatened releases of hazardous substances from the CIC site, if not remediated, may present a current or potential threat to public health and the environment.

## REMEDIAL ACTION OBJECTIVES

Remedial action objectives are specific goals to protect human health and the environment. These objectives are based on available information and standards such as applicable or relevant and appropriate requirements (ARARs) and risk-based levels established in the risk assessment. In order to address potential human health and ecological risks, the remedial action objective for the off-site remedy is to eliminate the potential for exposure to contaminated soils and sediment in residential areas and areas in and immediately adjacent to the unnamed tributary and Mill Brook.

The human health risk assessment indicated that, based on the reasonable maximum exposure scenario evaluated for the soils and sediments in and around the unnamed tributary and Mill Brook, the excess carcinogenic risk ($5 \times 10^{-6}$) is within EPA's acceptable risk range, and adverse non-carcinogenic effects are not likely to occur. However, under a residential exposure scenario, an area with arsenic contamination significantly above 20 ppm may pose a human health threat on a long-term exposure basis.

The ecological risk assessment indicated the potential for adverse ecological effects if no remedial action is taken. Because the unnamed tributary and Mill Brook currently exist as a mature habitat corridor in an otherwise heavily developed area, the habitat value of this area is increased and destruction of the area in connection with the removal of contaminated soils and sediment should be mitigated. However, its high ecological value also increases the attraction of receptors into this potentially hazardous habitat. Therefore, achieving a balance between mitigating the potential risk to ecological receptors and preserving the value of the habitat (or minimizing destruction of the habitat through remedial activity) is preferred.

EPA has determined that the highest levels of arsenic are located in the soil and/or sediment in and around the area of transects A, B, I, J, K, L, M, N, P, Q, S, V, W, X, Y, Z, and AA along the unnamed tributary and Mill Brook, as shown in Figure 1 of Appendix I. These transect locations include all the areas identified by the NJDEP as containing an arsenic concentration in soil and/or sediment at or above 100 ppm. EPA believes that by focusing remediation of soil and/or sediment in these areas, the majority of the contamination would be removed while achieving a reasonable and acceptable balance in preserving the ecology of the area.

EPA plans to rely on NJDEP's determination of the upper limit of naturally occurring arsenic for New Jersey soils (20 ppm) as a criteria in remediating the above-described areas targeted for cleanup. This same approach will be utilized to restore contaminated residential areas (a backyard or common ground within an apartment complex) such that any long-term risks associated with these areas are removed. Although an arsenic cleanup goal of 25 ppm would address the risks identified in the ecological risk assessment, applying a soil/sediment cleanup criteria of 20 ppm (or achieving an average residual arsenic level of 20 ppm) also enables EPA to further mitigate the human health risks.

## DESCRIPTION OF REMEDIAL ALTERNATIVES

CERCLA requires that each selected remedy be protective of human

health and the environment, be cost effective, comply with other statutory laws, and utilize permanent solutions and alternative treatment technologies and resource recovery alternatives to the maximum extent practicable. In addition, the statute includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility, or volume of the hazardous substances.

EPA's ability to exercise a preference for alternative treatment technologies in identifying potential remedial alternatives for the contaminated soils and sediment was limited for the following reasons:

- insufficient information is available to evaluate treatment technologies and their effectiveness in treating the contaminated soils and sediment without performing additional treatability studies;

- the expeditious schedule required for remediation; and

- logistical problems associated with storage (until sufficient additional treatability study work can be performed) of the off-site contaminated soil and sediment at the CIC site due to the recent completion of the above-described interim remedy.

In addition, containment of the contaminated material was also considered but screened out prior to EPA's final evaluation of alternatives. Because of the free-flowing and naturally unpredictable conditions present in the areas of the unnamed tributary and Mill Brook, in-situ containment was deemed impracticable and excluded from the subsequent alternatives evaluation.

Therefore, EPA has evaluated two remedial alternatives for addressing off-site contaminated soil and sediment.

These alternatives are:

**Alternative 1: No Action**

Estimated Capital Cost: $0
Estimated Operation & Maintenance Cost: $0
Estimated Present Worth Cost: $0
Estimated Implementation Time: 0

The Superfund program requires that the "no-action" alternative be considered as a baseline for comparison with other alternatives. Under this alternative, EPA would not take any action to remediate contaminated off-site soil and sediment. Because this alternative would result in CIC contaminants remaining in off-site areas, CERCLA requires that these areas be reviewed every five years. If justified by the review, remedial

actions may be implemented to remove or treat the contaminants.

Because the average arsenic level throughout the area would remain above 20 ppm, NJDEP would recommend land use restrictions (based on the New Jersey Industrial Site Recovery Act) to eliminate the potential for direct contact.

**Alternative 2: Excavation/Off-Site Disposal**

Estimated Capital Cost: $8,583,000
Estimated Operation & Maintenance Cost: $0
Estimated Present Worth Cost: $0
Estimated Time to Design and Implement: 24 months

Alternative 2 includes excavation and off-site disposal of contaminated soil and/or sediment within the areas of transects A, B, I, J, K, L, M, N, P, Q, S, V, W, X, Y, Z, and AA along the unnamed tributary and Mill Brook (as shown in Figure 1 of Appendix I). In addition, contaminated soil in a grassy area behind Building 14 of the Edison Glen Condominium Complex would be excavated to 20 ppm arsenic for off-site disposal. This is the only residential area warranting remediation.

The volume of soil and sediment to be excavated is estimated to be 10,000 cubic yards, which is approximately equivalent to 14,100 tons of soil and sediment.

The estimated capital cost of $8,583,000 required to implement Alternative 2 is a conservative estimate based on disposal of the contaminated soils and sediment as hazardous waste at an EPA-approved off-site hazardous waste landfill. Since it is possible that this material may not be classified as a hazardous waste, it may be disposed of at a non-hazardous waste facility, if such authorized facility is willing to accept it. Disposal of the material as non-hazardous waste at a non-hazardous waste facility would reduce the estimated capital cost required to implement Alternative 2 to $2,431,000.

The cost of this alternative also includes the cost of restoring the excavated areas to the extent practicable. This would include backfilling and revegetation to stabilize the excavated areas.

Because average residual levels of arsenic will be below 20 ppm, these areas would not be reviewed every five years and NJDEP would not recommend any land use restrictions. Furthermore, NJDEP's Stream Encroachment Regulations would serve to control any future intrusive activities in and around the unnamed tributary and Mill Brook.

**SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES**

During the detailed evaluation of remedial alternatives, each alternative is assessed utilizing nine evaluation criteria as set forth in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and Office of Solid Waste and Emergency Response (OSWER) Directive 9355.3-01. These criteria were developed to address the requirements of Section 121 of CERCLA to ensure all important considerations are factored into remedy selection decisions.

The following "threshold" criteria are the most important, and must be satisfied by any alternative in order to be eligible for selection:

- Overall protection of human health and the environment addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

- Compliance with applicable or relevant and appropriate requirements addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of other federal and state environmental statutes and requirements or provide grounds for invoking a waiver.

The following "primary balancing" criteria are used to make comparisons and to identify the major trade-offs between alternatives:

- Long-term effectiveness and permanence refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been achieved.

- Reduction of toxicity, mobility, or volume through treatment is the anticipated performance of the treatment technologies a remedy may employ.

- Short-term effectiveness addresses the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed during the construction and implementation period until cleanup goals are achieved.

- Implementability is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.

- Cost includes estimated capital and operation and

maintenance costs, and net present worth costs.

The following "modifying" criteria are considered fully after the formal public comment period on the Proposed Plan is complete:

- State acceptance indicates whether, based on its review of the Proposed Plan and supporting documentation, the state concurs, opposes, and/or has identified any reservations with the preferred alternative.

- Community acceptance refers to the public's general response to the alternatives described in the Proposed Plan and supporting documentation. Factors of community acceptance to be discussed include support, reservation, and opposition by the community.

A comparative analysis of these alternatives based upon the evaluation criteria noted above follows.

- Overall Protection of Human Health and the Environment

Alternative 1, no action, would not be protective of human health and the environment as there would not be any action taken to eliminate potential for direct contact with or ingestion of contaminated soils and sediment. Since no remedial activities would be implemented under this alternative, the risks posed to human health and the environment would be the same as those identified in the risk assessment. Alternative 1 is not consistent with remedial action objectives.

Alternative 2 provides protection of human health and the environment by removing the soils and sediment in the above-described contaminated areas, and restoring such areas. By eliminating the potential human health and ecological risks, Alternative 2 would satisfy the remedial action objectives. Furthermore, it balances the preservation of a valuable ecological habitat, while providing for removal of the majority of the arsenic contamination. Removal of contaminated soils and sediment also contributes to the improvement of surface water quality in the unnamed tributary and Mill Brook.

- Compliance with ARARs

ARARs are those federal or state environmental and public health regulations that apply to remedial activities at the site [or area(s) to be remediated]. There are three classifications of ARARs: chemical-specific, which are health- or risk-based concentration limits; location-specific, which are based on the geographical location of the site and its surroundings; and action-specific, which are controls on particular types of remedial activities.

EPA plans to use 20 ppm as a criteria in remediating the contaminated soils and sediment in residential areas and areas in and immediately adjacent to the unnamed tributary and Mill Brook. Although this is not a promulgated chemical-specific standard, and therefore not an ARAR, it does represent the upper limit of naturally occurring arsenic concentrations in New Jersey soils. Use of this criteria allows EPA to remove a large majority of the arsenic contamination while achieving a reasonable and acceptable balance in preserving a majority of the valuable ecology existing in these areas.

Alternative 1 would not attain the chemical-specific criteria in soils and sediment as it does not involve active remediation. Action- and location-specific ARARs are not applicable as Alternative 1 does not involve implementation of remedial activities.

Alternative 2 is expected to attain all chemical-, location- and action-specific ARARs. The chemical-specific cleanup criteria for soils and sediment would be achieved, since the residual average levels of arsenic will be below 20 ppm. All action- and location-specific ARARs for remedial activities in wetlands and floodplains would be achieved, including Section 404 of the Clean Water Act, Executive Order 11990 (Protection of Wetlands), the Flood Hazard Area Control Act (N.J.S.A. 16:50A) and the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B). The Occupational Safety and Health Act (OSHA) would apply to all workers conducting the remedial activities specified under Alternative 2.

In addition and as discussed above, the excavated material may be classified as a hazardous waste requiring adherence to regulations involving the transport and off-site disposal of hazardous waste. If necessary, the requirements of the Resource Conservation and Recovery Act (RCRA), the Department of Transportation (DOT) and the New Jersey Solid and Hazardous Waste Regulations would be achieved through proper handling and shipment of the contaminated material to an EPA-approved disposal facility. A determination of the material classification would be made during design/implementation of Alternative 2 in order to select an appropriate off-site disposal facility.

- o Long-Term Effectiveness and Permanence

Alternative 1 is not considered to be effective over the long term as it does not include remediation of any off-site contamination. Therefore, this alternative would not achieve the remedial action objectives, since it would not reduce exposure to contaminated soils and sediment in the subject areas. As required by CERCLA, areas where contamination is left in place must be reviewed every five years. If justified by the review, remedial actions may be implemented to address the contaminated areas.

Alternative 2 includes removal of the majority of the arsenic contamination, thereby eliminating the potential for human exposure to and adverse ecological effects from contaminants at levels of concern. As a result, a review of these areas every five years is not required. This alternative is considered effective over the long term and represents a permanent remedy to address these areas, and does not require future monitoring, operation or maintenance.

- o Reduction in Toxicity, Mobility, or Volume

Alternative 1 does not include treatment of contaminated soils and sediment, and therefore, does not reduce the toxicity, mobility, or volume of contamination in the areas subject to remediation. The contaminated material would remain in these areas.

As with Alternative 1, Alternative 2 is not expected to include treatment. However, if so determined, the material excavated under Alternative 2 may require treatment before it can be disposed of in an off-site landfill. Such treatment may result in a reduction of the toxicity and mobility of contamination.

- o Short-Term Effectiveness

Since there are no remedial activities being implemented under Alternative 1, there would be no additional short-term risks posed to human health or the environment.

The time required to implement Alternative 2 is estimated to be 24 months. No additional risks to human health or the environment are expected as a result of the implementation of these activities. Due to the intrusive nature of soil and sediment removal, there may be potential risks posed to workers during the remedial activities. Worker protection would be required to prevent direct contact with contaminated material during the excavation effort. In addition, workers would be trained in health and safety, and protective equipment would be provided during construction activities.

The excavation effort would cause significant disruption to areas in and around the unnamed tributary and Mill Brook. While EPA plans to minimize the destruction of trees in these areas, it is expected that a number of trees would be removed. The related activities would also require stream encroachment and disturbance of sediments. However, EPA would take the appropriate steps to adequately control water flow and sediment runoff. Upon completion of the excavation activities, the disturbed areas would be restored and stabilized by backfilling and revegetating.

Since the remedial activities would occur in and around residential areas, EPA anticipates that these activities may be

considered disruptive to some or all residents. For example, a high volume of traffic is expected to occur during the soil and sediment removal activities. EPA would take appropriate and reasonable measures to ensure that proper traffic controls are implemented and that impacts to affected residents are minimized. EPA would work closely with the community during the remedial design period to coordinate these construction-related activities.

- o Implementability

There are no implementability concerns posed by Alternative 1 since no remedial action would be taken under this alternative.

Alternative 2 would be difficult to implement due to the large volume of material to be excavated and the limited accessibility to the areas to be remediated. Temporary access roadways would be constructed to provide necessary vehicular equipment access to areas to be remediated in and immediately adjacent to the unnamed tributary and Mill Brook.

In addition, attempts would be made during implementation of the remedial action to minimize tree removal, which would likely require additional time for the excavation work.

- o Cost

Since Alternative 1 does not include any remedial activities, there are no costs associated with this alternative.

Since Alternative 2 does not require operation and maintenance, present worth and operation and maintenance costs were not estimated. The estimated capital cost associated with Alternative 2 is $8,583,000 and $2,431,000 assuming off-site disposal of contaminated material as hazardous and non-hazardous waste, respectively.

- o State Acceptance

The State of New Jersey concurs with EPA's preference of Alternative 2.

- o Community Acceptance

In general, both public officials and community residents expressed support for Alternative 2. A more detailed discussion of community concerns is presented in the Responsiveness Summary.

**SELECTED REMEDY**

Based upon consideration of the requirements of CERCLA, the detailed analysis of the alternatives, and public comments, both

EPA and the New Jersey Department of Environmental Protection have determined that Alternative 2 is the most appropriate remedy to address soil and sediment contamination related to the CIC site in and around off-site residential areas.

Alternative 2 includes excavation and off-site disposal of contaminated soil and/or sediment within the areas of transects A, B, I, J, K, L, M, N, P, Q, S, V, W, X, Y, Z, and AA along the unnamed tributary and Mill Brook (as shown in Figure 1 of Appendix I). In addition, contaminated soil in a grassy area behind Building 14 (also shown in Figure 1 of Appendix I) of the Edison Glen Condominium Complex will also be excavated for off-site disposal.

Approximately 10,000 cubic yards of soil and sediment will be removed and the remediated areas will be appropriately restored. This approach enables EPA to restore contaminated residential areas such that any long-term risk associated with these areas is removed and no property use restrictions will be required. By also targeting specific contaminated areas in and near the unnamed tributary and Mill Brook, EPA is able to remove a significant portion of the CIC contamination while achieving a reasonable and acceptable balance in preserving the ecology of the area. Furthermore, because the average residual levels of arsenic will be to be below 20 ppm, it will not be necessary to perform five-year review in connection with the off-site areas or require the imposition of land use restrictions.

The selected remedy is the most protective of human health and the environment because it eliminates the risk associated with exposure to contaminated soil and sediment by both human and ecological receptors. Alternative 1 is not protective of human health and the environment.

Due to the large volume of material to be excavated and the limited accessibility to the areas to be remediated, Alternative 2 will be difficult to implement. However, the benefits of the selected remedy outweigh any associated implementability issues. EPA will work closely with the community during the remedial design period and to coordinate construction activities.

Future use of the off-site areas being targeted for remediation is also an important consideration. These areas would likely be restricted from future use under Alternative 1 in order to control exposure to contaminated soils and sediment. However, under the selected remedy, a greater degree of flexibility exists regarding future use of the areas targeted for remediation, as land use restrictions will not be required.

The selected remedy is much higher in cost than Alternative 1. However, when evaluating the cost effectiveness of the alternatives, which is determined by weighing the cost against

the alternative's ability to achieve ARARs and remedial action objectives, the selected remedy is cost effective. Unlike Alternative 1, the selected remedy achieves a balance in preservation of the ecology while eliminating the potential for exposure to contaminated soils and sediments in the areas targeted for remediation.

The selected remedy provides the best balance of trade-offs among alternatives with respect to the evaluation criteria. EPA and NJDEP believe that the selected remedy will be protective of human health and the environment, will comply with ARARs, will be cost effective, and will utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable.

## STATUTORY DETERMINATIONS

Under its legal authorities, EPA's primary responsibility at Superfund sites is to undertake remedial actions that are protective of human health and the environment. In addition, Section 121 of CERCLA establishes several other statutory requirements and preferences. These specify that when complete, the selected remedial action must comply with applicable or relevant and appropriate environmental standards established under federal and state environmental laws unless a statutory waiver is justified. The selected remedy also must be cost effective and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Finally, the statute includes a preference for remedies that employ treatment that permanently and significantly reduce the volume, toxicity, or mobility of hazardous wastes, as available. The following sections discuss how the selected remedy meets these statutory requirements.

### Protection of Human Health and the Environment

The selected alternative provides protection of human health and the environment by removing the soils and sediment in the above-described contaminated areas, and restoring such areas. The excavated contaminated material will be disposed at a secure landfill, thereby preventing any future negative impacts to the surrounding environment. Alternative 2 balances the preservation of an ecological habitat, while providing for removal of the majority of the arsenic contamination. Because this remedy involves removal of a limited portion of the areas in and around the unnamed tributary and Mill Brook, short-term and long-term impacts to the ecosystem are minimized. Removal of contaminated soils and sediment also contributes to the improvement of surface water quality in the unnamed tributary and Mill Brook.

Compliance with ARARs

The selected remedy is expected to comply with all ARARs necessary to achieve the above-described remedial action objectives. The remedy is designed to comply with all action- and location-specific ARARs that pertain to remedial activities in wetlands and floodplains. The chemical-specific cleanup criteria for soils and sediment will be achieved since the residual average levels of arsenic will be below 20 ppm. All action-specific ARARs identified under OSHA will apply to all workers conducting the remedial activities specified under the selected remedy. In addition and as discussed above, the selected remedy may require classification of the excavated material as a hazardous waste and, therefore, be required to adhere to regulations involving the transport and off-site disposal of hazardous waste. If the soils and sediment are classified as hazardous waste, the remedy will comply with the requirements of the Resource Conservation and Recovery Act, the Department of Transportation and the New Jersey Solid and Hazardous Waste Regulations will be achieved through proper handling and shipment of the contaminated material to an EPA-approved disposal facility. A determination of the material classification will be made during design/implementation of the selected remedy in order to select an appropriate off-site disposal facility.

Cost Effectiveness

When evaluating the cost effectiveness of the alternatives, which is determined by weighing the cost against the alternative's ability to achieve ARARs and remedial action objectives, the selected remedy has been determined to be the most cost effective.

Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

The selected remedy represents the maximum extent to which permanent solutions and treatment technologies can be utilized in an expeditious and cost effective manner to remediate CIC contamination in and around off-site residential areas. Although the selected remedy does not involve the reduction of toxicity, mobility, or volume through treatment, it provides long- and short-term effectiveness, and is cost effective.

Preference for Treatment as a Principal Element

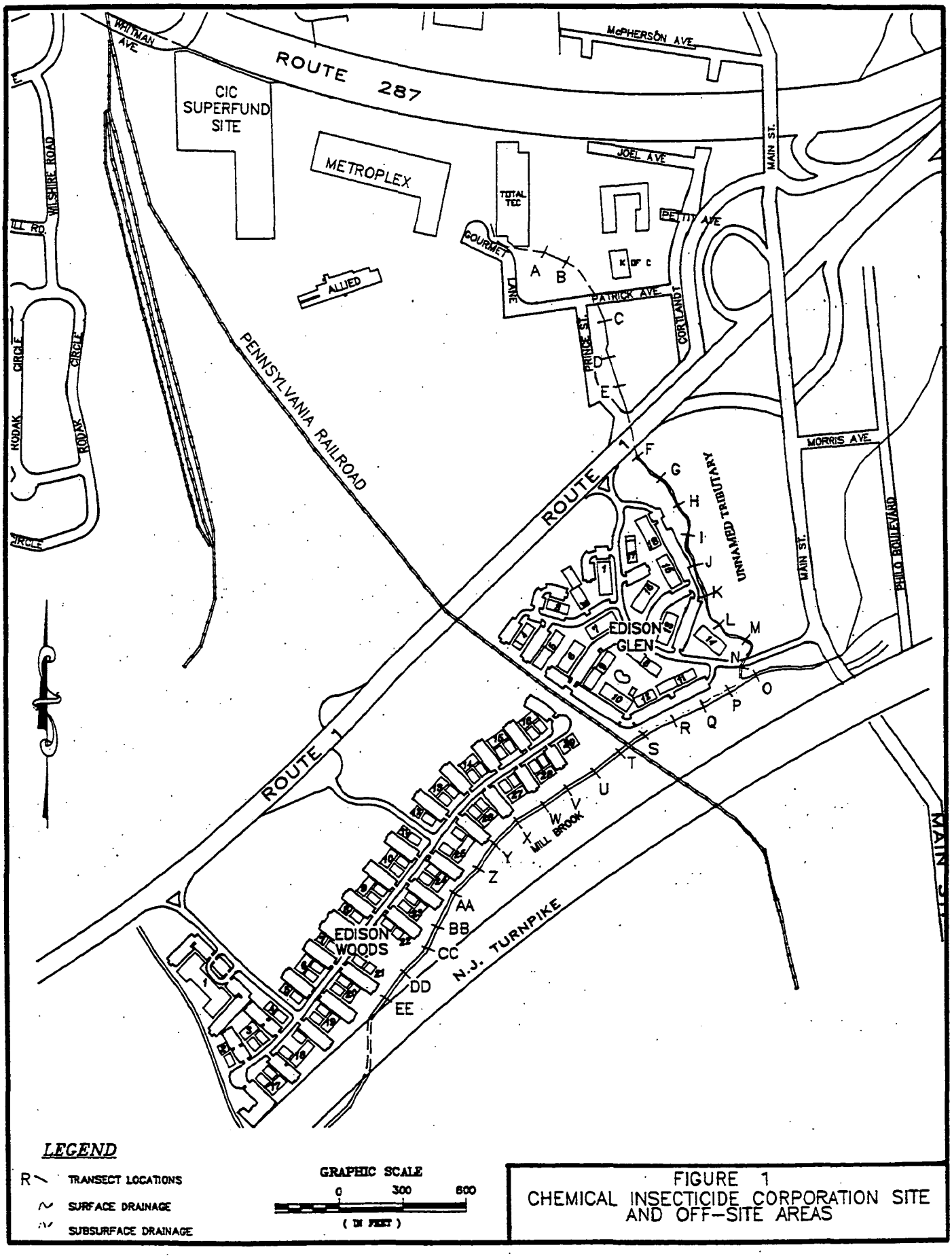
The selected remedy does not satisfy the preference for treatment as a principal element. Treatment of the principal threats of the areas to be remediated was not found to be practicable because no effective treatment technology is readily available at this time.

## DOCUMENTATION OF SIGNIFICANT CHANGES

There have been no significant changes in the selected remedy from the preferred remedy described in the Proposed Plan.

**APPENDIX I**

**Figure 1**

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R ~ TRANSECT LOCATIONS

~ SURFACE DRAINAGE

SUBSURFACE DRAINAGE

GRAPHIC SCALE

0 300 600

( IN FEET )

FIGURE 1
CHEMICAL INSECTICIDE CORPORATION SITE
AND OFF-SITE AREAS

# APPENDIX II

## Data

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, NEW YORK 10278-0012

October 20, 1993

Dear Resident:

The purpose of this letter is to inform you of the test results for the soil samples collected by the U. S. Environmental Protection Agency (EPA) from July 6 through 8, 1993. The testing was performed to better define the extent of contamination associated with the Chemical Insecticide Corporation (CIC) Superfund site at 30 Whitman Avenue, Edison, New Jersey. The samples were collected at a number of locations including: 1) properties on Prince Street, Patrick Avenue and Cortland Street in Edison, 2) the Edison Glen and Edison Woods residential complexes in Edison, and 3) areas in Metuchen near Route 287. Four samples of dirt and/or dust from building interiors and one well water sample were also collected.

This sampling effort was a follow-up to soil sampling performed by EPA in October of 1992 near Mill Brook and an unnamed creek, two streams that receive drainage from the CIC site. Some levels of arsenic found in the 1992 samples were higher than levels typically found in New Jersey soils. However, because those samples were taken mainly on the banks of the two streams, it was not known whether the elevated concentrations of arsenic extended from the streams to areas closer to the nearby buildings. The July 1993 sampling effort included additional sampling on the banks of the streams as well as soil samples taken closer to the nearby buildings. The July 1993 project involved the collection of sixty-seven samples, as compared to only nine samples collected in October of 1992.

Arsenic was used in pesticides produced by the Chemical Insecticide Corporation during the 1950's and 1960's. Arsenic also occurs naturally in soils and is typically found at concentrations between 5 to 30 parts per million (ppm) in New Jersey. Higher or lower concentrations are found in different geographic areas. An extensive study was conducted to establish naturally occurring background concentrations of arsenic for a Superfund site in Middlesex County. Background concentrations for arsenic were found to be 28 ppm.

The July 1993 sampling results are presented in an EPA document entitled: "Final Report, Off-Site Characterization, Chemical Insecticide Site, Edison, NJ" dated September, 1993. The results are summarized on the attached map. Arsenic concentrations were below 28 ppm in all but one off-site soil samples except those in the immediate vicinity of the unnamed creek and Mill Brook.

EPA's preliminary evaluation the data indicates that the potential exposure to arsenic contaminated soil does not present an immediate heath risk. Although the highest concentrations of arsenic for the July 1993 samples are greater than the highest concentrations found in samples collected in October 1992, the recent data indicates that soil arsenic levels decrease to normal levels with increasing distance from the streams. The new sampling results indicate that the arsenic contamination is limited chiefly to the outskirts of properties along the two streams. This limited spacial distribution of the arsenic contamination reduces the potential for human exposure to the arsenic. However, there is concern that exposure to arsenic levels found near the creek and brook may be of concern over the long-term.

EPA has made the July 1993 sampling results available to the Federal Agency for Toxic Substances and Disease Registry (ATSDR) and to the New Jersey Department of Health (NJDOH) for review and comment. The initial review of the sampling results by ATSDR and NJDOH confirmed EPA's preliminary evaluation. ATSDR and NJDOH concurred that the arsenic levels documented in the July 1993 sampling event do not pose an immediate public health threat. However, ATSDR and NJDOH did express the concern that the arsenic levels may pose a public health threat on a long-term exposure basis. EPA, ATSDR and NJDOH plan to continue to evaluate the potential health risks associated with the off-site arsenic contamination.

Since there is no concern about immediate health effects due to potential short-term exposure to arsenic contamination, EPA plans to address the concerns related to long-term exposure as part of the complete remedy for the site. EPA anticipates selecting a cleanup plan for the site in the Spring of 1994. Excavation of off-site soils would be expedited, following the selection of a remedy.

Anticipating that community residents, property owners and others may have questions about this matter, EPA has scheduled a public meeting to provide additional information and answer questions about the CIC site. ATSDR and NJDOH also plan to participate in this meeting. The time and place are:

Monday, October 25, 1993 from 7 PM to 9:30 PM
Metuchen Borough Hall
Main Street and Middlesex Avenue (Route 27)
Metuchen, New Jersey 08840

You will be kept informed regarding future EPA activities for the CIC site. In addition, feel free to contact Mr. Jonathan Josephs, Project Manager at 212-264-8098, or Ms. Cecilia Echols, Community Relations Coordinator at 212-264-0949 if you require further information.

Sincerely,

Nicoletta Di Forte, Chief
Northern New Jersey Section
New Jersey Superfund Branch II

Attachment

U.S. ENVIRONMENTAL PROTECTION AGENCY. OCTOBER 20, 1993
REGION II

# QUESTIONS AND ANSWERS CONCERNING OFF-SITE SAMPLING RESULTS FOR THE CHEMICAL INSECTICIDE SITE, EDISON, NEW JERSEY

***Is there an immediate problem that needs to be addressed on an emergency basis?***

The concentrations of arsenic found off-site do not pose a short-term health threat; therefore, an immediate action is not required . EPA uses a range of 1000 to 2000 ppm of arsenic to determine when an immediate action is warranted.

***Is there a concern about effects from long-term exposure?***

In limited areas around the unnamed creek and Mill Brook, long-term exposure to the concentrations of arsenic found may be of concern. This concern is based on repeated ingestion of the most contaminated soils over many years. However, the location of contaminated soils reduces the likelihood for exposure to arsenic.

***Have the appropriate health agencies reviewed the data?***

Both the Agency for Toxic Substances and Disease Registry and the New Jersey Department of Health have reviewed the results. These Agencies have independently concluded that while there may be a concern about the effects of long-term exposures, there is no immediate public health threat associated with the concentrations of arsenic found off-site.

***Will the contamination be cleaned up?***

Since there is no immediate public health threat associated with off-site contaminated soils, EPA plans to clean up the areas around the unnamed creek and Mill Brook as part of the complete remedy for the CIC site. This remedy should be selected by the Spring of 1994. Excavation of off-site soils will be expedited, once the remedy is selected.

***Will additional off-site soil sampling be performed?***

There is sufficient sampling to determine that a remedy is warranted for off-site soils. Additional samples will be taken as part of the complete remedy to define the boundaries of off-site areas to be excavated.

***What levels of arsenic in off-site soils will require long-term cleanup?***

EPA is currently working with the New Jersey Department of Environmental Protection and Energy to establish a cleanup level for the CIC site. An extensive study was conducted to determine background concentrations of arsenic for another Superfund site in Middlesex County. The study indicated that 28 ppm was background for the area. EPA anticipates that the cleanup level will be in the 20 ppm range.

***What off-site areas require cleanup?***

Of the 62 soil samples collected, 20 exceed 20 ppm. All of the samples that exceeded 20 ppm are adjacent to the unnamed creek or Mill Brook.

***Will the interim cap address off-site contamination?***

The installation of a cap would prevent future migration of contaminated stormwater runoff from the CIC site, but would not address the current off-site conditions.

***When will the interim cap be installed on the CIC site?***

The contractor which will be conducting an investigation for explosives waste has begun mobilizing equipment to the site. The explosives waste investigation is scheduled to begin shortly. If the explosives investigation shows that there is not a significant problem, then mobilization for cap construction should begin in December.

U.S. ENVIRONMENTAL PROTECTION AGENCY CONTACT: CECILIA ECHOLS (212) 264-0949

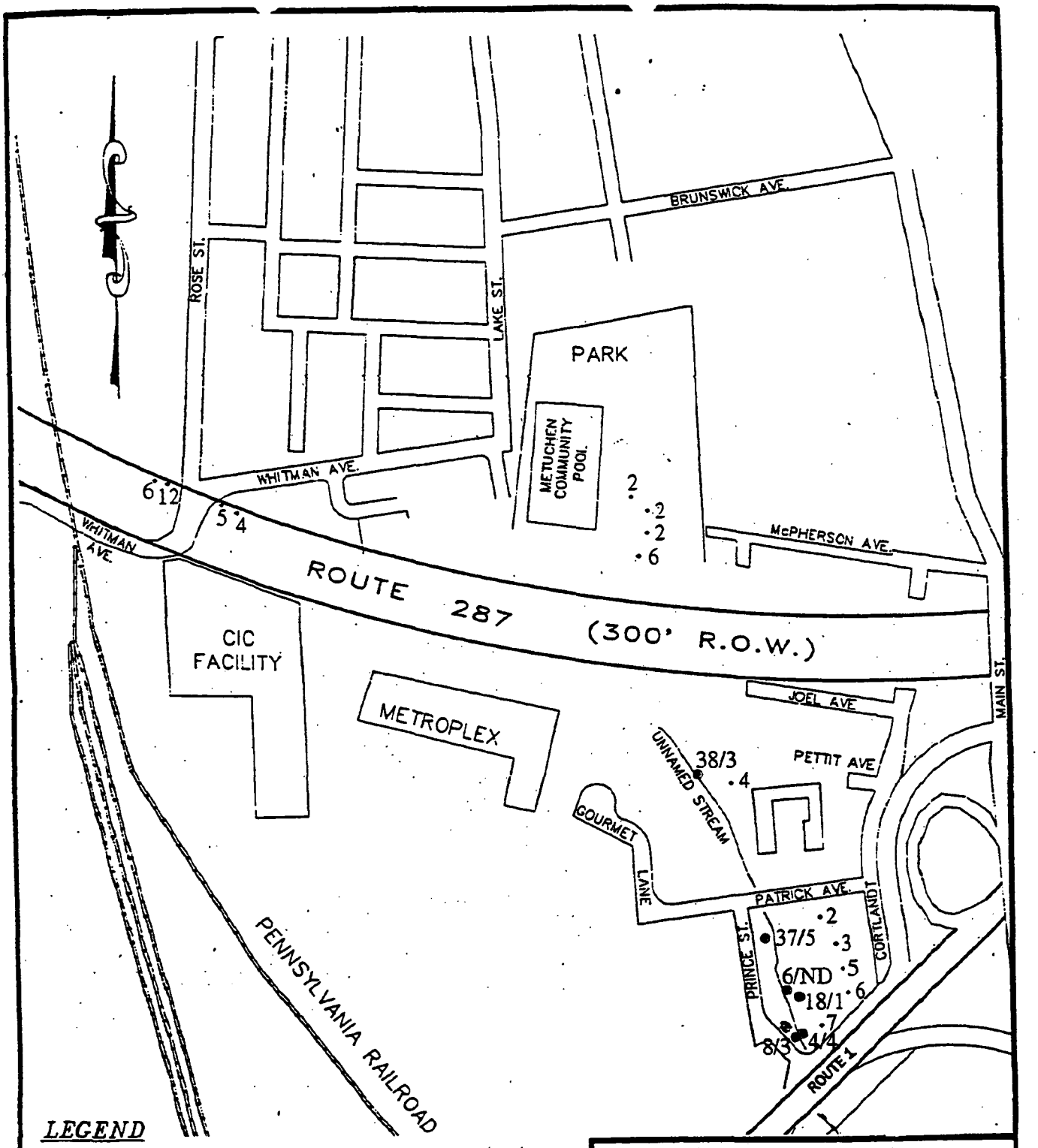



FIGURE 1

Sampling Locations and Arsenic Concentrations
CIC Facility Area
Chemical Insecticide Site
Edison, New Jersey
July 1993

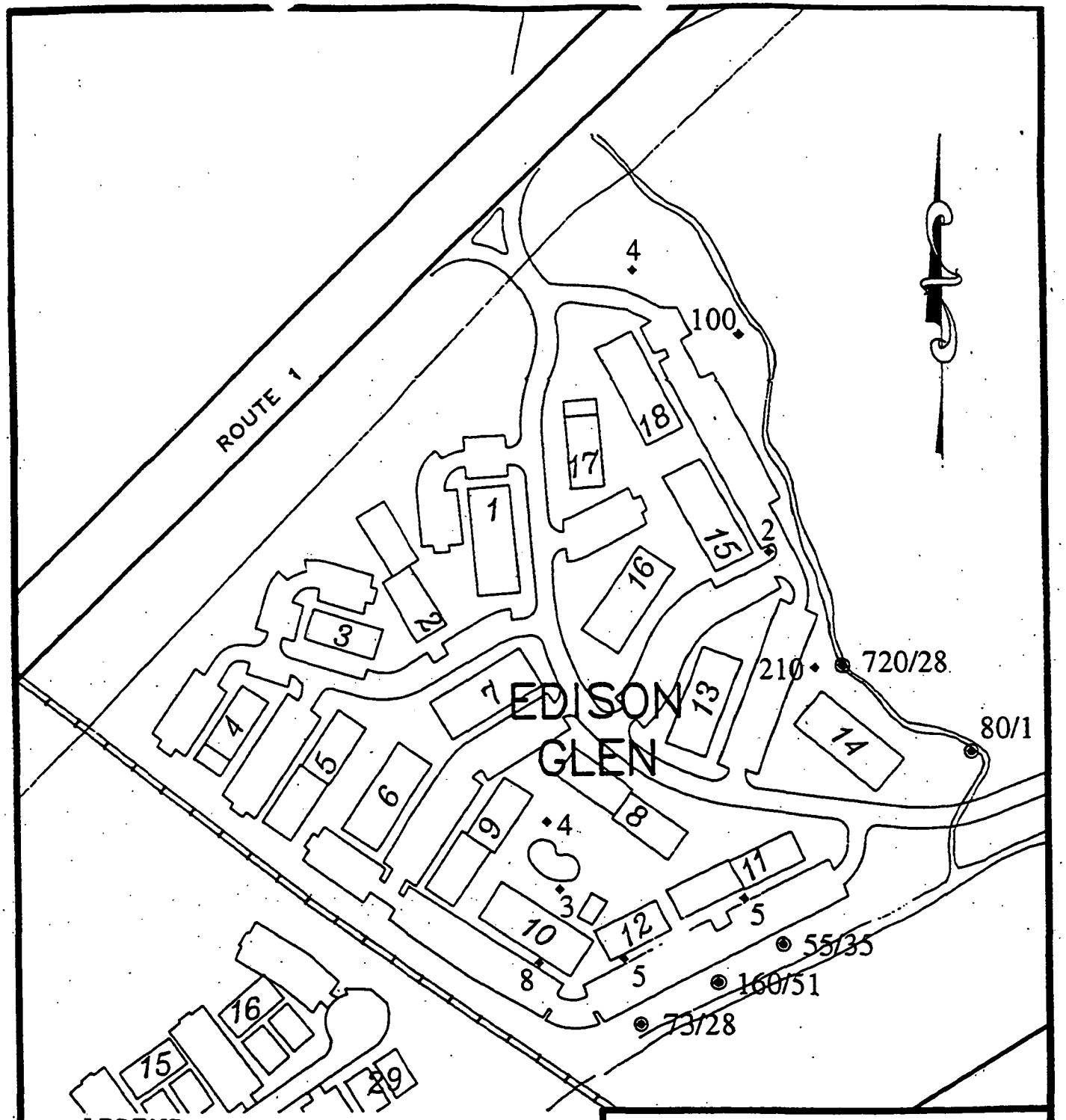
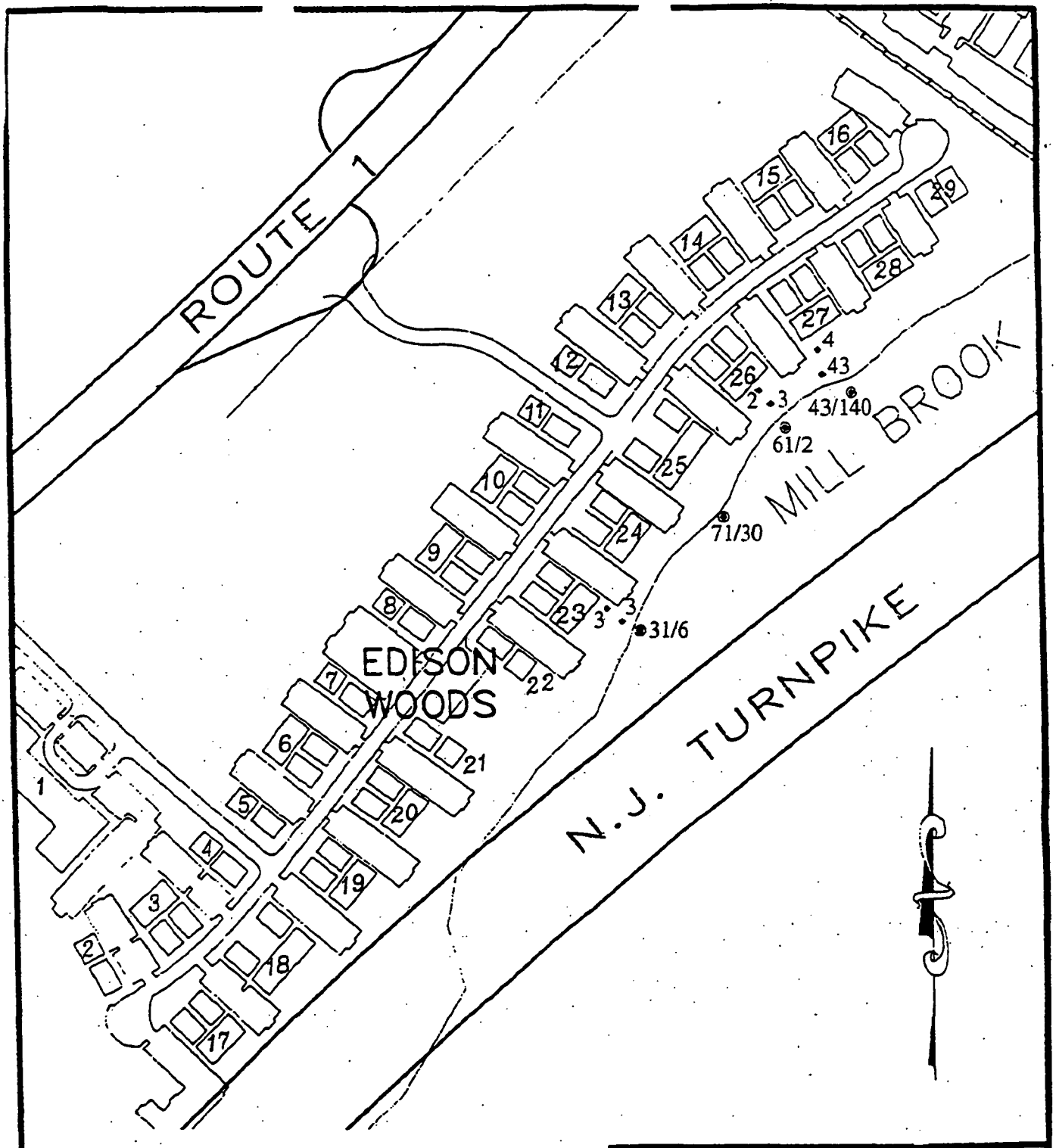



FIGURE 2

Sampling Locations and Arsenic Concentrations
Edison Glen Development Area
Chemical Insecticide Site
Edison, New Jersey
July 1993

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- Surface Soil Sample Location & Concentration (mg/kg)
- Surface & Subsurface Soil Location & Concentrations (mg/kg) X/Y: X = Surface Soil Conc. Y = Subsurface Soil Conc.

GRAPHIC SCALE

200 0 100 200 400

( IN FEET )

1 inch = 200 ft.

FIGURE 3

Sampling Locations and Arsenic Concentrations
Edison Woods Development Area
Chemical Insecticide Site
Edison, New Jersey
July 1993

**Table 1**

Results of Arsenic Analysis of Dust Samples
Chemical Insecticide Site
Edison, N.J.
July 1993

| Sample Location | Arsenic Concentration (mg/kg) |
|---|---|
| 14 Prince Street | 3 |
| 1 Cortlandt Street | 9 |
| 1 Cortlandt Street (crawlspace) | 2 |
| Knights of Columbus Hall | 1 |

Table 2

Organics/Inorganics Concentrations Detected in Groundwater Sample
Chemical Insecticide Site
Edison, N.J.
July 1993

| Parameter | Concentration (ug/L) |
|---|---|
| Aluminum | 290 |
| Barium | 110 |
| Beryllium | 0.6 |
| Cadmium | 3.4 |
| Calcium | 46000 |
| Cobalt | 30 |
| Copper | 3100 |
| Iron | 190 |
| Lead | 8 |
| Magnesium | 11000 |
| Manganese | 380 |
| Nickel | 57 |
| Potassium | 3400 |
| Sodium | 49000 |
| Zinc | 570 |
| Aroclor 1254 (a polychlorinated biphenyl) | 0.7 |

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, NEW YORK 10278-0012

July 11, 1994

Re: Chemical Insecticide Corporation Superfund Site

Dear Resident and/or Property Owner:

This letter is to inform you of the results of soil, sediment, surface water and groundwater sampling performed by the U.S. Environmental Protection Agency (EPA) from March 14 through April 1, 1994. EPA is pleased to report that the recent sampling results are consistent with previous testing, and indicate that there is no immediate health threat posed by off-site arsenic contamination.

The sampling was intended to further measure the extent of potential off-site contamination associated with the Chemical Insecticide Corporation (CIC) Superfund site at 30 Whitman Avenue, Edison, New Jersey. The samples were collected at a number of locations including: 1) certain residential properties located along Wilshire Road and Rodak Circle, 2) the Edison Glen and Edison Woods residential complexes in Edison, 3) areas in and immediately adjacent to the unnamed stream and Mill Brook, and 4) areas in a Mill Brook tributary located along the Southern edge of the Edison Woods residential complex. Three samples of dirt and/or dust from certain apartments and one well water sample were also collected. **The results are summarized in the attached figures.**

As you may be aware, arsenic was used in pesticides produced by the Chemical Insecticide Corporation during the 1950's and 1960's and is the primary contaminant of concern for the site. Arsenic also occurs naturally in soils and is typically found at concentrations between 5 to 30 parts per million (ppm) in New Jersey. Higher or lower concentrations are found in different geographic areas. The New Jersey Department of Environmental Protection and Energy has determined the upper limit of naturally occurring arsenic concentration for New Jersey (including Edison) to be 20 ppm.

This recent sampling effort was a follow-up to soil sampling performed by EPA in July of 1993 at a number of locations including properties on Prince Street, Patrick Avenue and Cortland Street in Edison; the Edison Glen and Edison Woods residential complexes in Edison; and areas in Metuchen near Route 287. The July 1993 sampling results indicated arsenic concentrations were below 20 ppm in all but one off-site residential soil sample, while higher levels were found in and immediately adjacent to the unnamed stream and Mill Brook. The attached arsenic data resulting from the March/April 1994 sampling effort indicate a similar distribution of arsenic as follows:

- All but one of the residential soil sample (those samples taken from a residential yard or common ground within Edison Glen and Edison Woods residential complexes) analyses indicated arsenic concentrations below 20 ppm. Figures 1, 2, 3, and 5 provide the data associated with each of such sampling locations. The dumpster area shown in Figure 3 indicates the location of the one residential soil sample which generated an arsenic concentration above 20 ppm.

- The analyses of soil and sediment samples taken from areas in and immediately adjacent to the the unnamed stream and Mill Brook generated arsenic concentrations ranging from less than 1 up to 1100 ppm. The majority of the detected concentrations were below 20 ppm. Figure 6 provides the data associated with each of these samples.

- The three dirt and/or dust samples collected from specific apartments within the Edison Glen condominium complex indicated arsenic concentrations which ranged from approximately 0.8 ppm up to 11.3 ppm. Figure 4 provides the data associated with each of these apartments.

**Soil in Residential Yards/Common Areas**

EPA's evaluation of the off-site sampling data indicates that the potential exposure to arsenic does not present an immediate health risk. As stated above, with the exception of one sample, all soil in residential areas contained arsenic at concentrations of less than 20 ppm, which is consistent with naturally occurring levels in New Jersey. However, since arsenic contamination significantly above 20 ppm in a residential yard or common grounds within Edison Glen or Edison Woods residential complexes may pose a long-term risk, this contamination will be remediated by EPA.

**Soil/Sediment in Unnamed Stream/Mill Brook**

A Risk Assessment was conducted to estimate the human health risks associated with potential exposures to arsenic detected in the soils and sediments in and immediately adjacent to the Unnamed Stream and Mill Brook. The risk assessment was conducted using a highly conservative estimate of exposure, which is likely to overestimate the health risks related to the unnamed stream and Mill Brook. This risk assessment identified adolescents playing at the stream or the Brook as the most sensitive potential receptors to the contamination. Adolescents (ages 7-18) were assumed to play at the unnamed stream or Mill Brook once a week throughout the year, for 12 years. Exposures were assumed to occur primarily through incidental ingestion of soils and sediments contaminated with arsenic.

Based on the Risk Assessment for soils and sediments of the stream and brook, there is no unacceptable risk to human health posed by exposure to these areas. For known or suspected carcinogens such as arsenic, EPA considers excess upper-limit individual lifetime cancer

risks of between $10^{-4}$ and $10^{-6}$ to be acceptable. This range indicates that an individual has not greater than approximately a one in ten thousand to one in a million chance of developing cancer as a result of site-related exposure to a carcinogen under the specific exposure conditions at the site. The excess cancer risk for an adolescent exposed to arsenic in the soils and sediments in and immediately adjacent to the unnamed stream and Mill Brook (using the conservative assumptions outlined above) is $5 \times 10^{-6}$, which is well within EPA's acceptable risk range. In addition, non-carcinogenic effects are also highly unlikely to occur from the exposure scenario evaluated in the Risk Assessment.

**Interior Dust**

The level of arsenic found in the interior dust samples at the Edison Glen complex is generally consistent with the concentrations found in the surficial soils at Edison Glen, thus, suggesting that the major contributing factor to the interior arsenic levels is the soil derived dust (with naturally occurring levels of arsenic below 20 ppm) from outside the dwellings. The risk associated with the arsenic levels detailed above would also fall within EPA's acceptable excess lifetime cancer risk range of between $10^{-4}$ and $10^{-6}$ and would not pose a non-carcinogenic hazard for residents of the Edison Glen.

**Public Availability Session and Meeting**

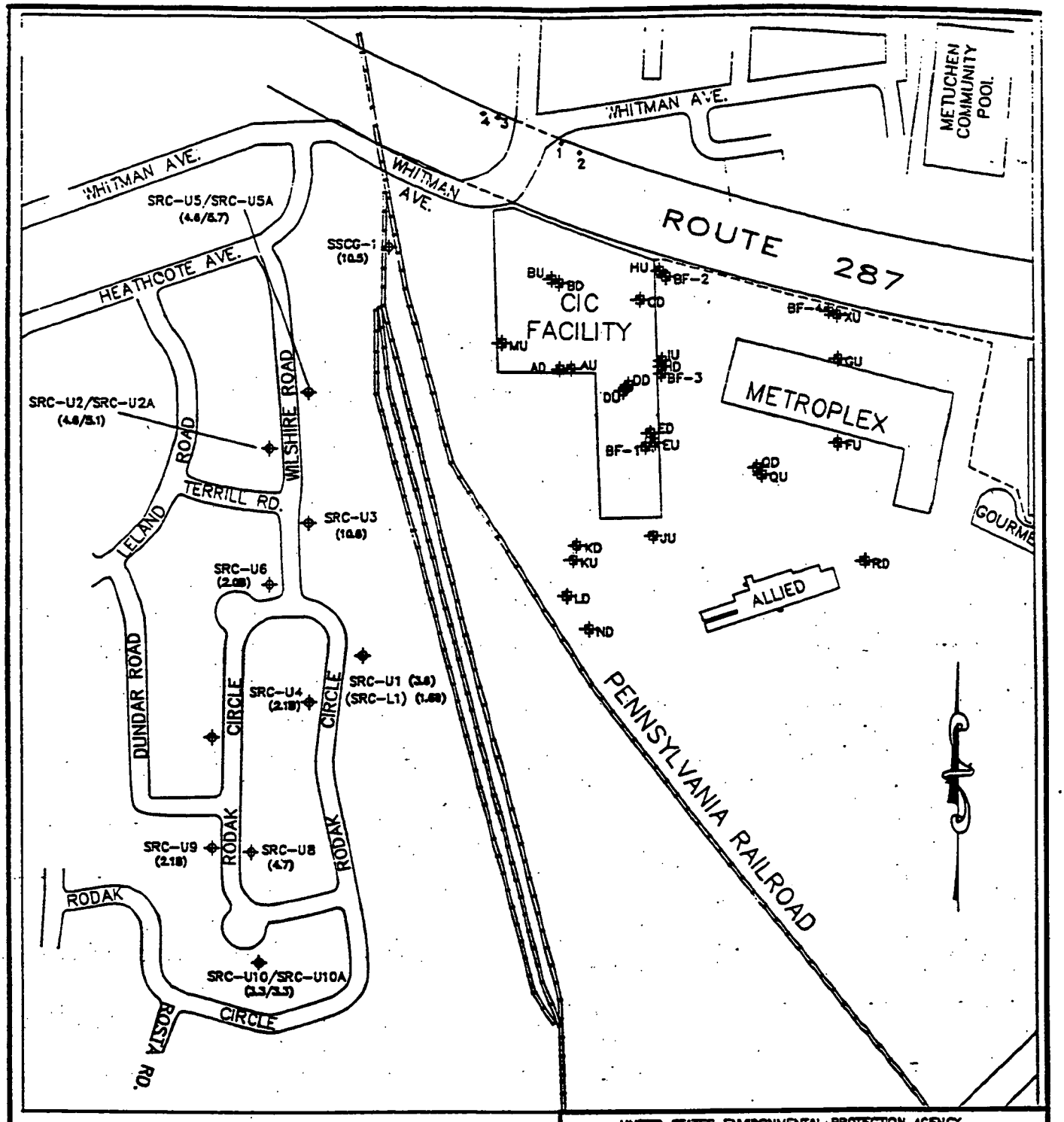
EPA has scheduled an availability session and public meeting to provide additional information and answer questions that community residents, property owners and others may have regarding the attached results and the CIC site. The availability session will be held from 1:00-4:00 PM and will be followed by a public meeting in the evening from 7:00-10:00 PM on Thursday, July 14, 1994 at the Stelton Community Center (Auditorium) located at 328 Plainfield Avenue in Edison, New Jersey (908-248-7309).

Please feel free to contact me at (212) 264-6311, or Ms. Cecilia Echols, Community Relations Coordinator, at (212) 264-0949.

Sincerely,

Pat Evangelista

Pat Evangelista, Project Manager
Central New Jersey Section II
Emergency & Remedial Response Division




*LEGEND*

- EXISTING RESIDENTIAL MONITORING WELL
- REAC SURFACE SOIL SAMPLE
- SOIL SAMPLE LOCATION
- SUBSURFACE DRAINAGE
- SURFACE DRAINAGE

GRAPHIC SCALE

200 0 200 100

( IN FEET )

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

EDISON CHEMICAL INSECTICIDE CORPORATION SITE NEW JERSEY

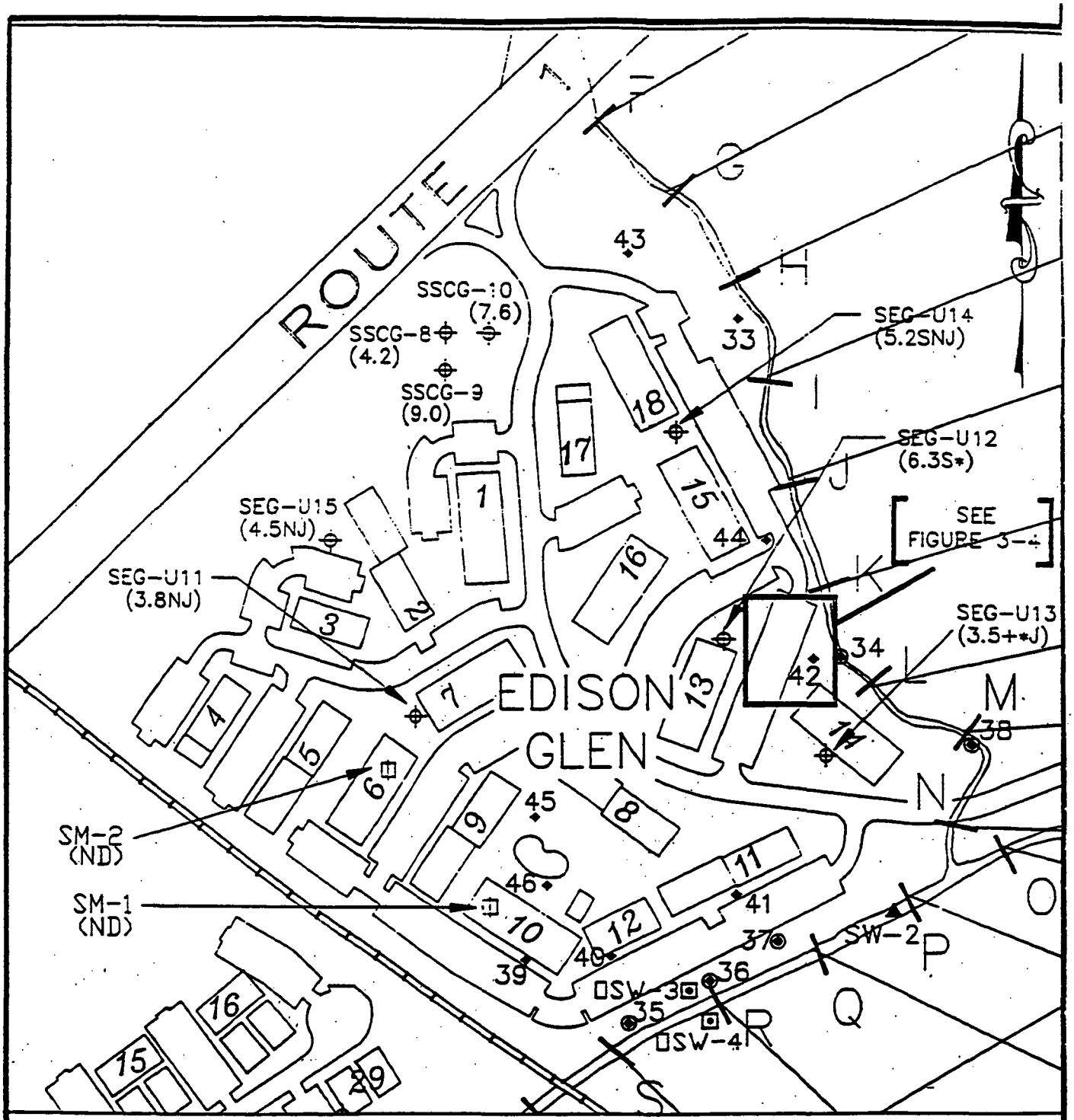
WESTON

FIGURE 1

SOIL SAMPLING LOCATIONS & RESULTS

RODAK CIRCLE

| | | | |
|---|---|---|---|
| B. MAC | | TRY-1 | 2 |
| 1" = 300' | 04200-023-021 | | |




*LEGEND*

- ◆ REAC SURFACE SOIL SAMPLE AND DESIGNATION
- ◉ REAC SURFACE & SUBSURFACE SOIL SAMPLE AND DESIGNATION
- SEG-U11 (3.8NJ) ⊕ SOIL SAMPLE LOCATION AND DESIGNATION (1994 INVESTIGATION) (ARSENIC CONCENTRAIONS ARE PRESENTED IN MG/KG)
- R TRANSECT LOCATIONS
- ~ SURFACE DRAINAGE

GRAPHIC SCALE

200 0 100 200

( IN FEET )

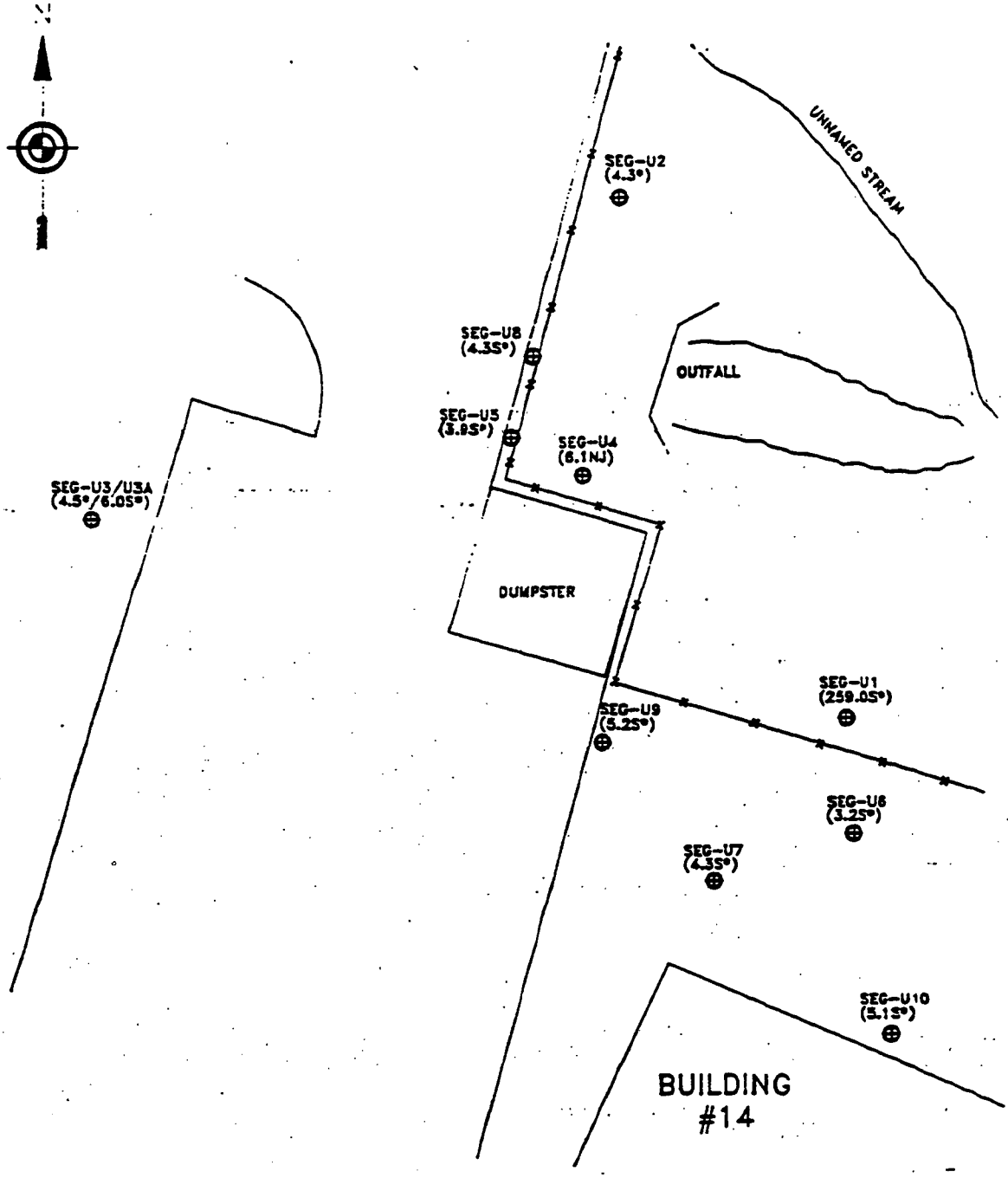
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

EDISON CHEMICAL INSECTICIDE CORPORATION SITE NEW JERSEY

WESTON

FIGURE 2
SOIL SAMPLING LOCATIONS
INDICATING ARSENIC RESULTS
EDISON GLEN DEVELOPMENT

| | | | |
|---|---|---|---|
| B. MAC | | TRY-1 | 1 |
| 1" = 200' | 04200-023-021 | 1 | 1 |




LEGEND

FIGURE IS NOT TO SCALE. DIMENSIONS ARE APPROXIMATE.

SEG-U4 ⊕ SOIL SAMPLING LOCATION AND DESIGNATION

(6.1NJ) ARSENIC CONCENTRATIONS ARE PRESENTED IN MG/KG

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

EDISON CHEMICAL INSECTICIDE CORPORATION SITE NEW JERSEY

WESTON

FIGURE 3

SOIL SAMPLING LOCATIONS INDICATING ARSENIC RESULTS IN PROXIMITY TO THE DUMPSTER (USEPA-ERT SAMPLING LOC. #42)

EDISON GLEN DEVELOPMENT

| | | | |
|---|---|---|---|
| B. MAC | | DUMPSTER | 0 |
| 1" = NTS | 04200-023-021 | 1 | 1 |

REVISION # 0 DATED 6/1/94 FILE NAME: DUMPSTER

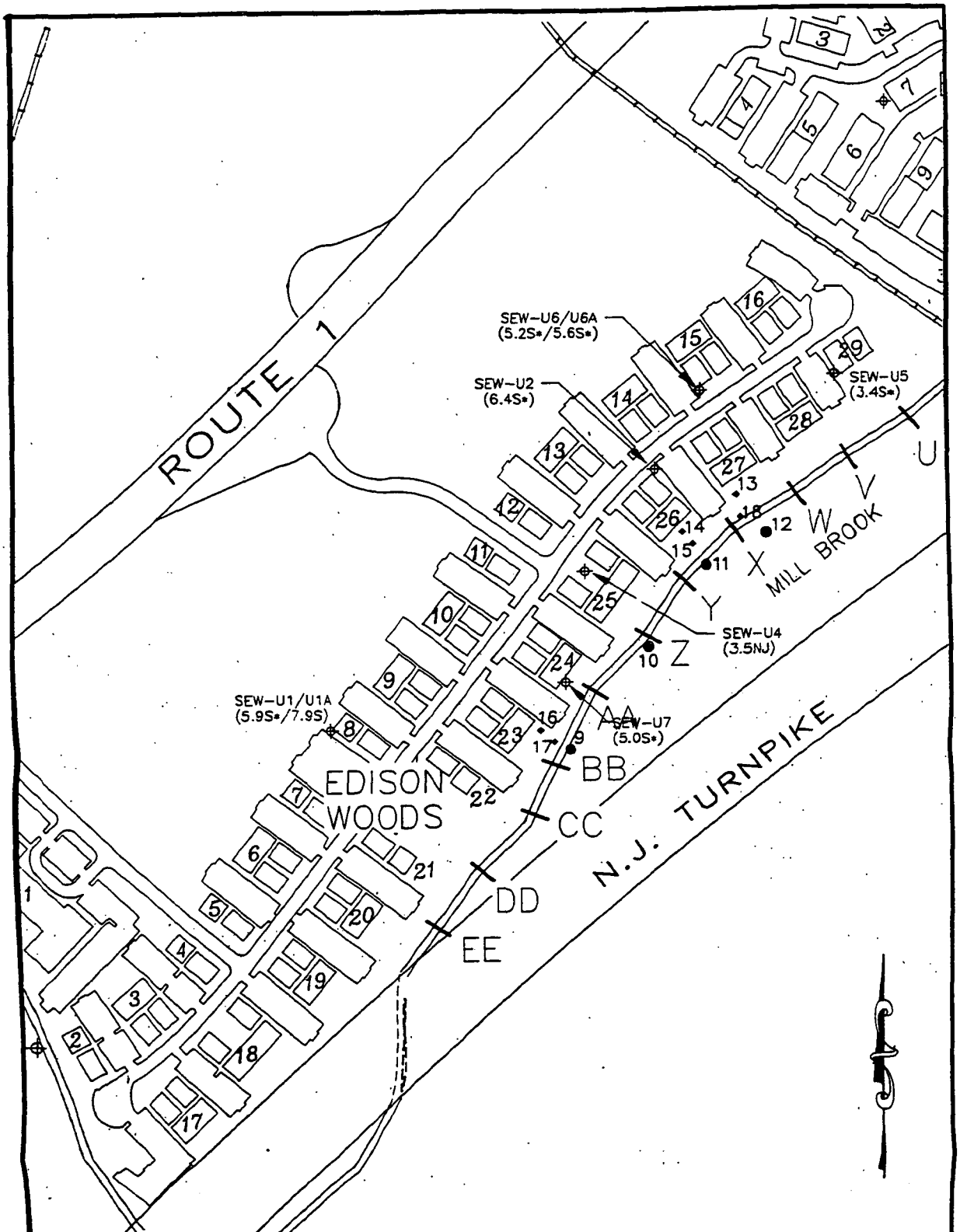
FIGURE 4

# ARSENIC RESULTS - DUST/DIRT
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | SAMPLE DATE/TIME | SAMPLING LOCATION | RESULTS ppm |
|---|---|---|---|---|
| DD-1 | SB5060 | 3-30-94/1110 | Apt. #1202 | 5.4 |
| DD-2 | SB5061 | 3-30-94/1110 | Apt. #1202 | 3.92 |
| DD-3 | SB5062 | 3-30-94/1150 | Apt. #1109 (vacant) | 11.3 |
| DD-4 | SB5063 | 3-30-94/1215 | Apt. #1409 (vacant) | 0.77 |

NOTE: All samples were analyzed specifically for arsenic.

DD-2 is a duplicate of DD-1
DD-1 is a Matrix Spike




*LEGEND*

AA — TRANSECT SAMPLING LOCATIONS

REAC SURFACE & SUBSURFACE SOIL SAMPLE

REAC SURFACE SOIL SAMPLE

SEW-U7 (3.5I,J) — SOIL SAMPLE LOCATION AND DESIGNATION (1994 INVESTIGATION) (ARSENIC CONCENTRATIONS ARE PRESENTED IN MG/KG)

SURFACE DRAINAGE

SUBSURFACE DRAINAGE

GRAPHIC SCALE
200 0 100 200
( IN FEET )

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
EDISON CHEMICAL INSECTICIDE CORPORATION SITE NEW JERSEY

WESTON

FIGURE 5
SOIL SAMPLING LOCATIONS
INDICATING ARSENIC RESULTS
EDISON WOODS DEVELOPMENT

| | | | |
|---|---|---|---|
| B. MAC | | TRY-1 | 0 |
| 1"= 200' | 04200-023-021 | 1 | 1 |

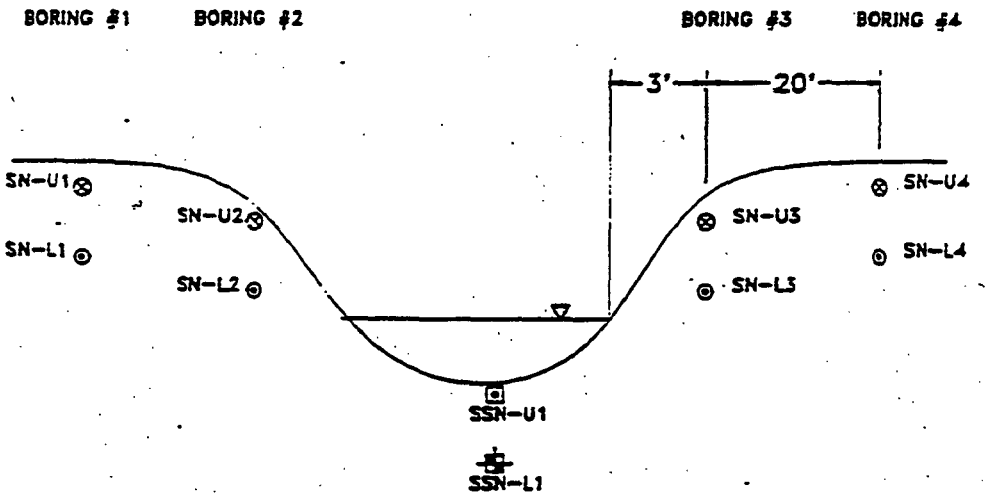
DUE TO THEIR LARGE SIZE,

FIGURES 6 AND 7 COULD NOT BE INCLUDED

WITH THIS DOCUMENT

AND ARE AVAILABLE FROM THE EPA REGION.

Enlargement of transect N from Figure 6. Other transects are the same except for their letter designation.




LEGEND

- SSN-U1 SEDIMENT SAMPLE (0.5-1.0 FOOT BELOW BOTTOM OF STREAM)
- SSN-L1 SUBSURFACE SEDIMENT SAMPLE (2.5-3.0 FEET BELOW BOTTOM OF STREAM)
- SN-U3 SURFACE SOIL SAMPLE (0.5-1.0 FOOT BELOW GRADE)
- SN-L3 SUBSURFACE SOIL SAMPLE (2.5-3.0 FEET BELOW GRADE)

- NOT TO SCALE -

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
EDISON CHEMICAL INSECTICIDE CORPORATION SITE NEW JERSEY

WESTON

FIGURE 8

IDEALIZED TRANSECT SAMPLING LOCATIONS

| | | | |
|---|---|---|---|
| B. MAC | | 4-6 | 1 |
| 1"= NTS | 04200-023-021 | no. 1 | of 1 |

TABLE 3-2
VOLATILE ORGANIC RESULTS - SURFACE WATER/SUMPS/GROUNDWATER
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SUMP1 SM-1 | TRIP | SUMP2 SM-2 | MW-1 | DUP MW-1 MW-2 | TRIP | SW-1 | SW-2 | SW-3 | DUP SW-3 SW-4 | Field Bk |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | SB5040 | SB5042 | SB5043 | SB5045 | SB5047 | SB5048 | SB5050 | SB5052 | SB5054 | SB5056 | SB5058 |
| CLP SAMPLE CODE | | | | | | | | | | | |
| DEPTH INTERVAL | | | | | | | | | | | |
| UNITS | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| DATE SAMPLE COLLECTED | | | | | | | | | | | |
| Chloromethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Bromomethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Vinyl Chloride | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Chloroethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Methylene Chloride | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 4 |
| Acetone | R | R | R | R | R | R | R | R | R | R | R |
| Carbon Disulfide | 1 U | 1 U | 1 U | 1 U | 1 U | 0.7 J | 1 U | 1 U | 15 U | 15 | 0.4 J |
| 1,1-Dichloroethene | 1 U | 1 U | 1 U | 1 U | 0.5 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,1-Dichloroethane | 1 U | 1 U | 1 U | 1 U | 1 J | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichloroethene (total) | 1 U | 1 U | 1 U | 1 U | 22 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Chloroform | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichloroethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 0.2 J |
| 2-Butanone | 1 U | 1 U | 1 U | 1 U | 3 | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,1,1-Trichloroethane | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Carbon Tetrachloride | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Bromodichloromethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichloropropane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| cis-1,3-Dichloropropene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Trichloroethene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Dibromochloromethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,1,2-Trichloroethane | 1 U | 1 U | 1 U | 1 U | 18 | 1 U | 0.3 U | 0.6 U | 1 | 1 U | 1 U |
| Benzene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| trans-1,3-Dichloropropene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Bromoform | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 4-Methyl-2-Pentanone | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 2-Hexanone | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Tetrachloroethene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,1,2,2-Tetrachloroethane | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Toluene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 0.4 U | 0.3 U | 1 U | 0.9 U | 1 U |
| Chlorobenzene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Ethylbenzene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Styrene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 0.2 U | 1 U | 1 U | 1 U | 1 U |
| Xylene (total) | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,3-Dichlorobenzene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 0.3 U | 0.3 U | 1 U |
| 1,4-Dichlorobenzene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichlorobenzene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dibromo-3-chloropropane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| TOTAL TIC | | | | | | | | | | | |
| Total TIC Concentration | | | | | | | | | | | |

U = Analyte was not detected at the instrument detection limit given
J = Estimated Value
B = Analyte was detected in blank
E = Estimated value due to matrix interference
D = Determined after sample dilution
NJ = Presumptive evidence for presence of analyte; estimated quantity
R = Rejected during data validation

TABLE 3-3
SEMI-VOLATILE ORGANIC RESULTS - SURFACE WATER/SUMPS/GROUNDWATER
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SM-1 | SM-2 | MW-1 | MW-1 Dup | SW-1 | SW-2 | SW-3 | SW-3 Dup | Field Blk |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | | | | | | | | | |
| CLP SAMPLE CODE | SB5040 | SB5043 | SB5045 | SB5047 | SB5050 | SB5052 | SB5054 | SB5056 | SB5058 |
| DEPTH INTERVAL | | | | | | | | | |
| UNITS | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| DATE SAMPLE COLLECTED | | | | | | | | | |
| Phenol | | | | | | | | | |
| bis(2-Chloroethyl)ether | | | | | | | | | |
| 2-Chlorophenol | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,3-Dichlorobenzene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,4-Dichlorobenzene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,2-Dichlorobenzene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 2-Methylphenol | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 2,2'-oxybis(1-Chloropropane) | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 4-Methylphenol | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| N-Nitroso-di-n-propylamine | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Hexachloroethane | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Nitrobenzene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Isophorone | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 2-Nitrophenol | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 2,4-Dimethylphenol | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| bis(2-Chloroethoxy)methane | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 2,4-Dichlorophenol | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,2,4-Trichlorobenzene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Napthalene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 4-Chloroaniline | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Hexachlorobutadiene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 4-Chloro-3-methylphenol | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 2-Methylnaphthalene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Hexachlorocyclopentadiene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 2,4,6-Trichlorophenol | 20 U | 20 U | 210 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| 2,4,5-Trichlorophenol | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 2-Chloronaphthalene | 20 U | 20 U | 21 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| 2-Nitroaniline | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Dimethylphthalate | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Acenaphthylene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 2,6-Dinitrotoluene | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| 3-Nitroaniline | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Acenaphthene | | | | | | | | | |
| 2,4-Dinitrophenol | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| 4-Nitrophenol | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| Dibenzofuran | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 2,4-Dinitrotoluene | | | | | | | | | |
| Diethylphthalate | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 4-Chlorophenyl-phenylether | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Fluorene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |

TABLE 3-3 CONTINUED
SEMI-VOLATILE ORGANIC RESULTS - SURFACE WATER/SUMPS/GROUNDWATER
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SM-1 | SM-2 | MW-1 | MW-1 Dup | SW-1 | SW-2 | SW-3 | SW-3Dup | Field Bk. |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | | | | | | | | | |
| CLP SAMPLE CODE | SB5040 | SB5043 | SB5045 | SB5047 | SB5050 | SB5052 | SB5054 | SB5056 | SB5058 |
| DEPTH INTERVAL | | | | | | | | | |
| UNITS | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| DATE SAMPLE COLLECTED | | | | | | | | | |
| 4-Nitroaniline | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 4,6-Dinitro-2-methylphenol | 20 U | 20 U | 21 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| N-Nitrosodiphenylamine (1) | 20 U | 20 U | 21 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| 4-Bromophenyl-phenylether | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Hexachlorobenzene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Pentachlorophenol | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Phenanthrene | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| Anthracene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Carbazole | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Di-n-butylphthalate | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Fluoranthene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Pyrene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Butylbenzylphthalate | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 3,3'-Dichlorobenzidine | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Benzo(a)anthracene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Chrysene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| bis(2-Ethylhexyl)phthalate | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Di-n-octylphthalate | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Benzo(b)fluoranthene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Benzo(k)fluoranthene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Benzo(a)pyrene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Indeno(1,2,3-cd)pyrene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Dibenz(a,h)anthracene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| Benzo(g,h,i)perylene | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| TIC Count | | | | | | | | | |
| Total TIC Concentration | | | | | | | | | |

U = Analyte was not detected at the instrument detection limit given
B = Analyte was detected in blank
NJ = Presumptive evidence for presence of analyte; estimated quantity
J = Estimated value
R = Rejected during data validation
(1) = Cannot be separated from Diphenylamine

**TABLE 3-4**
**HERBICIDE/PESTICIDE/PCB RESULTS - SURFACE WATER/SUMPS/GROUNDWATER**
**OFF-SITE INVESTIGATION**
**CHEMICAL INSECTICIDE CORPORATION SITE**
**EDISON, NEW JERSEY**

| SAMPLE NUMBER | SM-1 | SM-2 | NW-1 | MW-1 Dup | SW-1 | SW-2 | SW-3 | SW-3 Dup | Field Bk |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | | | | | | | | | |
| CLP SAMPLE CODE | SB5040 | SB5043 | SB5045 | SB5047 | SB5050 | SB5052 | SB5054 | SB5056 | SB5058 |
| DEPTH INTERVAL | | | | | | | | | |
| UNITS | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| DATE SAMPLE COLLECTED | | | | | | | | | |
| alpha-BHC | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.022 | 0.29 D | 0.0062 JN | 0.0070 | 0.010 |
| beta-BHC | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.057 | 0.010 U | 0.010 | 0.010 |
| delta-BHC | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.023 P | 0.010 U | 0.010 | 0.010 |
| gamma-BHC (Lindane) | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.010 U | R | 0.051 NJ | 0.048 | 0.010 |
| Heptachlor | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.041 | 0.012 NJ | 0.014 | 0.010 |
| Aldrin | 0.010 U | 0.010 U | 0.010 U | 0.01 U | 0.010 U | 0.010 U | 0.010 U | 0.010 | 0.010 |
| Heptachlor epoxide | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.0049 J | 0.01 U | 0.010 U | 0.010 | 0.010 |
| Endosulfan I | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.010 | 0.010 U | 0.010 | 0.010 |
| Dieldrin | 0.020 U | 0.020 U | 0.02 U | 0.02 U | 0.020 U | 0.075 | 0.020 U | 0.020 | 0.020 |
| 4,4'-DDE | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.018 J | 0.58 D | 0.020 U | 0.020 | 0.020 |
| Endrin | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 U | R | 0.020 U | 0.02 | 0.020 |
| Endosulfan II | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 | 0.020 |
| 4,4'-DDD | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.02 U | R | 0.020 U | 0.020 | 0.020 |
| Endosulfan Sulfate | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 | 0.020 |
| 4,4'-DDT | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.062 | 3.3 D | 0.020 U | 0.020 | 0.020 |
| Methoxychlor | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.1 U | 0.10 U | 0.10 U | 0.10 | 0.10 |
| Endrin ketone | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.012 J | 0.020 U | 0.020 | 0.020 |
| Endrin Aldehyde | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 U | 0.020 | 0.020 |
| alpha-Chlordane | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.01 U | 0.12 PJ | 0.010 U | 0.01 | 0.010 |
| gamma-Chlordane | 0.010 U | 0.010 U | 0.030 U | 0.030 U | 0.0080 J | 0.14 | 0.010 U | 0.010 | 0.010 |
| Toxaphene | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Aroclor-1016 | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| Aroclor-1221 | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U | 0.40 U |
| Aroclor-1232 | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| Aroclor-1242 | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| Aroclor-1248 | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| Aroclor-1254 | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| Aroclor-1260 | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |

U = Analyte was not detected at the instrument detection limit given
J = Estimated value
B = Analyte was detected in blank
E = Estimated value due to matrix interference
D = Determined after sample dilution
NJ = Presumptive evidence for presence of analyte; estimated quantity
P = There is a greater than 25% difference for detected concentrations between the two GC columns; the lower of the two values is reported.
R = Rejected during data validation

TABLE 3-5
INORGANIC RESULTS - SURFACE WATER/SUMP/GROUNDWATER
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | ← SUMP 1 → | | ← SUMP 2 → | | ← MW-1 → | | ← MW-1 DUP → | | SW-1 | SW-2 | SW-3 | SW-3 DUP | Field Blank (total) | Field Blank (Dissolved) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | (total) | (dissolved) | (total) | (dissolved) | (total) | (dissolved) | (total) | (dissolved) | (total) | (total) | (total) | (total) | | |
| CLP SAMPLE CODE | MBNP81 | MBNP82 | MBNP83 | MBNP84 | MBNP85 | MBNP86 | MBNP87 | MBNP88 | MBNP69 | MBNP71 | MBNP73 | MBNP75 | MBNP77 | MBNP78 |
| DEPTH INTERVAL | | | | | | | | | | | | | | |
| UNITS | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| DATE SAMPLE COLLECTED | | | | | | | | | | | | | | |
| Aluminum | 484 | 424 B | 608 | 617 B | 127 B | 208 B | 142 B | 208 | 1630 | 2200 | 1370 | 1300 | 208 U | 208 U |
| Antimony | 28.3 U | 28.3 U | 28.3 U | 28.3 U | 28.3 U | 28.3 U | 28.3 U | 37.4 | 28.5 B | 28.3 U | 28.5 B | 28.5 B | 28.3 U | 28.6 B |
| Arsenic | 1.8 B | 1.7 B | 5.2 B | 8.6 B | 1.3 U | 1.3 U | 1.3 U | 1.3 | 12.8 | 11.2 | 3.1 B | 3.4 B | 1.3 U | 1.3 U |
| Barium | 268 B | 263 B | 205 BE | 201 B | 62.1 B | 64.2 B | 59.4 B | 58.1 | 795 B | 718 B | 309 B | 311 B | 0.65 B | 0.60 U |
| Beryllium | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U |
| Cadmium | 2.7 U | 2.7 U | 2.7 U | 2.7 U | 3 U | 3.0 B | 2.7 U | 2.7 | 4.4 B | 2.7 U | 2.7 U | 3 U | 2.7 U | 2.7 U |
| Calcium | 48500 E | 51700 | 27600 E | 28000 | 39400 | 42500 | 36800 | 40000 | 14800 | 13000 | 9050 | 9160 | 383 B | 231 U |
| Chromium | 2.6 U | 2.6 U | 2.6 U | 2.6 U | 2.6 U | 2.6 U | 2.6 U | 2.6 | 6.1 B | 7.7 B | 4.6 B | 2.6 B | 2.6 U | 2.6 U |
| Cobalt | 2.9 U | 2.9 U | 2.9 U | 2.9 U | 3.2 B | 3.2 B | 2.9 U | 2.9 | 2.9 U | 4.2 B | 4.6 B | 2.9 U | 2.9 U | 2.9 U |
| Copper | 7.1 B | 4.4 B | 27.0 | 13.8 B | 2.4 U | 2.4 U | 2.4 U | 2.4 | 41.2 | 18.8 B | 12.1 B | 11.6 B | 1.09 B | 2.4 U |
| Iron | 803 E | 444 B | 884 E | 568 B | 3450 | 3090 | 3400 | 2820 | 3160 | 3410 | 1810 | 1850 | 21.6 B | 6.1 U |
| Lead | 4.3 WN | 1.0 B | 3.3 WN | 0.69 B | 2.4 B | 0.69 B | 4.5 | 4.1 | 26.2 | 26.8 | 7.5 | 7.3 | 0.61 B | 0.40 U |
| Magnesium | 7080 E | 7560 | 3740 BE | 3040 B | 16300 | 16800 | 14900 | 15800 | 3270 B | 3660 B | 2300 B | 2300 B | 2.06 U | 2.06 U |
| Manganese | 9.9 BE | 1.8 B | 8.0 BE | 1.7 U | 604 | 635.00 | 567 | 600 | 108 | 111 | 89.5 | 90.8 | 1.7 U | 1.7 U |
| Mercury | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 | 0.20 U | 0.20 U | 0.20 U | 0.21 U | 0.20 U | 0.20 U |
| Nickel | 10.8 U | 10.8 | 10.8 U | 10.8 U | 10.8 U | 13.8 B | 10.8 U | 10.8 | 10.8 U | 10.8 U | 10.8 U | 10.8 U | 10.8 U | 10.8 U |
| Potassium | 13800 | 14600 | 7118 | 7550 | 6970 | 7290 | 6400 | 7080 | 2000 B | 2110 B | 1780 B | 1540 B | 348 U | 348 U |
| Selenium | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U |
| Silver | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U |
| Sodium | 24000 E | 25500 | 12800 E | 26500 | 26500 | 31100 | 27100 | 26200 | 47700 | 34500 | 13500 | 13300 | 659 B | 109 B |
| Thallium | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Vanadium | 2.8 B | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 2.3 U | 4.4 U | 5.2 B | 3.6 B | 3.2 B | 2.3 U | 2.3 U |
| Zinc | 101 | 52.8 | 29.0 | 24.4 | 15.4 B | 12.8 B | 15.4 | | 121 | 119 | 95.9 | 95.9 | 0.98 B | 3.1 U |
| Cyanide | 10.0 U | | 10.0 U | | 10.0 U | | 10.0 | | 10.0 U | 10.0 U | 10.0 U | 10.0 U | 10.0 U | |

U = Analyte was not detected at the instrument detection limit given
B = Reported value is between the instrument detection limit and the contract required detection limit
E = Value is estimated due to interference
N = Spiked sample recovery was not within control limits
* = Duplicate analysis was not within control limits
+ = Correlation coefficient for the MSA is less than 0.995
J = Estimated value
S = Determined by method of standard addition (MSA)
W = Post-digestion spike for Furnace AA analysis out of control limits, while sample absorbance is less than 50% of spike absorbance
R = Rejected during data validation
M = Duplicate injection precision criteria was not met
NA = Not Analyzed

# TABLE 3-6
# ARSENIC RESULTS – SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| SA-L1 | SB5844 | Soil | 3-22-94/1110 | 2.5 – 3.0 | As | Hand Auger | 8.4 +NJ |
| SA-U1 | BMN01<br>MBNQ01 | Soil | 3-22-94/1050 | 0.5 – 1.0 | TCL<br>TAL/CN | Split Spoon<br>Hand Auger | 21.3 J |
| SA-U2 | SB5843 | Soil | 3-22-94/1040 | 0.5 – 1.0 | As | Hand Auger | 32.1 NJ |
| SA-U3 | SB5847 | Soil | 3-22-94/1015 | 0.5 – 1.0 | As | Hand Auger | 26.2 SNJ |
| SA-L3 | SB5848 | Soil | 3-22-94/1015 | 2.0 – 2.5 | As | Hand Auger | 21.3 SNJ |
| SA-U4 | SB5849 | Soil | 3-22-94/1025 | 0.5 – 1.0 | As | Hand Auger | 14.9 SNJ |
| SA-L4 | SB5850 | Soil | 3-22-94/1025 | 2.5 – 3.0 | As | Hand Auger | 55.8 |
| SSA-U1 | BMN02<br>MBNQ02 | Sediment | 3-22-94/1030 | 0.2 – 0.8 | TCL<br>TAL/CN | Split Spoon | 106.0 + (R) |
| SSA-L1 | SB5846 | Sediment | 3-22-94/1056 | 1.5 – 2.0 | As | Split Spoon | 30.7 SNJ |
| SB-U1 | SB5833 | Soil | 3-22-94/0935 | 0.5 – 1.0 | As | Hand Auger | 5.7 SNJ |
| SB-L1 | SB5834 | Soil | 3-22-94/0940 | 1.5 – 2.0 | As | Hand Auger | 7.6 SNJ |
| SB-U2 | BMN03<br>MBNQ03 | Soil | 3-22-94/0905 | 0.5 – 1.0 | TCL<br>TAL/CN | Hand Auger | 11.0 J |
| SB-U3 | SB5838 | Soil | 3-22-94/0845 | 0.5 – 1.0 | As | Hand Auger | 13.4 SNJ |
| SB-L3 | SB5842 | Soil | 3-22-94/0905 | 2.5 – 3.0 | As | Hand Auger | 5.0 SNJ |
| SB-U4 | SB5841 | Soil | 3-22-94/0905 | 0.5 – 1.0 | As | Hand Auger | 16.5 SNJ |
| SB-L4 | SB5840 | Soil | 3-22-94/0925 | 2.0 – 2.5 | As | Hand Auger | 7.7 SNJ |
| SSB-U1 | SB5836 | Sediment | 3-22-94/0920 | 0.5 – 1.0 | As | Split Spoon | 366.0 |
| SSB-L1 | SB5837 | Sediment | 3-22-94/0935 | 1.5 – 2.0 | As | Split Spoon | 89.9 |
| SC-U1 | SB5826 | Soil | 3-22-94/0800 | 0.5 – 1.0 | As | Hand Auger | 6.7 SNJ |
| SC-U2 | SB5827 | Soil | 3-22-94/0838 | 0.5 – 1.0 | As | Hand Auger | 36.3 SNJ |
| SC-U3 | SB5832 | Soil | 3-22-94/0810 | 0.5 – 1.0 | As | Hand Auger | 61.4 |
| SC-L3 | BMN04<br>MBNQ04 | Soil | 3-22-94/0824 | 1.0 – 1.5 | TCL<br>TAL/CN | Hand Auger | 6.1 NJ |
| SC-U4 | SB5831 | Soil | 3-22-94/0800 | 0.5 – 1.0 | As | Hand Auger | 5.0 SNJ |
| SSC-U1 | SB5828 | Sediment | 3-22-94/0802 | 0.5 – 1.0 | As | Split Spoon | 20.1 SNJ |
| SSC-L1 | SB5829 | Sediment | 3-22-94/0810 | 1.5 – 2.0 | As | Split Spoon | 4.4 SNJ |
| SD-U1 | SB5812 | Soil | 3-21-94/1550 | 0.5 – 1.0 | As | Hand Auger | 1.78 |

PAGES 3-11 TO 3-16 PURPOSELY OMITTED.

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS – SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| SD-L1 | SB5813 | Soil | 3-21-94/1600 | 2.0 – 2.5 | As | Hand Auger | 1.4B |
| SD-U2 | SB5814 | Soil | 3-21-94/1550 | 0.5 – 1.0 | As | Hand Auger | 11.9 |
| SD-U3 | SB5819 | Soil | 3-21-94/1540 | 0.5 – 1.0 | As | Hand Auger | 9.8 |
| SSD-U1 | SB5816 | Sediment | 3-21-94/1600 | 0.2 – 1.0 | As | Split Spoon | 37.4 |
| SSD-U1A | SB5817 | Sediment | 3-21-94/1600 | 0.2 – 1.0 | As | Split Spoon | 27.2 |
| SSD-L1 | SB5818 | Sediment | 3-21-94/1605 | 1.5 – 2.0 | As | Hand Auger | 38.6 |
| SE-U1 | SB5803 | Soil | 3-21-94/1440 | 0.5 – 1.0 | As | Hand Auger | 9.2 |
| SE-L1 | SB5804 | Soil | 3-21-94/1500 | 2.5 – 3.0 | As | Hand Auger | 2.8 |
| SE-U2 | SB5805 | Soil | 3-21-94/1441 | 0.5 – 1.0 | As | Hand Auger | 5.2 |
| SE-L2 | BMN05 MBNQ05 | Soil | 3-21-94/1500 | 2.5 – 3.0 | TCL TAL/CN | Hand Auger | 15.4 S |
| SE-U3 | SB5808 | Soil | 3-21-94/1435 | 0.5 – 1.0 | As | Hand Auger | 6.4 |
| SE-L3 | SB5809 | Soil | 3-21-94/1500 | 2.5 – 3.0 | As | Hand Auger | 3.3 |
| SE-U4 | SB5810 | Soil | 3-21-94/1430 | 0.5 – 1.0 | As | Hand Auger | 7.2 |
| SE-L4 | SB5811 | Soil | 3-21-94/1450 | 2.5 – 3.0 | As | Hand Auger | 6.2 |
| SSE-U1 | SB5806 | Sediment | 3-21-94/1451 | 0.3 – 1.0 | As | Split Spoon | 5.8 |
| SSE-U1A | SB5839 | Sediment | 3-21-94/1451 | 0.3 – 1.0 | As | Split Spoon | 24.6 |
| SSE-L1 | SB5807 | Sediment | 3-21-94/1510 | 1.5 – 2.0 | As | Split Spoon | 4.3 |
| SF-U1 | SB5797 | Soil | 3-21-94/1235 | 0.5 – 1.0 | As | Hand Auger | 3.2J |
| SF-L1 | SB5798 | Soil | 3-21-94/1245 | 2.5 – 3.0 | As | Hand Auger | 3.8J |
| SF-U4 | SB5799 | Soil | 3-21-94/1230 | 0.5 – 1.0 | As | Hand Auger | 11.8J |
| SF-U4A | SB5800 | Soil | 3-21-94/1230 | 0.5 – 1.0 | As | Hand Auger | 6.2J |
| SF-L4 | SB5801 | Soil | 3-21-94/1235 | 2.5 – 3.0 | As | Hand Auger | 3.1 |
| SG-U1 | SB5788 | Soil | 3-21-94/1130 | 0.5 – 1.0 | As | Hand Auger | 1.7B |
| SG-L1 | SB5789 | Soil | 3-21-94/1135 | 2.5 – 3.0 | As | Hand Auger | 1.6B |
| SG-U2 | SB5790 | Soil | 3-21-94/1156 | 0.6 – 1.0 | As | Hand Auger | 37.5 |
| SG-L2 | BMN07 MBNQ07 | Soil | 3-21-94/1200 | 2.0 – 2.5 | TCL TAL/CN | Hand Auger | 0.23 BWJ |
| SG-U3 | SB5793 | Soil | 3-21-94/1140 | 0.5 – 1.0 | As | Hand Auger | 12.6 |
| SG-L3 | SB5794 | Soil | 3-21-94/1155 | 2.5 – 3.0 | As | Hand Auger | 2.6 |

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS – SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| SG-U4 | SB5795 | Soil | 3-21-94/1235 | 0.5 – 1.0 | As | Hand Auger | 12.3 |
| SG-L4 | SB5796 | Soil | 3-21-94/1250 | 2.0 – 2.5 | As | Hand Auger | 3.7J |
| SSG-U1 | SB5791 | Sediment | 3-21-94/1125 | 0.5 – 1.0 | As | Split Spoon | 4.5 |
| SSG-L1 | SB5792 | Sediment | 3-21-94/1141 | 1.5 – 2.0 | As | Split Spoon | 1.7B |
| SH-U1 | BMN35<br>MBNQ35 | Soil | 3-21-94/1025 | 0.5 – 1.0 | TCL<br>TAL/CN | Hand Auger | 12.0J |
| SH-U1A | BMN36<br>MBNQ36 | Soil | 3-21-94/1025 | 0.5 – 1.0 | TCL<br>TAL/CN | Hand Auger | 6.9 SJ |
| SH-L1 | SB5780 | Soil | 3-21-94/1025 | 2.5 – 3.0 | As | Hand Auger | 2.9 |
| SH-U2 | SB5781 | Soil | 3-21-94/1105 | 0.5 – 1.0 | As | Hand Auger | 9.0 |
| SH-L2 | SB5782 | Soil | 3-21-94/1110 | 0.5 – 1.0 | As | Hand Auger | 6.4 |
| SH-U3 | SB5785 | Soil | 3-21-94/1025 | 0.5 – 1.0 | As | Hand Auger | 8.6 |
| SH-L3 | SB5786 | Soil | 3-21-94/1035 | 2.5 – 3.0 | As | Hand Auger | 8.0 |
| SH-U4 | BMN37<br>MBNQ37 | Soil | 3-21-94/1055 | 0.5 – 1.0 | TCL<br>TAL/CN | Hand Auger | 17.9 S |
| SH-L4 | SB5787 | Soil | 3-21-94/1105 | 2.5 – 3.0 | As | Hand Auger | 7.3 |
| SSH-U1 | SB5783 | Sediment | 3-21-94/1030 | 0.5 – 1.0 | As | Split Spoon | 1.5B |
| SSH-L1 | SB5784 | Sediment | 3-21-94/1038 | 1.5 – 2.0 | As | Split Spoon | 3.9 |
| SI-U1 | BMN13<br>MBNQ13 | Soil | 3-18-94/0950 | 0.5 – 1.0 | TCL<br>TAL/CN | Hand Auger | 8.1 S* |
| SI-L1 | SB5772 | Soil | 3-18-94/1000 | 2.0 – 2.5 | As | Hand Auger | 5.8 SNJ |
| SI-U2 | SB5773 | Soil | 3-18-94/1025 | 0.5 – 1.0 | As | Hand Auger | 131.0 |
| SI-L2 | SB5774 | Soil | 3-18-94/1030 | 2.5 – 3.0 | As | Hand Auger | 30.5 NSJ |
| SI-U3 | SB5777 | Soil | 3-18-94/1010 | 0.5 – 1.0 | As | Split Spoon | 50.7 |
| SI-L3 | SB5778 | Soil | 3-18-94/1030 | 2.5 – 3.0 | As | Hand Auger | 56.5 |
| SSI-U1 | SB5775 | Sediment | 3-18-94/1128 | 0.5 – 1.0 | As | Hand Auger | 42.5 NSJ |
| SSI-U1A | SB5779 | Sediment | 3-18-94/1128 | 0.5 – 1.0 | As | Hand Auger | 83.3 |
| SSI-L1 | SB5776 | Sediment | 3-18-94/1130 | 1.5 – 2.0 | As | Split Spoon | 97.9 |
| SJ-U1 | SB5759 | Soil | 3-18-94/0835 | 0.5 – 1.0 | As | Hand Auger | 2.6 SN* (R) |
| SJ-L1 | SB5760 | Soil | 3-18-94/0850 | 2.5 – 3.0 | As | Hand Auger | 7.6 SN* (R) |

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS – SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| SJ-U2 | SB5761 | Soil | 3-18-94/0840 | 0.5 – 1.0 | As | Hand Auger | 39.2 SN* (R) |
| SJ-L2 | BMN08 MBNQ08 | Soil | 3-18-94/0850 | 2.0 – 2.5 | TCL TAL/CN | Refusal at 2.5 | 85.6 NJ |
| SJ-U3 | SB5766 | Soil | 3-18-94/0930 | 0.5 – 1.0 | As | Hand Auger | 150.0* |
| SJ-U4 | SB5768 | Soil | 3-18-94/0900 | 0.5 – 1.0 | As | Hand Auger | 8.2 SN* (R) |
| SJ-U4A | SB5769 | Soil | 3-18-94/0900 | 0.5 – 1.0 | As | Hand Auger | 8.2 SN* (R) |
| SJ-L4 | SB5770 | Soil | 3-18-94/0915 | 2.0 – 2.5 | As | Hand Auger | 212.0* |
| SSJ-U1 | SB5762 | Sediment | 3-18-94/1217 | 0.3 – 1.2 | As | Split Spoon | 7.5 SN* (R) |
| SSJ-U1A | SB5771 | Sediment | 3-18-94/1230 | 0.3 – 1.2 | As | Split Spoon | 2.0 BSN* (R) |
| SSJ-L1 | SB5763 | Sediment | 3-18-94/1230 | 1.5 – 2.0 | As | Split Spoon | 3.4 SN* (R) |
| SK-U1 | SB5754 | Soil | 3-18-94/0759 | 0.5 – 1.0 | As | Hand Auger | 5.7 SN* (R) |
| SK-L1 | SB5755 | Soil | 3-18-94/0817 | 2.5 – 3.0 | As | Hand Auger | 42.5 SN* (R) |
| SK-U2 | SB5756 | Soil | 3-18-94/0750 | 0.5 – 1.0 | As | Hand Auger | 336.0* |
| SK-L2 | SB5757 | Soil | 3-18-94/0805 | 2.0 – 2.5 | As | Hand Auger | 1100.0* |
| SK-U3 | SB5764 | Soil | 3-18-94/0800 | 0.5 – 1.0 | As | Hand Auger | 13.2 SN* (R) |
| SK-L3 | SB5765 | Soil | 3-18-94/0820 | 2.5 – 3.0 | As | Hand Auger | 66.5* |
| SSK-U1 | BMN09 MBNQ09 | Sediment | 3-18-94/1250 | 0.3 – 1.2 | TCL TAL/CN | Split Spoon | 17.6S* |
| SSK-L1 | SB5758 | Sediment | 3-18-94/1310 | 1.5 – 2.0 | As | Split Spoon | 58.5* |
| SL-U1 | SB5747 | Soil | 3-17-94/1435 | 0.5 – 1.0 | As | Hand Auger | 4.1 |
| SL-L1 | SB5748 | Soil | 3-17-94/1440 | 2.0 – 2.5 | As | Hand Auger | 327.0 |
| SL-U2 | SB5749 | Soil | 3-17-94/1445 | 0.5 – 1.0 | As | Hand Auger | 71.0 |
| SL-L2 | SB5750 | Soil | 3-17-94/1450 | 2.5 – 3.0 | As | Hand Auger | 11.4 |
| SL-U3 | BMN11 MBNQ11 | Soil | 3-17-94/1510 | 0.5 – 1.0 | TCL TAL/CN | Hand Auger | 130.0 NJ |
| SL-L3 | SB5702 | Soil | 3-17-94/1515 | 2.5 – 2.9 | As | Hand Auger | 27.5 J |
| SSL-U1 | SB5751 | Sediment | 3-18-94/1305 | 0.3 – 1.2 | As | Split Spoon | 1.3 BWN* (R) |
| SSL-L1 | SB5752 | Sediment | 3-18-94/1350 | 1.5 – 2.0 | As | Split Spoon | 0.89 BWN* (R) |
| SM-U1 | SB5740 | Soil | 3-17-94/1350 | 0.5 – 1.0 | As | Hand Auger | 680.0 |
| SM-L1 | BMN10 | Soil | 3-17-94/1405 | 2.5 – 3.0 | TCL | Hand Auger | 96.3 NJ |

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS – SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| | MBNQ10 | | | | TAL/CN | | |
| SM-U2 | SB5741 | Soil | 3-17-94/1350 | 0.5 – 1.0 | As | Hand Auger | 380.0 |
| SM-L2 | SB5742 | Soil | 3-17-94/1355 | 2.5 – 3.0 | As | Hand Auger | 14.0 |
| SM-U3 | SB5745 | Soil | 3-17-94/1410 | 0.5 – 1.0 | As | Hand Auger | 4.1 |
| SM-L3 | SB5746 | Soil | 3-17-94/1415 | 2.5 – 3.0 | As | Hand Auger | 114.0 |
| SM-U4 | SB5724 | Soil | 3-17-94/1420 | 0.5 – 1.0 | As | Hand Auger | 3.0 |
| SM-L4 | SB5727 | Soil | 3-17-94/1430 | 1.5 – 2.0 | As | Hand Auger | 3.4 |
| SSM-U1 | SB5743 | Sediment | 3-18-94/1410 | 0.5 – 1.0 | As | Split Spoon | 5.3 SN* (R) |
| SSM-L1 | SB5744 | Sediment | 3-18-94/1450 | 1.5 – 2.0 | As | Split Spoon | 13.8 NSJ |
| SN-U1 | SB5729 | Soil | 3-17-94/1055 | 0.5 – 1.0 | As | Hand Auger | 5.0 |
| SN-L1 | SB5730 | Soil | 3-17-94/1120 | 2.5 – 3.0 | As | Hand Auger | 10.2 |
| SN-U2 | SB5731 | Soil | 3-17-94/1105 | 0.5 – 1.0 | As | Hand Auger | 58.1 |
| SN-U2A | SB5732 | Soil | 3-17-94/1105 | 0.5 – 1.0 | As | Hand Auger | 52.9 |
| SN-L2 | SB5733 | Soil | 3-17-94/1115 | 2.5 – 3.0 | As | Hand Auger | 10.0 |
| SN-U3 | SB5736 | Soil | 3-17-94/1157 | 0.5 – 1.0 | As | Hand Auger | 32.4 |
| SN-U4 | SB5737 | Soil | 3-17-94/1150 | 0.5 – 1.0 | As | Hand Auger | 86.3 |
| SSN-U1 | SB5734 | Sediment | 3-17-94/1130 | 0.5 – 1.0 | As | Hand Auger | 41.6 |
| SSN-L1 | SB5735 | Sediment | 3-21-94/0840 | 1.5 – 2.0 | As | Split Spoon | 7.8 |
| SO-U1 | SB5721 | Soil | 3-17-94/1233 | 0.5 – 1.0 | As | Hand Auger | 35.1 |
| SO-L1 | SB5722 | Soil | 3-17-94/1240 | 2.0 – 2.5 | As | Hand Auger | 9.8 |
| SO-U2 | SB5723 | Soil | 3-17-94/1254 | 0.5 – 1.0 | As | Hand Auger | 8.4 |
| SO-U3 | SB5726 | Soil | 3-17-94/1300 | 0.5 – 1.0 | As | Hand Auger | 3.9 |
| SO-U4 | SB5728 | Soil | 3-17-94/1315 | 0.5 – 1.0 | As | Hand Auger | 4.8 |
| SO-L4 | BMN14 MBNQ14 | Soil | 3-17-94/1327 | 2.5 – 3.0 | TCL TAL/CN | Hand Auger | 5.6 NSJ |
| SSO-U1 | BMN12 MBNQ12 | Sediment | 3-21-94/0920 | 0.3 – 1.2 | TCL TAL/CN | Split Spoon | 4.4 |
| SSO-L1 | SB5725 | Sediment | 3-21-94/0925 | 1.5 – 2.0 | As | Split Spoon | 5.2 |
| SP-U1 | SB5712 | Soil | 3-17-94/0950 | 0.5 – 1.0 | As | Hand Auger | 17.6 |
| SP-L1 | SB5713 | Soil | 3-17-94/1000 | 2.5 – 3.0 | As | Hand Auger | 111.0 |

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS – SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| SP-U2 | SB5709 | Soil | 3-17-94/0940 | 0.5 – 1.0 | As | Hand Auger | 224.0 |
| SP-U2A | SB5710 | Soil | 3-17-94/0940 | 0.5 – 1.0 | As | Hand Auger | 190.0 |
| SP-L2 | SB5711 | Soil | 3-17-94/0947 | 1.5 – 2.0 | As | Hand Auger | 78.0 |
| SP-U3 | SB5716 | Soil | 3-17-94/1010 | 0.5 – 1.0 | As | Hand Auger | 14.3 |
| SP-U4 | SB5718 | Soil | 3-17-94/1030 | 0.5 – 0.8 | As | Hand Auger | 2.9 |
| SSP-U1 | SB5714 | Sediment | 3-17-94/1010 | 0.5 – 1.0 | As | Hand Auger | 46.1 |
| SSP-L1 | SB5715 | Sediment | 3-21-94/0855 | 1.5 – 2.0 | As | Split Spoon | 24.6 |
| SQ-U1 | SB5700 | Soil | 3-17-94/0753 | 0.5 – 1.0 | As | Hand Auger | 51.3 |
| SQ-L1 | BMN15 MBNQ15 | Soil | 3-17-94/0806 | 2.0 – 2.5 | TCL TAL/CN | Hand Auger | 25.4 NJ |
| SQ-U2 | SB5701 | Soil | 3-17-94/0811 | 0.5 – 1.0 | As | Hand Auger | 20.8 |
| SQ-U3 | SB5705 | Soil | 3-17-94/0845 | 0.5 – 1.0 | As | Hand Auger | 13.6 |
| SQ-L3 | SB5706 | Soil | 3-17-94/0910 | 2.0 – 2.5 | As | Hand Auger | 47.7 |
| SQ-U4 | SB5707 | Soil | 3-17-94/0922 | 0.5 – 1.0 | As | Split Spoon | 5.1 |
| SQ-L4 | SB5708 | Soil | 3-17-94/0935 | 1.5 – 2.0 | As | Hand Auger | 14.2 |
| SSQ-U1 | SB5703 | Sediment | 3-17-94/0821 | 0.5 – 1.1 | As | Split Spoon | 2.6 |
| SSQ-L1 | SB5704 | Sediment | 3-17-94/0855 | 1.5 – 2.0 | As | Split Spoon | 5.2 |
| SR-U1 | SB5690 | Soil | 3-16-94/1520 | 0.5 – 1.0 | As | Hand Auger | 23.7 |
| SR-L1 | SB5691 | Soil | 3-16-94/1530 | 2.0 – 2.5 | As | Hand Auger | 82.2 |
| SR-U2 | SB5692 | Soil | 3-16-94/1520 | 0.5 – 1.0 | As | Hand Auger | 30.7 |
| SR-L2 | BMN16 MBNQ16 | Soil | 3-16-94/1530 | 2.5 – 3.0 | TCL TAL/CN | Hand Auger | 7.0 NSJ |
| SR-U3 | SB5696 | Soil | 3-16-94/1550 | 0.5 – 1.0 | As | Hand Auger | 15.9 |
| SSR-U1 | SB5693 | Sediment | 3-16-94/1550 | 0.5 – 1.0 | As | Split Spoon | 4.2 |
| SSR-U1A | SB5694 | Sediment | 3-16-94/1550 | 0.5 – 1.0 | As | Split Spoon | 2.8 |
| SSR-L1 | SB5695 | Sediment | 3-16-94/1600 | 2.0 – 2.6 | As | Split Spoon | 1.1B |
| SS-U1 | SB5681 | Soil | 3-16-94/1325 | 0.5 – 1.0 | As | Hand Auger | 5.7 |
| SS-L1 | SB5682 | Soil | 3-16-94/1335 | 2.0 – 2.5 | As | Hand Auger | 46.7 |
| SS-U2 | SB5683 | Soil | 3-16-94/1325 | 0.5 – 1.0 | As | Hand Auger | 88.4 |
| SS-L2 | SB5684 | Soil | 3-16-94/1340 | 2.5 – 3.0 | As | Hand Auger | 69.7 |

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS – SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| SS-U3 | SB5687 | Soil | 3-16-94/1410 | 0.5 – 1.0 | As | Hand Auger | 18.3 |
| SS-U4 | SB5688 | Soil | 3-16-94/1420 | 0.5 – 1.0 | As | Hand Auger | 4.2 |
| SSS-U1 | SB5685 | Sediment | 3-16-94/1350 | 0.5 – 1.2 | As | Split Spoon | 3.2 |
| SSS-L1 | SB5686 | Sediment | 3-16-94/1410 | 1.5 – 2.0 | As | Split Spoon | 294.0 |
| ST-U1 | SB5671 | Soil | 3-16-94/0916 | 0.5 – 1.0 | As | Hand Auger | 25.0 |
| ST-L1 | SB5672 | Soil | 3-16-94/0927 | 1.0 – 1.5 | As | Hand Auger | 27.6 |
| ST-U2 | SB5673 | Soil | 3-16-94/0912 | 0.5 – 1.0 | As | Hand Auger | 13.2 |
| ST-L2 | SB5674 | Soil | 3-16-94/0920 | 1.2 – 1.5 | As | Hand Auger | 21.0 |
| ST-U3 | SB5678 | Soil | 3-16-94/0945 | 0.5 – 1.0 | As | Hand Auger | 4.3 |
| ST-L3 | SB5679 | Soil | 3-16-94/1045 | 2.0 – 2.5 | As | Split Spoon | 26.5 |
| ST-U4 | SB5680 | Soil | 3-16-94/1120 | 0.5 – 1.0 | As | Split Spoon | 2.8 |
| ST-L4 | BMN18 MBNQ18 | Soil | 3-16-94/1126 | 2.5 – 3.0 | TCL TAL/CN | Split Spoon | 11.5 NSJ |
| SST-U1 | SB5675 | Sediment | 3-16-94/1205 | 0.5 – 1.0 | As | Split Spoon | 8.5 |
| SST-U1A | SB5676 | Sediment | 3-16-94/1205 | 0.5 – 1.0 | As | Split Spoon | 10.3 |
| SST-L1 | SB5677 | Sediment | 3-16-94/1226 | 1.5 – 2.0 | As | Split Spoon | 15.0 |
| SU-U1 | SB5662 | Soil | 3-16-94/0800 | 0.5 – 1.0 | As | Hand Auger | 12.9 |
| SU-U2 | SB5664 | Soil | 3-16-94/0815 | 0.5 – 1.0 | As | Hand Auger | 14.7 |
| SU-L2 | SB5665 | Soil | 3-16-94/0818 | 2.5 – 3.0 | As | Hand Auger | 23.7 |
| SU-U3 | SB5667 | Soil | 3-16-94/0820 | 0.5 – 1.0 | As | Hand Auger | 6.5 |
| SU-L3 | SB5668 | Soil | 3-16-94/0830 | 2.0 – 2.5 | As | Hand Auger | 35.5 |
| SU-U4 | SB5669 | Soil | 3-16-94/0820 | 0.5 – 1.0 | As | Hand Auger | 3.6 |
| SU-L4 | SB5670 | Soil | 3-16-94/0830 | 2.5 – 3.0 | As | Hand Auger | 3.3 |
| SSU-U1 | BMN19 MBNQ19 | Sediment | 3-16-94/1000 | 0.4 – 0.8 | TCL TAL/CN | Split Spoon | 5.2 NJ |
| SSU-U1A | BMN34 MBNQ34 | Sediment | 3-16-94/1000 | 0.4 – 0.8 | TCL TAL/CN | Split Spoon | 9.8 NSJ |
| SSU-L1 | SB5666 | Sediment | 3-16-94/1030 | 1.5 – 2.0 | As | Split Spoon | 4.2 |
| SV-U1 | SB5652 | Soil | 3-15-94/1420 | 0.5 – 1.0 | As | Hand Auger | 22.1 SNJ |
| SV-L1 | BMN 20 | Soil | 3-15-94/1545 | 2.5 – 3.0 | TCL | Hand Auger | 4.1 NSJ |

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS – SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| | MBNQ 20 | Soil | | 2.5 – 3.0 | TAL/CN | | |
| SV-U2 | SB5653 | Soil | 3-15-94/1420 | 0.5 – 1.0 | As | Hand Auger | 124.0 |
| SV-L2 | SB5661 | Soil | 3-15-94/1425 | 1.5 – 2.0 | As | Hand Auger | 44.9 NSJ |
| SV-U3 | SB5656 | Soil | 3-15-94/1450 | 0.5 – 1.0 | As | Hand Auger | 9.2 NSJ |
| SV-L3 | SB5657 | Soil | 3-15-94/1625 | 1.5 – 2.0 | As | Hand Auger | 15.6 NSJ |
| SV-U4 | SB5658 | Soil | 3-15-94/1620 | 0.5 – 1.0 | As | Hand Auger | 2.5 NSJ |
| SV-L4 | SB5659 | Soil | 3-15-94/1640 | 1.5 – 2.0 | As | Hand Auger | 6.7 NSJ |
| SV-L4A | SB5660 | Soil | 3-15-94/1640 | 1.5 – 2.0 | As | Hand Auger | 7.5 NSJ |
| SSV-U1 | SB5654 | Sediment | 3-15-94/1520 | 0.4 – 0.8 | As | Split Spoon | 7.9 NSJ |
| SSV-L1 | SB5655 | Sediment | 3-16-94/1030 | 1.0 – 1.4 | As | Split Spoon | 108.0 |
| SW-U1 | SB5641 | Soil | 3-15-94/1025 | 0.5 – 1.0 | As | Hand Auger | 127.0* |
| SW-L1 | SB5642 | Soil | 3-15-94/1035 | 2.5 – 3.0 | As | Hand Auger | 2.3 BWNJ |
| SW-U2 | SB5643 | Soil | 3-15-94/1030 | 0.5 – 1.0 | As | Hand Auger | 61.3* |
| SW-L2 | BMN 21 | Soil | 3-15-94/1036 | 2.5 – 3.0 | TCL | Hand Auger | 18.0 NSJ |
| | MBNQ 21 | Soil | | 2.5 – 3.0 | TAL/CN | | |
| SW-L2A | BMN 33 | Soil | 3-15-94/1036 | 2.5 – 3.0 | TCL | Hand Auger | 16.6 NSJ |
| | MBNQ 33 | Soil | | 2.5 – 3.0 | TAL/CN | | |
| SW-U3 | SB5646 | Soil | 3-15-94/1153 | 0.5 – 1.0 | As | Hand Auger | 20.5 SNJ |
| SW-L3 | SB5647 | Soil | 3-15-94/1158 | 2.0 – 2.5 | As | Hand Auger | 76.1* |
| SW-U4 | SB5648 | Soil | 3-15-94/1211 | 0.5 – 1.0 | As | Hand Auger | 77.9* |
| SW-L4 | SB5649 | Soil | 3-15-94/1218 | 2.0 – 2.5 | As | Hand Auger | 131.0* |
| SSW-U1 | SB5644 | Sediment | 3-15-94/1042 | 0.5 – 1.0 | As | Split Spoon | 8.8 SNJ |
| SSW-L1 | SB5645 | Sediment | 3-15-94/1055 | 1.5 – 2.0 | As | Split Spoon | 15.7 SNJ |
| SX-U1 | SB5630 | Soil | 3-15-94/0755 | 0.5 – 1.0 | As | Hand Auger | 22.7 SNJ |
| SX-L1 | SB5631 | Soil | 3-15-94/0810 | 2.5 – 3.0 | As | Hand Auger | 4.7 SNJ |
| SX-U2 | SB5632 | Soil | 3-15-94/0758 | 0.5 – 1.0 | As | Hand Auger | 48.9 SNJ |
| SX-L2 | SB5633 | Soil | 3-15-94/0815 | 2.5 – 3.0 | As | Hand Auger | 16.6 SNJ |
| SX-U3 | SB5636 | Soil | 3-15-94/0815 | 0.5 – 1.0 | As | Hand Auger | 355* |
| SX-L3 | BMN 22 | Soil | 3-15-94/0830 | 2.5 – 3.0 | TCL | Hand Auger | 10.1 NSJ |
| | MBNQ 22 | Soil | | 2.5 – 3.0 | TAL/CN | | |

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS – SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| SX-U4 | SB5637 | Soil | 3-15-94/0908 | 0.5 – 1.0 | As | Hand Auger | 76.6* |
| SX-L4 | SB5638 | Soil | 3-15-94/0922 | 2.2 – 2.6 | As | Hand Auger | 13.6 SNJ |
| SX-L4A | SB5639 | Soil | 3-15-94/0922 | 2.2 – 2.6 | As | Hand Auger | 6.9 SNJ |
| SSX-U1 | SB5634 | Sediment | 3-15-94/0915 | 0.5 – 1.0 | As | Split Spoon | 4.2 SNJ |
| SSX-L1 | SB5635 | Sediment | 3-15-94/0920 | 1.5 – 2.0 | As | Split Spoon | 4.2 SNJ |
| SY-U1 | SB5621 | Soil | 3-14-94/1346 | 0.5 – 1.0 | As | Hand Auger | 2.7 SN* (R) |
| SY-L1 | SB5622 | Soil | 3-14-94/1355 | 2.5 – 3.0 | As | Hand Auger | 2.8 SN* (R) |
| SY-U2 | SB5623 | Soil | 3-14-94/1410 | 0.5 – 1.0 | As | Hand Auger | 595.0 *J |
| SY-L2 | SB5624 | Soil | 3-14-94/1415 | 2.5 – 3.0 | As | Hand Auger | 6.2 SN* (R) |
| SY-U3 | SB5627 | Soil | 3-14-94/1510 | 0.5 – 1.0 | As | Hand Auger | 203.0 *J |
| SY-L3 | SB5628 | Soil | 3-14-94/1540 | 2.5 – 3.0 | As | Hand Auger | 1.2 BWN* (R) |
| SY-U4 | SB5629 | Soil | 3-14-94/1450 | 0.5 – 1.0 | As | Hand Auger | 31.7 SNJ |
| SY-L4 | BMN23 MBNQ23 | Soil | 3-14-94/1525 | 2.0 – 2.5 | TCL TAL/CN | Hand Auger | 6.9 NSJ |
| SSY-U1 | SB5625 | Sediment | 3-14-94/1505 | 0.1 – 0.8 | As | Split Spoon | 8.0 SN* (R) |
| SSY-L1 | SB5626 | Sediment | 3-14-94/1520 | 1.5 – 2.0 | As | Split Spoon | 11.2 SN* (R) |
| SZ-U1 | SB5610 | Soil | 3-14-94/1100 | 0.5 – 1.0 | As | Hand Auger | 23.6 SN* (R) |
| SZ-L1 | SB5611 | Soil | 3-14-94/1105 | 2.5 – 3.0 | As | Hand Auger | 1.3 BWN* (R) |
| SZ-U2 | SB5612 | Soil | 3-14-94/1122 | 0.5 – 1.0 | As | Hand Auger | 267.0 *J |
| SZ-L2 | SB5613 | Soil | 3-14-94/1135 | 1.2 – 1.5 | As | Hand Auger | 8.9 SN* (R) |
| SZ-U3 | SB5615 | Soil | 3-14-94/1120 | 0.5 – 1.0 | As | Split Spoon | 152.0 *J |
| SZ-L3 | SB5616 | Soil | 3-14-94/1130 | 2.5 – 3.0 | As | Split Spoon | 1.9 BWN* (R) |
| SZ-U4 | SB5617 | Soil | 3-14-94/1204 | 0.5 – 1.0 | As | Split Spoon | 106.0 *J |
| SZ-L4 | SB5618 | Soil | 3-14-94/1211 | 2.5 – 3.3 | As | Split Spoon | 0.85 BN* (R) |
| SZ-L4A | SB5619 | Soil | 3-14-94/1211 | 2.5 – 3.3 | As | Split Spoon | 4.4 SN* (R) |
| SSZ-U1 | BMN24 MBNQ24 | Sediment | 3-14-94/1430 | 0.3 – 0.8 | TCL TAL/CN | Split Spoon | 4.1 NJ |
| SSZ-L1 | SB5614 | Soil | 3-14-94/1440 | 1.5 – 2.0 | As | Split Spoon | 6.5 SN* (R) |
| SAA-U1 | SB5851 | Soil | 3-23-94/0820 | 0.5 – 1.0 | As | Hand Auger | 37.0 |
| SAA-L1 | SB5852 | Soil | 3-23-94/0840 | 2.5 – 3.0 | As | Hand Auger | 6.1 |

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS – SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| SAA-U2 | SB5853 | Soil | 3-23-94/0842 | 0.5 – 1.0 | As | Hand Auger | 177.0 |
| SAA-L2 | BMN25 MBNQ25 | Soil | 3-23-94/0842 | 2.0 – 2.5 | TCL TAL/CN | Hand Auger | 129.0 |
| SAA-U3 | SB5856 | Soil | 3-23-94/0920 | 0.5 – 1.0 | As | Hand Auger | 36.8 |
| SAA-U4 | SB5858 | Soil | 3-23-94/0925 | 0.5 – 1.0 | As | Hand Auger | 3.6 |
| SSAA-U1 | SB5854 | Soil | 3-23-94/0830 | 0.5 – 1.0 | As | Split Spoon | 2.0B |
| SSAA-L1 | SB5855 | Sediment | 3-23-94/0840 | 1.5 – 2.0 | As | Hand Auger | 3.0 |
| SBB-U1 | SB5892 | Soil | 3-23-94/0945 | 0.5 – 1.0 | As | Hand Auger | 4.5 |
| SBB-L1 | SB5893 | Soil | 3-23-94/0950 | 2.5 – 3.0 | As | Hand Auger | 4.4 |
| SBB-U2 | SB5894 | Soil | 3-23-94/1000 | 0.5 – 1.0 | As | Hand Auger | 34.1 |
| SBB-U3 | SB5889 | Soil | 3-23-94/1030 | 0.5 – 1.0 | As | Hand Auger | 7.8 |
| SBB-L3 | BMN26 MBNQ26 | Soil | 3-23-94/1100 | 2.5 – 3.0 | TCL TAL/CN | Hand Auger | 2.9 |
| SBB-U4 | SB5888 | Soil | 3-23-94/1100 | 0.5 – 1.0 | As | Hand Auger | 4.9 |
| SSBB-U1 | SB5890 | Sediment | 3-23-94/1020 | 0.5 – 1.0 | As | Split Spoon | 2.7 |
| SSBB-L1 | SB5891 | Sediment | 3-23-94/1035 | 1.5 – 2.0 | As | Split Spoon | 3.7 |
| SCC-U1 | SB5886 | Soil | 3-22-94/1435 | 0.5 – 1.0 | As | Hand Auger | 10.0 SNJ |
| SCC-L1 | SB5885 | Soil | 3-22-94/1450 | 2.5 – 3.0 | As | Hand Auger | 11.1 SNJ |
| SCC-U2 | SB5884 | Soil | 3-22-94/1511 | 0.5 – 1.0 | As | Hand Auger | 6.3 SNJ |
| SCC-L2 | SB5883 | Soil | 3-22-94/1520 | 2.5 – 3.0 | As | Hand Auger | 1.5 BWNJ |
| SCC-U3 | SB5880 | Soil | 3-22-94/1445 | 0.5 – 1.0 | As | Hand Auger | 11.0 SNJ |
| SCC-L3 | SB5879 | Soil | 3-22-94/1505 | 2.5 – 3.0 | As | Hand Auger | 16.8 SNJ |
| SCC-U4 | SB5878 | Sediment | 3-22-94/1515 | 0.5 – 1.0 | As | Split Spoon | 6.6 +N |
| SCC-L4 | BMN27 MBNQ27 | Soil | 3-22-94/1530 | 2.0 – 2.5 | TCL TAL/CN | Hand Auger | 4.5 J |
| SSCC-U1 | SB5882 | Sediment | 3-22-94/1456 | 0.5 – 1.0 | As | Split Spoon | 15.7 SNJ |
| SSCC-L1 | SB5881 | Sediment | 3-22-94/1509 | 1.0 – 1.4 | As | Split Spoon | 10.3 SNJ |
| SDD-U1 | SB5877 | Soil | 3-22-94/1335 | 0.5 – 1.0 | As | Hand Auger | 10.5 SNJ |
| SDD-L1 | SB5876 | Soil | 3-22-94/1340 | 2.5 – 3.0 | As | Hand Auger | 14.4 SNJ |
| SDD-U2 | SB5875 | Soil | 3-22-94/1340 | 0.5 – 1.0 | As | Hand Auger | 28.3 SNJ |

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS - SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| SDD-U3 | SB5872 | Soil | 3-22-94/1410 | 0.5 - 1.0 | As | Hand Auger | 21.2 SNJ |
| SDD-U4 | SB5859 | Soil | 3-22-94/1420 | 2.0 - 2.5 | As | Hand Auger | 4.1 SNJ |
| SDD-L4 | SB5860 | Soil | 3-22-94/1405 | 0.5 - 1.0 | As | Hand Auger | 8.7 SNJ |
| SSDD-U1 | BMN28 MBNQ28 | Sediment | 3-22-94/1400 | 0.5 - 1.0 | TCL TAL/CN | Split Spoon | 5.6 SJ |
| SSDD-U1A | BMN39 MBNQ39 | Sediment | 3-22-94/1400 | 0.5 - 1.0 | TCL TAL/CN | Split Spoon | 13.3 SJ |
| SEE-U1 | SB5861 | Soil | 3-22-94/1235 | 0.5 - 1.0 | As | Hand Auger | 10.5 SNJ |
| SEE-U1A | SB5865 | Soil | 3-22-94/1235 | 0.5 - 1.0 | As | Hand Auger | 7.5 SNJ |
| SEE-U2 | SB5863 | Soil | 3-22-94/1230 | 0.5 - 1.0 | As | Hand Auger | 14.2 SNJ |
| SEE-L2 | SB5864 | Soil | 3-22-94/1235 | 2.5 - 3.0 | As | Hand Auger | 26.6 SNJ |
| SEE-U3 | SB5867 | Soil | 3-22-94/1245 | 0.5 - 1.0 | As | Hand Auger | 25.9 SNJ |
| SEE-L3 | SB5868 | Soil | 3-22-94/1300 | 2.5 - 3.0 | As | Hand Auger | 7.7 SNJ |
| SEE-U4 | SB5869 | Soil | 3-22-94/1310 | 0.5 - 1.0 | As | Hand Auger | 2.9 NJ |
| SEE-L4 | SB5870 | Soil | 3-22-94/1315 | 2.5 - 3.0 | As | Hand Auger | 1.8 BNJ |
| SRC-U1 | BMN32 MBNQ32 | Soil | 3-23-94/1000 | 0.2 - 0.7 | TCL TAL/CN | Trowel | 3.6 |
| SRC-L1 | SB5896 | Soil | 3-23-94/1005 | 2.5 - 3.0 | As | Hand Auger | 1.6 B |
| SRC-U2 | SB5897 | Soil | 3-23-94/1105 | 0.0 - 0.5 | As | Trowel | 4.6 |
| SRC-U2A | SB5898 | Soil | 3-23-94/1105 | 0.0 - 0.5 | As | Trowel | 5.1 |
| SRC-U3 | SB5899 | Soil | 3-23-94/1100 | 0.0 - 0.5 | As | Trowel | 10.6 |
| SRC-U4 | SB5900 | Soil | 3-23-94/0936 | 0.0 - 0.5 | As | Trowel | 2.1B |
| SRC-U5 | SB5901 | Soil | 3-23-94/1112 | 0.0 - 0.5 | As | Trowel | 4.6 |
| SRC-U5A | SB5902 | Soil | 3-23-94/1112 | 0.0 - 0.5 | As | Trowel | 5.7 |
| SRC-U6 | SB5903 | Soil | 3-23-94/1055 | 0.0 - 0.5 | As | Trowel | 2.0 B |
| SRC-U7 | SB5004 | Soil | 3-23-94/1045 | 0.0 - 0.5 | As | Trowel | 3.7 |
| SRC-U7A | SB5005 | Soil | 3-23-94/1045 | 0.0 - 0.5 | As | Trowel | 5.6 |
| SRC-8 | SB5006 | Soil | 3-23-94/0917 | 0.0 - 0.5 | As | Trowel | 4.7 |
| SRC-9 | SB5007 | Soil | 3-23-94/0910 | 0.0 - 0.5 | As | Trowel | 2.1 B |
| SRC-10 | SB5008 | Soil | 3-23-94/0926 | 0.0 - 0.5 | As | Trowel | 3.3 |

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS - SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| SRC-10A | SB5009 | Soil | 3-23-94/0926 | 0.0 - 0.5 | As | Trowel | 3.3 |
| SEW-U1 | SB5010 | Soil | 3-24-94/0934 | 0.2 - 0.6 | As | Scoop | 5.9 S* |
| SEW-U1A | SB5011 | Soil | 3-24-94/0935 | 0.2 - 0.6 | As | Scoop | 7.9 S* |
| SEW-U2 | SB5012 | Soil | 3-24-94/0950 | 0.2 - 0.7 | As | Scoop | 5.0 S* |
| SEW-U3 | SB5013 | Soil | 3-24-94/1009 | 0.3 - 0.6 | As | Scoop | 6.4 S* |
| SEW-U4 | BMN31 MBNQ31 | Soil | 3-24-94/1000 | 0.2 - 0.7 | TCL TAL/CN | Scoop | 3.5 NJ |
| SEW-U5 | SB5014 | Soil | 3-24-94/1025 | 0.2 - 0.6 | As | Scoop | 3.4 S* |
| SEW-U6 | SB5015 | Soil | 3-24-94/1020 | 0.2 - 0.7 | As | Scoop | 5.2 S* |
| SEW-U6A | SB5016 | Soil | 3-24-94/1020 | 0.2 - 0.7 | As | Scoop | 5.6 S* |
| SEG-U1 | SB5017 | Soil | 3-24-94/1107 | 0.0 - 0.5 | As | Scoop | 259.0 S* |
| SEG-U2 | SB5018 | Soil | 3-24-94/1110 | 0.1 - 0.5 | As | Scoop | 4.3 * |
| SEG-U3 | SB5019 | Soil | 3-24-94/1130 | 0.2 - 0.7 | As | Scoop | 4.5 * |
| SEG-U3A | SB5020 | Soil | 3-24-94/1135 | 0.2 - 0.7 | As | Scoop | 6.0 S* |
| SEG-U4 | BMN29 MBNQ29 | Soil | 3-24-94/1113 | 0.0 - 0.5 | TCL TAL/CN | Scoop | 6.1 NJ |
| SEG-U5 | SB5021 | Soil | 3-24-94/1119 | 0.1 - 0.6 | As | Scoop | 3.9 S* |
| SEG-U6 | SB5022 | Soil | 3-24-94/1120 | 0.0 - 0.5 | As | Scoop | 3.2 S* |
| SEG-U7 | SB5023 | Soil | 3-24-94/1125 | 0.0 - 0.5 | As | Scoop | 4.3 S* |
| SEG-U8 | SB5024 | Soil | 3-24-94/1130 | 0.0 - 0.5 | As | Scoop | 4.3 S* |
| SEG-U9 | SB5025 | Soil | 3-24-94/1140 | 0.0 - 0.5 | As | Scoop | 5.2 S* |
| SEG-U10 | SB5026 | Soil | 3-24-94/1140 | 0.0 - 0.5 | As | Scoop | 5.1 S* |
| SEG-U11 | BMN30 MBNQ30 | Soil | 3-24-94/1207 | 0.3 - 0.8 | TCL TAL/CN | Scoop | 3.8 NJ |
| SEG-U12 | SB5027 | Soil | 3-24-94/1148 | 0.0 - 0.5 | As | Scoop | 6.3 S* |
| SEG-U13 | SB5028 | Soil | 3-24-94/1145 | 0.2 - 0.7 | As | Scoop | 3.5 +*J |
| SEG-U14 | SB5029 | Soil | 3-24-94/1200 | 0.2 - 0.7 | As | Scoop | 5.2 SNJ |
| SEG-U15 | SB5030 | Soil | 3-24-94/1215 | 0.3 - 0.8 | As | Scoop | 4.5 NJ |
| SSCG-1 | SB5031 | Sediment | 3-23-94/1340 | 0.5 - 1.0 | As | Hand Auger | 10.5 |
| SSCG-2 | BMN56 | Sediment | 3-23-94/1405 | 1.0 - 1.5 | TCL | Split Spoon | 29.6S |

# TABLE 3-6 CONTINUED
# ARSENIC RESULTS – SOIL/SEDIMENTS
# OFF-SITE INVESTIGATION
# CHEMICAL INSECTICIDE CORPORATION SITE
# EDISON, NEW JERSEY

| SAMPLE IDENTIFICATION CODE | CLP SAMPLE CODE | MATRIX | SAMPLE DATE/TIME | SAMPLE DEPTH (Ft. Bgs) | ANALYTICAL PARAMETERS | SAMPLE METHOD | ARSENIC CONCENTRATION (mg/kg) |
|---|---|---|---|---|---|---|---|
| | MBNQ56 | | | | TAL/CN | | |
| SSCG-3 | BMN57<br>MBNQ57 | Sediment | 3-23-94/1430 | 2.0 – 3.0 | TCL<br>TAL/CN | Split Spoon | 8.0S |
| SSCG-4 | SB5032 | Sediment | 3-23-94/1640 | 0.0 – 0.5 | As | Hand Auger | 2.1 B |
| SSCG-6 | BMN58<br>MBNQ58 | Sediment | 3-23-94/1550 | 0.0 – 1.5 | TCL<br>TAL/CN | Split Spoon | 4.3 |
| SSCG-7 | BMN59<br>MBNQ59 | Sediment | 3-23-94/1612 | 1.5 – 2.0 | TCL<br>TAL/CN | Split Spoon | 1.7B |
| SSCG-8 | BMN60<br>MBNQ60 | Sediment | 3-23-94/1455 | 0.0 – 0.5 | TCL<br>TAL/CN | Split Spoon | 4.2 |
| SSCG-9 | SB5034 | Sediment | 3-23-94/1455 | 0.0 – 0.5 | As | Hand Auger | 9.0 |
| SSCG-10 | SB5035 | Sediment | 3-23-94/1455 | 0.0 – 0.5 | As | Hand Auger | 7.6 |

B – If the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL).
N – Spiked sample recovery not within control limits.
S – The reported value was determined by the Method of Standard Additions (MSA).
W – Post-digestion spike for Furnace AA analysis is out of control limits (85 – 115%), while sample absorbance is less than 50% of spike absorbance.
(R) – Unusuable results.
* – Duplicate analysis not within control limits.
+ – Correlation coefficient for the MSA is less than 0.995.
Sample Identification Code Prefix – SEG denotes Edison Glenn
Sample Identification Code Prefix – SEW denotes Edison Wood
Sample Identification Code Prefix – SRC denotes Rodak Circle

TABLE B3-7
VOLATILE ORGANIC RESULTS - SOIL/SEDIMENTS
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | SA-U1 | SBA-U1 | SB-U2 | SC-L3 | SCD-L4 | SSDD-U1 | SEG-U4 | SLG-U11 | SEW-U4 | SSDD-U1A | FB-09 | FB-10 | SE-L2 |
| SAMPLE LOCATION NO. | TRANSECT A | TRANSECT A | TRANSECT B | TRANSECT C | TRANSECT CC | TRANSECT DD | EDISON GLEN | EDISON GLEN | EDISON WOODS | TRANSECT DD | | | TRANSECT E |
| CLP SAMPLE CODE | BMN01 | BMN02 | BMN03 | BMN04 | BMN27 | BMN28 | BMN29 | BMN30 | BMN31 | BMN39 | BMN4 | BMN50 | BMN05 |
| DEPTH INTERVAL | 0.5 TO 1.0 ft. | 0.2 TO 0.8 ft. | 0.5 TO 1.0 ft. | 1.0 TO 1.5 ft. | 2.0 TO 2.5 ft. | 0.5 TO 1.0 ft. | 0.0 TO 0.5 ft. | 0.3 TO 0.8 ft. | 0.2 TO 0.7 ft. | 0.5 TO 1.0 ft. | FIELD BLANK | FIELD BLANK | 2.5 TO 3.0 ft. |
| UNITS | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/l | ug/l | ug/kg |
| DATE SAMPLE COLLECTED | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/24/94 | 3/24/94 | 3/24/94 | 3/22/94 | 3/22/94 | 3/24/94 | 3/21/94 |
| Chloromethane | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Bromomethane | 12 UJ | 13 UJ | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Vinyl Chloride | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Chloroethane | 12 UJ | 13 UJ | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Methylene Chloride | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 13 U | 13 U | 12 U | 12 U | 2 BJ | 10 B | 14 U |
| Acetone | 28 U | 44 U | 12 U | 12 UJ | 24 UJ | 63 UJ | 13 U | 13 U | 12 U | 38 UJ | 50 B | 84 B | 28 UJ |
| Carbon Disulfide | 12 U | 13 U | 12 UJ | 12 U | 13 U | 2 J | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| 1,1-Dichloroethene | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| 1,1-Dichloroethane | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| 1,2-Dichloroethene (total) | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Chloroform | 12 U | 13 U | 12 U | 0.7 J | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| 1,2-Dichloroethane | 12 U | 13 U | 12 UJ | 12 UJ | 13 UJ | 12 UJ | 12 U | 12 U | 12 U | 12 UJ | 10 U | 10 U | 12 UJ |
| 2-Butanone | 12 U | 13 U | 12 UJ | 12 UJ | 13 UJ | 12 U | 12 U | 12 U | 12 U | 12 UJ | 10 U | 10 U | 12 UJ |
| 1,1,1-Trichloroethane | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Carbon Tetrachloride | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Bromodichloromethane | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| 1,2-Dichloropropane | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 UJ |
| cis-1,3-Dichloropropene | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Trichloroethene | 12 U | 4 J | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Dibromochloromethane | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| 1,1,2-Trichloroethane | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Benzene | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| trans-1,3-Dichloropropene | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Bromoform | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| 4-Methyl-2-Pentanone | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| 2-Hexanone | 12 U | 13 U | 12 UJ | 12 UJ | 13 UJ | 12 UJ | 12 U | 12 U | 12 U | 12 UJ | 10 U | 10 U | 12 UJ |
| Tetrachloroethene | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| 1,1,2,2-Tetrachloroethane | 12 U | 13 U | 2 J | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Toluene | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 1 J | 3 J |
| Chlorobenzene | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Ethylbenzene | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Styrene | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Xylene (total) | 12 U | 13 U | 12 U | 12 U | 13 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U |
| Total VOCs | | 4 J | 2 J | 0.7 J | | 2 J | | | | | 52 BJ | 95 BJ | 3 J |
| TIC Count | | 8 | 1 | 2 | | | | | | | | 1 | |
| Total TIC Concentration | | 51 JN | 45 JN | 66 JN | | | | | | | | 10 JN | |

U = Analyte was not detected at the instrument detection limit given
J = Estimated Value
B = Analyte was detected in blank
E = Estimated value due to matrix interference
D = Determined after sample dilution
BJ = Presumptive evidence for presence of analyte; estimated quantity
R = Rejected during data validation

TABLE 3-7 CONTINUED
VOLATILE ORGANIC RESULTS - SOIL/SEDIMENTS
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | SG-L2 | SSD-U1 | SSA-L2 | SBB-L3 | SRC-U1 | SH-U1 | SH-U1A | SH-U1 | | | SSCG-2 | SSCG-3 | SSCG-6 |
| SAMPLE LOCATION NO. | TRANSECT G | TRANSECT D | TRANSECT AA | TRANSECT BB | RODAK CIRCLE | TRANSECT H | TRANSECT H | TRANSECT H | FB-07 | FB-09 | | | |
| CLP SAMPLE CODE | BMN07 | BMN12 | BMN25 | BMN26 | BMN32 | BMN35 | BMN36 | BMN37 | BMN47 | BMN49 | BMN56 | BMN57 | BMN58 |
| DEPTH INTERVAL | 2.0 TO 2.5 ft. | 0.5 TO 1.2 ft. | 2.5 TO 3.0 ft. | 2.5 TO 3.0 ft. | 0.2 TO 0.7 ft. | 0.5 TO 1.0 ft. | 0.5 TO 1.0 ft. | 0.5 TO 1.0 ft. | FIELD BLANK | FIELD BLANK | 1.0 TO 1.5 ft | 2.0 TO 3.0 ft | 0.0 TO 1.5 ft |
| UNITS | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/l | ug/l | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/21/94 | 3/21/94 | 3/23/94 | 3/23/94 | 3/23/94 | 3/21/94 | 3/21/94 | 3/21/94 | 3/21/94 | 3/23/94 | 3/23/94 | 3/23/94 | 3/23/94 |
| Chloromethane | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 UJ | 11 U |
| Bromomethane | 12 U | 11 U | 16 UJ | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 UJ |
| Vinyl Chloride | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Chloroethane | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Methylene Chloride | 12 U | 11 U | 16 U | 12 U | 12 U | 16 U | 12 U | 12 U | 13 B | 7 BJ | 12 U | 12 U | 11 U |
| Acetone | 62 UJ | 67 UJ | 16 U | 17 U | 17 UJ | 12 UJ | 12 UJ | 12 UJ | 36 B | 15 B | 74 UJ | 16 UJ | 28 U |
| Carbon Disulfide | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| 1,1-Dichloroethene | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| 1,1-Dichloroethane | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| 1,2-Dichloroethene (total) | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Chloroform | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| 1,2-Dichloroethane | 12 UJ | 11 UJ | 16 U | 12 U | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 10 U | 10 U | 12 UJ | 12 UJ | 11 U |
| 2-Butanone | 12 UJ | 11 UJ | 16 U | 12 U | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 10 U | 10 U | 12 UJ | 12 UJ | 11 U |
| 1,1,1-Trichloroethane | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Carbon Tetrachloride | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Bromodichloromethane | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| 1,2-Dichloropropane | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| cis-1,3-Dichloropropene | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Trichloroethene | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 J | 12 U | 11 U |
| Dibromochloromethane | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| 1,1,2-Trichloroethane | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Benzene | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| trans-1,3-Dichloropropene | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Bromoform | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| 4-Methyl-2-Pentanone | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| 2-Hexanone | 12 UJ | 11 UJ | 16 U | 12 U | 12 UJ | 12 UJ | 12 UJ | 12 UJ | 10 U | 10 U | 12 U | 12 UJ | 11 U |
| Tetrachloroethene | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 UJ | 12 U | 11 U |
| 1,1,2,2-Tetrachloroethane | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Toluene | 2 J | 11 U | 16 U | 12 U | 12 U | 1 J | 12 U | 2 J | 10 U | 10 U | 12 U | 12 U | 11 U |
| Chlorobenzene | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Ethylbenzene | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Styrene | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Xylene (total) | 12 U | 11 U | 16 U | 12 U | 12 U | 12 U | 12 U | 12 U | 10 U | 10 U | 12 U | 12 U | 11 U |
| Total VOCs | 2 J | | | | | 1 J | | 2 J | 49 B | 22 BJ | 12 J | | |
| TIC Count | 1 | | | | 1 | | | | | | | | |
| Total TIC Concentration | 7 JN | | | | 15 JN | | | | 22 JN | | | | |

U = Analyte was not detected at the instrument detect
J = Estimated Value
B = Analyte was detected in blank
E = Estimated value due to matrix interference
D = Determined after sample dilution
BJ = Presumptive evidence for presence of analyte; es
R = Rejected during data validation

TABLE 3-7 CONTINUED
VOLATILE ORGANIC RESULTS - SOIL/SEDIMENTS
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | SSCG-7 | SSCG-8 | SSK-U1 | SI-L1 | | SO-L4 | SQ-L1 | SR-L2 | ST-L4 | SSU-U1 | SV-L1 | SW-L2 | SX-L3 |
| SAMPLE LOCATION NO. | | | TRANSECT K | TRANSECT I | FB-06 | TRANSECT O | TRANSECT Q | TRANSECT R | TRANSECT T | TRANSECT U | TRANSECT V | TRANSECT W | TRANSECT X |
| CLP SAMPLE CODE | BMN59 | BMN60 | BMN09 | BMN13 | BMN48 | BMN14 | BMN15 | BMN16 | BMN18 | BMN19 | BMN20 | BMN21 | BMN22 |
| DEPTH INTERVAL | 1.5 TO 2.0 ft. | 0.0 TO 0.5 ft. | 0.3 TO 1.2 ft. | 0.5 TO 1.0 ft. | FIELD BLANK | 2.5 TO 3.0 ft. | 2.0 TO 2.5 ft. | 2.5 TO 3.0 ft. | 2.5 TO 3.0 ft. | 0.4 TO 0.8 ft. | 2.5 TO 3.0 ft. | 2.5 TO 3.0 ft. | 2.5 TO 3.0 ft. |
| UNITS | ug/kg | ug/kg | ug/kg | ug/kg | ug/l | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/23/94 | 3/23/94 | 3/18/94 | 3/18/94 | 3/18/94 | 3/17/94 | 3/17/94 | 3/16/94 | 3/16/94 | 3/16/94 | 3/15/94 | 3/15/94 | 3/15/94 |
| Chloromethane | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Bromomethane | 13 UJ | 12 UJ | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Vinyl Chloride | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Chloroethane | 13 U | 12 U | 11 U | 13 U | 10 U | 11 UJ | 12 UJ | 13 UJ | 13 UJ | 13 UJ | 13 UJ | 12 UJ | 14 UJ |
| Methylene Chloride | 13 U | 12 U | 11 U | 13 U | 7 J | 10 J | 15 | 13 U | 13 U | 13 U | 31 U | 12 UJ | 14 U |
| Acetone | 24 U | 54 U | 11 UJ | 8 J | 51 J | 16 U | 12 UJ | 13 UJ | 69 UJ | 13 UJ | 35 UJ | 12 UJ | 14 UJ |
| Carbon Disulfide | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 1 J | 13 U | 13 U | 12 UJ | 14 U |
| 1,1-Dichloroethene | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| 1,1-Dichloroethane | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| 1,2-Dichloroethene (total) | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Chloroform | 13 U | 12 U | 11 U | 13 U | 10 U | 11 UJ | 12 UJ | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| 1,2-Dichloroethane | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| 2-Butanone | 13 U | 12 U | 11 U | 13 U | 10 UJ | 11 U | 12 UJ | 13 U | 13 U | 13 U | 13 UJ | 12 UJ | 14 U |
| 1,1,1-Trichloroethane | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Carbon Tetrachloride | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 UJ |
| Bromodichloromethane | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 UJ | 13 UJ | 13 UJ | 13 U | 12 UJ | 14 U |
| 1,2-Dichloropropane | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| cis-1,3-Dichloropropene | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Trichloroethene | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Dibromochloromethane | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 UJ | 13 UJ | 13 UJ | 13 U | 12 UJ | 14 U |
| 1,1,2-Trichloroethane | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Benzene | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| trans-1,3-Dichloropropene | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Bromoform | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| 4-Methyl-2-Pentanone | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 UJ | 12 UJ | 14 U |
| 2-Hexanone | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 UJ | 13 U | 13 U | 13 U | 13 UJ | 12 UJ | 14 U |
| Tetrachloroethene | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| 1,1,2,2-Tetrachloroethane | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Toluene | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 2 J |
| Chlorobenzene | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Ethylbenzene | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Styrene | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Xylene (total) | 13 U | 12 U | 11 U | 13 U | 10 U | 11 U | 12 U | 13 U | 13 U | 13 U | 13 U | 12 UJ | 14 U |
| Total VOCs | | | | 8 J | 58 J | 10 J | 15 | | 1 J | | | | 2 J |
| TIC Count | | | 1 | | | | | | | | | 1 | |
| Total TIC Concentration | | | 13 J | | | | | | | | | 12 JN | |

U = Analyte was not detected at the instrument detect
J = Estimated Value
B = Analyte was detected in blank
E = Estimated value due to matrix interference
D = Determined after sample dilution
NJ = Presumptive evidence for presence of analyte, es
R = Rejected during data validation

TABLE 3-7 CONTINUED
VOLATILE ORGANIC RESULTS – SOIL/SEDIMENTS
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | SV-L4 | SS2-U1 | SW-L2A | SSU-U1A | FB-01 | FB-02 | FB-03 | FB-04 | FB-05 | SJ-L2 | SM-L1 | SL-U3 |
| SAMPLE LOCATION NO. | TRANSECT V | TRANSECT Z | TRANSECT W | TRANSECT U | | | | | | TRANSECT J | TRANSECT M | TRANSECT L |
| CLP SAMPLE CODE | BMN23 | BMN24 | BMN33 | BMN34 | BMN41 | BMN42 | BMN43 | BMN44 | BMN45 | BMN08 | BMN10 | BMN11 |
| *DEPTH INTERVAL* | *2.0 TO 2.5 ft.* | *0.3 TO 0.8 ft.* | *2.5 TO 3.0 ft.* | *0.4 TO 0.8 ft.* | *FIELD BLANK* | *FIELD BLANK* | *FIELD BLANK* | *FIELD BLANK* | *FIELD BLANK* | *2.0 TO 2.5 ft.* | *2.5 TO 3.0 ft* | *0.5 TO 1.0 ft* |
| UNITS | ug/kg | ug/kg | ug/kg | ug/kg | ug/l | ug/l | ug/l | ug/l | ug/l | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/14/94 | 3/14/94 | 3/15/94 | 3/16/94 | 3/14/94 | 3/14/94 | 3/15/94 | 3/16/94 | 3/17/94 | 3/16/94 | 3/17/94 | 3/17/94 |
| Chloromethane | 16 U | 13 U | 12 U | 12 U | 10 UJ | 10 UJ | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Bromomethane | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Vinyl Chloride | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Chloroethane | 16 UJ | 13 UJ | 12 UJ | 12 UJ | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 UJ | 30 UJ |
| Methylene Chloride | 49 | 8 J | 12 U | 12 U | 10 U | 2 | 6 J | 100 U | 10 U | 12 U | 16 | 13 J |
| Acetone | 26 UJ | 15 UJ | 12 UJ | 36 UJ | 4 J | 54 J | 65 U | 1600 J | 160 J | 16 UJ | 16 UJ | 530 UJ |
| Carbon Disulfide | 16 U | 26 | 12 U | 12 U | 10 U | 2 J | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| 1,1-Dichloroethene | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| 1,1-Dichloroethane | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| 1,2-Dichloroethene (total) | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Chloroform | 2 J | 13 U | 12 UJ | 1 JB | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 UJ | 30 UJ |
| 1,2-Dichloroethane | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| 2-Butanone | 16 UJ | 13 UJ | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 UJ | 12 U | 16 UJ | 30 UJ |
| 1,1,1-Trichloroethane | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Carbon Tetrachloride | 16 U | 13 UJ | 12 UJ | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Bromodichloromethane | 16 U | 13 U | 12 U | 12 UJ | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| 1,2-Dichloropropane | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| cis-1,3-Dichloropropene | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Trichloroethene | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Dibromochloromethane | 16 U | 13 U | 12 U | 12 UJ | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| 1,1,2-Trichloroethane | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Benzene | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| trans-1,3-Dichloropropene | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Bromoform | 16 U | 13 U | 12 U | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| 4-Methyl-2-Pentanone | 16 UJ | 13 UJ | 12 UJ | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| 2-Hexanone | 16 UJ | 13 UJ | 12 UJ | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 UJ | 30 UJ |
| Tetrachloroethene | 16 U | 13 U | 12 UJ | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| 1,1,2,2-Tetrachloroethane | 16 U | 13 U | 12 UJ | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Toluene | 16 U | 13 U | 12 UJ | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Chlorobenzene | 16 U | 13 U | 12 UJ | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Ethylbenzene | 16 U | 13 U | 12 UJ | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Styrene | 16 U | 13 U | 12 UJ | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Xylene (total) | 16 U | 13 U | 12 UJ | 12 U | 10 U | 10 U | 10 U | 100 U | 10 U | 12 U | 16 U | 30 U |
| Total VOCs | 50 J | 30 J | | 1 JB | 4 J | 56 J | 5 J | 1600 J | 160 J | | 16 | 13 J |
| TIC Count | | 1 | | | | | | | | | | |
| Total TIC Concentration | | 6 J | | | | | | | | | | |

U = Analyte was not detected at the indicated detect.
J = Estimated Value
B = Analyte was detected in blank
E = Estimated value due to matrix interference
D = Determined after sample dilution
UJ = Presumptive evidence for presence of analyte, es
R = Rejected during data validation

**TABLE 3-8**
**SEMI-VOLATILE ORGANIC RESULTS - SOIL/SEDIMENTS**
**OFF-SITE INVESTIGATION**
**CHEMICAL INSECTICIDE CORPORATION SITE**
**EDISON, NEW JERSEY**

| SAMPLE NUMBER | 8A-U1 | 8SA-U1 | 8B-U2 | 8C-L3 | 8CC-L4 | 8SDD-U1 | 8EQ-U4 | 8EQ-U11 | 8EW-U4 | 8SDD-U11A | FB-08 | FB-10 | SE-12 | SQ-12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | TRANSECT A | TRANSECT A | TRANSECT B | TRANSECT C | TRANSECT CC | TRANSECT DD | EDISON GLEN | EDISON GLEN | EDISON WOODS | TRANSECT DD | | | TRANSECT E | TRANSECT Q |
| CLP SAMPLE CODE | BMN01 | BMN02 | BMN03 | BMN04 | BMN27 | BMN28 | BMN29 | BMN30 | BMN31 | BMN39 | BMN48 | BMN50 | BMN05 | BMN07 |
| DEPTH INTERVAL | 0.5 TO 1.0 ft | 1.5 TO 2.0 ft | 0.5 TO 1.0 ft | 1.0 TO 1.5 ft | 2.0 TO 2.5 ft | 0.5 TO 1.0 ft | 0.0 TO 0.5 ft | 0.3 TO 0.8 ft | 0.2 TO 0.7 ft | 0.5 TO 1.0 ft | FIELD BLANK | FIELD BLANK | 2.5 TO 3.0 ft | 2.0 TO 2.5 ft |
| UNITS | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/l | ug/l | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/24/94 | 3/24/94 | 3/24/94 | 3/2/94 | 3/22/94 | 3/24/94 | 3/24/94 | 3/24/94 |
| Phenol | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| bis(2-Chloroethyl)ether | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 2-Chlorophenol | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 1,3-Dichlorobenzene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 1,4-Dichlorobenzene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 1,2-Dichlorobenzene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 2-Methylphenol | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 2,2'-oxybis(1-Chloropropane) | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 4-Methylphenol | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| N-Nitroso-di-n-propylamine | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| Hexachloroethane | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| Nitrobenzene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| Isophorone | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 2-Nitrophenol | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 2,4-Dimethylphenol | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| bis(2-Chloroethoxy)methane | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 2,4-Dichlorophenol | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 1,2,4-Trichlorobenzene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| Naphthalene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 28 J | 10 U | 10 U | 410 U | 410 U |
| 4-Chloroaniline | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| Hexachlorobutadiene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 UJ | 410 UJ |
| 4-Chloro-3-methylphenol | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 2-Methylnaphthalene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| Hexachlorocyclopentadiene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 UJ | 410 UJ |
| 2,4,6-Trichlorophenol | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 2,4,5-Trichlorophenol | 990 U | 2100 U | 980 U | 950 U | 1000 U | 930 U | 940 U | 930 U | 940 U | 980 U | 25 U | 25 U | 1000 U | 1000 U |
| 2-Chloronaphthalene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 2-Nitroaniline | 990 U | 2100 U | 980 U | 950 U | 1000 U | 930 U | 940 U | 930 U | 940 U | 980 U | 25 U | 25 U | 1000 U | 1000 U |
| Dimethylphthalate | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| Acenaphthylene | 410 U | 850 U | 32 J | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 2,6-Dinitrotoluene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 3-Nitroaniline | 990 U | 2100 U | 980 U | 950 U | 1000 U | 930 U | 940 U | 930 U | 940 U | 980 U | 25 U | 25 U | 1000 UJ | 1000 UJ |
| Acenaphthene | 410 U | 850 U | 37 J | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 30 J | 10 U | 10 U | 410 U | 410 U |
| 2,4-Dinitrophenol | 990 U | 2100 U | 980 U | 950 U | 1000 U | 930 U | 940 U | 930 U | 940 U | 980 U | 25 U | 25 U | 1000 U | 1000 U |
| 4-Nitrophenol | 990 U | 2100 U | 980 U | 950 U | 1000 U | 930 U | 940 U | 930 U | 940 U | 980 U | 25 U | 25 U | 1000 U | 1000 U |
| Dibenzofuran | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 2,4-Dinitrotoluene | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| Diethylphthalate | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 4-Chlorophenyl-phenylether | 410 U | 850 U | 400 U | 380 U | 420 U | 380 U | 390 U | 380 U | 380 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| Fluorene | 410 U | 850 U | 48 J | 380 U | 420 U | 28 J | 390 U | 380 U | 380 U | 52 J | 10 U | 10 U | 410 U | 410 U |

TABLE 3-8 CONTINUED
SEMI-VOLATILE ORGANIC RESULTS - SOIL/SEDIMENTS
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SA-U1 | SSA-U1 | SB-U2 | SC-L3 | SCC-L4 | SSDD-U1 | SEG-U4 | SEG-U11 | SEW-U6 | SSDD-U1A | FB-08 | FB-10 | SE-L2 | SG-L2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | TRANSECT A | TRANSECT A | TRANSECT B | TRANSECT C | TRANSECT CC | TRANSECT DD | EDISON GLEN | EDISON GLEN | EDISON WOODS | TRANSECT DD | | | TRANSECT E | TRANSECT G |
| CLP SAMPLE CODE | BMN01 | BMN02 | BMN03 | BMN04 | BMN27 | BMN28 | BMN29 | BMN30 | BMN31 | BMN39 | BMN48 | BMN50 | BMN05 | BMN07 |
| DEPTH INTERVAL | 0 5TO 1 0 ft | 1 5TO 2 0 ft | 0 5TO 1 0 ft | 1 0TO 1 5 ft | 2 0TO 2 5 ft | 0 5TO 1 0 ft | 0 0TO 0 5 ft | 0 3TO 0 8 ft | 0 2TO 0 7 ft | 0 5TO 1 0 ft | FIELD BLANK | FIELD BLANK | 2 5TO 3 0 ft | 2 0TO 2 5 ft |
| UNITS | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/l | ug/l | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/24/94 | 3/24/94 | 3/24/94 | 3/2/94 | 3/22/94 | 3/24/94 | 3/21/94 | 3/21/94 |
| 4-Nitroaniline | 990 U | 2100 UJ | 980 U | 850 U | 1000 U | 930 U | 940 UJ | 930 U | 940 U | 960 U | 25 U | 25 U | 1000 UJ | 1000 UJ |
| 4,6-Dinitro-2-methylphenol | 990 U | 2100 U | 980 U | 850 U | 1000 U | 930 U | 940 U | 930 U | 940 U | 960 U | 25 U | 25 U | 1000 U | 1000 U |
| N-Nitrosodiphenylamine (1) | 410 U | 850 U | 400 U | 350 U | 420 U | 380 U | 390 U | 380 U | 390 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| 4-Bromophenyl-phenylether | 410 U | 850 U | 400 U | 350 U | 420 U | 380 U | 390 U | 380 U | 390 U | 400 U | 10 U | 10 U | 410 UJ | 410 UJ |
| Hexachlorobenzene | 410 U | 850 U | 400 U | 350 U | 420 U | 380 U | 390 U | 380 U | 390 U | 400 U | 10 U | 10 U | 410 UJ | 410 UJ |
| Pentachlorophenol | 990 U | 2100 U | 980 U | 850 U | 1000 U | 930 U | 940 U | 930 U | 940 U | 960 U | 25 U | 25 U | 1000 U | 1000 U |
| Phenanthrene | 410 U | 3500 | 680 | 38 J | 50 J | 230 J | 43 J | 53 J | 20 J | 490 | 10 U | 10 U | 62 J | 410 U |
| Anthracene | 410 U | 270 J | 150 J | 350 U | 420 U | 44 J | 390 U | 380 U | 390 U | 78 J | 10 U | 10 U | 410 U | 410 U |
| Carbazole | 410 U | 850 U | 400 U | 350 U | 420 U | 20 J | 390 U | 380 U | 390 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| Di-n-butylphthalate | 26 J | 850 U | 28 J | 350 U | 420 U | 380 U | 390 U | 380 U | 390 U | 80 J | 10 U | 10 U | 410 U | 410 U |
| Fluoranthene | 45 J | 2400 | 1000 | 61 J | 100 J | 300 J | 88 J | 140 J | 48 J | 440 | 10 U | 10 U | 120 J | 410 U |
| Pyrene | 53 J | 1800 | 1300 | 66 J | 120 J | 280 J | 84 J | 110 J | 42 J | 650 | 10 U | 10 U | 130 J | 410 U |
| Butylbenzylphthalate | 410 U | 850 U | 400 U | 350 U | 420 U | 380 U | 390 U | 380 U | 390 U | 400 U | 10 U | 10 U | 410 UJ | 410 UJ |
| 3,3-Dichlorobenzidine | 410 U | 850 U | 400 U | 350 U | 420 U | 380 U | 390 U | 380 U | 390 U | 400 U | 10 U | 10 U | 410 U | 410 U |
| Benzo(a)anthracene | 27 J | 890 | 720 | 31 J | 50 J | 120 J | 39 J | 73 J | 25 J | 240 J | 10 U | 10 U | 58 J | 410 U |
| Chrysene | 39 J | 1000 | 720 | 41 J | 62 J | 150 J | 59 J | 72 J | 31 J | 270 J | 10 U | 10 U | 81 J | 410 U |
| bis(2-Ethylhexyl)phthalate | 410 U | 2300 | 400 U | 350 U | 420 U | 380 U | 390 U | 380 U | 390 U | 400 U | 2 BJ | 3 BJ | 130 J | 64 J |
| Di-n-octylphthalate | 410 U | 850 U | 400 U | 350 U | 420 U | 380 U | 390 U | 380 U | 390 U | 400 U | 10 U | 10 U | 410 UJ | 410 UJ |
| Benzo(b)fluoranthene | 53 J | 1200 | 890 | 50 J | 120 J | 380 J | 390 U | 380 U | 390 U | 280 J | 10 U | 10 U | 89 J | 410 U |
| Benzo(k)fluoranthene | 410 U | 850 U | 400 U | 350 U | 420 U | 380 U | 390 U | 380 U | 390 U | 400 U | 10 U | 10 U | 72 J | 410 U |
| Benzo(e)pyrene | 26 J | 770 J | 550 | 24 J | 46 J | 100 J | 40 J | 74 J | 23 J | 210 J | 10 U | 10 U | 66 J | 410 U |
| Indeno(1,2,3-cd)pyrene | 24 J | 720 J | 440 | 350 U | 46 J | 87 J | 37 J | 61 J | 350 U | 140 J | 10 U | 10 U | 410 U | 410 U |
| Dibenz(a,h)anthracene | 410 U | 180 J | 150 J | 350 U | 420 U | 380 U | 390 U | 27 J | 390 U | 58 J | 10 U | 10 U | 410 U | 410 U |
| Benzo(g,h,i)perylene | 26 J | 680 J | 440 | 350 U | 43 J | 84 J | 38 J | 61 J | 390 U | 170 J | 10 U | 10 U | 410 U | 410 U |
| Total SVOCs | 310 J | 15690 J | 7185 | 308 J | 657 J | 1803 J | 420 J | 671 J | 181 J | 3229 J | 2 BJ | 3 BJ | 809 J | 64 J |
| TIC Count | 20 | 20 | 17 | 18 | 18 | 18 | 15 | 16 | 16 | 16 | 1 | 1 | 16 | 16 |
| Total TIC Concentration | 11580 JN | 84700 JN | 9360 JN | 24630 JN | 6550 JN | 6850 JN | 9490 JN | 4795 JN | 8340 JN | 10130 JN | 11 JN | 9 J | 6440 JN | 3258 JN |

U = Analyte was not detected at the instrument detection limit given
J = Estimated Value
B = Analyte was detected in blank
E = Estimated value due to matrix interference
D = Determined after sample dilution
NJ = Presumptive evidence for presence of analyte; estimated quantity
R = Rejected during data validation
(1) = Cannot be seperated from Diphenylamine

TABLE 3-8 CONTINUED
SEMI-VOLATILE ORGANIC RESULTS - SOILS/SEDIMENTS
*OFF-SITE INVESTIGATION*
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SSO-U1 | SAA-L2 | SBB-L3 | SRC-U1 | SH-U1 | SH-U1A | SH-U4 | FB-07 | FB-09 | SSCG-2 | SSCG-3 | SSCG-6 | SSCG-7 | SSCG-8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | TRANSECT O | TRANSECT AA | TRANSECT BB | RODAK CIRCLE | TRANSECT H | TRANSECT H | TRANSECT H | | | | | | | |
| CLP SAMPLE CODE | BMN12 | BMN25 | BMN26 | BMN32 | BMN35 | BMN36 | BMN37 | BMN47 | BMN49 | BMN56 | BMN57 | BMN58 | BMN59 | BMN60 |
| DEPTH INTERVAL | 0.3 TO 1.2 ft | 2.5 TO 3.0 ft | 2.5 TO 3.0 ft | 0.2 TO 0.7 ft | 0.5 TO 1.0 ft | 0.5 TO 1.0 ft | 0.5 TO 1.0 ft | FIELD BLANK | FIELD BLANK | 1.0 TO 1.5 ft | 2.0 TO 3.0 ft | 0.0 TO 1.5 ft | 1.5 TO 2.0 ft | 0.0 TO 0.5 ft |
| UNITS | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/l | ug/l | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/21/94 | 3/23/94 | 3/23/94 | 3/23/94 | 3/21/94 | 3/21/94 | 3/21/94 | 3/21/94 | 3/23/94 | 3/23/94 | 3/23/94 | 3/23/94 | 3/23/94 | 3/23/94 |
| Phenol | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| bis(2-Chloroethyl)ether | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 2-Chlorophenol | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 1,3-Dichlorobenzene | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 1,4-Dichlorobenzene | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 1,2-Dichlorobenzene | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 2-Methylphenol | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 2,2'-oxybis(1-Chloropropane) | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 4-Methylphenol | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| N-Nitroso-di-n-propylamine | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| Hexachloroethane | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| Nitrobenzene | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| Isophorone | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 2-Nitrophenol | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 2,4-Dimethylphenol | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| bis(2-Chloroethoxy)methane | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 2,4-Dichlorophenol | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 1,2,4-Trichlorobenzene | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| Naphthalene | 350 U | 88 J | 390 U | 400 U | 380 U | 21 J | 380 U | 10 U | 10 U | 380 U | 380 U | 67 J | 430 U | 400 U |
| 4-Chloroaniline | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| Hexachlorobutadiene | 350 UJ | 530 U | 390 U | 400 U | 380 UJ | 380 UJ | 380 UJ | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 4-Chloro-3-methylphenol | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 2-Methylnaphthalene | 350 U | 60 J | 390 U | 400 U | 380 U | 21 J | 380 U | 10 U | 10 U | 380 U | 380 U | 65 J | 430 U | 400 U |
| Hexachlorocyclopentadiene | 350 UJ | 530 U | 390 U | 400 U | 380 UJ | 380 UJ | 380 UJ | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 2,4,6-Trichlorophenol | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 2,4,5-Trichlorophenol | 880 U | 1300 U | 950 U | 980 U | 930 U | 930 U | 930 U | 25 U | 25 U | 930 U | 930 U | 870 U | 1100 U | 980 U |
| 2-Chloronaphthalene | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 2-Nitroaniline | 880 U | 1300 U | 950 U | 980 U | 930 U | 930 U | 930 U | 25 U | 25 U | 930 U | 930 U | 870 U | 1100 U | 980 U |
| Dimethylphthalate | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| Acenaphthylene | 350 U | 180 J | 390 U | 400 U | 380 U | 28 J | 380 U | 10 U | 10 U | 380 U | 380 U | 37 J | 430 U | 400 U |
| 2,6-Dinitrotoluene | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 3-Nitroaniline | 880 UJ | 1300 U | 950 U | 980 U | 930 UJ | 930 UJ | 930 UJ | 25 U | 25 U | 930 U | 930 U | 870 U | 1100 U | 980 U |
| Acenaphthene | 350 U | 49 J | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 820 | 430 U | 400 U |
| 2,4-Dinitrophenol | 880 U | 1300 U | 950 U | 980 U | 930 U | 930 U | 930 U | 25 U | 25 U | 930 U | 930 U | 870 U | 1100 U | 980 U |
| 4-Nitrophenol | 880 U | 1300 U | 950 U | 980 U | 930 U | 930 U | 930 U | 25 U | 25 U | 930 U | 930 U | 870 U | 1100 U | 980 U |
| Dibenzofuran | 350 U | 83 J | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 340 J | 430 U | 400 U |
| 2,4-Dinitrotoluene | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| Diethylphthalate | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 4-Chlorophenyl-phenylether | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| Fluorene | 350 U | 62 J | 390 U | 400 U | 380 U | 54 J | 380 U | 10 U | 10 U | 380 U | 380 U | 720 | 430 U | 400 U |

**TABLE 3-8 CONTINUED**
**SEMI-VOLATILE ORGANIC RESULTS - SOIL/SEDIMENTS**
**OFF-SITE INVESTIGATION**
**CHEMICAL INSECTICIDE CORPORATION SITE**
**PDISON, NEW JERSEY**

| SAMPLE NUMBER | SSO-U1 | SAA-L2 | SBB-L3 | SRC-U1 | SH-U1 | SH-U1A | SH-U4 | FB-07 | FB-09 | SSCO-2 | SSCO-3 | SSCO-6 | SSCO-7 | SSCO-8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | TRANSECT O | TRANSECT AA | TRANSECT BB | ROOAK CIRCLE | TRANSECT H | TRANSECT H | TRANSECT H | | | -- | -- | -- | -- | -- |
| CLP SAMPLE CODE | BMN12 | BMN25 | BMN26 | BMN32 | BMN35 | BMN36 | BMN37 | BMN47 | BMN48 | BMN56 | BMN57 | BMN58 | BMN59 | BMN60 |
| DEPTH INTERVAL | 0 3TO 1.2 ft | 2 5TO 3.0 ft | 2 5TO 3.0 ft | 0 2TO 0.7 ft | 0 5TO 1.0 ft | 0 5TO 1.0 ft | 0 5TO 1.0 ft | FIELD BLANK | FIELD BLANK | 1 0TO 1.5 ft | 2 0TO 3.0 ft | 0 0TO 1.5 ft | 1 5TO 2.0 ft | 0 0TO 0.5 ft |
| UNITS | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/l | ug/l | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/21/94 | 3/23/94 | 3/23/94 | 3/23/94 | 3/21/94 | 3/21/94 | 3/21/94 | 3/21/94 | 3/23/94 | 3/23/94 | 3/23/94 | 3/23/94 | 3/23/94 | 3/23/94 |
| 4-Nitroaniline | 880 UJ | 1300 U | 950 U | 960 U | 930 UJ | 930 UJ | 930 UJ | 25 U | 25 U | 930 U | 930 U | 870 U | 1100 U | 980 U |
| 4,6-Dinitro-2-methylphenol | 880 U | 1300 U | 950 U | 960 U | 930 U | 930 U | 930 U | 25 U | 25 U | 930 U | 930 U | 870 U | 1100 U | 980 U |
| N-Nitrosodiphenylamine (1) | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 4-Bromophenyl-phenylether | 350 UJ | 530 U | 390 U | 400 U | 380 UJ | 380 UJ | 380 UJ | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| Hexachlorobenzene | 350 UJ | 530 U | 390 U | 400 U | 380 UJ | 380 UJ | 380 UJ | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| Pentachlorophenol | 880 U | 1300 U | 950 U | 960 U | 930 U | 930 U | 930 U | 25 U | 25 U | 930 U | 930 U | 870 U | 1100 U | 980 U |
| Phenanthrene | 52 J | 1400 | 390 U | 23 J | 180 J | 420 | 110 J | 10 U | 10 U | 73 J | 180 J | 5800 | 160 J | 400 U |
| Anthracene | 350 U | 140 J | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 35 J | 850 | 40 J | 400 U |
| Carbazole | 350 U | 100 J | 390 U | 400 U | 380 U | 27 J | 380 U | 10 U | 10 U | 380 U | 380 U | 580 | 430 U | 400 U |
| Di-n-butylphthalate | 350 U | 37 J | 390 U | 29 J | 380 U | 380 U | 380 U | 10 U | 10 U | 75 J | 380 U | 360 U | 430 U | 400 U |
| Fluoranthene | 66 J | 1800 | 390 U | 55 J | 260 J | 450 | 140 J | 10 U | 10 U | 140 J | 280 J | 5500 | 270 J | 400 U |
| Pyrene | 69 J | 2400 | 21 J | 60 J | 250 J | 460 | 180 J | 10 U | 10 U | 180 J | 360 J | 4400 | 280 J | 400 U |
| Butylbenzylphthalate | 350 UJ | 50 J | 390 U | 400 U | 380 UJ | 380 UJ | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| 3,3'-Dichlorobenzidine | 350 U | 530 U | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 380 U | 360 U | 430 U | 400 U |
| Benzo(a)anthracene | 60 J | 1300 | 16 J | 31 J | 130 J | 220 J | 80 J | 10 U | 10 U | 88 J | 180 J | 2600 | 150 J | 400 U |
| Chrysene | 55 J | 1800 | 23 J | 42 J | 150 J | 260 J | 91 J | 10 U | 10 U | 100 J | 180 J | 2600 | 150 J | 400 U |
| bis(2-Ethylhexyl)phthalate | 170 J | 320 J | 390 U | 400 U | 110 J | 90 J | 90 J | 1 BJ | 1 BJ | 380 U | 380 U | 410 | 430 U | 440 U |
| Di-n-octylphthalate | 350 UJ | 530 U | 390 U | 400 U | 380 UJ | 380 UJ | 380 UJ | 10 U | 10 U | 380 U | 380 U | 46 J | 430 U | 400 U |
| Benzo(b)fluoranthene | 48 J | 2000 | 50 J | 72 J | 140 J | 250 J | 78 J | 10 U | 10 U | 180 J | 210 J | 3500 | 130 J | 400 U |
| Benzo(k)fluoranthene | 58 J | 1700 | 390 U | 400 U | 130 J | 180 J | 71 J | 10 U | 10 U | 380 U | 380 U | 360 U | 130 J | 400 U |
| Benzo(a)pyrene | 54 J | 1400 | 22 J | 38 J | 130 J | 210 J | 74 J | 10 U | 10 U | 94 J | 140 J | 2200 | 160 J | 400 U |
| Indeno(1,2,3-cd)pyrene | 47 J | 980 | 390 U | 26 J | 92 J | 140 J | 380 U | 10 U | 10 U | 58 J | 70 J | 740 | 160 J | 400 U |
| Dibenz(a,h)anthracene | 350 U | 380 J | 390 U | 400 U | 380 U | 380 U | 380 U | 10 U | 10 U | 380 U | 24 J | 870 J | 80 J | 400 U |
| Benzo(g,h,i)perylene | 45 J | 830 | 390 U | 26 J | 81 J | 130 J | 380 U | 10 U | 10 U | 58 J | 68 J | 870 | 200 J | 400 U |
| Total SVOCs | 754 J | 16570 J | 132 J | 404 J | 1683 J | 2959 J | 914 J | 1 BJ | 1 BJ | 1029 J | 1667 J | 32135 J | 1930 J | |
| TIC Count | 18 | 17 | 9 | 13 | 7 | 13 | 8 | | 2 | 3 | 11 | 18 | 4 | 12 |
| Total TIC Concentration | 824 JN | 7750 JN | 1450 JN | 2977 | 1769 | 2541 JN | 1300 JN | | 6 JNB | 728 JN | 1918 JN | 18990 JN | 930 JN | 3360 JN |

U = Analyte was not detected at the limit
J = Estimated Value
B = Analyte was detected in blank
E = Estimated value due to matrix interfe
D = Determined after sample dilution
NJ = Presumptive evidence for presence
R = Rejected during data validation
(1) = Cannot be separated from Diphenyl

TABLE 3-6 CONTINUED
SEMI-VOLATILE ORGANIC RESULTS - SOIL/SEDIMENTS
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SBK-U1 | SI-U1 | | SO-L4 | SQ-L1 | SR-L2 | ST-L4 | SSU-U1 | SV-L1 | SW-L2 | SX-L3 | SY-L4 | SSZ-U1 | SW-L2A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | TRANSECT K | TRANSECT I | | TRANSECT O | TRANSECT Q | TRANSECT R | TRANSECT T | TRANSECT U | TRANSECT V | TRANSECT W | TRANSECT X | TRANSECT Y | TRANSECT Z | TRANSECT W |
| CLP SAMPLE CODE | BMN09 | BMN13 | BMN46 | BMN14 | BMN15 | BMN16 | BMN18 | BMN19 | BMN20 | BMN21 | BMN22 | BMN23 | BMN24 | BMN33 |
| DEPTH INTERVAL | 0 3 TO 1.2 ft | 0 5 TO 1.0 ft | | 2 5 TO 3 0 ft | 2 0 TO 2 5 ft | 2 5 TO 3 0 ft | 2 5 TO 3 0 ft | 0 4 TO 0 8 ft | 2 5 TO 3 0 ft | 2 5 TO 3 0 ft | 2 5 TO 3 0 ft | 2 0 TO 2 5 ft | 0 3 TO 0 8 ft | 2 5 TO 3 0 ft |
| UNITS | ug/kg | ug/kg | ug/l | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/18/94 | 3/18/94 | | 3/17/94 | 3/17/94 | 3/16/94 | 3/16/94 | 3/16/94 | 3/15/94 | 3/15/94 | 3/15/94 | 3/14/94 | 3/14/94 | 3/15/94 |
| Phenol | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| bis(2-Chloroethyl)ether | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 2-Chlorophenol | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 1,3-Dichlorobenzene | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 1,4-Dichlorobenzene | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 1,2-Dichlorobenzene | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 2-Methylphenol | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 2,2'-oxybis(1-Chloropropane) | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 UJ | 540 U | 420 U | 400 UJ |
| 4-Methylphenol | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| N-Nitroso-di-n-propylamine | 380 U | 420 U | 10 U | 380 U | 410 U | 420 UJ | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Hexachloroethane | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Nitrobenzene | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Isophorone | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 2-Nitrophenol | 380 U | 420 U | 10 U | 380 U | 410 UJ | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 2,4-Dimethylphenol | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| bis(2-Chloroethoxy)methane | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 2,4-Dichlorophenol | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 1,2,4-Trichlorobenzene | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Naphthalene | 380 U | 420 U | 10 U | 380 UJ | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 4-Chloroaniline | 380 U | 420 U | 10 U | 380 UJ | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Hexachlorobutadiene | 380 U | 420 U | 10 U | 380 UJ | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 4-Chloro-3-methylphenol | 380 U | 420 U | 10 U | 380 U | 410 UJ | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 2-Methylnaphthalene | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Hexachlorocyclopentadiene | 380 UJ | 420 UJ | 25 UJ | 810 U | 990 U | 420 U | 1000 U | 420 U | 430 U | 380 U | 430 U | 540 UJ | 420 UJ | 400 U |
| 2,4,6-Trichlorophenol | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 2,4,5-Trichlorophenol | 820 U | 1000 U | 25 U | 810 U | 990 U | 1000 U | 1000 U | 1000 U | 1000 U | 930 U | 1100 U | 1300 U | 1000 U | 980 U |
| 2-Chloronaphthalene | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 2-Nitroaniline | 820 U | 1000 U | 25 U | 810 U | 990 U | 1000 U | 1000 U | 1000 U | 1000 U | 930 U | 1100 U | 1300 U | 1000 UJ | 980 U |
| Dimethylphthalate | 380 U | 420 U | 10 U | 340 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Acenaphthylene | 380 U | 420 U | 10 U | 380 U | 53 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 2,6-Dinitrotoluene | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 3-Nitroaniline | 820 U | 1000 U | 25 UJ | 810 UJ | 990 UJ | 1000 U | 1000 U | 1000 U | 1000 U | 930 U | 1100 U | 1300 U | 1000 U | 980 U |
| Acenaphthene | 380 U | 420 U | 10 U | 380 U | 24 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 22 J | 400 U |
| 2,4-Dinitrophenol | 820 UJ | 1000 UJ | 25 UJ | 810 UJ | 990 UJ | 1000 U | 1000 U | 1000 U | 1000 U | 930 U | 1100 U | 1300 U | 1000 U | 980 U |
| 4-Nitrophenol | 820 U | 1000 U | 25 U | 810 UJ | 990 U | 1000 U | 1000 U | 1000 U | 1000 U | 930 U | 1100 UJ | 1300 U | 1000 U | 980 UJ |
| Dibenzofuran | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 2,4-Dinitrotoluene | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Diethylphthalate | 380 U | 420 U | 10 U | 380 UJ | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 35 J |
| 4-Chlorophenyl-phenylether | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Fluorene | 380 U | 420 U | 10 U | 380 U | 32 J | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 37 J | 400 U |

TABLE 3-8 CONTINUED
SEMI-VOLATILE ORGANIC RESULTS - SOIL/SEDIMENTS
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SSK-U1 | SI-U1 | | SO-L4 | SQ-L1 | SR-L2 | ST-L4 | SSU-U1 | SV-L1 | SW-L2 | SX-L3 | SY-L4 | SSZ-U1 | SW-L2A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | TRANSECT K | TRANSECT I | | TRANSECT O | TRANSECT Q | TRANSECT R | TRANSECT T | TRANSECT U | TRANSECT V | TRANSECT W | TRANSECT X | TRANSECT Y | TRANSECT Z | TRANSECT W |
| CLP SAMPLE CODE | SMN09 | SMN13 | SMN46 | SMN14 | SMN15 | SMN16 | SMN18 | SMN19 | SMN20 | SMN21 | SMN22 | SMN23 | SMN24 | SMN33 |
| DEPTH INTERVAL | 0 TO 1.2 ft | 0 TO 1.0 ft | | 2 TO 3 ft | 2 TO 2.5 ft | 2 TO 3 ft | 2 TO 3 ft | 0 TO 0.8 ft | 2 TO 3 ft | 2 TO 3 ft | 2 TO 3 ft | 2 TO 2.5 ft | 0 TO 0.8 ft | 2 TO 3 ft |
| UNITS | ug/kg | ug/kg | ug/l | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/16/94 | 3/16/94 | | 3/17/94 | 3/17/94 | 3/16/94 | 3/16/94 | 3/16/94 | 3/15/94 | 3/15/94 | 3/15/94 | 3/14/94 | 3/14/94 | 3/15/94 |
| 4-Nitroaniline | 920 U | 1000 U | 25 U | 910 UJ | 990 U | 1000 UJ | 1000 U | 1000 U | 1000 U | 930 U | 1100 UJ | 1300 U | 1000 U | 980 UJ |
| 4,6-Dinitro-2-methylphenol | 920 UJ | 1000 UJ | 25 U | 910 U | 990 UJ | 1000 U | 1000 U | 1000 U | 1000 U | 930 U | 1100 UJ | 1300 U | 1000 U | 980 UJ |
| N-Nitrosodiphenylamine (1) | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| 4-Bromophenyl-phenylether | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Hexachlorobenzene | 380 U | 420 U | 10 U | 380 U | 410 U | 420 U | 1000 U | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Pentachlorophenol | 920 U | 1000 U | 25 U | 910 U | 990 U | 1000 U | 430 U | 1000 U | 1000 U | 930 U | 1100 U | 1300 U | 1000 U | 980 U |
| Phenanthrene | 380 U | 420 U | 10 U | 89 J | 300 J | 420 U | 430 U | 420 U | 40 J | 110 J | 170 J | 540 U | 220 J | 120 J |
| Anthracene | 380 U | 420 U | 10 U | 380 U | 160 J | 420 U | 430 U | 420 U | 430 U | 380 U | 450 U | 540 U | 45 J | 400 U |
| Carbazole | 380 U | 420 U | 10 UJ | 380 U | 240 J | 420 UJ | 24 J | 420 U | 430 U | 380 U | 450 U | 540 U | 420 U | 400 U |
| Di-n-butylphthalate | 380 U | 420 U | 0.5 J | 380 U | 24 J | 420 U | 430 U | 420 U | 23 J | 48 J | 450 U | 540 U | 420 U | 28 J |
| Fluoranthene | 74 J | 420 U | 10 U | 200 J | 740 | 420 U | 430 U | 420 U | 85 J | 240 J | 200 J | 44 J | 220 J | 180 J |
| Pyrene | 71 J | 420 U | 10 U | 190 J | 710 | 420 U | 430 U | 420 U | 82 J | 210 J | 540 J | 42 J | 210 J | 400 J |
| Butylbenzylphthalate | 380 U | 420 U | 10 U | 24 J | 410 U | 420 U | 430 U | 420 U | 34 J | 380 U | 450 UJ | 540 U | 420 U | 400 UJ |
| 3,3-Dichlorobenzidine | 380 U | 420 U | 10 UJ | 380 U | 410 U | 420 U | 430 U | 420 U | 430 U | 380 U | 450 UJ | 540 U | 420 U | 400 UJ |
| Benzo(a)anthracene | 380 U | 420 U | 10 U | 110 J | 450 | 420 U | 430 U | 420 U | 45 J | 110 J | 150 J | 540 U | 85 J | 110 J |
| Chrysene | 380 U | 420 U | 10 U | 110 J | 560 | 420 U | 430 U | 420 U | 62 J | 160 J | 230 J | 540 U | 100 J | 150 J |
| bis(2-Ethylhexyl)phthalate | 940 U | 420 U | 10 U | 350 U | 410 U | 420 U | 430 U | 420 U | R | 600 U | 450 UJ | 540 U | 420 U | 420 UJ |
| Di-n-octylphthalate | 380 U | 420 U | 10 U | 3 J | 410 UJ | 34 J | 430 U | 420 U | 430 U | 380 U | 450 UJ | 540 UJ | 420 UJ | 400 UJ |
| Benzo(b)fluoranthene | 380 U | 420 U | 10 U | 75 J | 830 | 420 U | 430 U | 420 U | 91 J | 100 J | 290 J | 34 J | 420 U | 110 J |
| Benzo(k)fluoranthene | 380 U | 420 U | 10 U | 200 J | 400 | 420 U | 430 U | 420 U | 430 U | 130 J | 450 UJ | 29 J | 420 U | 140 J |
| Benzo(a)pyrene | 380 U | 420 U | 10 U | 120 J | 690 | 420 U | 430 U | 420 U | 51 J | 120 J | 200 J | 540 U | 420 U | 130 J |
| Indeno(1,2,3-cd)pyrene | 380 UJ | 420 UJ | 10 U | 140 J | 680 | 420 U | 430 U | 420 U | 38 J | 90 J | 190 J | 540 U | 420 U | 85 J |
| Dibenz(a,h)anthracene | 380 U | 420 U | 10 U | 380 U | 240 J | 420 U | 430 U | 420 U | 430 U | 380 U | 450 UJ | 540 U | 420 U | 400 UJ |
| Benzo(g,h,i)perylene | 380 UJ | 420 UJ | 10 U | 150 J | 600 | 420 U | 430 U | 420 U | 44 J | 100 J | 250 J | 540 U | 420 U | 89 J |
| Total SVOCs | 145 J | | 0.5 J | 1411 J | 6476 J | 34 J | 24 J | | 595 J | 1418 J | 2220 J | 148 J | 1335 J | 1587 J |
| TIC Count | 10 | 15 | | 8 | 12 | 14 | 17 | 15 | 22 | 22 | 19 | 20 | 5 | 18 |
| Total TIC Concentration | 1497 JN | 9477 JN | | 9000 JN | 16570 JN | 17144 JN | 8180 | 17799 JN | 16440 JN | 4480 JN | 7367 JN | 26580 J | 1500 | 5826 JN |

U = Analyte was not detected at the limit
J = Estimated Value
B = Analyte was detected in blank
E = Estimated value due to matrix interfe
D = Determined after sample dilution
NJ = Presumptive evidence for presence
R = Rejected during data validation
(1) = Cannot be separated from Diphen

TABLE 3-8 CONTINUED
SEMI-VOLATILE ORGANIC RESULTS - SOIL/SEDIMENTS
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SSU-111A | | | | | | SL-L2 | SM-L1 | SL-U3 |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | TRANSECT U | | | | | | TRANSECT J | TRANSECT M | TRANSECT L |
| CLP SAMPLE CODE | BMN40 | BMN41 | BMN42 | BMN43 | BMN44 | BMN45 | BMN08 | BMN10 | BMN11 |
| DEPTH INTERVAL | 0.4 TO 0.8 ft | | | | | | 2.0 TO 2.5 ft | 2.5 TO 3.0 ft | 0.5 TO 1.0 ft |
| UNITS | ug/kg | ug/l | ug/l | ug/l | ug/l | ug/l | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/16/94 | | | | | | 3/18/94 | 3/17/94 | 3/17/94 |
| Phenol | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| bis(2-Chloroethyl)ether | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2-Chlorophenol | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 1,3-Dichlorobenzene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 1,4-Dichlorobenzene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 1,2-Dichlorobenzene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2-Methylphenol | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2,2'-oxybis(1-Chloropropane) | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 4-Methylphenol | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| N-Nitroso-di-n-propylamine | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Hexachloroethane | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Nitrobenzene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Isophorone | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2-Nitrophenol | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2,4-Dimethylphenol | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| bis(2-Chloroethoxy)methane | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2,4-Dichlorophenol | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 UJ | 400 UJ |
| 1,2,4-Trichlorobenzene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 UJ | 400 UJ |
| Naphthalene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 UJ | 400 UJ |
| 4-Chloroaniline | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Hexachlorobutadiene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 4-Chloro-3-methylphenol | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2-Methylnaphthalene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Hexachlorocyclopentadiene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 UJ | 410 UJ | 590 U | 400 U |
| 2,4,6-Trichlorophenol | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2,4,5-Trichlorophenol | 1000 U | 25 U | 25 U | 25 U | 25 U | 25 U | 990 U | 1400 U | 980 U |
| 2-Chloronaphthalene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2-Nitroaniline | 1000 U | 25 U | 25 U | 25 U | 25 U | 25 U | 990 U | 1400 U | 980 U |
| Dimethylphthalate | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Acenaphthylene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2,6-Dinitrotoluene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 3-Nitroaniline | 1000 U | 25 U | 25 U | 25 U | 25 UJ | 25 UJ | 990 U | 1400 UJ | 980 UJ |
| Acenaphthene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2,4-Dinitrophenol | 1000 U | 25 U | 25 U | 25 U | 25 U | 25 UJ | 990 UJ | 1400 UJ | 980 UJ |
| 4-Nitrophenol | 1000 U | 25 U | 25 U | 25 U | 25 U | 25 U | 990 U | 1400 UJ | 980 UJ |
| Dibenzofuran | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 2,4-Dinitrotoluene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Diethylphthalate | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 UJ | 400 UJ |
| 4-Chlorophenyl-phenylether | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Fluorene | 410 U | 10 U | 10 U | 10 U | 10 U | 10 U | 410 U | 590 U | 24 J |

TABLE 3-8 CONTINUED
SEMI-VOLATILE ORGANIC RESULTS - SOILS/SEDIMENTS
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SSU-U1A | | | | | | SL-L2 | SM-L1 | SL-U3 |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | TRANSECT U | | | | | | TRANSECT J | TRANSECT M | TRANSECT L |
| CLP SAMPLE CODE | BMN34 | BMN41 | BMN42 | BMN43 | BMN44 | BMN45 | BMN08 | BMN10 | BMN11 |
| DEPTH INTERVAL | 1 4TO 2 0 ft | | | | | | 2 0 TO 2 5 ft | 2 5TO 3 0 ft | 0 5TO 1 0ft |
| UNITS | ug/kg | ug/l | ug/l | ug/l | ug/l | ug/l | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/16/94 | | | | | | 3/18/94 | 3/17/94 | 3/17/94 |
| 4-Nitroaniline | 1000 U | 25 U | 25 U | 25 U | 25 U | 25 U | 990 U | 1400 UJ | 980 UJ |
| 4,6-Dinitro-2-methylphenol | 1000 U | 25 U | 25 UJ | 25 U | 25 U | 25 UJ | 990 UJ | 1400 U | 980 U |
| N-Nitrosodiphenylamine (1) | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 4-Bromophenyl-phenylether | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Hexachlorobenzene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Pentachlorophenol | 1000 U | 25 U | 25 UJ | 25 U | 25 U | 25 U | 990 U | 1400 U | 980 U |
| Phenanthrene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 210 J | 370 J |
| Anthracene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 32 J | 92 J |
| Carbazole | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 UJ | 410 U | 590 U | 36 J |
| Di-n-butylphthalate | 29 J | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 62 J | 400 U |
| Fluoranthene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 450 J | 600 |
| Pyrene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 500 J | 550 |
| Butylbenzylphthalate | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| 3,3-Dichlorobenzidine | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 UJ | 410 U | 590 U | 400 U |
| Benzo(a)anthracene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 240 J | 400 J |
| Chrysene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 270 J | 270 J |
| bis(2-Ethylhexyl)phthalate | 410 U | 0 9 J | 10 UJ | 1 J | 23 J | 0 6 J | 410 U | 590 U | 400 U |
| Di-n-octylphthalate | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Benzo(b)fluoranthene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 110 J | 200 J |
| Benzo(k)fluoranthene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 440 J | 380 J |
| Benzo(a)pyrene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 320 J | 440 |
| Indeno(1,2,3-cd)pyrene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 UJ | 180 J | 110 J |
| Dibenz(a,h)anthracene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 U | 590 U | 400 U |
| Benzo(g,h,i)perylene | 410 U | 10 U | 10 UJ | 10 U | 10 U | 10 U | 410 UJ | 200 J | 150 J |
| Total SVOCs | 29 J | 0 9 J | | 1 J | 23 J | 0 6 J | | 3614 J | 3616 J |
| TIC Count | 16 | 3 | | 2 | | 1 | 14 | 19 | 11 |
| Total TIC Concentration | 3674 JN | 9 JB | | 7 JB | | 5 J | 2355 JN | 14720 JN | 10840 JN |

U = Analyte was not detected at the lisb
J = Estimated Value
B = Analyte was detected in blank
E = Estimated value due to matrix interfe
D = Determined after sample dilution
NJ = Presumptive evidence for presence
R = Rejected during data validation
(1) = Cannot be seperated from Diphenyl

TABLE 3-9
PESTICIDES/PCBs RESULTS – SOILS/SEDIMENT
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SA-U1 | SSA-U1 | SB-U2 | SC-L3 | SCC-L4 | SSDD-U1 | SEQ-U4 | SEQ-L1 | SEW-U4 | SSDD-U1A | | | SE-L2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | TRANSECT A | TRANSECT A | TRANSECT B | TRANSECT C | TRANSECT CC | -- | EDISON GLEN | EDISON GLEN | EDISON WOODS | -- | | | TRANSECT E |
| LOCATION DESCRIPTION | BMN01 | BMN02 | BMN03 | BMN04 | BMN27 | BMN28 | BMN29 | BMN30 | BMN31 | BMN39 | BMN48 | BMN58 | BMN05 |
| DEPTH INTERVAL | 0 TO 1.0 ft | 0 TO 0.5 ft | 0 TO 1.0 ft | 1.0 TO 1.5 ft | 2.0 TO 2.5 ft | 0 TO 1.0 ft | 0.0 TO 0.5 ft | 0.3 TO 0.8 ft | 0.2 TO 0.7 ft | 0 TO 1.0 ft | | | 2.5 TO 3.0 ft |
| UNITS | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/l | ug/l | ug/kg |
| DATE SAMPLE COLLECTED | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/22/94 | 3/24/94 | 3/24/94 | 3/24/94 | 3/22/94 | | | 3/21/94 |
| alpha-BHC | 2.1 UJ | 2.2 UJ | 2.0 UJ | 2.0 U | 2.2 U | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 0.050 U | 0.050 U | 2.1 U |
| beta-BHC | 2.1 UJ | 2.2 UJ | 2.0 UJ | R | 2.2 U | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 0.050 U | 0.050 U | 2.1 U |
| delta-BHC | 2.1 UJ | R | 2.0 UJ | 2.0 U | 2.2 U | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 0.050 U | 0.050 U | 2.1 U |
| gamma-BHC (Lindane) | 2.1 UJ | R | R | 3.5 | 2.2 U | 2.3 J | 2.0 UJ | 2.0 UJ | 2.0 UJ | R | 0.050 U | 0.050 U | 2.1 U |
| Heptachlor | 2.1 UJ | 2.2 UJ | 2.0 UJ | 2.0 U | 2.2 U | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 0.050 U | 0.050 U | 2.1 U |
| Aldrin | 2.1 UJ | 2.2 UJ | 2.0 UJ | 2.0 U | 2.2 U | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 0.050 U | 0.050 U | 2.1 U |
| Heptachlor epoxide | 2.1 UJ | 2.2 UJ | 2.3 J | 2.0 U | 2.2 U | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 0.050 U | 0.050 U | 2.1 U |
| Endosulfan I | 2.1 UJ | 2.2 UJ | 2.0 UJ | 2.0 U | 2.2 U | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 2.0 UJ | 0.050 U | 0.050 U | 2.1 U |
| Dieldrin | 8.1 J | 8.6 JN | 4.0 JN | 1.3 | 4.2 U | 5.9 J | 4.0 J | 3.8 UJ | 3.8 UJ | 4.5 J | 0.10 U | 0.10 U | 8.5 J |
| 4,4'-DDE | 12 J | 16 J | 6.6 J | 77 J | 4.2 U | 8.6 J | 3.8 UJ | 3.8 UJ | 4.0 J | 4.0 J | 0.10 U | 0.10 U | 110 E |
| Endrin | 4.1 UJ | 4.0 JN | 4.0 UJ | 3.9 U | 4.2 U | 3.8 UJ | 3.8 UJ | 3.8 UJ | 3.8 UJ | 4.0 UJ | 0.10 U | 0.10 U | 4.1 U |
| Endosulfan II | 4.1 UJ | 4.2 UJ | 4.0 UJ | 3.9 U | 4.2 U | 3.8 UJ | 3.8 UJ | 3.8 UJ | 3.8 UJ | 4.0 UJ | 0.10 U | 0.10 U | 4.1 U |
| 4,4'-DDD | 50 J | 100 J | 8.5 JN | R | 4.2 U | 12 JN | 11 J | 4.3 J | 3.8 UJ | 6.4 JN | 0.10 U | 0.10 U | 130 R |
| Endosulfan Sulfate | 4.1 UJ | 4.2 UJ | 4.0 UJ | 3.9 | 4.2 U | 3.8 UJ | 3.8 U | 3.8 UJ | 3.8 UJ | 4.0 UJ | 0.10 U | 0.10 U | 4.1 U |
| 4,4'-DDT | 28 J | 5.9 J | 28 J | 570 | 4.2 U | 17 J | 16 J | 7.8 | 3.8 UJ | 6.0 JN | 0.10 U | 0.10 U | 240 |
| Methoxychlor | 21 UJ | 22 UJ | 20 UJ | 20.0 U | 22 U | 20 UJ | 20 UJ | 20 UJ | 20 UJ | 20 UJ | 0.10 U | 0.50 U | 21 U |
| Endrin ketone | 4.1 UJ | 4.2 UJ | 4.0 UJ | 3.9 U | 4.2 U | 3.8 UJ | 3.8 UJ | 3.8 UJ | 3.8 UJ | 4.0 UJ | 0.10 U | 0.10 U | 4.1 U |
| Endrin Aldehyde | 4.1 UJ | 4.2 UJ | 4.0 UJ | 3.9 U | 4.2 U | 3.8 UJ | 3.9 UJ | 3.8 UJ | 3.8 UJ | 4.0 UJ | 0.10 U | 0.10 U | 4.1 U |
| alpha-Chlordane | 4.7 J | 8.3 J | 2.8 | 7.3 | 2.2 U | 3.3 U | 2.3 J | 3.7 | 2.0 UJ | 2.3 J | 0.050 U | 0.050 U | 6.8 |
| gamma-Chlordane | 4.4 J | 8.3 J | 2.9 | 7.7 | 2.2 U | 3.7 J | 1.9 J | 2.7 | 2.0 UJ | 2.0 UJ | 0.050 U | 0.050 U | 6.1 J |
| Toxaphene | 210 UJ | 220 UJ | 200 UJ | 200 U | 220 U | 200 UJ | 200 UJ | 200 UJ | 200 UJ | 200 UJ | 5.0 U | 5.0 U | 210 U |
| Aroclor-1016 | 41 UJ | 42 UJ | 40 UJ | 39 U | 42 U | 38 UJ | 39 UJ | 38 UJ | 39 UJ | 40 UJ | 1.0 U | 1.0 U | 41 U |
| Aroclor-1221 | 83 UJ | 86 UJ | 81 UJ | 80 U | 89 U | 78 UJ | 78 UJ | 78 UJ | 78 UJ | 81 UJ | 2.0 U | 2.0 U | 84 U |
| Aroclor-1232 | 41 UJ | 42 UJ | 40 UJ | 39 U | 42 U | 38 UJ | 39 UJ | 38 UJ | 39 UJ | 40 UJ | 1.0 U | 1.0 U | 41 U |
| Aroclor-1242 | 41 UJ | 42 UJ | 40 UJ | 39 U | 42 U | 38 UJ | 39 UJ | 38 UJ | 39 UJ | 40 UJ | 1.0 U | 1.0 U | 41 U |
| Aroclor-1248 | 41 UJ | 42 UJ | 40 UJ | 39 U | 42 U | 38 UJ | 39 UJ | 38 UJ | 38 UJ | 40 UJ | 1.0 U | 1.0 U | 41 U |
| Aroclor-1254 | 41 UJ | 42 UJ | 40 UJ | 39 U | 42 U | 38 UJ | 39 UJ | 39 UJ | 39 UJ | 40 UJ | 1.0 U | 1.0 U | 41 U |
| Aroclor-1260 | 41 UJ | 42 UJ | 40 UJ | 39 U | 42 U | 38 UJ | 39 UJ | 39 UJ | 39 UJ | 40 UJ | 1.0 U | 1.0 U | 41 U |

U = Analyte was not detected at the instrument detection limit given
J = Estimated value
B = Analyte was detected in blank
E = Estimated value due to matrix interference
D = Determined after sample dilution
NJ = Presumptive evidence for presence of analyte; estimated quantity
P = There is a greater than 25% difference for detected concentrations between the two GC columns; the lower of the two values is reported.
R = Rejected during data validation

TABLE 8-6 CONTINUED
PESTICIDES/PCBs RESULTS - SOILS/SEDIMENT
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SG-L2 | SSO-U1 | SSA-L2 | SSB-L3 | SRC-U1 | SH-U1 | SH-U1A | SH-U4 | | | SSCO-2 | SSCO-3 | SSG-6 | SSCO-7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | TRANSECT G | TRANSECT D | TRANSECT AA | TRANSECT BB | ROAK CIRCLE | TRANSECT H | TRANSECT H | TRANSECT H | | | -- | -- | -- | -- |
| LOCATION DESCRIPTION | SMN07 | SMN12 | SMN25 | SMN26 | SMN32 | SMN35 | SMN36 | SMN37 | SMN47 | SMN48 | SMN56 | SMN57 | SMN58 | SMN59 |
| DEPTH INTERVAL | 2 0 TO 2 5 ft | 0 3 TO 1.2 ft | 2 5 TO 3.6 ft | 2 5 TO 3 0 ft | 0 2 TO 0.7 ft | 0 5 TO 1 0 ft | 0 5 TO 1 0 ft | 0 0 TO 1 0 ft | | | 1 0 TO 1.5 ft | 2 0 TO 3 0 ft | 0 0 TO 1.5 ft | 1 5 TO 2 0 ft |
| UNITS | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/l | ug/l | ug/kg | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/21/94 | 3/21/94 | 3/23/94 | 3/23/94 | 3/23/94 | 3/21/94 | 3/21/94 | 3/21/94 | | | 3/23/94 | 3/23/94 | 3/23/94 | 3/23/94 |
| alpha-BHC | 2 1 UJ | 1 8 UJ | 2.7 UJ | 2 0 U | 2 6 U | 2 0 U | 2 0 UJ | 2 00 U | 0 050 U | 0 050 U | 2.6 J | 2 0 UJ | 1.6 UJ | 2 2 U |
| beta-BHC | 2.1 UJ | 1.8 UJ | 2.7 UJ | 2 0 U | 2 6 U | 2 0 U | 2 0 UJ | 2 00 U | 0 050 U | 0 050 U | 2 6 UJ | 2 0 UJ | R | 2 2 U |
| delta-BHC | 2.1 UJ | 1 8 UJ | 2.7 UJ | 2 0 U | 2 6 U | 2 0 U | 2 0 UJ | 2 00 U | 0 050 U | 0 050 U | 2 6 UJ | 2 0 UJ | 1 6 UJ | 2 2 U |
| gamma-BHC (Lindane) | 2 1 UJ | 1 8 UJ | R | 2 0 U | 2 6 U | 2 0 U | 2 0 UJ | 2 00 U | 0 050 U | 0 050 U | R | 2 0 UJ | R | 2 2 U |
| Heptachlor | 2 1 UJ | 1 8 UJ | 2 7 UJ | 2 0 U | 2 6 U | 2 0 U | 2 0 UJ | 2 00 U | 0 050 U | 0 050 U | 2 6 UJ | 2 0 UJ | 1 6 UJ | 2 2 U |
| Aldrin | 2 1 UJ | 1 8 UJ | 2.7 UJ | 2 0 U | 2 6 U | 2 0 U | 2 0 UJ | 2 00 U | 0 050 U | 0 050 U | 2 6 UJ | 2 0 UJ | 1 6 UJ | 2 2 U |
| Heptachlor epoxide | 2.1 UJ | 1.8 UJ | 2 7 J | 2 0 U | 3 2 | 2 0 U | 2 0 UJ | 2 00 U | 0 050 U | 0 050 U | 2 6 UJ | 2 0 UJ | 1 6 UJ | 2 2 U |
| Endosulfan I | 2.1 UJ | 1 8 UJ | 2 7 UJ | 2 0 U | 2 6 U | 2 0 U | 2 0 UJ | 2 00 U | 0 050 U | 0 050 U | 2 6 UJ | 2 0 UJ | 1 6 UJ | 2 2 U |
| Dieldrin | 4 1 UJ | 3 5 UJ | 67 0 J | 3 9 U | 4 9 U | 100 | 14 J | 3 80 U | 0.10 U | 0.10 U | 5 0 J | 7 9 J | 3 0 UJ | 4 3 U |
| 4,4'-DDE | 4.1 UJ | 3 5 UJ | 190 J | 3 9 U | 5 3 J | 65 | 70 | 3 80 U | 0 10 U | 0 10 U | 17 J | 16 UJ | 3 0 UJ | 4 3 U |
| Endrin | 4 1 UJ | 3 5 UJ | 5 6 JN | 3 9 U | 4 9 U | 3 8 U | 3 8 UJ | 3 80 U | 0 10 U | 0 10 U | 3 8 UJ | 4 2 JN | 3 8 UJ | 4 3 U |
| Endosulfan II | 4 1 UJ | 3 5 UJ | 5 3 UJ | 3 8 U | 4 0 U | 3 8 U | 3 8 UJ | 3 80 U | 0 10 U | 0 10 U | 3 8 UJ | 3 8 UJ | 3 8 UJ | 4 3 U |
| 4,4'-DDD | 4 1 UJ | 3 5 UJ | R | 3 9 U | 4 9 U | 27 J | 24 JN | 3 80 U | 0 10 U | 0.10 U | 57 JN | R | 3 8 UJ | 4 3 U |
| Endosulfan Sulfate | 4 1 UJ | 3 5 UJ | 5 3 UJ | 3 8 U | 4 0 U | 5 2 | 3 8 UJ | 3 80 U | 0 10 U | 0.10 U | 3 8 UJ | 3 8 UJ | 2 7 UJ | 4 3 U |
| 4,4'-DDT | 4 1 UJ | 3 5 UJ | 670 J | 20 U | 6 0 | 81 | 250 J | 3 80 U | 0 10 U | 0 10 U | 61 J | 87 J | 3 7 J | 4 3 U |
| Methoxychlor | 21 UJ | 18 UJ | 27 UJ | 3 9 U | 20 U | 20 U | 20 UJ | 20 00 U | 0 10 U | 0 10 U | 20 UJ | 20 UJ | 8 9 J | 12 U |
| Endrin ketone | 4 1 UJ | 3 5 UJ | 5 4 J | 3 9 U | 4 0 U | 3 8 U | 3 8 UJ | 3 80 U | 0 10 U | 0.10 U | 3 8 UJ | 3 8 UJ | 3 6 UJ | 4 3 U |
| Endrin Aldehyde | 4 1 UJ | 3 5 UJ | 5 3 UJ | 2 0 U | 4 0 U | R | 6 4 JN | 3 80 U | 0 10 U | 0 10 U | 3 8 UJ | 3 8 UJ | 3 6 UJ | 4 3 U |
| alpha-Chlordane | 2 1 UJ | 3 3 J | 23 J | 2 0 U | 2 1 | 4 7 | 5 2 JN | 2 00 U | 0 050 U | 0.050 U | 5 2 UJ | 8 2 J | 1 8 UJ | 2 2 U |
| gamma-Chlordane | 2 1 UJ | 3 4 UJ | 23 J | 200 U | 2 0 U | 3 1 J | 3 4 J | 2 00 U | 0 050 U | 0 050 U | 5 4 J | 12 J | 4 3 J | 2 2 U |
| Toxaphene | 210 UJ | 180 UJ | 270 UJ | 39 U | 200 U | 200 U | 200 J | 200 U | 5 0 U | 5 0 U | 200 UJ | 200 UJ | 180 UJ | 220 U |
| Aroclor-1016 | 41 UJ | 35 UJ | 53 UJ | 80 U | 40 U | 38 U | 38 J | 38 U | 1 0 U | 1 0 U | 38 UJ | 38 UJ | 36 UJ | 43 U |
| Aroclor-1221 | 84 UJ | 72 UJ | 110 UJ | 39 U | 81 U | 78 U | 78 J | 78 U | 2 0 U | 2 0 U | 78 UJ | 78 UJ | 73 UJ | 88 U |
| Aroclor-1232 | 41 UJ | 35 UJ | 53 UJ | 39 U | 40 U | 38 U | 38 J | 38 U | 1 0 U | 1 0 U | 38 UJ | 38 UJ | 36 UJ | 43 U |
| Aroclor-1242 | 41 UJ | 35 UJ | 53 UJ | 39 U | 40 U | 38 U | 38 J | 38 U | 1 0 U | 1 0 U | 38 UJ | 38 UJ | 36 UJ | 43 U |
| Aroclor-1248 | 41 UJ | 35 UJ | 53 UJ | 39 U | 40 U | 38 U | 38 J | 38 U | 1 0 U | 1 0 U | 38 UJ | 38 UJ | 36 UJ | 43 U |
| Aroclor-1254 | 41 UJ | 35 UJ | 53 UJ | 39 U | 40 U | 38 U | 38 J | 38 U | 1 0 U | 1 0 U | 38 UJ | 38 UJ | 38 UJ | 43 U |
| Aroclor-1260 | 41 UJ | 35 UJ | 53 UJ | 39 U | 40 U | 38 U | 38 J | 38 U | 1 0 U | 1 0 U | 38 UJ | 38 UJ | 36 UJ | 74 P |

U = Analyte was not detected at the instrument de
J = Estimated value
B = Analyte was detected in blank
E = Estimated value due to matrix interference
D = Determined after sample dilution
NJ = Presumptive evidence for presence of analyt
P = There is greater than 25% difference for dete
between the two GC columns; the lower of the tw
R = Rejected during data validation

TABLE 3-9 CONTINUED
PESTICIDES/PCBs RESULTS - SOILS/SEDIMENT
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SSCQ-S | SSK-U1 | SI-U1 | | SO-L4 | SQ-L1 | SR-L2 | ST-L4 | SSU-U1 | SV-L1 | SW-L2 | SX-L3 | SY-L4 | SSZ-U1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | -- | TRANSECT K | TRANSECT I | | TRANSECT O | TRANSECT Q | TRANSECT R | TRANSECT T | TRANSECT U | TRANSECT V | TRANSECT W | TRANSECT X | TRANSECT Y | TRANSECT Z |
| LOCATION DESCRIPTION | BMN60 | BMN09 | BMN13 | BMN46 | BMN14 | BMN15 | BMN16 | BMN18 | BMN19 | BMN20 | BMN21 | BMN22 | BMN23 | BMN24 |
| DEPTH INTERVAL | 0 0TO 0.5 ft | 0 3TO 1.2 ft | 0 5TO 1.0 ft | | 2 5TO 3.0 ft | 2.0TO 2.5 ft | 2 5To 3.0 ft | 2 5TO 3.0 ft | 0 4TO 0.8 ft | 2.5TO 3.0 ft | 2 5TO 3.0 ft | 2 5TO 3.0 ft | 2 0TO 2.5 ft | 0 3TO 0.8 ft |
| UNITS | ug/kg | ug/kg | ug/kg | ug/l | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/23/94 | 3/18/94 | 3/18/94 | | 3/17/94 | 3/17/94 | 3/16/94 | 3/16/94 | 3/16/94 | 3/15/94 | 3/15/94 | 3/15/94 | 3/14/94 | 3/14/94 |
| alpha-BHC | 2.1 U | 2.0 U | 2.2 U | 0.050 U | 1.9 U | 21 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.0 U | 2.3 U | 2.6 U | 2.2 U |
| beta-BHC | 2.1 U | 2.0 U | 2.2 U | 0.050 U | 1.9 U | 21 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.0 U | 2.3 U | 2.6 U | 2.2 U |
| delta-BHC | 2.1 U | 2.0 U | 2.2 U | 0.050 U | 1.9 U | 3.5 JN | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.0 U | 2.3 U | 2.6 U | 2.2 U |
| gamma-BHC (Lindane) | 2.1 U | 2.0 U | 2.2 U | 0.050 U | 1.9 U | 21 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.0 U | 2.3 U | 2.6 U | 2.2 U |
| Heptachlor | 2.1 U | 2.0 U | 2.2 U | 0.050 U | 2.3 | 2.4 J | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.0 U | 2.3 U | 2.6 U | 2.2 U |
| Aldrin | 2.1 U | 2.0 U | 2.2 U | 0.050 U | 1.9 U | 21 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.0 U | 2.3 U | 2.6 U | 2.2 U |
| Heptachlor epoxide | 2.1 U | 2.0 U | 2.2 U | 0.050 U | 1.9 U | 21 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.0 U | 2.3 U | 2.6 U | 2.2 U |
| Endosulfan I | 2.1 U | 2.0 U | 2.2 U | 0.050 U | 1.9 U | 21 U | 2.2 U | 2.2 U | 2.2 U | 2.2 U | 2.0 U | 2.3 U | 2.6 U | 2.2 U |
| Dieldrin | 4.0 U | 3.8 U | 4.2 U | 0.10 U | 3.7 U | R | 4.2 U | 4.3 U | 4.2 U | 4.3 U | 6.8 JN | 4.5 U | 5.0 J | 4.2 U |
| 4,4'-DDE | 4.0 U | 3.8 U | 4.2 U | 0.10 U | 3.7 U | 68 J | 4.2 U | 4.3 U | 4.2 U | 6.8 | 15 | 6.8 | 16 | 4.2 U |
| Endrin | 4.0 U | 3.8 U | 4.2 U | 0.10 U | 3.7 U | 41 U | 4.2 U | 4.3 U | 4.2 U | 4.3 U | 3.8 U | 4.5 U | 5.4 U | 4.2 U |
| Endosulfan II | 4.0 U | 3.8 U | 4.2 U | 0.10 U | 3.7 U | 41 U | 4.2 U | 4.3 U | 4.2 U | 4.3 U | 3.8 U | 1.7 N | 5.4 U | 4.2 U |
| 4,4'-DDD | 4.0 U | 7.8 JN | 4.2 U | 0.10 U | 3.7 U | 170 JN | 4.2 U | 4.3 U | 5.4 JN | 30 | 22 JN | R | R | 4.2 U |
| Endosulfan Sulfate | 4.0 U | 3.8 U | 4.2 U | 0.10 U | 3.7 U | 26 J | 4.2 U | 4.3 U | 4.2 U | 4.3 U | 3.8 U | 4.5 U | 5.4 U | 4.2 U |
| 4,4'-DDT | 4.0 U | 15 | 7.7 | 0.10 U | 3.7 U | 1200 * | 9.4 | 4.3 U | 14 | 8.5 JN | 120 * | 7.8 | 35 J | 6.1 |
| Methoxychlor | 4.0 U | 20 U | 22 U | 0.50 U | 3.7 U | 210 U | 22 U | 22 U | 22 U | 22 U | 20 U | 23 U | 28 U | 22 U |
| Endrin ketone | 2.1 U | 3.8 U | 4.2 U | 0.10 U | 10 U | 41 U | 4.2 U | 4.3 U | 4.2 U | 4.3 U | 3.8 U | 4.5 U | 5.4 U | 4.2 U |
| Endrin Aldehyde | 4.0 U | 3.8 U | 4.2 U | 0.10 U | 3.7 U | R | 4.2 U | 4.3 U | 5.2 | 4.3 U | 3.8 U | 4.5 U | 5.4 U | 4.2 U |
| alpha-Chlordane | 4.0 U | 2.0 U | 2.2 U | 0.050 U | 0.7 | 20 J | 2.2 U | 2.2 U | 2.2 U | 2.8 | 6.5 | 2.6 | 2.8 U | 2.2 U |
| gamma-Chlordane | 2.1 U | 2.0 U | 2.2 U | 0.050 U | 1.9 U | 21 J | 2.2 U | 2.2 U | 2.2 U | 4.3 JN | 2.3 U | 2.3 U | 2.8 U | 2.2 U |
| Toxaphene | 2.1 U | 200 U | 220 U | 5.0 U | 1.8 U | 2100 U | 220 U | 220 U | 220 U | 220 U | 200 U | 230 U | 280 U | 220 U |
| Aroclor-1016 | 210 U | 38 U | 42 U | 1.0 U | 190 U | 410 U | 42 U | 43 U | 42 U | 43 U | 38 U | 45 U | 54 U | 42 U |
| Aroclor-1221 | 40 U | 77 U | 86 U | 2.0 U | 37 U | 840 U | 85 U | 87 U | 86 U | 88 U | 78 U | 92 U | 110 U | 85 U |
| Aroclor-1232 | 82 U | 38 U | 42 U | 1.0 U | 76 U | 410 U | 42 U | 43 U | 42 U | 43 U | 38 U | 45 U | 54 U | 42 U |
| Aroclor-1242 | 40 U | 38 U | 42 U | 1.0 U | 37 U | 410 U | 42 U | 43 U | 42 U | 43 U | 38 U | 45 U | 54 U | 42 U |
| Aroclor-1248 | 40 U | 38 U | 42 U | 1.0 U | 37 U | 410 U | 42 U | 43 U | 42 U | 43 U | 38 U | 45 U | 54 U | 42 U |
| Aroclor-1254 | 40 U | 38 U | 42 U | 1.0 U | 37 U | 410 U | 42 U | 43 U | 42 U | 43 U | 38 U | 45 U | 54 U | 42 U |
| Aroclor-1260 | 40 U | 38 U | 42 U | 1.0 U | 37 U | 410 U | 42 U | 43 U | 42 U | 43 U | 38 U | 45 U | 54 U | 42 U |

U = Analyte was not detected at the instrument de
J = Estimated value
B = Analyte was detected in blank
E = Estimated value due to matrix interference
D = Determined after sample dilution
NJ = Presumptive evidence for presence of analyt
P = There is a greater than 25% difference for dete
between the two GC columns; the lower of the tw
R = Rejected during data validation

TABLE 3-9 CONTINUED
PESTICIDES/PCBs RESULTS - SOILS/SEDIMENT
OFF-SITE INVESTIGATION
CHEMICAL INSECTICIDE CORPORATION SITE
EDISON, NEW JERSEY

| SAMPLE NUMBER | SW-L2A | SSU-U1A | | | | | | SJ-L2 | SM-L1 | SL-U3 |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION NO. | TRANSECT W | TRANSECT U | | | | | | TRANSECT J | TRANSECT M | TRANSECT |
| LOCATION DESCRIPTION | BMN33 | BMN34 | BMN41 | BMN42 | BMN43 | BMN44 | BMN45 | BMN06 | BMN10 | BMN11 |
| DEPTH INTERVAL | 2.5 TO 3.0 ft | 0.4 TO 0.8 ft | | | | | | 2.0 TO 2.5 ft | 2.5 TO 3.0 ft | 0.5 TO 1.0 ft |
| UNITS | ug/kg | ug/kg | ug/l | ug/l | ug/l | ug/l | ug/l | ug/kg | ug/kg | ug/kg |
| DATE SAMPLE COLLECTED | 3/15/94 | 3/16/94 | | | | | | 3/18/94 | 3/17/94 | 3/17/94 |
| alpha-BHC | 2.1 U | 2.1 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 2.1 U | 3.3 J | 2.1 |
| beta-BHC | 2.1 U | 2.1 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 2.1 U | 38 U | |
| delta-BHC | 2.1 U | 2.1 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 2.1 U | 24 J | 4.6 |
| gamma-BHC (Lindane) | 2.1 U | 2.1 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 2.1 U | 6.4 JN | 2.1 |
| Heptachlor | 2.1 U | 2.1 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 2.2 | 30 U | 2.2 |
| Aldrin | 2.1 U | 2.1 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 2.1 U | 30 U | 2.0 |
| Heptachlor epoxide | 2.1 U | 2.1 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 2.1 U | 30 U | 2.1 |
| Endosulfan I | 2.1 U | 2.1 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 2.1 U | 30 U | 2.1 |
| Dieldrin | 8.7 | 4.1 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 29 | 69 | 27 |
| 4,4'-DDE | 17 | 4.1 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 72 * | 230 | 68 |
| Endrin | 4.0 U | 4.1 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 4.1 U | 34 J | 23 |
| Endosulfan II | 4.0 U | 4.1 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 4.1 | 59 U | |
| 4,4'-DDD | 32 J | 4.1 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | R | 1500 * | 160 |
| Endosulfan Sulfate | 4.0 U | 4.1 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 4.1 U | 59 U | 4.0 |
| 4,4'-DDT | 150 * | 6.0 JN | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 360 * | 360 | 570 |
| Methoxychlor | 21 U | 21 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 21 U | 300 U | 21 |
| Endrin ketone | 4.0 U | 4.1 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 4.1 U | 59 U | |
| Endrin Aldehyde | 4.0 U | 4.1 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 4.1 U | | 4.0 |
| alpha-Chlordane | 5.6 J | 2.1 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 6.6 | 120 | 23 |
| gamma-Chlordane | 4.7 JN | 2.1 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 0.050 U | 13 * | 110 J | 29 |
| Toxaphene | 210 U | 210 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 210 U | 3000 U | 210 |
| Aroclor-1016 | 40 U | 41 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 41 U | 590 U | 40 |
| Aroclor-1221 | 82 U | 84 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 83 U | 1200 U | 82 |
| Aroclor-1232 | 40 U | 41 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 41 U | 590 U | 40 |
| Aroclor-1242 | 40 U | 41 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 41 U | 590 U | 40 |
| Aroclor-1248 | 40 U | 41 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 41 U | 590 U | 40 |
| Aroclor-1254 | 40 U | 41 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 41 U | 590 U | 40 |
| Aroclor-1260 | 40 U | 41 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 41 U | 590 U | 40 |

U = Analyte was not detected at the instrument de
J = Estimated value
B = Analyte was detected in blank
E = Estimated value due to matrix interference
D = Determined after sample dilution
*NJ = Presumptive evidence for presence of analyte*
P = There is a greater than 25% difference for deter
between the two GC columns; the lower of the to
R = Rejected during data validation

TABLE 3 - 10
INORGANIC RESULTS - SOILS/SEDIMENTS
CHEMICAL INSECTICIDE CORPORATION SITE
OFF-SITE INVESTIGATION
EDISON, NEW JERSEY

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | SA-U1 | SSA-U1 | SB-U2 | SE-L2 | SG-L2 | SSO-U1 | SAA-L2 | SBB-L3 |
| SAMPLE LOCATION NO. | TRANSECT A | TRANSECT A | TRANSECT B | TRANSECT E | TRANSECT G | TRANSECT O | TRANSECT AA | TRANSECT BB |
| CLP SAMPLE CODE | MBNQ01 | MBNQ02 | MBNQ03 | MBNQ05 | MBNQ07 | MBNQ12 | MBNQ25 | MBNQ26 |
| DEPTH INTERVAL | 0.5 TO 1.0 ft. | 1.5 TO 2.0 ft. | 0.5 TO 1.0 ft. | 2.5 TO 3.0 ft. | 2.0 TO 2.5 ft. | 0.3 TO 1.2 ft. | 2.5 TO 3.0 ft. | 2.5 TO 3.0 ft. |
| UNITS | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| DATE SAMPLE COLLECTED | 3/22/94 | 3/22/94 | 3/22/94 | 3/21/94 | 3/21/94 | 3/21/94 | 3/23/94 | 3/23/94 |
| ALUMINUM | 5700 J | 5290 J | 10800 J | 14600 | 5270 | 3300 | 17000 | 8120 |
| ANTIMONY | 4.5 UNJ | 4.7 UNJ | 4.5 UNJ | 4.7 UNJ | 4.3 UNJ | 4.4 UNJ | 5.9 UNJ | 4.6 UNJ |
| ARSENIC | 21.3 J | | 11.0 J | 15.4 S | 0.23 BWJ | 4.4 | 129 | 2.9 |
| BARIUM | 34.1 J | 41.8 J | 45.0 J | 85.6 | 14.1 B | 19.8 B | 143 | 31.8 B |
| BERYLLIUM | 0.3 J | 0.86 J | 0.37 BJ | 0.43 B | 0.24 B | 0.29 B | 0.80 B | 0.49 B |
| CADMIUM | 0.32 J | 0.65 BJ | 0.83 J | 0.61 B | 0.31 U | 0.54 B | 0.47 B | 0.49 B |
| CALCIUM | 1420 J | 1750 J | 1260 J | 407 B | 109 B | 510 B | 1020 B | 588 B |
| CHROMIUM | 10.5 JN | 14.2 NJ | 16.8 NJ | 18.2 NJ | 11.2 NJ | 21.8 NJ | 41.6 NJ | 15.8 NJ |
| COBALT | 2.5 JB | 5.8 BJ | 5.1 BJ | 6.9 B | 1.9 B | 5.5 B | 12.5 | 4.2 B |
| COPPER | 19.5 J | 31.9 J | 31.1 J | 27.3 J | 3.1 B | 11.3 J | 82.0 J | 6.6 J |
| IRON | 9890 *J | 13700 *J | 16600 *J | 15900 * | 2580 * | 12000 * | 30500 * | 13500 * |
| LEAD | 25.9 N*J | 74.9 N*J | 44.4 N*J | 63.6 N*J | 7.0 | 36.1 N*J | 234 N*J | 18.8 |
| MAGNESIUM | 772 BJ | 1350 J | 1560 J | 1160 | 727 B | 924 | 2310 | 1280 |
| MANGANESE | 84.8 JN*J | 108 N*J | 102 N*J | 311 N*J | 16.9 N*J | 99.2 N*J | 242 N*J | 64.2 N*J |
| MERCURY | 0.16 J | 0.13 J | 0.13 J | 0.13 | 0.06 U | 0.09 B | 0.32 | 0.06 U |
| NICKEL | 6.6 J | 18.3 J | 12.2 J | 12.2 | 5.4 B | 10.9 | 19.4 | 9.9 |
| POTASSIUM | 520 BJ | 530 BJ | 974 J | 648 B | 723 B | 410 B | 1290 | 616 B |
| SELENIUM | 0.53 BJ | 0.35 BJ | 0.34 BJ | 0.71 BNJ | 0.23 U | 0.24 B | 2.2 S | 0.35 B |
| SILVER | 0.32 UJ | 0.40 BJ | 0.44 BJ | 0.34 U | 0.31 U | 0.32 U | 0.42 U | 0.33 U |
| SODIUM | 52.9 BJ | 1.47 BJ | 76.4 BJ | 57.5 B | 41.6 B | 95.4 B | 178 B | 144 B |
| THALLIUM | 0.48 UWJ | 0.51 UJ | 0.49 UJ | 0.51 UW | 0.46 U | 0.48 U | 0.63 U | 0.50 U |
| VANADIUM | 15.5 J | 19.4 J | 26.0 J | 29.9 | 7.0 B | 13.9 | 47.1 | 19.6 |
| ZINC | 32.1 N*J | 213 N*J | 79.0 N*J | 83.6 N*J | 20.6 N*J | 58.9 N*J | 136 N*J | 53.5 N*J |
| CYANIDE | 0.18 UJ | 0.19 UJ | 0.18 UJ | 0.37 B | 0.17 U | 0.38 B | 0.54 B | 0.19 U |

U= Analyte was not detected at the instrument detection limit given
J= Estimated Value
B= Reported value is between the instrument detection limit and the contract required detection limit
E= Value is estimated due to interference
N= Spiked sample recovery was not within control limits
* = Duplicate analysis was not within control limits
S= Determined by Method of Standard Addition (MSA)
W= Post digestion spike for furnace AA analysis out of control limits, while sample absorbance is less than 50% of spike absorbance
+= Correlation coefficient for the MSA is less than 0.995
M= Duplicate injection precision criteria was not met
R= Rejected during data validation

TABLE 3 - 10
INORGANIC RESULTS - SOILS/SEDIMENTS
CHEMICAL INSECTICIDE CORPORATION SITE
OFF-SITE INVESTIGATION
EDISON, NEW JERSEY

| | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | SSU-U1A | | | | | | SSK-U1 | S1-U1 |
| SAMPLE LOCATION NO. | TRANSECT U | | | | | | TRANSECT K | TRANSECT S |
| CLP SAMPLE CODE | MBNQ34 | MBNQ41 | MBNQ42 | MBNQ43 | MBNQ44 | MBNQ45 | MBNQ09 | MBNQ13 |
| DEPTH INTERVAL | 0.4 TO 0.8 ft. | | | | | | 0.3 TO 1.2 ft. | 0.5 TO 1.0 ft |
| UNITS | mg/kg | ug/l | ug/l | ug/l | ug/l | ug/l | mg/kg | mg/kg |
| DATE SAMPLE COLLECTED | 3/16/94 | | | | | | 3/18/94 | 3/18/94 |
| ALUMINUM | 7060 | 20.8 BJ | 20.8 UJ | 20.8 UJ | 20.8 UJ | 20.8 UJ | 7210 * | 14000 * |
| ANTIMONY | 7.0 UNJ | 28.3 UJ | 28.3 UJ | 28.3 UJ | 28.3 UJ | 28.3 UJ | 6.7 UNJ | 7.5 UNJ |
| ARSENIC | 9.8 SNJ | 1.3 UJ | 1.4 BJ | 1.7 BJ | 2.2 BJ | 1.7 BJ | 17.6 S* | 8.1 S* |
| BARIUM | 34.6 B | 0.80 UJ | 0.80 UJ | 0.80 UJ | 0.80 UJ | 0.80 UJ | 53.7 | 37.5 B |
| BERYLLIUM | 0.94 B | 0.20 UJ | 0.20 UJ | 0.20 UJ | 0.20 UJ | 0.20 UJ | 1.9 | 0.62 B |
| CADMIUM | 0.67 U | 2.7 UJ | 2.7 UJ | 2.7 UJ | 2.7 UJ | 2.7 UJ | 0.64 U | 0.72 U |
| CALCIUM | 1710 | 36.5 BJ | 45.6 BJ | 45.6 BJ | 45.6 BJ | 54.7 BJ | 3010 | 1100 B |
| CHROMIUM | 18.3 N*J | 2.6 UJ | 2.6 UJ | 2.6 UJ | 2.6 UJ | 2.6 UJ | 21.8 | 29.7 |
| COBALT | 6.5 B | 2.9 UJ | 2.9 UJ | 2.9 UJ | 2.9 UJ | 2.9 UJ | 18.5 | 8.9 B |
| COPPER | 10.0 J | 2.4 UJ | 2.4 UJ | 2.4 UJ | 2.4 UJ | 2.4 UJ | 30.4 N*J | 35.6 N*J |
| IRON | 35800 * | 53.2 BJ | 65.2 BJ | 13.7 BJ | 39.1 BJ | 36.7 BJ | 37300 *J | 51100 *J |
| LEAD | 26.2 S | 0.60 UJ | 0.64 BJ | 0.64 BJ | 0.60 UJ | 1.7 BJ | 26.4 *J | 55.3 S*J |
| MAGNESIUM | 1880 | 26.8 UJ | 26.8 UJ | 26.8 UJ | 26.8 UJ | 26.8 UJ | 1910 | 2660 |
| MANGANESE | 123 N*J | 1.7 UJ | 1.9 BJ | 1.7 UJ | 1.7 UJ | 1.7 UJ | 351 N*J | 237 N*J |
| MERCURY | 0.12 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.20 U | 0.12 U | 0.13 U |
| NICKEL | 12.6 | 10.8 UJ | 10.8 UJ | 10.8 UJ | 10.8 UJ | 10.8 UJ | 21.2 * | 15.7 * |
| POTASSIUM | 1340 | 348 UJ | 348 UJ | 348 UJ | 348 UJ | 348 UJ | 892 B | 2230 |
| SELENIUM | 0.30 U | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 1.2 UJ | 0.28 U | 0.46 B |
| SILVER | 2.0 B | 2.8 UJ | 2.8 UJ | 2.8 UJ | 2.8 UJ | 2.8 UJ | 2.6 *J | 3.5 *J |
| SODIUM | 143 B | 43.7 BJ | 75.6 BJ | 41.3 BJ | 58.1 BJ | 41.6 BJ | 205 B | 76.7 B |
| THALLIUM | 0.25 U | 1.3 BWJ | 1.1 BJ | 1.1 BWJ | 1.6 BJ | 2.2 BJ | 0.42 B | 0.67 B |
| VANADIUM | 19.6 *J | 2.3 UJ | 2.3 UJ | 2.3 UJ | 2.3 UJ | 2.3 UJ | 20.2 | 46.0 |
| ZINC | 61.8 NJ | 4.3 BJ | 10.3 BJ | 6.1 BJ | 3.1 UJ | 5.2 BJ | 132 N*J | 90.3 N*J |
| CYANIDE | 0.62 UN | 10.0 U | 10.0 U | 10.0 U | 10.0 U | 10.0 U | 0.59 U | 0.66 U |

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+= Correlation coefficient for the MSA is less than 0.995
M= Duplicate injection precision criteria was not met
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TABLE 3 - 10
INORGANIC RESULTS - SOILS/SEDIMENTS
CHEMICAL INSECTICIDE CORPORATION SITE
OFF-SITE INVESTIGATION
EDISON, NEW JERSEY

| | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | | SCC-L4 | SSDD-U1 | SRC-U1 | SH-U1 | SH-U1A | SH-U4 | |
| SAMPLE LOCATION NO. | | TRANSECT CC | TRANSECT DD | RODAK CIRCLE | TRANSECT H | TRANSECT H | TRANSECT H | |
| CLP SAMPLE CODE | MBNQ46 | MBNQ27 | MBNQ28 | MBNQ37 | MBNQ35 | MBNQ36 | MBNQ37 | MBNQ39 |
| DEPTH INTERVAL | | 2.0 TO 2.5 ft. | 0.5 TO 2.0 ft. | 0.2 TO 0.7 ft. | 0.5 TO 1.0 ft. | 0.5 TO 1.0 ft. | 0.5 TO 1.0 ft. | |
| UNITS | ug/l | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | |
| DATE SAMPLE COLLECTED | | 3/22/94 | 3/22/94 | 3/23/94 | 3/21/94 | 3/21/94 | 3/21/94 | |
| ALUMINUM | 20.8 UJ | 13300 J | 6590 J | 14700 | 4290 | 4070 | 9500 | 8410 J |
| ANTIMONY | 28.3 UJ | 4.9 UNJ | 4.3 UNJ | 4.6 UNJ | 4.3 UNJ | 4.3 UNJ | 4.5 UNJ | 4.6 UNJ |
| ARSENIC | 1.3 UJ | 4.5 J | 5.6 SJ | 3.6 | 12.0 J | 6.9 SJ | 17.9 S | 13.3 SJ |
| BARIUM | 1.0 BJ | 49.2 J | 32.9 J | 58.1 | 72.7 | 55.0 | 51.5 | 40.1 J |
| BERYLLIUM | 0.20 UJ | 0.49 BJ | 0.56 BJ | 0.41 B | 0.22 B | 0.29 B | 0.37 B | 0.80 BJ |
| CADMIUM | 2.7 UJ | 0.35 UJ | 0.43 BJ | 0.51 B | 0.31 U | 0.78 | 0.32 U | 0.41 BJ |
| CALCIUM | 35.9 BJ | 929 J | 1260 J | 769 B | 692 B | 585 B | 356 B | 1200 J |
| CHROMIUM | 2.6 UJ | 22.6 NJ | 16.6 NJ | 14.4 NJ | 9.3 NJ | 8.2 NJ | 14.5 NJ | 26.6 NJ |
| COBALT | 2.9 UJ | 7.7 BJ | 7.7 J | 4.6 B | 2.9 B | 2.9 B | 4.1 B | 7.7 BJ |
| COPPER | 2.4 UJ | 16.5 J | 84.9 J | 19.2 J | 20.3 J | 29.1 J | 17.5 J | 21.9 J |
| IRON | 15.7 BJ | 23400 * | 15700 *J | 11600 * | 7830 * | 8100 * | 15400 * | 35300 *J |
| LEAD | 0.99 BJ | 103 N*J | 59.9 N*J | 35.5 N*J | 46.9 N*J | 65.7 N*J | 28.6 N*J | 58.3 N*J |
| MAGNESIUM | 26.8 UJ | 2680 J | 2040 J | 1420 | 625 B | 554 B | 1030 | 1830 J |
| MANGANESE | 1.7 UJ | 108 N*J | 136 N*J | 82.4 N*J | 79.6 N*J | 97.6 N*J | 165 N*J | 165 N*J |
| MERCURY | 0.20 U | 0.18 J | 0.16 J | 0.17 | 0.16 | 0.12 | 0.16 | 0.17 J |
| NICKEL | 10.8 UJ | 26.4 J | 27 J | 10.9 | 5.7 B | 7.2 | 9.9 | 15.9 J |
| POTASSIUM | 348 UJ | 1170 J | 754 BJ | 768 B | 437 B | 343 B | 641 B | 863 J |
| SELENIUM | 1.2 UJ | 0.37 BWJ | 0.25 BJ | 0.59 B | 0.51 B | 0.47 B | 0.56 BWJ | 0.34 BJ |
| SILVER | 2.8 UJ | 0.35 UJ | 0.31 UJ | 0.33 U | 0.31 U | 0.31 U | 0.59 B | 0.33 UJ |
| SODIUM | 104 BJ | 465 BJ | 192 BJ | 77.9 B | 61.2 B | 47.9 B | 45.5 B | 152 BJ |
| THALLIUM | 1.2 BJ | 0.52 UJ | 0.46 UJ | 0.49 U | 0.46 U | 0.47 U | 0.48 UW | 0.49 UJ |
| VANADIUM | 2.3 UJ | 26.2 J | 15.2 J | 25.7 | 15.0 | 21.2 | 23.6 | 38.6 J |
| ZINC | 3.1 UJ | 82.6 N*J | 189 N*J | 33.8 N*J | 46.8 N*J | 67.9 N*J | 34.7 N*J | 94.6 N*J |
| CYANIDE | 10.0 U | 0.20 UJ | 0.17 UJ | 0.18 U | 0.2 B | 0.17 U | 0.18 U | 0.18 UJ |

U= Analyte was not detected at the instrument detection limit given
J= Estimated Value
B= Reported value is between the instrument detection limit and the contract required detection limit
E= Value is estimated due to interference
N= Spiked sample recovery was not within control limits
* = Duplicate analysis was not within control limits
S= Determined by Method of Standard Addition (MSA)
W= Post digestion spike for furnace AA analysis out of control limits, while sample absorbance is less than 50% of spike absorbance
+= Correlation coefficient for the MSA is less than 0.995
M= Duplicate injection precision criteria was not met
R= Rejected during data validation

**TABLE 3 - 10**
***INORGANIC RESULTS - SOILS/SEDIMENTS***
**CHEMICAL INSECTICIDE CORPORATION SITE**
**OFF-SITE INVESTIGATION**
**EDISON, NEW JERSEY**

| | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | SSCG-2 | ST-L4 | SSU-U1 | SV-L1 | SW-L2 | SX-L3 | SY-L4 | SSZ-U1 |
| SAMPLE LOCATION NO. | | TRANSECT T | TRANSECT U | TRANSECT V | TRANSECT W | TRANSECT X | TRANSECT Y | TRANSECT Z |
| CLP SAMPLE CODE | MBNQ56 | MBNQ18 | MBNQ19 | MBNQ20 | MBNQ21 | MBNQ22 | MBNQ23 | MBNQ24 |
| DEPTH INTERVAL | 1.0 TO 1.5 ft. | 2.5 TO 3.0 ft. | 0.4 TO 0.8 ft. | 2.5 TO 3.0 ft. | 2.5 TO 3.0 ft. | 2.5 TO 3.0 ft. | 2.0 TO 2.5 ft. | 0.3 TO 0.8 ft. |
| UNITS | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| DATE SAMPLE COLLECTED | 3/23/94 | 3/16/94 | 3/16/94 | 3/15/94 | 3/15/94 | 3/15/94 | 3/14/94 | 3/14/94 |
| ALUMINUM | 4390 | 9440 | 7850 | 10500 | 8040 | 7690 | 15700 | 5380 |
| ANTIMONY | 4.4 UNJ | 8.1 UNJ | 7.1 UNJ | 8.0 UNJ | 7.2 UNJ | 7.7 UNJ | 9.3 UNJ | 7.3 UNJ |
| ARSENIC | 29.6 S | 11.5 SNJ | 5.2 NJ | 4.1 SNJ | 18.0 SNJ | 10.1 SNJ | 6.9 SNJ | 4.1 NJ |
| BARIUM | 19.0 B | 54.9 B | 34.3 B | 70.9 | 53.8 | 43.6 B | 141 | 30.3 B |
| BERYLLIUM | 0.40 B | 0.76 B | 1.0 B | 1.9 J | 1.2 B | 1.0 B | 0.65 B | 1.9 J |
| CADMIUM | 0.31 U | 0.77 U | 0.68 U | 0.76 U | 0.69 U | 0.74 U | 0.89 U | 0.7 U |
| CALCIUM | 918 | 1800 | 2540 | 3170 | 925 B | 521 B | 1280 B | 2530 |
| CHROMIUM | 12.8 NJ | 25.9 N*J | 21.5 N*J | 19.0 N*J | 18.2 N*J | 42.4 N*J | 24.6 N*J | 17.9 N*J |
| COBALT | 4.9 B | 11.7 B | 5.1 B | 18.9 | 8.0 B | 14.3 | 7.2 B | 10.9 B |
| COPPER | 13.3 J | 74.5 | 49.7 J | 23.1 J | 36.1 | 29.7 | 47.0 | 9 5 |
| IRON | 16400 * | 52800 * | 34100 * | 23700 * | 31300 * | 79300 * | 18800 * | 18200 * |
| LEAD | 28.1 N*J | 22.0 S | 26.4 S | 44.4 S | 95.0 * | 39.3 S | 105 * | 19.7 S |
| MAGNESIUM | 1930 | 1960 | 2350 | 2370 | 1760 | 968 B | 2200 | 2880 |
| MANGANESE | 125 N*J | 289 N*J | 130 N*J | 429 N*J | 115 N*J | 243 N*J | 80.8 N*J | 236 N*J |
| MERCURY | 0.06 U | 0.14 U | 0.13 U | 0.14 U | 0.13 U | 0.14 U | 0.16 U | 0.13 U |
| NICKEL | 12.7 | 28.7 | 14.9 | 20.9 | 11.1 | 15.6 | 12.8 B | 30 5 |
| POTASSIUM | 670 B | 1200 B | 1530 | 1150 B | 683 B | 662 B | 1050 B | 1410 |
| SELENIUM | 0.30 B | 0.34 U | 0.30 U | 0.34 U | 0.38 B | 0.33 U | 0.39 U | 0.31 U |
| SILVER | 0.31 U | 2.7 B | 1.5 B | 0.86 B | 1.4 B | 4.0 | 0.92 U | 0.72 U |
| SODIUM | 93.3 B | 186 B | 144 B | 129 B | 44.5 B | 193 B | 287 B | 95 2 B |
| THALLIUM | 0.47 U | 0.54 B | 0.47 BW | 0.32 B | 0.29 BWJ | 0.80 B | 0.59 BWJ | 0 54 BWJ |
| VANADIUM | 15.0 | 51.4 *J | 26.1 *J | 26.2 *J | 22.7 *J | 62.9 *J | 31.7 *J | 14.9 *J |
| ZINC | 57.5 N*J | 52.5 NJ | 51.7 NJ | 92.9 NJ | 91.1 NJ | 128 NJ | 68.2 NJ | 109 NJ |
| CYANIDE | 0.17 U | 0.72 UN | 0.63 UN | 0.70 UN | 0.64 UN | 0.68 UN | 0.82 UN | 0.65 UN |

U= Analyte was not detected at the instrument detection limit given
J= Estimated Value
B= Reported value is between the instrument detection limit and the contract required detection limit
E= Value is estimated due to interference
N= Spiked sample recovery was not within control limits
* = Duplicate analysis was not within control limits
S= Determined by Method of Standard Addition (MSA)
W= Post digestion spike for furnace AA analysis out of control limits, while sample absorbance is less than 50% of spike absorbance
+= Correlation coefficient for the MSA is less than 0.995
M= Duplicate injection precision criteria was not met
R= Rejected during data validation

**TABLE 3 - 10**
**INORGANIC RESULTS - SOILS/SEDIMENTS**
**CHEMICAL INSECTICIDE CORPORATION SITE**
**OFF-SITE INVESTIGATION**
**EDISON, NEW JERSEY**

| | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | SW-L2A | SSGC-3 | SSCG-8 | SSCG-7 | | SC-L3 | SEG-V4 | SEG-11 |
| SAMPLE LOCATION NO. | TRANSECT W | | | | | TRANSECT C | EDISON GLEN | EDISON GLEN |
| CLP SAMPLE CODE | MBNQ33 | MBNQ57 | MBNQ58 | MBNQ59 | MBNQ60 | MBNQ04 | MBNQ29 | MBNQ30 |
| DEPTH INTERVAL | 2.5 TO 3.0 ft. | 2.0 TO 3.0 ft. | 0.0 TO 0.5 ft. | 1.5 TO 2.0 ft. | | 1.0 TO 1.5 ft. | 0.0 TO 0.5 ft. | 0.3 TO 0.8 ft. |
| UNITS | mg/kg | mg/kg | mg/kg | mg/kg | | mg/kg | mg/kg | mg/kg |
| DATE SAMPLE COLLECTED | 3/15/94 | 3/23/94 | 3/23/94 | 3/23/94 | | 3/22/94 | 3/24/94 | 3/24/94 |
| ALUMINUM | 6880 | 4550 | 5240 | 6310 | 10400 | 2940 J | 10900 J | 9070 J |
| ANTIMONY | 6.6 UNJ | 4.6 UNJ | 4.5 UNJ | 5.0 UNJ | 4.6 UNJ | 4.7 UNJ | 4.5 UNJ | 4.4 UNJ |
| ARSENIC | 16.6 SNJ | 8.0 S | 4.3 | 1.7 B | 4.2 | 6.1 NJ | 6.1 NJ | 3.8 NJ |
| BARIUM | 53.9 | 24.1 B | 65.3 | 64.7 | 46.5 | 16.9 BJ | 43.9 J | 46.3 J |
| BERYLLIUM | 1.1 B | 0.39 B | 0.93 | 2.5 | 0.35 B | 0.17 UJ | 0.36 BJ | 0.19 BJ |
| CADMIUM | 0.63 U | 0.35 B | 0.42 B | 0.36 U | 0.33 U | 0.34 UJ | 0.32 UJ | 0.58 BJ |
| CALCIUM | 1350 | 1620 | 7150 | 4560 | 140 B | 161 BJ | 1060 J | 1230 J |
| CHROMIUM | 16.0 N*J | 19.8 NJ | 33.0 NJ | 19.7 NJ | 13.3 NJ | 3.7 J | 14.9 J | 15.9 J |
| COBALT | 5.9 B | 5.1 B | 6.5 | 8.4 B | 7.2 B | 1.9 UJ | 6.6 BJ | 4.9 BJ |
| COPPER | 23.6 | 17.3 J | 95.0 J | 83.6 J | 10.2 J | 6.5 J | 28.0 J | 59.6 J |
| IRON | 26000 * | 23000 * | 26200 * | 29900 * | 15500 * | 1790 J | 17000 J | 16500 J |
| LEAD | 33.1 S | 42.1 N*J | 137 N*J | 36.9 N*J | 16.0 | 13.2 SN*J | 42.2 *J | 23.4 *J |
| MAGNESIUM | 950 B | 1830 | 3780 | 2240 | 1350 | 266 BJ | 2070 J | 1740 J |
| MANGANESE | 70.6 N*J | 139 N*J | 362 N*J | 136 N*J | 91.5 N*J | 16.9 J | 233 J | 197 J |
| MERCURY | 0.12 U | 0.06 U | 0.12 | 0.07 U | 0.06 U | 0.11 BJ | 0.14 J | 0.21 J |
| NICKEL | 9.2 B | 13.6 | 29.8 | 25.3 | 10.8 | 2.1 BJ | 13.1 J | 18.0 J |
| POTASSIUM | 832 B | 722 B | 575 B | 1400 | 450 B | 225 BJ | 777 BJ | 1160 J |
| SELENIUM | 0.28 U | 0.24 U | 0.33 BWJ | 0.27 U | 0.49 B | 0.49 BWJ | 0.66 BJ | 0.27 BWJ |
| SILVER | 1.5 B | 0.33 U | 0.46 B | 0.36 U | 0.37 B | 0.72 BJ | 0.74 BJ | 0.31 UJ |
| SODIUM | 34.3 B | 107 B | 385 B | 135 B | 52.9 B | 43.5 BJ | 60.8 BJ | 77.0 BJ |
| THALLIUM | 0.42 B | 0.49 U | 0.48 U | 0.53 U | 0.49 U | 0.49 UWJ | 0.47 UWJ | 0.45 UJ |
| VANADIUM | 22.2 *J | 13.6 | 35.7 | 14.3 | 23.3 | 5.7 BJ | 33.1 J | 23.5 J |
| ZINC | 59.1 NJ | 73.0 N*J | 322 N*J | 218 N*J | 68.3 N*J | 8.0 J | 72.4 J | 43.9 J |
| CYANIDE | 0.59 NR | 0.26 B | 0.37 B | 0.29 B | 0.29 B | 0.19 UJ | 0.41 BJ | 0.53 BJ |

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TABLE 3 - 10
INORGANIC RESULTS - SOILS/SEDIMENTS
CHEMICAL INSECTICIDE CORPORATION SITE
OFF-SITE INVESTIGATION
EDISON, NEW JERSEY

| | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | | | | | | SJ-L2 | SM-L1 | SL-U3 |
| SAMPLE LOCATION NO. | | | | | | TRANSECT J | TRANSECT M | TRANSECT L |
| CLP SAMPLE CODE | MBNQ31 | MBNQ47 | MBNQ48 | MBNQ49 | MBNQ50 | MBNQ08 | MBNQ10 | MBNQ11 |
| DEPTH INTERVAL | 0.2 TO 0.7 ft. | FIELD BLANK | FIELD BLANK | FIELD BLANK | FIELD BLANK | 2.0 TO 2.5 ft. | 2.5 TO 3.0 ft. | 0.5 TO 1.0 ft |
| UNITS | | mg/kg | | | | | mg/kg | mg/kg |
| DATE SAMPLE COLLECTED | | | 3/24/94 | | | 3/18/94 | 3/17/94 | 3/17/94 |
| ALUMINUM | 11300 J | 33.0 U | 33.0 U | 33.0 U | 33.0 U | 9560 | 15600 | 6190 |
| ANTIMONY | 4.4 UNJ | 28.0 U | 28.0 U | 28.0 U | 28.0 U | 7.3 UNJ | 25 NJ | 7.5 UNJ |
| ARSENIC | 3.5 NJ | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 85.6 NJ | 96.3 NJ | 130 NJ |
| BARIUM | 42.7 J | 1.0 B | 1.0 U | 1.0 U | 1.0 U | 45.6 B | 157 | 130 |
| BERYLLIUM | 0.19 BJ | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 0.63 B | 2.2 J | 0.69 B |
| CADMIUM | 0.32 UJ | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 0.70 U | 1.1 B | 0.72 U |
| CALCIUM | 1420 J | 75.7 B | 42.5 B | 54.0 B | 37.0 U | 475 B | 812 B | 2700 |
| CHROMIUM | 15.0 J | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 22.6 N*J | 21.2 N*J | 49.8 N*J |
| COBALT | 5.0 BJ | 11.0 U | 11.0 U | 11.0 U | 11.0 U | 14.1 | 11.1 B | 9.0 B |
| COPPER | 14.9 J | 4.0 U | 4.0 U | 4.0 U | 4.0 U | 66.7 | 72.7 | 72.0 |
| IRON | 16200 J | 24.1 B | 11.0 B | 146 | 10.0 U | 23100 * | 16900 * | 28000 * |
| LEAD | 20.4 *J | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 244 * | 341 * | 149 * |
| MAGNESIUM | 1440 J | 33.0 U | 33.0 U | 33.0 U | 33.0 U | 1490 | 1470 B | 2160 |
| MANGANESE | 165 J | 1.0 U | 1.0 B | 1.0 B | 1.0 B | 286 N*J | 75.2 N*J | 337 N*J |
| MERCURY | 0.11 BJ | 0.10 U | 0.10 U | 0.10 U | 0.10 U | 0.13 U | 0.26 | 0.13 U |
| NICKEL | 11.4 J | 10.0 U | 10.0 U | 10.0 U | 10.0 U | 13.3 | 24.1 | 25.0 |
| POTASSIUM | 937 J | 64.0 U | 64.0 U | 64.0 U | 72.1 B | 991 B | 1040 B | 815 B |
| SELENIUM | 0.27 BJ | 1.0 UW | 1.0 U | 1.0 U | 1.0 U | 0.62 B | 1.9 | 0.32 U |
| SILVER | 0.32 BJ | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 1.3 B | 1.0 U | 2.0 B |
| SODIUM | 97.9 BJ | 157 B | 121 B | 131 B | 122 B | 55.4 B | 71.5 B | 154 B |
| THALLIUM | 0.45 UWJ | 2.0 UW | 2.0 UW | 2.0 UW | 2.0 U | 0.69 B | 0.67 BWJ | 0.27 U |
| VANADIUM | 25.7 J | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 52.9 *J | 41.2 *J | 22.0 *J |
| ZINC | 38.6 J | 13.1 B | 8.4 B | 10.3 B | 8.4 B | 58.2 NJ | 290 NJ | 650 NJ |
| CYANIDE | 0.46 BJ | 1.5 U | 1.5 UJ | 1.5 U | 1.5 U | 0.65 UN | 0.93 UN | 0.66 UN |

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TABLE 3 - 10
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CHEMICAL INSECTICIDE CORPORATION SITE
OFF-SITE INVESTIGATION
EDISON, NEW JERSEY

| | 49 | | 50 | | 51 | |
|---|---|---|---|---|---|---|
| SAMPLE NUMBER | SSO-U1 | | SQ-L1 | | SR-L2 | |
| SAMPLE LOCATION NO. | TRANSECT O | | TRANSECT Q | | TRANSECT R | |
| CLP SAMPLE CODE | MBNQ14 | | MBNQ15 | | MBNQ16 | |
| DEPTH INTERVAL | 0.3 TO 1.2 ft. | | 2.0 TO 2.5 ft. | | 2.5-3.0 ft. | |
| UNITS | mg/kg | | mg/kg | | mg/kg | |
| DATE SAMPLE COLLECTED | 3/21/94 | | 3/17/94 | | 3/16/94 | |
| ALUMINUM | 16400 | | 8300 | | 9600 | |
| ANTIMONY | 6.6 | UNJ | 7.1 | UNJ | 7.4 | UNJ |
| ARSENIC | 5.6 | SNJ | 25.4 | NJ | 7.0 | SNJ |
| BARIUM | 60.5 | | 38.3 | B | 32.1 | B |
| BERYLLIUM | 1.2 | J | 0.86 | B | 1.1 | B |
| CADMIUM | 0.63 | U | 0.68 | U | 0.71 | U |
| CALCIUM | 1260 | | 3280 | | 1770 | |
| CHROMIUM | 41.0 | N*J | 21.7 | N*J | 15.8 | N*J |
| COBALT | 13.3 | | 8.4 | B | 19.5 | |
| COPPER | 24.9 | | 32.2 | | 10.5 | |
| IRON | 39400 | * | 26800 | * | 22900 | * |
| LEAD | 37.8 | S | 47.8 | S | 26.7 | S |
| MAGNESIUM | 1680 | | 2590 | | 2830 | |
| MANGANESE | 335 | N*J | 194 | N*J | 962 | N*J |
| MERCURY | 0.12 | U | 0.13 | U | 0.13 | U |
| NICKEL | 30.2 | | 15.8 | | 44.8 | |
| POTASSIUM | 1320 | | 1610 | | 740 | B |
| SELENIUM | 0.28 | U | 0.30 | U | 0.32 | U |
| SILVER | 2.0 | B | 0.70 | U | 0.74 | U |
| SODIUM | 505 | B | 56.2 | B | 172 | B |
| THALLIUM | 0.37 | B | 0.50 | BWJ | 0.50 | B |
| VANADIUM | 39.3 | *J | 21.3 | *J | 12.8 | B*J |
| ZINC | 62.8 | NJ | 88.2 | NJ | 179 | NJ |
| CYANIDE | 0.58 | UN | 0.63 | UN | 0.66 | UN |

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+= Correlation coefficient for the MSA is less than 0.995
M= Duplicate injection precision criteria was not met
R= Rejected during data validation

# APPENDIX III

## Administrative Record Index

# ADMINISTRATIVE RECORD INDEX

| DOCUMENT | DATE |
|---|---|
| 1. Field Investigation Data | October 20, 1993<br>July 11, 1994 |
| 2. Draft Proposed Plan Comments, EPA's Environmental Impacts Branch | October 20, 1994 |
| 3. Draft Proposed Plan Comments, EPA's Air Programs Branch | October 21, 1994 |
| 4. Draft Proposed Plan Comments, EPA's Ground Water Management Division | October 27, 1994 |
| 5. Draft Proposed Plan Comments, EPA's Biological Technical Assistance Group | October 31, 1994 |
| 6. Draft Proposed Plan Comments, New Jersey Department of Environmental Protection (NJDEP) | November 2, 1994 |
| 7. Feasibility Study Memo | November 1994 |
| 8. Proposed Plan | November 1994 |
| 9. Proposed Plan Comments, Edison Glen Resident | November 22, 1994 |
| 10. Public Meeting Transcript | November 28, 1994 |
| 11. Proposed Plan Comments, Edison Wetlands Association/Technical Assistance Grant Committee | December 5, 1994 |
| 12. Proposed Plan Comments, Attorney Representing Property Owner | December 6, 1994 |
| 13. Proposed Plan Comments, Edison Department of Health and Human Resources | December 6, 1994 |
| 14. EPA Memo Requesting Internal Review of Draft Record of Decision (ROD) | January 13, 1995 |

| | |
|---|---|
| 15. EPA Letter to NJDEP Requesting Review of Draft ROD | January 13, 1995 |
| 16. Comments on Draft ROD, EPA's Biological Technical Assistance Group | February 2, 1995 |
| 17. Comments on Draft ROD, NJDEP | February 7, 1995 |
| 18. Comments on Draft ROD, EPA's Ground Water Management Division | February 7, 1995 |
| 19. Comments on Draft ROD, EPA's Air and Waste Management Division (Air Programs Branch) | February 9, 1995 |
| 20. Comments on Draft ROD, EPA's Air and Waste Management Division | February 9, 1995 |
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# APPENDIX IV

## State Letter of Concurrence

State of New Jersey
Department of Environmental Protection

Christine Todd Whitman
*Governor*

Robert C. Shinn, Jr.
*Commissioner*

March 28, 1995

Mr. William Muszynski
Deputy Regional Administrator
USEPA - Region II
290 Broadway - Floor 19
New York, NY 10007-1866

Dear Mr. Muszynski:

The Department of Environmental Protection has evaluated and concurs with the Chemical Insecticide Corporation (CIC) Superfund Record of Decision (ROD) (see attached ROD dated March 9, 1995) which addresses contaminated soil and sediments located in residential and recreational areas.

The Department is aware that this ROD represents the second of three phases for the site. The first phase, which was implemented in September 1994, addressed contaminated runoff leaving the site. The third and final phase is expected to address on-site contaminated soil and associated groundwater contamination.

The specific components of the selected remedy for the second phase of the remediation as outlined in the ROD include the following:

* excavation of approximately 10,000 cubic yards of soil and sediment containing arsenic at levels greater than 20 parts per million;
* appropriate off-site disposal of contaminated soil and sediment; and
* restoration of the excavated areas to the extent practicable.

The State of New Jersey appreciates the opportunity to participate in the decision making process and looks forward to future cooperation with the USEPA.

Sincerely,

Robert C. Shinn, Jr.
Commissioner

attachment: CIC ROD

# APPENDIX V

## Risk Assessment Documents

# Human Health Risk Assessment Summary
# Unnamed Creek and Mill Brook

## Chemical Insecticide Corporation

Edison, New Jersey

EPA
Region 2

June 29, 1994

*SUMMARY OF SITE RISKS*

A risk assessment was conducted to estimate the human health risks associated with potential exposures to arsenic detected in the soils and sediments of the Unnamed Creek and Mill Brook downstream of the Chemical Insecticide Corporation site (CIC). The risk assessment estimated the human health risks which could result from the contamination if no remedial action is taken in the future.

Human Health Risk Assessment

A four-step process was utilized for assessing health risks according to a reasonable maximum exposure scenario: *Hazard Identification*--identifies the contaminants of concern and estimates the environmental concentrations of the contaminants. Previous studies determined that arsenic was the primary contaminant of concern in the soils and sediments of the Unnamed Creek and Mill Brook downstream of the CIC site. *Exposure Assessment*--estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways (e.g., ingesting contaminated creek sediments) by which humans are potentially exposed. *Toxicity Assessment*--determines the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response). *Risk Characterization*--summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site-related risks.

Previous studies at the CIC site determined that arsenic was the primary contaminant of concern in the soils and sediments of the Unnamed Creek and Mill Brook downstream of the site. The risk assessment began with a determination of a representative concentration of arsenic in the soils and sediments of the Unnamed Creek and Mill Brook. The concentrations of arsenic detected in the soils and sediments of the Unnamed Creek and Mill Brook ranged from <1 to 1100 ppm. The majority of the detected concentrations were below 20 ppm. The mean concentration was 43.5 ppm, and a conservative estimate of the mean used in the risk assessment was 49 ppm.

The risk assessment was conducted using a reasonable maximum exposure (RME) scenario. The RME scenario is intended to focus on the maximum plausible exposures to contamination at the Unnamed Creek and Mill Brook. By definition, this is a highly conservative estimate of exposure, which is likely to overestimate the health risks related to the Unnamed Creek and Mill Brook. This risk assessment identified adolescents playing at the Creek or the Brook as the most sensitive potential receptors to the contamination. Adolescents (ages 7-18) were assumed to play at the Unnamed Creek or Mill Brook once a week throughout the year, for 12 years. Exposures were assumed to occur primarily through incidental ingestion of soils and sediments contaminated with arsenic.

The dose response assessment utilized the latest information of the toxicity of arsenic from EPA's

Integrated Risk Information System (IRIS). Under current EPA guidelines, the likelihood of carcinogenic (cancer-causing) and noncarcinogenic effects due to exposure to site chemicals are considered separately. Noncarcinogenic risks were assessed using a hazard index (HI) approach, based on a comparison of expected contaminant intakes and safe levels of intake (Reference Doses). Reference doses (RfDs) have been developed by EPA for indicating the potential for adverse health effects. RfDs, which are expressed in units of milligrams/kilogram-day (mg/kg-day), are estimates of daily exposure levels for humans which are thought to be safe over a lifetime (including sensitive individuals). Estimated intakes of chemicals from environmental media (*e.g.*, the amount of a chemical ingested from contaminated sediments) are compared to the RfD to derive the hazard quotient for the contaminant in the particular medium. The HI is obtained by adding the hazard quotients for all compounds across all media that impact a particular receptor population.

An HI greater than 1.0 indicates that the potential exists for noncarcinogenic health effects to occur as a result of site-related exposures. The reference dose for arsenic is $3 \times 10^{-4}$. The HI for noncarcinogenic effects from ingestion of arsenic in soils and sediments of the Unnamed Creek and Mill Brook (using the reasonable maximum exposure for adolescents) is 0.05, therefore, noncarcinogenic effects are highly unlikely to occur from the exposure scenario evaluated in the Risk Assessment.

Potential carcinogenic risks were evaluated using the cancer slope factor developed by EPA for arsenic. Cancer slope factors (SFs) have been developed by EPA's Carcinogenic Risk Assessment Verification Endeavor (CRAVE) for estimating excess lifetime cancer risks associated with exposure to potentially carcinogenic chemicals. SFs, which are expressed in units of $(mg/kg\text{-}day)^{-1}$, are multiplied by the estimated intake of a potential carcinogen, in mg/kg-day, to generate an upper-bound estimate of the excess lifetime cancer risk associated with exposure to the compound at that intake level. The term "upper bound" reflects the conservative estimate of the risks calculated from the SF. Use of this approach makes the underestimation of the risk highly unlikely. EPA has classified arsenic as a known human carcinogen, and the SF for arsenic is $1.75\ (mg/kg\text{-}d)^{-1}$.

For known or suspected carcinogens, EPA considers excess upper-bound individual lifetime cancer risks of between $10^{-4}$ and $10^{-6}$ to be acceptable. This level indicates that an individual has not greater than a one in ten thousand to one in a million chance of developing cancer as a result of site-related exposure to a carcinogen under the specific exposure conditions at the site. The excess cancer risk for an adolescent exposed to arsenic in the soils and sediments of the Unnamed Creek and Mill Brook (using the reasonable maximum exposure scenario) is $5 \times 10^{-6}$, which is well within EPA's acceptable risk range.

## *CONCLUSIONS*

The results of the risk assessment indicate that the health risks associated with contact arsenic in the soils and sediments of the Unnamed Creek and Mill Brook are well within EPA's acceptable risk range. The risk assessment utilized the reasonable maximum exposure scenario, which is likely to overestimate the health risks associated with the potential exposures to arsenic in the Unnamed Creek and Mill Brook.

**Memorandum**

DATE: November 3, 1994

SUBJECT: Arsenic Risk at Edison Glen Development

FROM: Mark Maddaloni

TO: Pat Evangelista

The remediation of soils in the dumpster area of the Edison Glen Housing Development is premised on the results of the risk assessment that was performed on the sampling data in that area.

As is indicated in Table 1, the excess lifetime cancer risk under a residential land-use scenario is 2.0 E-04. The corresponding Hazard Quotient (for a child receptor) is 3.2.

cc: Vince Pitruzello
janet Feldstein

| CHEMICAL: | ARSENIC | | |
|---|---|---|---|
| Sample Number | Concentration (mg/kg) | Q | Log of Concentration (mg/kg) |
| 1 | 4.3 | | 1.5 |
| 2 | 4.3 | | 1.5 |
| 3 | 3.9 | | 1.4 |
| 4 | 4.5 | | 1.5 |
| 5 | 6.1 | | 1.8 |
| 6 | 5.2 | | 1.6 |
| 7 | 259 | | 5.6 |
| 8 | 3.2 | | 1.2 |
| 9 | 4.3 | | 1.5 |
| 10 | 5.1 | | 1.6 |

| | | | |
|---|---|---|---|
| Frequency: | 10/10 | | |
| Average: | 29.99 | Sample Std. Dev. | 80.47 |
| Average log: | 1.90 | Sample Std. Dev. | 1.29 |
| UCL: | 74.7 | (log value) | |
| *Maximum:* | 259 | | |

11/3/94
59 IN-RESCIC.XLS

TABLE 1

SOIL INGESTION PATHWAY
CHEMICAL INSECTICIDE CORPORATION
RISKS TO RESIDENTS

**CARCINOGENS - REASONABLE MAXIMUM CASE SURFACE SOIL INGESTION EXPOSURE: Adults**

Chronic Daily Intake = (mg/kg-day) = Soil Concentration X Ingestion Rate X Conversion Factor X Fraction Ingested X Exposure Frequency X Exposure Duration X 1/Body Weight X 1/Averaging Time

= mg/kg X 100 mg/day X 1 kg / 1000000 mg X 1 (unitless) X 350 days/year X 24 years X 1/70 kg X 1/25550 days

| Chemicals | Soil Concentration | Ingestion Rate | Conversion Factor | Fraction Ingested | Exposure Frequency | Exposure Duration | Body Weight | Averaging Time | Chronic Daily Intake (CDI) | Slope Factor (SF) | RISK = (CDI*SF) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 7.47E+01 | 100 | 1.0E-06 | 1 | 350 | 24 | 70 | 25550 | 3.5E-05 | 1.75E+00 | 6.1E-05 |
| | | | | | | | | | | TOTAL RISK = | 6.1E-05 |

**CARCINOGENS - REASONABLE MAXIMUM CASE SURFACE SOIL INGESTION EXPOSURE: Children (0 - 6 years)**

Chronic Daily Intake = (mg/kg-day) = Soil Concentration X Ingestion Rate X Conversion Factor X Fraction Ingested X Exposure Frequency X Exposure Duration X 1/Body Weight X 1/Averaging Time

= mg/kg X 200 mg/day X 1 kg / 1000000 mg X 1 (unitless) X 350 days/year X 6 years X 1/15 kg X 1/25550 days

| Chemicals | Soil Concentration | Ingestion Rate | Conversion Factor | Fraction Ingested | Exposure Frequency | Exposure Duration | Body Weight | Averaging Time | Chronic Daily Intake (CDI) | Slope Factor (SF) | RISK = (CDI*SF) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 7.47E+01 | 200 | 1.0E-06 | 1 | 350 | 6 | 15 | 25550 | 8.2E-05 | 1.75E+00 | 1.4E-04 |
| | | | | | | | | | | TOTAL RISK = | 1.4E-04 |
| | | | | | | | | | | 30-YEAR COMBINED RISK (ADULT + CHILD) = | 2.0E-04 |

TABLE 1

SOIL INGESTION PATHWAY
CHEMICAL INSECTICIDE CORPORATION
RISKS TO RESIDENTS

**NONCARCINOGENS - REASONABLE MAXIMUM CASE SURFACE SOIL INGESTION EXPOSURE: Adults**

Chronic Daily Intake= (mg/kg-day) = Soil Concentration X Ingestion Rate X Conversion Factor X Fraction Ingested X Exposure Frequency X Exposure Duration X 1/Body Weight X 1/Averaging Time

= mg/kg X 100 mg/day X 1 kg / 1000000 mg X 1 (unitless) X 350 days/year X 24 years X 1/70 kg X 1/8760 days

| Chemicals | Soil Concentration | Ingestion Rate | Conversion Factor | Fraction Ingested | Exposure Frequency | Exposure Duration | Body Weight | Averaging Time | Chronic Daily Intake (CDI) | Reference Dose (RfD) | HQ= CDI/RfD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 7.47E+01 | 100 | 1.0E-06 | 1 | 350 | 24 | 70 | 8760 | 1.0E-04 | 3.0E-04 | 3.4E-01 |

HAZARD INDEX = 3.4E-01

**NONCARCINOGENS - REASONABLE MAXIMUM CASE SURFACE SOIL INGESTION EXPOSURE: Children (0-6 years)**

Chronic Daily Intake= (mg/kg-day) = Soil Concentration X Ingestion Rate X Conversion Factor X Fraction Ingested X Exposure Frequency X Exposure Duration X 1/Body Weight X 1/Averaging Time

= mg/kg X 200 mg/day X 1 kg / 1000000 mg X 1 (unitless) X 350 days/year X 6 years X 1/15 kg X 1/2190 days

| Chemicals | Soil Concentration | Ingestion Rate | Conversion Factor | Fraction Ingested | Exposure Frequency | Exposure Duration | Body Weight | Averaging Time | Chronic Daily Intake (CDI) | Reference Dose (RfD) | HQ= CDI/RfD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 7.47E+01 | 200 | 1.0E-06 | 1 | 350 | 6 | 15 | 2190 | 9.6E-04 | 3.0E-04 | 3.2E+00 |

HAZARD INDEX = 3.2E+00

Lockheed ESAT Technical Review
ESAT Site-Specific Follow-up ERA for Chemical Insecticide Corp.

The following are the quick turn-around results of the ESAT desk-top ecological risk assessment (ERA) using methodologies derived by ESAT, and data from Eisler, McVey, Persaud, and the "Draft Off-site Investigation Report." This report was dated June 24, 1994, and prepared by Roy F. Weston, Incorporated, for the Chemical Insecticide Corporation (CIC) site in Edison Township, Middlesex County, New Jersey.

Using a chronic toxicity benchmark for arsenic, the potential for risk to small mammals, represented by the deer mouse, is present from the CIC off-site stream area surface soils at maximum (680 mg/kg) and mean (50.3 mg/kg) soil concentrations of arsenic. The maximum and mean levels generate hazard indices (HIs) of 27.4 and 2.0, respectively. No chronic risk is anticipated at the median (14.2 mg/kg) concentration (HI = 0.6).

No acute toxicity is anticipated to the mouse at even the maximum exposure concentration (28.8 mg/kg/day), but exposure at this concentration does exceed the LD-0, or no effect, level of 10.4 mg/kg/day (Eisler). Therefore, using the LD-0 indicates that there is the potential for an acute effect to begin in the mouse population at soil concentrations exceeding 245 mg/kg. Only six in over 115 surface soil samples exceed this concentration, and only two more approach it. Therefore, acute effects to small mammals are unlikely, as the receptor would not likely forage exclusively at those locations.

To further support this assessment, acute risk was assessed for the eastern cottontail. No chronic risk was assessed because an appropriate benchmark could not be readily located. The potential for acute risk was found based on the maximum soil concentration (HI = 1.4). No potential for acute risk was found at the mean concentration (HI = 0.1). (Due to the low HI for the mean, the median level was not assessed.) Extrapolating from the maximum surface soil concentration and its corresponding HI, the potential for acute effects can be anticipated at surface soil levels exceeding 485 mg/kg. As only two surface soil levels exceed this concentration, and no others approach it, no acute effects are anticipated.

Calculating an effect level that would be anticipated based on the chronic exposure scenario for the mouse yields a soil level at which there is a potential for risk at 24.82 mg/kg, or approximately 25 mg/kg. Based strictly on this site-specific effect level, the soil invertebrate and plant effect levels referenced in Eisler (chronic microbiota effects beginning at 375 mg/kg; acute earthworm effects at 150 to 165 mg/kg; reduced plant productivity at 25 to 85 mg/kg), and the USEPA approved action level (20 mg/kg, CIC report, page 2-4), it would appear to be appropriate to conduct extensive removal activities in the off-site stream area. Restoration would then return a low value habitat that may improve over several decades. However, this area

currently exist as a mature habitat corridor in an otherwise heavily developed area. This increases the habitat value of this area, indicating that destruction of this habitat should be avoided. The increased value also increases the attraction of receptors into this potentially hazardous habitat. Therefore, a balance between the potential risk and the value of the habitat must be found.

It may be possible to affect a removal of the most grossly contaminated surface soils, yet mitigate the impacts by minimizing the areas to be removed. Using the graphical representation of the contaminant levels present in Figure 3-8, it is possible to group several sampling transects that contain the majority of the contamination. Removal of these contaminated soils should eliminate much of the potential risk, while attempting to minimize the elimination of mature habitat. Sediments from Transects A and B and surface soil from Transect A should be removed due to their heavy contamination and low habitat value. These transects will not be considered further in the data for this discussion. Transects I through N and Transects V through AA (both six transects, each approximately 700 to 900 feet in length) are recommended for removal. Removal of these twelve of twenty-nine transects (41%) eliminates significant contamination. The maximum, mean, and median soil concentrations in Transects I through N, Transects V though AA, and all remaining transects (excluding A and B) are:

| Transects: | I - N | V - AA | All remaining |
|---|---|---|---|
| Maximum | 680.0 mg/kg | 595.0 mg/kg | 224.0 mg/kg |
| Mean | 104.5 | 107.6 | 18.2 |
| Median | 39.2 | 55.1 | 10.5 |

This would eliminate twenty-eight of forty surface soil locations (70%) containing levels exceeding 25 mg/kg. Extending the removal of Transects I through N to include P (containing the 224 mg/kg location) would reduce the maximum concentration of the remaining transects to 88.4 mg/kg, and reduce the mean to 15.0.

Removing surface and deep sediments exceeding the Ontario Guidelines (Persaud) from Transects I, K, and N would remove two of the four elevated surface sediment locations, as well as two of the five deep locations. Leaving some of the adjoining excavated soil areas unfilled may mitigate the threat of the transport of remaining elevated surface sediments, and reduce the potential for storm events to scour, expose, and then transport remaining elevated deep sediments. These small restorations of the flood plain may help to restore wetland areas that allow for flood storage. Thus, depending on the extent of excavation, this may help reduce the energy in the stream flow during heavy storms.

We hope these comments have been helpful. If you have any questions or comments, please feel free to contact us at (908) 417-2238.

# REFERENCES

Eisler, R. 1988. Arsenic hazards to fish, wildlife, and invertebrates: a synoptic review. United States Fish Wildlife Service. Biological Report 85(1.12).

McVey et al. 1993. Wildlife Exposure Factors Handbook. United States Environmental Protection Agency. EPA/600/R-93/187a.

Persaud et al. 1992. Ontario Sediment Quality Guidelines.

# APPENDIX VI

## Responsiveness Summary

# RESPONSIVENESS SUMMARY

# CHEMICAL INSECTICIDE CORPORATION SITE

# REMEDY FOR OFF-SITE AREAS

This community relations responsiveness summary is divided into the following sections:

Overview: This section discusses the U.S. Environmental Protection Agency's (EPA's) preferred alternative for remedial action.

Background: This section briefly describes community relations activities related to remediation of contaminated soil and sediment in off-site areas associated with the Chemical Insecticide Corporation (CIC) site.

Summary of Comments: This section provides a summary of commentors' major issues and concerns, and expressly acknowledges and responds to all significant comments raised by the local community. The local community includes residents, businesses, the municipality, public officials, and the Technical Assistance Grant Committee and its consultant.

**OVERVIEW**

At the initiation of the public comment period on November 7, 1994, EPA presented its preferred alternative for addressing contaminated soil and sediment in residential areas and areas in and immediately adjacent to the unnamed tributary and Mill Brook associated with the CIC site, located in Edison Township, New Jersey.

The selected remedy includes excavation and off-site disposal of contaminated soil and sediment within particular areas along the unnamed tributary and Mill Brook. In addition, contaminated soil in a grassy area behind Building 14 of the Edison Glen Condominium Complex will also be excavated for off-site disposal.

Approximately 10,000 cubic yards of soil and sediment will be removed and the remediated areas will be appropriately restored. This approach enables EPA to restore contaminated areas such that any long-term risk associated with these areas is removed and no property use restrictions will be required. By targeting specific contaminated areas in and near the unnamed tributary and Mill Brook, EPA is able to remove a large majority of the CIC

contamination while achieving a reasonable and acceptable balance in preserving a majority of the valuable ecology existing in these areas.

## COMMUNITY RELATIONS BACKGROUND

The Proposed Plan and supporting documentation for this second cleanup phase associated with the CIC site were released to the public for comment on November 7, 1994. These documents were made available to the public in the administrative record repositories maintained at the EPA Region II office (formerly, 26 Federal Plaza and currently 290 Broadway, New York, New York), the Edison Township Municipal Complex (100 Municipal Boulevard, Edison, New Jersey), the Edison Library (340 Plainfield Avenue, Edison, New Jersey), and the Metuchen Library (480 Middlesex Avenue, Metuchen, New Jersey). A notice of availability for these documents was published in The Star-Ledger on November 7, 1994. A public comment period involving the documents was held from November 7, 1994 to December 7, 1994. In addition, a public meeting was held on November 28, 1994, at the Edison Township Municipal Building. At this meeting, representatives from EPA answered questions about the site and the remedial alternatives under consideration. Responses to the comments received during the comment period and at the public meeting are provided in this Responsiveness Summary.

## COMPREHENSIVE SUMMARY AND RESPONSES TO SIGNIFICANT COMMENTS

This section provides a comprehensive response to all significant questions and comments raised by the local community during the public meeting and received during the public comment period.

A summary of these questions/comments and EPA's responses to them is provided as follows:

1. **A representative of the Edison Wetlands Association and the Technical Assistance Grant (TAG) Committee's consultant requested that EPA sample and analyze soil and sediment further downstream in the Mill Brook, south of the confluence of Mill Brook and the New Jersey Turnpike.**

   EPA Response: EPA agrees that additional sampling further downstream is necessary to more accurately determine the extent of contamination associated with the CIC site. EPA plans to perform such additional sampling as part of the remediation process for the areas in and around the unnamed tributary and Mill Brook. This sampling will be conducted during the first phase of remediation activities. If necessary, additional areas will be designated for remediation.

2. **A representative of the Edison Wetlands Association requested that EPA provide access to the CIC site to perform a dye test to more clearly define the surface water drainage pathways leading from the site.**

EPA Response: EPA understands that the Edison Department of Health and Human Resources will provide the dye and experienced personnel to perform the dye test. As EPA has already stated at several recent Citizen's Advisory Committee meetings, the Agency is willing to participate in performing the dye test and providing supervised access to the site.

3. **A representative of the Edison Wetlands Association requested that EPA evaluate a specific data point [510 parts per billion (ppb) arsenic] generated by a former owner of a condominium in the Edison Glen Condominium Complex as a result of sampling a puddle in the pool area of the complex.**

EPA Response: EPA has evaluated the information provided by the Edison Wetlands Association representative. Based on this evaluation, EPA believes that an arsenic level of 510 ppb in a puddle in the pool area can be attributed to the naturally occurring levels of arsenic in soil. In addition, EPA believes that risk associated with exposure to this level of arsenic found in the puddled water would be acceptable and similar to that posed by exposure to naturally occurring arsenic levels [up to 20 parts per million (ppm)] in New Jersey soil.

4. **The TAG Committee's consultant and a representative of the Edison Wetlands Association requested that EPA, in consultation with state and local government, the Edison Wetlands Association and other stakeholders, consider appropriate forms of institutional control (in addition to the selected remedy) for the areas in and around the unnamed tributary and Mill Brook.**

EPA Response: EPA plans to use 20 ppm as a guideline in remediating the contaminated soils and sediment in residential areas and areas in and immediately adjacent to the unnamed tributary and Mill Brook. Although this is not a promulgated chemical-specific standard, and therefore not an applicable or relevant and appropriate requirement, it represents the upper limit of naturally occurring arsenic concentrations in New Jersey soils. Use of this guideline allows EPA to remove a large majority of the arsenic contamination while achieving a reasonable and acceptable balance in preserving a majority of the valuable ecology existing in these areas.

Based on EPA's human health and ecological risk evaluation,

the selected remedy is protective of human health and the environment and EPA does not believe that any additional institutional controls are warranted. In addition, because the average residual level of arsenic is expected to be below 20 ppm, the New Jersey Department of Environmental Protection (NJDEP) does not require any land use restrictions or form of institutional controls based on the New Jersey Industrial Site Recovery Act.

5. **The TAG Committee's consultant requested that EPA identify the location of sample number SSCG-6, questioned if this location is part of one of the transects designated for cleanup, and, if not, suggested that the area where this sample was obtained be added to the cleanup.**

EPA Response: Sample number SSCG-6 designates a sediment sample which was obtained from the most northern point of a Mill Brook tributary running parallel to the southern edge of the Edison Woods residential complex.

Although the concentrations detected at this location for benzo(a)anthracene, benzo(b)flouranthene and benzo(a)pyrene (2.6 ppm, 3.5 ppm, and 2.2 ppm, respectively) exceed NJDEP's guidelines (as was indicated in the consultant's comment), any risk posed by these contaminants would be insignificant when compared to the risk posed by the primary contaminant of concern, arsenic, and would not change EPA's overall assessment of risk. Using the reasonable maximum exposure scenario described in this Record of Decision (ROD), the carcinogenic human health risk would remain within EPA's acceptable risk range and any adverse non-carcinogenic effects are still not likely to occur.

As is described in this ROD, the ecological risk assessment indicates that adverse ecological effects are likely to occur if no remedial action is taken. However, because the Mill Brook and its tributaries currently exist as a mature habitat corridor in an otherwise heavily developed area, the habitat value of this area is increased and its destruction should be avoided if possible. During the process of selecting areas to be remediated and achieving a balance between mitigating the potential risk to ecological receptors and preserving the value of the area's ecosystem (or minimizing destruction of the habitat through remedial activity), EPA determined that the area where sample number SSCG-6 was obtained does not require remediation.

6. **An attorney representing an owner of property located near or within the area(s) designated for remediation submitted to EPA written objection on behalf of the property owner to any "egress and ingress onto their private property for the purposes of a public cleanup of an adjacent or adjoining property."**

EPA Response: EPA may require future access to this property for the purpose of remediating an adjacent or adjoining property. A decision regarding access to this property will be made during the planning phase of implemention of the selected remedy. Each property owner will be formally notified by EPA in a timely manner in advance of the commencement of any field activities, and appropriate access arrangements will be made.

7. **A representative of the community inquired about the adverse effects of arsenic on the ecology and the food chain.**

EPA Response: As is described in the ROD, the results of the ecological risk assessment indicates that adverse ecological effects primarily from arsenic are likely to occur if no remedial action is taken. The results of soil samples taken in the vicinity of the unnamed tributary and Mill Brook indicate the presence of arsenic at levels sufficient to generate acute risk to soil invertibrates and chronic risk to soil microbiota and small mammals. In addition, surficial stream sediments in some areas along the unnamed tributary and Mill Brook contain sufficient arsenic to pose a risk to the benthic community. Risk to organisms at higher trophic levels via exposure through the food chain was also assessed. It was determined that no risk to such organisms via this pathway of exposure is anticipated.

8. **A representative of Congressman Pallone's office inquired about the process for cleaning the surface water, how far downstream EPA is willing to test and how EPA expects to actually clean up the areas in and around the unnamed tributary and Mill Brook.**

EPA Response: Although the selected remedy does not include active measures to clean the surface water, EPA believes that removal of contaminated soils and sediment will contribute to the improvement of surface water quality in the unnamed tributary and Mill Brook. The surficial cap which was recently installed at the CIC site will also contribute to the improvement of surface water quality by controlling the release of contaminated surface water runoff from the site.

EPA agrees that additional sampling further downstream is necessary to more accurately determine the extent of

contamination associated with the CIC site. A determination as to the extent of downstream sampling will be made based on an evaluation of sampling data. After collection of additional data, the results will be evaluated, along with existing data, to assess potential impacts to human health and the environment.

The cleanup of the unnamed tributary and Mill Brook will include excavation of contaminated soil and sediment and appropriate disposal of such material in a secure off-site landfill. Heavy equipment such as bulldozers, backhoes and dump trucks are expected to be used for the remediation. Temporary access roadways will be constructed to provide vehicular equipment access to areas to be remediated. EPA intends to minimize tree removal during the remedial activities. The Agency will work closely with the community during the remedial design phase to coordinate construction activities.

9. **A concerned citizen inquired about the location of the off-site disposal facility, the method for remediating the contaminated soil (if incineration would be the remediation method) and if EPA would be using a particular stone to stabilize the remediated banks of the unnamed tributary and Mill Brook.**

EPA Response: The location of the off-site disposal facility has not yet been selected. A secure off-site disposal facility will be identified prior to commencement of excavation activities. The contaminated material will be appropriately landfilled at the selected off-site facility. The material will not be incinerated. Depending on the material's ultimate waste classification prior to landfilling, some pretreatment (i.e., solidification) may be necessary before landfilling. If necessary, this would be performed at the off-site disposal facility.

During the restoration of the remediated areas in and along the unnamed tributary and Mill Brook, EPA will also stabilize the banks of these waterways. Stone may be used as a stabilizing material. The stabilization method(s) will be identified during the planning phase of the remediation.

10. **A concerned citizen asked if EPA could repeat surface water sampling in the Spring of 1995 to assure that the cap over the CIC site has eliminated contaminated surface water runoff.**

EPA Response: EPA does not believe that sampling the surface water and determining its quality will be indicative that the cap is fully working. Therefore, EPA does not plan to sample surface water to determine the effectiveness of

the cap. EPA believes that maintaining the integrity of the cap will assure that the cap continues to accomplish its intended goal, to control contaminated surface water runoff from the site. EPA will perform periodic site inspections and make any necessary repairs of the interim remedy (the cap and all its other components) to preserve the integrity of the remedy and ensure that rainwater or surface runoff does not contact contaminated materials on-site

11. **A concerned citizen inquired about the maximum depth of soil and sediment sampling, the depth of arsenic contamination, and if an arsenic concentration gradient was established with depth of soil/sediment.**

EPA Response: During EPA's investigation, soil/sediment samples were obtained at a maximum sample depth of 30-36 inches. Arsenic contamination was observed at the maximum soil depth sampled. Based on an evaluation of the data, EPA could not establish a clear relationship between soil depth and arsenic levels. In some instances, the arsenic levels increased with soil depth and in others, it decreased with depth.

12. **A concerned citizen encouraged EPA to minimize disruption of the ecology in the areas of the unnamed tributary and Mill Brook by sampling and analyzing soil as the excavation activities proceed. The citizen recommended that areas which are confirmed clean can be left alone.**

EPA Response: EPA agrees. In fact, EPA applies this process of sampling and analyzing soil during an excavation remedy as a standard operating procedure, and will minimize disruption to areas not requiring remediation.

13. **A concerned citizen requested that EPA provide a landscaping plan which identifies which trees will be saved during implementation of the remedy and that any wetlands impacted by the remediation be restored.**

EPA Response: EPA intends to minimize tree removal during the remedial activities. EPA plans to work closely with the community during the remedial design phase and to coordinate construction activities so that the community is kept fully informed. EPA will identify certain areas requiring tree removal (such as those areas where temporary access roadways will be constructed) prior to commencement of excavation activities. Other areas requiring tree removal will be identified during the excavation activities under EPA supervision.

Wetland areas disrupted by the remedial activities will be appropriately restored.

14. **An Edison Councilman questioned why EPA ceased sampling immediately south of the confluence of Mill Brook and the New Jersey Turnpike by the Edison Woods residential complex and whether there is a concern about the potential for contaminated groundwater to continue to migrate and contaminate the waterways targeted for remediation.**

EPA Response: EPA's standard operating procedure for performing field investigations is to take a phased sampling approach. An initial plan is developed targeting specific areas to be sampled. Based on the results of the initial sampling program, a determination regarding the need for additional sampling is made. In this case, additional sampling further downstream is necessary to more accurately determine the extent of contamination associated with the CIC site. EPA plans to perform such additional sampling as part of the remediation process for the areas in and around the unnamed tributary and Mill Brook.

Although contaminated groundwater may be discharging into the waterways designated for remediation, EPA does not believe that the groundwater is contaminated at levels which could contaminate soil and sediment to levels of concern. EPA believes that the contamination requiring remediation in these areas has resulted primarily from historical contaminated surface water runoff, discharged from the CIC site over the long period prior to the installation of the cap over the site. EPA further believes that the contribution, if any, of contaminated groundwater to the contamination in the areas to be remediated is insignificant.

15. **A concerned citizen inquired about the naturally occurring level of arsenic in soil, the arsenic level which is deemed to be acceptable in groundwater and whether certain forms of arsenic are more harmful than others.**

EPA Response: NJDEP has determined the upper limit of naturally occurring arsenic for New Jersey soils to be 20 ppm. The Federal acceptable drinking water level for arsenic is 50 ppb.

The arsenic that occurs naturally may occur in different forms with different toxicities or degrees of potential harm to human health and the environment. During EPA's risk assessment process, the Agency assumes that arsenic is in its most harmful or toxic form, thereby providing an additional level of assurance regarding protection of human and the environment.

16. **A representative of the Edison Wetlands association requested access to data which may be generated from resampling the property adjacent to Prince Street, in Edison, New Jersey, during the course of remediation. The representative also asked if a developer sampled the property and found higher arsenic levels, would EPA review the area?**

EPA Response: Although EPA does not anticipate further sampling of the subject property at this time, if EPA should generate any future data from resampling the property, the Agency would make it available for review.

If EPA were presented with data which conflicted with data the Agency collected, EPA would investigate and evaluate the situation further.

17. **A concerned citizen asked whether the approximately 10% of total soil and sediment samples which were analyzed for other contaminants, including arsenic, were randomly selected and whether any of these samples were taken on Wayne Miller's former property?**

EPA Response: These samples and their locations were randomly selected but were obtained from each of the four general areas which were sampled (Edison Glen, Edison Woods, Rodak Circle/Wilshire Road and the unnamed tributary/Mill Brook areas).

During EPA's most recent sampling effort, samples of this kind were obtained on or in the immediate vicinity of the property formerly owned by Wayne Miller. Similar samples have also been obtained from this property during previous EPA investigations.

18. **A concerned citizen asked when the remediation activities would begin?**

EPA Response: Based on EPA's ability to secure a contractor in a timely fashion, EPA believes that the remediation activities will commence during the Spring of 1995.

# ROD FACT SHEET

**SITE**

Name : Chemical Insecticide Corporation Site
Location/State : Edison Township, Middlesex County, New Jersey
EPA Region : II
HRS Score (date): 47.53 (10/89)
Site ID # : NJD980484653

**ROD**

Date Signed: March 28, 1995
Remedy/ies: Excavation and Off-site Disposal
Operating Unit Number: OU-2
Capital cost: $8,583,000 (in 1995 dollars)
Construction Completion: March 1997
O & M in 1995: none
1996: n/a
1997: n/a
1998: n/a
Present worth: n/a

**LEAD**

EPA Remedial
Primary contact (phone): Pat Evangelista (212) 637-4403
Secondary contact (phone): Janet Feldstein(212) 637-4417
Main PRP(s): Arnold M. Livingston
PRP Contact (phone): n/a

**WASTE**

Type: predominantly arsenic
Medium: soil and sediment
Origin: pesticides manufacturing
Est. quantity: 10,000 cu.yd.