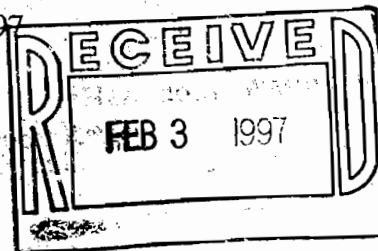


7. FAIRCHILD MAIN
PLANT SITE REMEDIAL
INV. REPORT VOL I
5-97



John P. Cahill
Acting Commissioner

January 27, 1997



Carol Graff
Eder Associates
413 Riverview Executive Park
Trenton, New Jersey 08611

Dear Ms. Graff:

RE: Fairchild Republic Main Plant Site, East Farmingdale,
Suffolk County, NYSDEC Site ID No. 1-52-130

This letter is a follow up to our discussions regarding the Risk Assessment for the above referenced Main Plant Site (MPS). This Risk Assessment was prepared by Eder Associates on behalf of Mairoll/ Fairchild Industries (Fairchild) as part of the MPS Remedial Investigation (RI). The MPS Risk Assessment has been reviewed by the New York State Departments of Environmental Conservation (NYSDEC) and Health (NYSDOH).

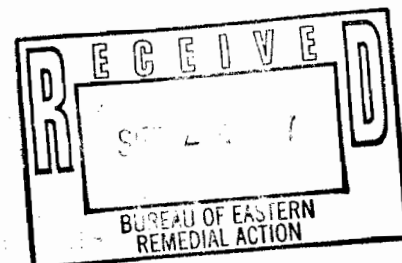
The MPS Risk Assessment represents the opinion of Fairchild Industries and not that of the NYSDEC or NYSDOH. The methodology used by Eder includes using a groundwater model to predict what the levels of volatile organic compound (VOC) groundwater contamination might be by the time it would arrive at the location of a municipal well. The Risk Assessment needs to use contaminant concentrations found in groundwater at the MPS Site. The NYSDOH comment letter is attached for your information.

However, in the spirit of moving forward, The NYSDEC will allow Fairchild to present their opinion and Fairchild has agreed to attach this letter and enclosure to the front of the Risk Assessment Report. Also, it has been agreed by NYSDEC, NYSDOH and Fairchild that levels of VOC contamination found in the groundwater emanating from the MPS Site are elevated enough to warrant establishing remedial action objectives (RAO's) for the MPS Site.

If you have any questions, please contact me at your earliest convenience at (518)457-3395.

Sincerely,

Steven M. Scharf, P.E.
Project Engineer
Bureau of Eastern remedial Action
Division of Environmental Remediation



w/enc.

M. Hodge Esq., Fairchild
J. Crua, NYSDOH



STATE OF NEW YORK
DEPARTMENT OF HEALTH

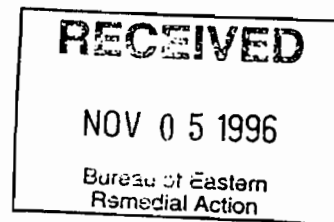
Office of Public Health

11 University Place

Albany, New York 12203-3399

Barbara A. DeBuono, M.D., M.P.H.
Commissioner

December 29, 1995



Ms. Sally Dewes, P.E.
NYS Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, New York 12233

RE: Draft Baseline Risk Assessment
Fairchild Aircraft Main Plant
Site ID# 152130
East Farmingdale, Suffolk County

Dear Ms. Dewes:

I have reviewed the Baseline Risk Assessment for the Fairchild Aircraft Main Plant site. My comments are as follows:

The health risk values calculated in this document are based primarily on modeled data. Models which attempt to predict the levels of contaminant present in groundwater after microbial decomposition and transport through a heterogeneous media (soil) can be highly speculative and could result in a significant underestimation of exposure assessment values. To ensure that the health risks associated with exposure to site related contaminants in groundwater are not underestimated, the New York State Department of Health requests that the risk assessment is recalculated using the levels of contaminant detected in the groundwater monitoring wells located downgradient from the source area.

Should you have any questions, please call me at (518) 458-6305.

Sincerely,

Joseph P. Crua
Environmental Health Specialist II
Bureau of Environmental Exposure
Investigation

cc: Dr. A. Carlson
Mr. S. Bates
Mr. S. Robbins - SCDHS
Mr. S. Ervolina/Ms. S. McCormick - DEC
Mr. A. Shah - DEC, Region 1

MAIROL, INC.
CHANTILLY, VIRGINIA

MAIN PLANT SITE
FINAL REMEDIAL INVESTIGATION

PROJECT #961-3.2
SEPTEMBER 1997

Office Location:

EDER ASSOCIATES

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Steven Scharf, P.E.
Environmental Engineer 2
New York State Department of Environmental Conservation
Bureau of Eastern Remediation Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany, New York 12233

Re: Final Remedial Investigation Report Main Plant Site

Dear Mr. Scharf:

Mairol, Incorporated retained Eder Associates to conduct the Remedial Investigation at the Main Plant Site in Farmingdale, New York. The enclosed report summarizes the tasks conducted at the site during the Remedial Investigation which included soil sampling, installation of monitoring wells, two rounds of groundwater sampling, soil vapor extraction and a private well survey. This volume replaces the April 1995 Volume I.

Please call me with any questions.

Very truly yours,

EDER ASSOCIATES


Carol S. Graff, C.P.G.
Senior Hydrogeologist

CSG/ld

Enclosures

cc: J. Crua
S. McCormick
B. Michael Hodge, Esq.
R. Rosenko, Esq.
M. McEachern
T. Webb

GLOSSARY

ACO	Administrative Consent Order
DMR	Discharge Monitoring Report
MPS	Main Plant Site
RCRA	Resource Conservation and Recovery Act
CWA	Clean Water Act
MODFLOW	Groundwater Modeling Software (USGS)
SWMU	Solid Waste Management Unit
AST	Aboveground Storage Tank
PVC	Polyvinyl Chloride
OVA	Organic Vapor Analyzer
TPH	Total Petroleum Hydrocarbons
ROD	Record of Decision
IRM	Interim Remedial Measure
ND	Not Detected
PGC	Portable Gas Chromatograph
USGS	United States Geological Survey
TVOC	Total Volatile Organic Compounds
PID	Photo ionization Detector
PGC/PID	Portable Gas Chromatograph/Photo ionization Detector
UZ	Ultra-Zero
GC/MS	Gas Chromatography/Mass Spectrometry
TOC	Total Organic Carbon
ASTM	American Society for Testing and Materials
NTU	Nephelometer Turbidity Units
COD	Chemical Oxygen Demand
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
FSP	Field Sampling Plan
DO	Dissolved Oxygen
TIC	Tentatively Identified Compound
NYSDEC/TAGM	New York State Department of Environmental Conservation Technical Administrative Guidance Memorandum
K_{oc}	Partitioning Coefficient
TOT	Time of Travel
SVE	Soil Vapor Extraction
EP	Extraction Procedure
FS	Feasibility Study
MGD	Million Gallons Per Day
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDEC ASPCLP	New York State Department of Environmental Conservation Analytical Services Protocol Contract Laboratory Program
NYSDOT	New York State Department of Transportation
ORB	Old Recharge Basin

GLOSSARY

-continued-

PCBs	Polychlorinated Biphenyls
POTW	Publicly Owned Treatment Work
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
SCDHS	Suffolk County Department of Health Services
SPDES	State Pollution Discharge Elimination System
TAL	Target Analyte List
TCL	Target Compound List
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds
WWTP	Wastewater Treatment Plant

Chemical Compounds

BTEX	Benzene, toluene, ethylbenzene, and xylene
1,1	1,1 - Dichloroethane
1,1	1,1 - Dichloroethane
1,2-DCE	1,2 - Dichloroethane
4,4-DDD	Dichlorodiphenyldichloroethane
4,4-DDE	Dichlorodiphenyldichloroethylene
4,4-DOT	Dichlorodiphenyltrichloroethene
PCE	Tetrachloroethylene
1,1,1-TCA	1,1,1-Trichloroethane
TCE	Trichloroethylene
MEK	Methylethylketone
VC	Vinyl Chloride
cis-1,2-DCE	Cis-1,2-Dichloroethene
trans-1,2-DCE	trans-1,2-Dichloroethene

Units

mg/l	milligrams per liter
ug/kg	micrograms per kilogram
ug/l	micrograms per liter
ft/day	feet per day
gpm	gallons per minute
ft/ft	feet per day
ft/yr	feet per year
ppm	parts per million
ppb	parts per billion
°C	degree Celsius
°F	degrees Fahrenheit

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1.0 INTRODUCTION

Fairchild Industries, Inc. (Fairchild) and its successor firms retained Eder Associates (EDER) in 1992 to conduct a Remedial Investigation (RI) of New York State Inactive Hazardous Waste Site Number 152130, referred to as the Main Plant Site (MPS), in East Farmingdale, New York (Drawing 1). The work was done in accord with a work plan developed by Geraghty & Miller in April 1992 and approved by the New York State Department of Environmental Conservation (NYSDEC).

The work plan requires that the lateral and vertical extent of the volatile organic compound (VOC) plume associated with the suspected groundwater contamination source at monitoring well cluster MW-14 will be delineated to the extent needed to evaluate corrective measures. The initial VOC groundwater plume investigation was carried out over the period August 1992 through January 1993. Groundwater sampling data (aquifer profiling) below 100 feet indicated that the plume was much deeper than anticipated and the RI scope was amended. The RI work plan amendment was submitted to NYSDEC on June 15, 1993 and approved on June 29, 1993. The second plume definition investigation was conducted from September 1993 through February 1994. EDER's report, "Main Plant Remedial Investigation Groundwater Plume Definition," summarizing the results of this study, was submitted to NYSDEC in March 1994. NYSDEC's comments on the report were received in July 1994 and a response was sent to NYSDEC in August 1994.

During the "Main Plant Remedial Investigation Groundwater Plume Definition," a VOC plume was found at the southwest corner of Republic Airport. NYSDEC requested that the MPS RI report evaluated possible impacts from the Old Recharge Basin (ORB) in relation to this plume.

Two suspected source areas at the MPS were investigated to determine the extent of VOCs in soil and to determine whether these areas are sources of the VOCs found in groundwater. New York State Department of Transportation (NYSDOT) property upgradient of the MPS was also investigated to identify off-site sources indicated by the widespread occurrence of VOCs in groundwater on MPS property. The investigations were conducted in accord with January 5 and 21, 1994 work plans approved by NYSDEC on February 24, 1994. The report, "Main Plant Suspected Source Area Investigation," was submitted to NYSDEC in May 1994 and NYSDEC's comments were received in August 1994. EDER's response was submitted to NYSDEC in September 1994.

Fifteen rounds of monthly water level measurements were made in all wells on the MPS and Republic Airport from October 28, 1992 to December 1993 in accord with the April 1992 work plan. Drawing 1A shows the monitoring well locations. Water levels were also measured in the monitoring wells during March 1994 and during groundwater sampling in July and September 1994. Two soil samples were collected in the excavation pit in Building 42 in February 1994 and three soil samples were collected in the vicinity of the suspected PCE source area in September 1992 in accord with the April 1992 work plan.

As part of the demolition of MPS buildings in 1996 and 1997, soil and concrete were sampled to determine if they were non-hazardous. The materials would be used to regrade the site and to fill the Old Recharge Basin. Eleven monitoring wells were also sampled to update the database on groundwater quality at the MPS.

This final RI report summarizes the historical investigations, Eder's source area and plume definition reports and field activities, and responses to NYSDEC's comments. The Baseline Risk Assessment is found in Appendix A.

1.1 Purpose of the Report

This report presents the results of the RI conducted at the MPS which is listed on the New York State Registry of Inactive Hazardous Waste Disposal Sites (Registry) as Site Number 152130. Fairchild entered into an Administrative Consent Order (ACO) with NYSDEC in March 1992, under which Fairchild agreed to conduct a Remedial Investigation/Feasibility Study (RI/FS) at the MPS.

The objectives of the RI are:

1. to determine the extent of VOCs in soil;
2. to determine if contaminated areas impact the groundwater;
3. to determine the lateral and vertical extent of a VOC plume associated with a suspected groundwater contamination source at MW-14 to the extent necessary to evaluate corrective measures;
4. to perform a baseline risk assessment to determine the potential threat to human health and the environment (Appendix A); and
5. to provide the data needed to evaluate cleanup alternatives in the FS.

This report is organized in accord with the USEPA October 1988 Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA.

Section 1.0 presents introductory and background information on the site. Section 2.0 describes the site characteristics. Data collection procedures and investigation results are discussed in

Section 3.0. The nature and extent of contamination is discussed in Section 4.0. Section 5.0 discusses the possible fate and transport of contaminants detected at the site. The RI summary and conclusions are presented in Section 6.0.

These sections present a comprehensive summary of the data, the data evaluation, and the conclusions reached during the RI. References are provided at the end of the report.

1.2 Site Background

This section describes the site location and provides background information on site activities, and previous studies.

1.2.1 Site Location and Description

The former Fairchild Main Plant is located in East Farmingdale, Town of Babylon, New York. The site is bounded by Route 110 (Broadhollow Road) to the west, Route 24 (Conklin Street) to the north, New Highway to the east, and Republic Airport to the south (Figure 1). The Main Plant is approximately 88 acres, but only a 4.5 acre parcel in the southeast quadrant of the plant is listed in the Registry (see Drawing 1) as the MPS.

The site was originally listed in the Registry in 1984 as portion of an approximately 88 acre site which included the east side of Route 110 as well as an additional 12 acres on the west side of Route 110 where the Old Recharge Basin is located. Fairchild petitioned NYSDEC in August 1989 to segment the site by reducing the area of the site from 88 acres to approximately six acres and NYSDEC approved the petition. NYSDEC increased the area on February 9, 1993 to approximately 12 acres, based on data indicating that contamination might be outside of the site boundaries. Fairchild petitioned NYSDEC on July 8, 1994 to reevaluate the 12-acre site

boundary. An approximate 4.5 acre site boundary was approved based on the results of the site investigations.

1.2.2 Site History

The plant property consists of two parcels. Parcel one is east of Route 110 and south of Conklin Street. The property was used for agricultural purposes until 1927 when the site was used as a runway. Seversky Aircraft operated at the site from 1931 until Republic Aviation Corporation purchased Seversky in 1939. The first manufacturing buildings were built and expanded in the 1940s. Fairchild Industries, Inc. (then known as Fairchild Hiller Corporation) took possession of the property in 1965 when it acquired certain assets of Republic Aviation Corporation. The 4.5 acre site listed on the NYSDEC Registry is on this parcel.

Parcel two, approximately 13 acres, is located east of Route 110 and north of Conklin Street. The northeast corner of this parcel includes buildings 53, 54, and 55. The property was used for agricultural purposes. The Ranger Aircraft Engine Division of Fairchild Aircraft Corporation purchased the property in 1927 and constructed aircraft engine manufacturing and test facilities. Republic Aviation Corporation purchased the property in 1955 and used the facility for research, development and office space. The property was sold to the Farmingdale Company in 1965. Fairchild Industries purchased the property in 1972. The property was used as warehouse and office space from 1972 until closing in 1987.

Aircraft and airplane parts were manufactured at the MPS from 1931 to 1987. A NYSDEC-approved RCRA closure plan was carried out between 1987 through 1988. All hazardous waste was removed from the site to eliminate the need for post closure maintenance. The site closure was certified by EDER on August 3, 1988 and included the removal of all hazardous materials, residues, and the removal of all aboveground and underground storage tanks except fuel oil tanks used for primary heat which were removed in 1992. The RCRA closure was approved by

NYSDEC on September 23, 1988. Drawing 1 shows the tank locations, the tank contents and Table 1-1A summarizes this information and includes the approval agency.

1.2.3 Manufacturing Processes and Building Usage

The site operations included engineering, design, development and production of aircraft, aircraft parts, aerospace parts, and equipment for military and civilian aircraft. Aircraft frames and parts were manufactured from sheet metal stock, structural shapes, metal castings, and forgings. Manufacturing operations included shearing, sawing, bending, stamping, forming, heat-treating, routing, drilling, machining, welding, degreasing, chemical milling, anodizing/alodining, and painting.

The plant operations did not change significantly from the mid-1940s to 1987. The methods, procedures, and processes used to manufacture airplanes have changed very little over the history of the aircraft industry. Changes were limited to metal forming and machining in step with improvements in the speed and tolerance of metal working machinery and the development and refinement of metal treatment processes.

Drawing 1 shows the locations of the buildings and the activities in each building. Building 17 was the primary manufacturing area from September 1940. A number of chemical processes were carried out in this area including passivating, anodizing, chemical milling, titanium descaling, and vapor degreasing. Process chemicals included nitric acid, chromic acid, sulfuric acid, sodium hydroxide, toluene, 1,1,1-trichloroethane (1,1,1-TCA), tetrachloroethylene (PCE), trichloroethylene (TCE), and nitric/hydrofluoric acid solutions. The two other process areas were in Building 42 (sulfuric anodizing, prior to 1965,) and Building 29W (chemical milling titanium). No chlorinated solvents were used in Building 42 prior to 1965, or Building 29W. Building 42 was converted to the Maintenance Garage in 1965. Solvent was used to clean parts in a small wash tank. Large quantities of solvent were not used in the Maintenance Garage.

1.2.3.1 Chemical Milling

Chemical milling is a process which removes metal by etching. This process entails metal cleaning, masking, etching, and demasking. The metal cleaning was done with an alkaline soap solution; the masking material was similar to liquid rubber; and the etchant was a sodium hydroxide solution. This process took place inside steel tanks in a concrete pit inside Building 17.

1.2.3.2 Alodine

Alodine produces a protective oxide film on aluminum parts which is also an adhesive surface for paint. The principal chemical used was Alodine 1200 which contains chromic acid. Alodining was done in steel tanks within a concrete pit located inside Building 17.

1.2.3.3 Sulfuric Anodizing

Sulfuric anodizing produces a protective oxide film on aluminum parts which is also an adhesive surface for paints. The process involved cleaning, deoxidizing, and a dichromate seal. The sulfuric anodizing process was performed in four PVC-lined steel tanks located on a grade level concrete slab in the east end of Building 42. The concrete slab was surrounded by curbing to contain spills and leaks, and was coated with a chemical-resistant epoxy. Any spilled material drained to Waste Storage Tank No. 2 where it was pumped to the wastewater treatment plant. Waste Storage Tank No. 2 was an open top concrete UST located near the southeast corner of Building 42. This tank had a chemical-resistant epoxy coating. The deoxidizing and dichromating chemicals contained chromates.

1.2.3.4 Vapor Degreasing

Vapor degreasing used TCE to clean oil and grease from aluminum parts. A large vapor degreaser was located inside at the south side of Building 17 in a concrete pit and a small electric degreaser was located on the main floor just west of the chemical mill/alodine process rooms. TCE in the degreasing units was heated to produce a solvent vapor and the parts to be cleaned were carried through the vapor. A refrigerated coil prevented the vapor from escaping from the tank.

1.2.3.5 Titanium Descaling

Titanium descaling used sodium hydroxide, chromic acid, and nitric acid. The process was similar to chemical milling.

1.2.3.6 Cadmium Plating

Cadmium plating involves the chemical deposition of a thin coating of cadmium on metal.

1.2.4 Historical Use of Chlorinated Hydrocarbons

The following chlorinated hydrocarbons were used at the MPS: TCE, 1,1,1-TCA, methylene chloride, and PCE. TCE and 1,1,1-TCA were used in parts-cleaning operations and PCE was used to control the viscosity of the liquid maskant used in chemical milling. PCE was used as a substitute for toluene to control the viscosity of the liquid maskant beginning in 1975 to conform to air pollution regulations and U.S. Air Force specifications required by contract. Chlorinated hydrocarbons were not utilized in the paint shops because these solvents were not compatible with the paint.

1.2.4.1 Trichloroethylene

Fairchild used TCE as a degreaser from the start of its operations. TCE was stored in aboveground tanks adjacent to the large vapor degreaser and in 55 gallon drums near the electric degreaser.

Methylene chloride and TCE were detected in discharges to the Old Recharge Basin in 1981. Fairchild conducted a study to determine the source of this contamination. The only sources found were the vapor condensate (TCE) from the vapor degreaser and paint stripping operations. Fairchild eliminated these sources. The total quantity of TCE discharged into the soils is unknown.

TCE has a distinctive odor and spills or leaks in areas where people work would not have gone unnoticed. A sight glass in the vapor degreaser unit was broken in 1986 and TCE fumes entered the Main Plant area. The fumes caused complaints from the second shift workers and they were all sent home. There is no documentation of any other TCE release during plant operations. The only other documented release of TCE was during the plant decommissioning when approximately two pints of TCE spilled from the TCE fill pipe to the ground (Geraghty & Miller, December 18, 1994 letter to NYSDEC).

1.2.4.2 1,1,1-Trichloroethane

1,1,1-TCA was dispensed in small quantities from an aboveground 500 gallon storage tank located near Building 17 and was principally used to clean aircraft assemblies, machines, and small parts (see Drawing 1). Approximately 20 55-gallon drums of the solvent were commonly stored in the Building 25 drum storage area. The vapor degreaser was inadvertently filled with 1,1,1-TCA in 1979. There were no documented releases of 1,1,1-TCA during plant operations.

1.2.4.3 Tetrachloroethylene

Fairchild started using this solvent in early 1975 when the diluent used in the chemical milling maskant was changed from toluene to PCE to comply with federal and state ambient air quality regulations and with U.S. Air Force contract specifications.

The solvent was stored in a 3,000 gallon underground storage tank that formerly was used to store toluene. The tank was connected via a suction pipe to a pump located in an underground concrete vault. The discharge from the pump was piped through the vault wall into Building 17 where it ran above the floor to the chemical milling maskant tank. The tank which contained the maskant/solvent mixture was located inside a concrete pit that had no drains. There are no records of leakage or releases from the maskant tank or piping inside the building. RI data indicate that there was a release of PCE from the underground piping outside the building.

1.2.5 Water and Wastewater Systems

Fairchild used groundwater for all water supply needs throughout its operating history. Fairchild pumped Well No. 15 as the primary water supply from 1966 to 1988. This well supplied potable, manufacturing/process, and cooling/air conditioning water. Fairchild's average pumpage during the 1970s is estimated at 1.7 million gallons per day (MGD). An inventory of all Fairchild water supply wells is shown in Table 1-1. Well locations are shown on Drawing 2. This pumpage estimate characterizes plant operations during the plant's operating lifetime since the same manufacturing activities and methods were in use during this time. Non-contact industrial and air conditioning, cooling water, and stormwater were discharged through the stormwater sewer to the Old Recharge Basin located west of the site beginning in the early 1940s. Wastewater treated at the wastewater treatment plant located on the MPS was discharged to the Old Recharge Basin from 1950 to 1981 through the main stormwater sewer line. Figure 2 summarizes the wastewater streams and the volume of water discharged to the Basin.

Fairchild constructed a wastewater treatment plant adjacent to the south wall of Building 17 in 1950 to reduce hexavalent chromium to trivalent chromium and to precipitate metal hydroxides in its wastewater. Wastewater was treated in batches from 1950 to 1963. The facility was upgraded in 1963 to handle continuous waste streams and again in 1986 to meet POTW pretreatment standards. A copy of the original wastewater treatment plant flow diagram is included in Appendix B. Wastewater was received from the chemical milling, alodine process, anodizing, spotweld, wash, and paint shop.

The New York State Department of Health issued a permit to discharge to the Old Recharge Basin on January 13, 1941. Fairchild obtained a State Pollution Discharge Elimination System (SPDES) permit for discharges to the Old Recharge Basin in accord with the Clean Water Act of 1972 and treated wastewater was discharged to the Old Recharge Basin from 1950 to 1981. The treatment plant wastewater was diverted to the on-site sewage treatment plant located on Republic Airport property in 1981. The sewage treatment plant was owned by the New York State Department of Transportation and operated and maintained by Fairchild. The discharge was connected to the Suffolk County sewer system in 1986. Fairchild diverted all discharges to a new recharge basin east of Route 110 in November, 1983, with the possible exception of stormwater runoff from the parking area bordering Route 110.

1.2.5.1 Quantities Discharged

The total amount of water that Fairchild discharged to the Old Recharge Basin through the stormwater sewer is estimated to have averaged 2 MGD which would have consisted of 1.5 MGD of non-contact cooling water, 0.1 MGD of treated industrial water from the Wastewater Treatment Plant, and 0.3 MGD of surface runoff (see Figure 2). Minor amounts of process-related water from different sources such as heat treat (~0.04 MGD), vapor degreaser steam condensate (0.0016 MGD) and solvent/water separator (1 gallon per day), titanium chemical milling, and research tanks (~0.01 MGD) were also discharged to the stormwater sewer.

1.2.5.2 Volatile Organic Compound Discharge Data

The analytical data collected during the Fairchild investigations were reviewed to determine the concentrations of volatile organic compounds (VOCs) in wastewater during plant operations and the possible groundwater quality impacts in the vicinity of the Old Recharge Basin. Wastewater discharged from the MPS was analyzed periodically for VOCs from early 1982. The VOC analytical data are presented in Tables 1-2 through 1-5 and include Fairchild's discharge monitoring report (DMR) data and analyses performed by the Suffolk County Department of Health Services (SCDHS). No analytical data are available prior to 1982, but, since the same manufacturing processes were used until closure, the average VOC concentrations calculated during the period 1982 to 1988 also show the likely VOC concentrations in wastewater in the previous years.

Wastewater samples from the Old Recharge Basin, the Wastewater Treatment Plant effluent, the new recharge basin, and the Sewage Treatment Plant influent were analyzed for VOCs.

Analytical data were collected from the Old Recharge Basin from September 1981 to November 1983 (Tables 1-2). Average concentrations of PCE and TCE were 15 micrograms per liter ($\mu\text{g/l}$). Data collected from 1982 to 1983 are representative of non-contact cooling and stormwater quality, since treated water from the Wastewater Treatment Plant was diverted from the Basin at the end of 1981. The Wastewater Treatment Plant results indicate that the effluent contribution would not significantly change the Basin water quality considering the dilution by other Fairchild discharges and other sources.

The Wastewater Treatment Plant effluent analytical data cover 130 sampling events from January 1982 through November 1986 (Tables 1-3). The results from the January 20, 1982 sampling show the maximum concentrations of PCE and TCE (14 and 54 milligrams per liter (mg/l)) as three orders of magnitude greater than any other sampling event. This may indicate a

transcription error in converting units from mg/l to $\mu\text{g/l}$. Even using these high values, the average concentrations of PCE and TCE are 150 and 440 $\mu\text{g/l}$. The amount of treated industrial wastewater is estimated as 0.2 MGD. Treated wastewater was discharged to the main sewer line which carried about 1.8 MGD of stormwater, non-contact cooling water, and surface runoff. This discharge diluted the industrial wastewater discharge by a factor of approximately 10. The effluent VOC concentration diluted 10 times would be 15 $\mu\text{g/l}$ PCE and 44 $\mu\text{g/l}$ TCE. There were no changes in plant operations or production and the estimated average concentrations (15 and 44 $\mu\text{g/l}$) are assumed to be representative of the effluent discharged to the Basin in the past.

The New Recharge Basin water quality data covers the period, February 1984 up to the MPS closure in 1987 (Table 1-4). PCE and TCE were found at average concentrations of 2 and 3 $\mu\text{g/l}$, respectively, with maximum concentrations of 3 and 4 $\mu\text{g/l}$. These concentrations are representative of non-contact cooling water and stormwater discharged to the New Recharge Basin and are indicative of the low level VOCs in Fairchild's discharges.

VOCs in the Sewage Treatment Plant influent were analyzed during the period 1983-1986 (Table 1-5). PCE was found at an average concentration of 12 $\mu\text{g/l}$ with a maximum concentration of 110 $\mu\text{g/l}$. These concentrations are representative of treated wastewater discharged from the Wastewater Treatment Plant to the Sewage Treatment Plant from 1983 until the plant closed in 1986. PCE and TCE concentrations in wastewater from the four locations averaged 15 $\mu\text{g/l}$ and represents the likely VOC concentrations in Fairchild's discharge during plant operations.

The VOC data for Fairchild's discharges to the ORB and WWTP indicate low concentrations of PCE and TCE in the 50 $\mu\text{g/l}$ range based on data collected from 1981 to 1987. The production rate during this time was relatively high in comparison to lower production rates from 1965 to 1975 based on data from Fairchild. No significant changes in plant operations occurred during this time and these estimated concentrations are representative of the previous years.

1.2.6 Disposal Practices

The manufacturing processes at the MPS required the use of hazardous materials with byproducts or spent materials classified as hazardous or toxic wastes.

Water from process rinse tanks contained hazardous constituents. This water and the waste from paint shop operations was pumped to the Wastewater Treatment Plant. Hazardous wastes that were not compatible with the treatment plant operation were pumped to holding tanks and hauled off-site and disposed of by an approved hazardous waste disposal contractor. Small quantities of hazardous waste were containerized and held for shipment to an approved disposal site. All hazardous wastes were disposed of off-site.

1.3 Previous Investigations

NYSDEC notified Fairchild on December 3, 1984 that the property would be included on the NYSDEC Registry of Inactive Hazardous Disposal Sites (Registry) because the Department considered the Old Recharge Basin as a suspected hazardous waste disposal site. NYSDEC's June 5, 1986 letter to Fairchild indicated that the sampling results for the Old Recharge Basin supported the need to study the MPS.

Data collected prior to the RI were useful in identifying the location and extent of source areas, groundwater flow patterns and contaminants of concern. The investigations, reports, and data collected concerning the Fairchild MPS are listed chronologically:

- Phase II Hydrogeological Investigation, Geraghty & Miller, April 1988
- Supplemental Phase II Investigation Report, Geraghty & Miller, May 1990

- Three-Dimensional Groundwater Flow Model and Advective Transport analysis, Geraghty & Miller, September 1990
- Summary of Environmental Investigations, Geraghty & Miller, January 1992

1.3.1 Phase II Hydrogeological Investigation, Geraghty & Miller, April 1988

NYSDEC required that Fairchild conduct a Phase II investigation at the manufacturing facility in 1986. The investigation studied the impacts of plant operations on the soil and groundwater beneath the site. The scope of work included:

- installing eleven cluster monitoring wells (40 feet and 80 feet)
- installing a shallow monitoring well at the Old Recharge Basin
- collecting soil samples from borings drilled at the New Recharge Basin
- collecting two rounds of groundwater quality samples from all monitoring wells and three former production wells
- collecting water level data and determination of groundwater flow direction
- compiling data from the RCRA Closure Investigation

The monitoring well construction details, soil and groundwater analytical data, and soil locations are presented in Appendix C.

The results indicated that there were elevated concentrations of VOCs in upgradient well clusters MW-1 and MW-3, and in well cluster MW-11. The VOCs detected in MW-11 were suspected to have originated from solvents used in the vicinity of upgradient well cluster MW-14. Fairchild directed Geraghty & Miller to further define the extent of contamination in this area and the results of this investigation are in the Supplemental Investigation Report.

The RCRA Closure was carried out concurrently with the Phase II investigation. The closure plan was prepared by EDER and approved by NYSDEC in November 1987. Geraghty & Miller observed the soil boring work and collected soil samples for the RCRA investigation. The results of this portion of the investigation are discussed in the Summary of Environmental Investigations by Geraghty & Miller.

1.3.2 Supplemental Phase II Report

The supplementary work was performed by Geraghty & Miller between January 1988 and February 1990 under a work plan approved by NYSDEC. The scope of the investigation included:

- installing seven additional monitoring well clusters (six located on Fairchild property and one on Republic Airport property);
- collecting two rounds of groundwater samples;
- measuring water levels to determine the direction of groundwater flow.

The Supplemental Phase II Report investigation conclusions were as follows:

- the groundwater flow direction is south-southeasterly and horizontal;

- a tetrachloroethylene plume extends from the southeast quadrant of Fairchild and onto Republic Airport downgradient for a distance of more than 2,000 feet;
- VOCs detected in MW-16S appear to be from an upgradient source.
- VOCs in Well S-66133, 4,800 feet downgradient of Fairchild, are not related to the plume emanating from the southeast quadrant of the site.

Groundwater analytical data are presented in Appendix D.

1.3.3 Three-Dimensional Groundwater Flow Model and Advective Transport Analysis

Geraghty & Miller used the U.S. Geological Survey Modular Three Dimensional Finite-Difference Ground Water Flow Code to evaluate groundwater movement in the vicinity of the Fairchild site. The calibrated model was used to simulate groundwater flow and describe the potential migration paths(s) and associated travel time of the dissolved VOCs detected in the southeast quadrant of the site toward downgradient public supply wells. This program, known as MODFLOW, is well documented, publicly available, and widely accepted by the scientific community. A particle tracking routine was coupled with the MODFLOW code to determine the potential advective transport paths downgradient from the Fairchild site. This model component did not account for chemical, biological, or other physical processes that tend to slow the migration rate or reduce contaminant concentrations and the model predictions are conservative.

The particle tracking analyses showed that two public water supply wells (S-66556 and S-79105) located on the Republic Airport property are not likely to be impacted by the VOC plumes found downgradient of the site. The wells are located approximately 6,600 feet downgradient of the Fairchild site and are screened in discontinuous intervals from 520 to 735 feet. The modeling results indicated that the bottom of the plume would be at least 300 feet above the well screens.

The second closest water supply wells, S-34595, S-47886, and S-63205, are approximately 14,000 feet downgradient of Fairchild. These wells are screened in the lower half of the Magothy aquifer from approximately 450 to 530 feet and the model indicates that they could be impacted. The time of travel analysis indicated that it would take at least 60 years from the initial introduction of contaminants into the groundwater system (1975 was the assumed date used in the model calculations because this was when PCE was first used at Fairchild) to travel to the vicinity of the supply well screen zones. This estimate is the shortest possible travel time and does not include the effects of retardation or geologic barriers. The report is in Appendix E.

1.3.4 Summary of Environmental Investigations

After Geraghty & Miller submitted the RI/FS work plan, NYSDEC requested a summary report on all of the site investigation and remedial work conducted at the site. The report included the following summaries:

- Plant closure activities undertaken in 1987 by EDER with an approved RCRA closure plan.
- Geraghty & Miller Phase II and Supplemental Investigations (discussed in previous sections of this report).
- Cleanup of four oil spills.
- Investigation and remediation of process areas and Solid Waste Management Units.
- Investigation and remediation of the catch basin.

- Investigation and remediation of the wind tunnel formerly operated by the Grumman Corporation.

1.3.4.1 Site Closure

The Fairchild plant was closed in 1987 and NYSDEC approved an updated version of the Closure Plan on November 17, 1987. The site closure was certified by EDER in an August 3, 1988 letter to NYSDEC. Closure activities included removing aboveground and underground storage tanks and residues, and decommissioning four process areas and four Solid Water Management Units (SWMUs). All hazardous wastes and materials were removed from the site.

1.3.4.2 Solid Waste Management Units

There were four SWMUs: the container storage area, the wastewater treatment plant, and two waste storage tanks. Locations are shown on Drawing 1.

1.3.4.2.1 Container Storage Building

The 2,000 square foot container storage building (Building 67) was built in 1981 with the approval of the SCDHS and was used to store drummed hazardous wastes (acids, caustics, solvents, paints and oils) until the drums were hauled to a NYSDEC-approved treatment or disposal facility by a licensed contractor. The various wastes were segregated in separate areas in the building in sealed 55 gallon drums. The concrete floor was coated with a chemical resistant epoxy and surrounded by concrete curbing. Two floor drains were connected to an underground 275 gallon storage tank and any overflow was routed to the 275 gallon underground storage tank.

Soil samples were collected from three soil borings (B67-1, B67-2 and B67-3) around the building during the Phase II study and analyzed for Target Compound List (TCL) metals and VOCs. Sample B67-3 was analyzed for leachable metals using Extraction Procedure Toxicity Testing (EP testing). The concentration of VOCs in soil sample (B67-3) near the 275 gallon tanks was 213 µg/kg. VOCs were not detected in the other borings. Geraghty & Miller provided oversight during the removal of the 275 gallon UST. The tank was reportedly intact and the soil surrounding the tank was reportedly not visually contaminated. VOCs were not detected using a photoionization detector (PID). No further action in this area was necessary based on the condition of the tank and the surrounding soil.

1.3.4.2.2 Wastewater Treatment Plant

Decommissioning the treatment plant included removing residues from the tanks and cleaning the tanks. Three concrete tanks were left in place and the other tanks were excavated. Additional remediation or investigation was not required because the wastewater treatment plant was situated on a curbed concrete slab and there was no reported leakage and no evidence of leakage.

1.3.4.2.3 Waste Storage Tank No. 1

This aboveground 8,875 gallon tank used to store spent etchant from the chemical milling operation was located adjacent to the east side of Building 63. The tank was installed on a concrete slab surrounded by a containment curb. A drain inside the curbed area was connected to the wastewater treatment plant via underground piping. The tank was removed in April 1988 and there were no reported leaks or spills. No further action was required at this location.

1.3.4.2.4 Waste Storage Tank No. 2

This open concrete pit at the southeast corner of Building 42 was used to contain spillage from the sulfuric anodizing facility inside Building 42. The tank was emptied by transferring the contents to the wastewater treatment plant or hauling it off-site for disposal. The tank was lined with chemical resistant epoxy.

A soil sample collected from a boring through the bottom of the pit was analyzed for TCL metals and VOCs during the Phase II investigation. VOCs were not detected and the metals were within the normal concentration range found in Atlantic Coastal Plain soils (Shacklette and Boerngen 1960).

1.3.4.3 Aboveground and Underground Storage Tanks

Drawing 1 lists and shows the locations of all aboveground and underground tanks. Table 1-1A lists the tanks, size, contents, and closure details. The tanks are identified by registration numbers assigned by the SCDHS. There were 90 tanks on the site (15 ASTs and 75 USTs). Fairchild reviewed engineering drawings which showed the tanks as "proposed." USTs 94 and 95 were not found at their proposed locations during excavations to remove them in March 1989.

Storage tanks were leak tested during their active life in accord with the Suffolk County Sanitary Code Article 12. The contents were pumped out and disposed of in accord with NYSDEC regulations and under NYSDEC and SCDHS oversight. Table 1-1A indicates the responsible agency for each tank location. The SCDHS inspected each tank and representatives of both agencies inspected the excavated soil for evidence of contamination. No further action was required by SCDHS or NYSDEC at any of these tank locations except those specifically mentioned in other parts of this report.

1.3.4.4 Process Areas

There were eight active process areas (chemical milling, alodine, sulfuric anodizing, titanium and aluminum chemical milling, spotwelding, passivating, and vapor degreasing) in Building 17. Soil samples were collected from borings through the bottom of the pits or building floor in these areas. The sulfuric anodizing and vapor degreasing areas were remediated as a result of this sampling.

1.3.4.4.1 Chemical Milling

Four borings were drilled through the bottom of the concrete pit. Four soil samples were analyzed for TCL metals and VOCs and one sample was analyzed for EP leachable metals. No VOCs were detected in any of the samples and concentrations of leachable metals were below NYSDEC standards [6 NYCRR 371.3(e)]. No further action was required at this location.

1.3.4.4.2 Alodine

Soil samples were collected from seven borings drilled through the bottom of the concrete pit and analyzed for TCL metals and VOCs. VOCs were detected in four soil samples. The source of the VOCs is not known as these compounds were not used in the alodine process. Remediation was not required because the VOCs concentrations were low and the area is covered by a concrete slab.

1.3.4.4.3 Spotweld Wash and Passivating Area

The spotweld wash and passivating area was located in the southwest end of Building 17. No VOCs were found in the samples collected beneath the pit and leachable metals were below NYSDEC standards [6 NYCRR 371.3 (e)]. No further investigation was necessary at this area.

1.3.4.4.4 Sulfuric Anodizing

Sulfuric anodizing was done in four PVC-lined steel tanks located on a grade-level concrete slab at the east end of Building 42. The concrete slab was surrounded by curbing to contain spills and leaks, and was coated with chemical resistant epoxy. Spilled material drained to Waste Storage Tank No. 2 where it was pumped to the Wastewater Treatment Plant. These four tanks were cleaned and removed as part of the site closure.

Soil samples were collected from four borings inside the bermed area and from one boring drilled through the bottom of the sump after the tanks were removed. All the samples were analyzed for TCL metals and VOCs. One soil sample was also analyzed for EP leachable metals. The concentration of chromium in one boring exceeded the TCL metal standard and VOCs were detected in two soil samples.

Soil contaminated by chromium and VOCs was removed from beneath Building 42 in this area. Approximately 364 cubic yards of soil and concrete were excavated from Building 42 during two excavation periods and were disposed of as a hazardous waste in accord with NYSDEC regulations. The final excavation included the entire bermed area where both chromic acid tanks were located and reached to a depth of five feet. After the excavation was complete, no VOCs were detected in the excavation or the removed soils using a organic vapor analyzer (OVA). The analytical results did not indicate chromium at concentrations above the NYSDEC standard for leachability [6 NYCRR 371.3 (e)]. This area was decommissioned, closed, and remediated.

1.3.4.4.5 Vapor Degreasing

A soil sample from a boring drilled through the bottom of the former vapor degreaser concrete pit was analyzed for TCL metals and VOCs. VOCs were not detected, but it was suspected that the VOCs detected in Well 18-8 were from off-loading TCE outside of Building 17. Five soil samples collected at three locations were analyzed for VOCs near the suspected source area. The total concentrations of VOCs ranged from 410 µg/kg to 7,363 µg/kg. A soil gas survey and soil sampling program were conducted in this area. A work plan to remediate this area was submitted to NYSDEC in December 1991 along with the results of this investigation.

1.3.4.5 Oil Spill/Leaks

There were four oil spills/leaks at the Fairchild site. The Oil Spill Unit in the Regional NYSDEC office in Stony Brook managed the investigation of these spills/leaks.

1.3.4.5.1 Building 18 Spill (Spill No. 86-2163)

Building 18 was the power house that supplied heat and process steam to the plant. There were three 15,000 gallon Number 6 fuel oil USTs and one 10,000 gallon Number 2 fuel oil UST east of Building 18. Fairchild discovered this spill in July 1986 when soil was removed to investigate a leak in a fuel pump suction line leading from one of the tanks to the power house. Three monitoring wells were installed to monitor floating product and groundwater quality near the spill area during the Phase II investigation. Data from these wells were evaluated as part of a separate study prepared for the NYSDEC Oil Spill Unit. Floating product was found in the three wells and additional site investigation and remedial work was performed.

The three Number 6 fuel USTs were removed along with 160 cubic yards of contaminated soil. Contamination was also found on the concrete tie down pad and around the 10,000 gallon UST.

Two months later, the fourth UST was removed along with the three monitoring wells and 176 cubic yards of contaminated soil. The excavation was completed in November 1988 after the utilities were removed. This excavation extended below the water table and involved removing an additional 3,400 cubic yards of soil.

Monitoring wells were installed in five of the six borings drilled to define the extent of residual soil and groundwater contamination surrounding the excavation. After the second round of groundwater sampling in February 1990, the concentrations of total petroleum hydrocarbons decreased from the first round of sampling. A May 9, 1990 letter from NYSDEC indicated that additional remediation was unnecessary. NYSDEC required checking the wells for free product over a six-month period with continued sampling after this period. Floating product was not detected in the wells and TPH concentrations decreased. NYSDEC requested two additional rounds of groundwater sampling which were conducted in 1991. No further action in this area is necessary.

1.3.4.5.2 Building 54 Spill (Spill No. 87-4581)

Building 54 is located on New Highway north of Conklin Street and was used as a hangar training school. Approximately 30 gallons of Number 2 fuel oil reportedly spilled into the basement drainage pit from a vandalized gauge. A soil sample was collected in a boring through the bottom of the drainage pit and analyzed for TCL metals, VOCs, and EP leachable metals. VOCs were found in soil at concentrations exceeding 4,000 µg/kg. Metal concentrations did not exceed the federal leachability standard. A vacuum truck was used to remove about two cubic yards of contaminated soil from the drainage pit to a depth of about 11 feet. Additional investigation/remediation was deferred pending the demolition of Building 54. Monitoring wells MW-25 and MW-2D are downgradient of this spill. Sampling did not indicate the presence of Number 2 fuel oil constituents in groundwater from these wells.

1.3.4.5.3 Building 55 Spill (Spill No. 87-4638)

Building 55 is located adjacent to the Long Island Railroad tracks, north of Conklin Street, and was used as a warehouse and office. This oil spill was discovered during the removal of a 25,000 gallon Number 6 fuel oil UST and a 10,000 gallon Number 2 fuel oil UST. Approximately 126 cubic yards of contaminated soil were excavated and cluster wells MW-1S and MW-1D were installed to monitor upgradient groundwater quality during the Phase II investigation and floating product. A floating phase has not been observed since February 1989. 1,1,1-TCA was found in groundwater from MW-1D in 1987-1990. No 1,1,1-TCA was stored in the vicinity of these wells. The concentration of 1,1,1-TCA in deep well MS-1D was almost an order of magnitude higher than in MW-1S indicating an off-site contamination source.

1.3.4.5.4 Building 65 Spill (Spill 87-4332)

Building 65 was used as a hangar. An oil separator, a 2,000 gallon waste fuel tank and a 550 gallon waste oil tank were installed in 1975 adjacent to the northeast side of the building. Oil contamination, apparently associated with occasional overflows from the oil separator, was found when the oil separator was removed in 1987. Approximately 83 cubic yards of contaminated soil were removed.

Two shallow monitoring wells OS-1 (MW-10S) and OS-2 were installed during the Phase II investigation. Well OS-1 is located hydraulically upgradient of the spill site. Floating product was measured in well OS-2 on five occasions. The concentration of total VOCs in OS-2 was 33 µg/l in December 1987 and 40 µg/l in February 1988.

1.3.4.6 Catch Basin

Fairchild constructed a catch basin and three diffusion wells in 1963 to reduce the volume of water entering the Old Recharge Basin. NYSDEC required that sediment and water samples be collected from the catch basin (east sampling location) and from a stormwater drain (manhole) near the property boundary adjacent to Route 110 (west sampling location). Geraghty & Miller collected samples of standing water and sediments at these three locations and the analytical results were forwarded to NYSDEC on August 9, 1988. Arochlor-1248 and Arochlor 1254 were detected in one of the samples from the west sampling location and one of the samples from the east sampling location. VOCs were detected in standing water in the catch basin and west sampling location at 157 and 24 µg/l, respectively.

The standing water and sediment in the catch basin were removed on October 19 and 20, 1988. A sample of stormwater runoff was collected on November 9, 1988 and analyzed for the TCL parameters. PCBs were not found but concentrations of total VOCs exceeded 5,000 µg/l. Another sample of the standing water was sampled on January 4, 1989 and the results confirmed the November 1988 results.

Geraghty & Miller collected water samples from the catch basin and manholes located at key junctions in the Fairchild stormwater drainage system on January 13, 1989 for VOC analysis. VOCs were detected in two samples from the catch basin. VOCs were not detected at any other location.

It was initially believed that removing the stormwater in the catch basin would be necessary, but subsequent analyses showed that VOC concentrations in the stormwater were low enough and removal was not warranted. A letter report summarizing the sampling results was sent to NYSDEC on March 2, 1989 indicating that further remedial action was not necessary.

1.3.4.7 Wind Tunnel

Fairchild leased the Wind Tunnel site to the Grumman Corporation (Grumman); Grumman owned the building and the equipment. The lease expired in June 1990 and Grumman retained Dvirka and Bartilucci to conduct an environmental assessment as part of the decommissioning process. Fairchild requested Geraghty & Miller's participation in the study. The assessment included removing surface stained soils, installing six shallow monitoring wells, and collecting and analyzing soil and groundwater samples. The data collected during all prior studies are summarized in Appendix F.

Elevated concentrations of VOCs and metals were detected in soil at the bottom of the dry well adjacent to the wind tunnel building. Groundwater samples collected from downgradient monitoring wells also contained elevated concentrations of VOCs (primarily 1,1,1-TCA).

Contaminated soil was removed from the bottom of the well by a vacuum truck in accord with the approved February 11, 1991 work plan. Soil samples were collected from the bottom of the well and the analytical results indicated an effective cleanup. The dry well was sealed during the week of November 12 to 19, 1991, as described in a October 21, 1991 letter to NYSDEC.

Four quarterly rounds of groundwater samples were collected from the wells to determine if the soil removal and sealing the dry well had eliminated the source. VOCs were not detected above detection limits and NYSDEC's March 16, 1993 letter to Fairchild confirmed that no further remediation was necessary.

1.3.5 Downgradient Receptors

Public water supply wells and private wells were inventoried to identify supply wells that could be impacted by contamination from the MPS, to note all groundwater withdrawals that could alter groundwater flow patterns in the vicinity of the MPS, and to locate wells that could be used for monitoring purposes. Fairchild also contacted registered owners of private wells south of the MPS to determine the wells were still active in areas supplied by public water.

1.3.5.1 Well Inventory

Geraghty & Miller inventoried all public water supply wells within three miles of the site and all public water supply, monitoring, industrial, and private wells within one mile of the site. These data are summarized in Appendix G and were obtained from SCDHS files. The locations of the inventoried wells are shown on Drawing 2 and Figure 2A.

Changes in the groundwater flow direction due to pumping were not evident from water level measurements in monitoring wells at the MPS or Old Recharge Basin during any of the studies.

There are five clusters of public water supply wells located in the groundwater flow path from the MPS. East Farmingdale Water District Wells S-66556 and S-79105 are approximately 6,600 feet downgradient of the site, Suffolk County Water Authority Wells S-34595, S-47886, and S-63205 (Albany Avenue Well field) and S-20460 and S37681 (Tennety Avenue Well field) are approximately 14,000 feet south of the site. The North 5th Street (S-29491) and Lambert Avenue (S-22351) Well fields are approximately 5 to 6 miles from the site.

EDER filed a Freedom of Information request with the SCDHS to update the information compiled by Geraghty & Miller and no additional wells were reported.

1.3.5.2 Private Well Survey

EDER surveyed private wells in the area south of the MPS. Figure 3 indicates the survey boundaries. Address labels for each residence and commercial/industrial establishment were provided by the Town of Babylon Assessor's Office. The survey questionnaire in Spanish and English was mailed to over 3,000 addresses in March 1995. Copies of the questionnaires are in Appendix H. The responses were sent to the Suffolk County Department of Health Services (SCDHS) for field verification.

Twelve residences said that they were dependent on private wells for their water supply. The SCDHS sampled these wells for coliform, pH, nitrate, free ammonia, chloride, sulfate, iron, manganese, copper, sodium, zinc, cadmium, lead MBAS - detergents, nitrite, pesticides, VOCs and BNs. VOCs were detected in groundwater samples from three residences. Two residences were not connected to public water and a third dwelling was already connected to public water. NYSDEC formally requested that Fairchild provide public water to the affected residences (Letter from Rosalie Rosenko, Esq. of NYSDEC to B. Michael Hodge, Esq. of Fairchild, March 18, 1996).

The VOC contamination affecting the three private wells does not appear to relate to the MPS due to the shallow depth of the wells (<50 feet), the presence of other VOCs not found in the MPS plume such as Freon 113, and the presence of probable sources closer to the affected wells. Nevertheless, Fairchild agreed to fund the private water connections in the interest of public health and since public funds were not available for the connections.

The Town of Babylon Community Development Commission (CDC) provided Fairchild with a cost estimate for the work on March 27, 1996 and Fairchild sent payment on April 4, 1996. In May 1996, Fairchild was notified that the connections could not proceed because the water main did not extend far enough. Fairchild agreed to fund the water main extension on May 10, 1996.

A letter from SCWA on May 22 detailed the costs and indicated that the work would be completed in 60 to 90 days. Fairchild provided additional funding and signed contracts on June 12. The water main extension was completed in January 1997 and the houses have been connected.

1.3.6 Regional Conditions

The land use surrounding the MPS is industrial/commercial and many facilities are known to have used chlorinated hydrocarbons in their operations. Knowledge of regional groundwater quality is necessary to better understand the factors that affect groundwater quality at the site. Groundwater quality and flow direction data collected or developed during the RI indicate that VOCs from off-site sources have affected groundwater quality on-site and downgradient on the Republic Airport property. NYSDEC, USEPA, and SCDHS records were reviewed to identify off-site sources that may affect groundwater quality in the vicinity of the site. Drawing 3 shows the location of these sites in relation to the MPS. Drawing 4 Groundwater Quality in the MPS vicinity summarizes groundwater quality upgradient and in the vicinity of the Fairchild site. Information on the location, contaminant of concern, and extent of the identified sites is provided on Tables 1-6. Information on these sites is provided below. References and additional information on selected sites is found in Appendix I.

1.3.6.1 Upgradient Sites

These sites are discussed to show the industrial/commercial nature upgradient and in the vicinity of the MPS and to identify contaminants of concern at each site. The majority of the listed sites have been investigated. The major contaminants found at these sites are TCE, PCE, and TCA. The discussion below locates the sites, summarizes the site conditions, and identifies the type of study and results.

1.3.6.1.1 Claremont Poly Chemical Corp., Site No. 130015

This site is located at 501 Winding Road, Huntington Bay. Pigments for plastics, inks, coated metallic flakes, and vinyl stabilizers were manufactured from 1966 to 1980. Organic solvents, resins and mineral spirit wastes were generated and over 3,000 drums were removed from the site in 1990. Soils were contaminated to depths of at least 10 feet and groundwater contamination was detected. VOCs above NYS standards in groundwater include PCE (440 µg/l), 1,1,1-trichloroethane (12 µg/l), and TCE (35 µg/l). The RI/FS has been completed and a ROD was signed in September 1990. The ROD includes pumping and treating groundwater and excavating contaminated soil for on-site treatment. A 100% design document for decontamination of the building, treatment of contaminated soil and treatment of on-site groundwater was approved by USEPA. A final remedial design workplan for Phase II which includes off-site monitoring wells, two years of groundwater monitoring and a treatment system for an offsite plume is being reviewed. The soil treatment was completed in March 1997.

1.3.6.1.2 110 Moore Sand Co., Site No. 152100

This site is located on Route 110 in Melville. A small section of this sand mining operation is suspected of receiving soil contaminated with metals and other construction and demolition materials. NYSDEC indicates that the environmental database is not sufficient to evaluate the potential for exposure to contaminants at the site.

1.3.6.1.3 Target Rock Corporation, Site No. 152119

This site is located on 1966 East Broadhollow Road, Farmingdale. The facility manufactured valves from 1975 to October 1983. The SCDHS confirmed that between mid-1982 and September 1983, approximately 2,000 gallons of wastewater per month were discharged into an

on-site dry well. This wastewater contained up to 5 percent (50,000 mg/l) of 1,1,1-TCA, 2,300 µg/l of PCE and other VOCs.

Leaking drums of solvent and cutting oil wastes were found during a May 1982 SCDHS inspection on site. The dry well and cesspools were pumped out and the drum storage area was bermed in 1983. Phase I and II investigations were conducted at the site during 1988 and 1993. 1,1,1-TCA was found in groundwater in 1992 at a concentration of 66,000 µg/l. The Phase II investigation recommended a downgradient groundwater investigation. The closest public water supply well field is located approximately 2,000 feet sidegradient and has been closed because of VOC contamination.

Target Rock was removed from the NYS Registry of Inactive Hazardous Waste Disposal Sites in January 19, 1994. The following reasoning was used to delist the site:

Target Rock disposed of wastewater containing up to 5 percent 1,1,1-TCA into a dry well at the rear of the building. According to Part 371, the concentration of 1,1,1-TCA in the wastewater would have had to be 10 percent or greater in order to be classified as a hazardous waste. Therefore, no hazardous waste disposal has been documented at this site. Consequently, this site should be removed from the NYS Registry of Inactive Hazardous Waste Disposal sites. However, groundwater, surface water and soil were sampled, and levels of 1,1,1 Trichloroethane above groundwater standards were found in both ground and surface water. This site has been referred to the NYSDEC's Division of Water for appropriate action.

The NYSDEC Division of Water at Stony Brook reported that a consent order was issued in January 1995 requiring a Phase II off-site investigation. SCDHS considers the site "an eminent threat of potential exposure to residents" and also wants private homes investigated for VOC fumes.

1.3.6.1.4 B. H. Aircraft Co., Spill No. 91-07269

This site is located at 441 Eastern Parkway, Farmingdale. Two 10,000 gallon USTs were abandoned in-place and the SCDHS required monitoring downgradient of the USTs. Groundwater analyses in 1991 indicated total petroleum hydrocarbons below the method detection limit but 1,1-DCA, 1,1,1-TCA and TCE were detected at 170, 550, and 6 µg/l. 1,1-DCA (120 µg/l), 1,1,1-TCA (180 µg/l) and TCE (6 µg/l) were also detected during the 1992 groundwater sampling. A letter report to SCDHS by H2M Group on February 25, 1992 indicated that there were three sites upgradient of this site (Old Bethpage Landfill, Nassau Fire Training School, and Claremont Polychemical Corp.). Further information on this site was not available in the SCDHS files (see Appendix I).

1.3.6.1.5 Kenmark Textiles, (S.J. and J. Service Stations, Inc.), Site No. 1520332

This site is located on 921 Conklin Street, Farmingdale, approximately 1,000 feet upgradient of the Old Recharge Basin. Textile dyeing and screening were conducted since 1914 under a variety of names and owners. A waste treatment system consisted of sludge drying beds and a leachate pit. Wastewater derived from the sludge was shown to be contaminated with cyanide, cadmium, chromium, copper, lead, and phenols. Groundwater sampling conducted during the Phase I RI showed lead and VOC concentrations above NYS standards.

Concentrations of contaminants decreased over the two groundwater sampling events during the Phase II RI. Soil sampling confirmed the elevated metals concentrations on the site. The RI/FS concluded that the area around this site is supplied with public water and although there are three public water supply wells within a 0.5 to 1 mile of the site, no contamination can be attributed to this site. USEPA proposed no further action at this site and NYSDEC and SCDHS concurred. The Record of Decision was signed on March 30, 1994. The site was delisted to D2 in March 1995.

1.3.6.1.6 Brandt Airflex

This site is located on 937 and 965 Conklin Street, Farmingdale and is 150 feet from the Old Recharge Basin. The SCDHS has been overseeing the site investigation since 1994. A soil and water sample were collected in Dry Well 2 at 937 Conklin Street. A composite soil sample indicated TCE at 450 µg/l and PCE at 30,000 µg/l. The water sample collected at 26 feet below grade with a geoprobe indicated TCE at 13,000 µg/l, PCE at 170,000 µg/l and several other VOCs. The site investigation by American Environmental Assessment Corporation is ongoing (see Appendix I).

1.3.6.1.7 Hazardous Waste Disposal Inc., Site No. 152113

This site is located on 11-A Piccone Boulevard, Farmingdale, approximately 900 feet upgradient of the MPS and operated from 1979 to 1982. The site was used to store, treat and dispose of hazardous waste. Nineteen hundred 55 gallon drums of spent solvent and a 7,500 gallon acid tank were observed during a 1981 SCDHS inspection. NYSDEC determined that the site was operating illegally without a Part 360 Permit. Eight hundred and forty 55 gallon drums containing waste and 4,290 empty drums were observed by the SCDHS in 1982 and spills were noted in the drum storage area.

A December 1981 report, Engineer Investigation at Inactive Hazardous Waste Sites, Phase II Investigation, Hazardous Waste Disposal, Inc. Site No. 152113, describes VOC releases at this site:

Seven chlorinated hydrocarbons were detected in significant concentrations downgradient. PCE, 1,1,1-TCA and 1,2-DCE, were found in groundwater at concentrations of 790, 150, and 200 µg/l, respectively. 1,1,-DCA, chlorobenzene, chloroethane, and methylene chloride were found at concentrations of 32, 300, 48,

and 55 µg/l, respectively. Gasoline compounds, toluene, xylene (total), and ethylbenzene were detected in groundwater at concentrations of 2,300, 200, and 440 µg/l, respectively.

The report concludes that groundwater contamination has migrated off site. The vertical extent of the plume was not investigated. All monitoring wells were installed at the water table. Phase I and II investigations have been completed. NYSDEC has denied a delist petition by the responsible party and is attempting to negotiate an RI/FS consent order.

The landowner is suggesting that there are several tenants that contributed to contamination and NYSDEC should pursue them. The PRP installed some upgradient wells in 1994 and the analytical results did not show significant upgradient contamination. A meeting between the PRP and NYSDEC was held in October 1995 to decide on the scope of work for the RI/FS. NYSDEC commented on a draft workplan and legal negotiations with the PRP continue.

1.3.6.1.8 Circuitron Corporation, Site No. 152082

This site is located on 82 Milbar Boulevard Farmingdale, approximately 3,500 feet upgradient of the MPS. Circuit boards were manufactured from 1961 to 1986. Plant processes included photographic and silk screen processing, plating, and etching. Wastewater containing heavy metals and solvents was discharged to the groundwater through leaching pools. Groundwater samples were collected from the water table to 100 feet. A shallow water table plume, 600 feet wide and 700 feet long, extends beyond the southern property line. The contaminants are 1,1,1-TCA with a maximum concentration of 5,800 µg/l, TCE (3 µg/l), and 1,1-dichloroethylene (66 µg/l).

A deeper plume at 70 feet below the surface shows elevated concentrations of VOCs at upgradient and downgradient wells, indicating an off-site source. VOCs found at the highest

concentrations were 1,1,1-TCA (240 µg/l), TCE (82 µg/l), PCE (63 µg/l), and 1,1-DCE (58 µg/l). This plume was delineated to approximately 1,400 feet beyond the property line in the downgradient direction. The depth of the investigation was limited to 100 feet and the vertical extent of the plume was not delineated.

The September 1994 ROD proposes (1) in-situ vacuum extraction of VOC contaminated soil, (2) soil excavation from leaching pits, cesspools, and storm drain inside and outside the building, (3) off-site treatment and disposal of contaminated soil, (4) building decontamination and replacement of the concrete floor, and (5) paving site.

Results of a VOC geoprobe investigation did not indicate VOCs above the cleanup goals. The in-situ vacuum extraction may not be required. The building and floor were demolished, contaminated sediment removed, and backfill placed where contaminated soil was removed.

The design of a pump and treat system for the shallow groundwater plume was approved in September 1996. The construction will not start until USEPA receives further funding and another round of groundwater sampling is completed. The site has been found to present a significant threat to the environment.

1.3.6.1.9 East Farmingdale Volunteer Fire Co., Inc.

The East Farmingdale Fire Department is located at 930 Conklin Street, Farmingdale and is 300 feet upgradient of the Old Recharge Basin. An investigation was initiated after a leaking UST was removed in 1990. Eight monitoring wells were installed to define the extent of on site contamination. Floating product was detected at the former tank location. BTEX (up to 184,373 µg/l) and PCE (12,143 µg/l) were found in groundwater in October 1990. TCE was detected in four wells. The source of the PCE or TCE was not identified. PCE and TCE are not constituents in gasoline or diesel fuel which was stored at the Fire Station and no further investigation was

required. A pump and treat system was installed at the site in 1993 to remediate hydrocarbon contaminated groundwater (see Appendix I).

1.3.6.1.10 Lockheed Terminal Gate 1, Spill No. 89-02351

This site is located on Route 110, Farmingdale, north of the Polytechnic Institute and upgradient of the southwest corner of Republic Airport property. An investigation was initiated after the removal of several USTs. Contaminated soils were removed and NYSDEC required monitoring wells. Twenty-seven wells have been installed to delineate the hydrocarbon plume. The PGC soil results indicated PCE ranging from 14.5 to 1,855 mg/kg. PCE in the wells was detected at a concentration of 17,280 µg/l and TCE was detected at 12,770 µg/l. The BTEX plume has been traced onto Polytechnic Institute property. Waste manifests indicate that solvents were used at the Institute. There are several inactive sanitary and stormwater leaching pools on-site. Sampling of one of these pools indicated that toluene contamination was present. A Phase I report by Geraghty & Miller states: "Many of the leaching pools were in use around the laboratories in the Main and Basset building and may have been contaminated with the hazardous waste produced in these laboratories" (see Appendix I).

1.3.6.2 Sidegradient Sites

These sites listed in the NYSDEC Registry of Inactive Hazardous Waste sites are discussed to emphasize the industrial/commercial nature of the area and the similar types of contamination found.

1.3.6.2.1 Old Bethpage Landfill, Site No. 130001

This site is located on Bethpage and Sweethollow Roads in the Town of Oyster Bay. An RI/FS was completed in 1987 and a 5-acre section of the landfill was encapsulated in 1989. A

gas/leachate collection system was also installed. Groundwater was contaminated with VOCs and inorganic compounds. The organics include 1,2-DCE, 1,1-DCA, vinyl chloride, methylene chloride, TCE, PCE, and chloroethane. Some of these VOCs may not be attributable to the landfill and may be from an off-site source. A groundwater treatment system pumps and treats groundwater above 50 ppb VOCs.

1.3.6.2.2 I.W. Industries, Site No. 152102

This site is located on 35 Melville Road in Melville. Operations on this site include machining and plating. Two subsurface leaching pools that received wastewater were excavated and filled with clean soil and paved with asphalt. Analyses of on-site monitoring wells in 1982 indicated the presence of organic chemicals including cis-1,2-DCE and benzene. An RI/FS consent order was signed and a draft workplan was received and comments sent to the consultant. The present status is unknown.

1.3.6.2.3 Cantor Brothers, Inc., Site No. 152021

This site is located on Engineers Lane, Farmingdale, approximately 4,000 feet upgradient of the MPS, and started operations in 1975. Operations included chemical repacking and handling. Organic solvents, creosote, and fuel oils were observed leaking from drums and storage tanks at the facility. The SCDHS has documented numerous spills, illegal discharges, and improper chemical handling at this site since 1980. SCDHS installed five monitoring wells at the property boundary. PCE (2,600 µg/l), DCE (1900 µg/l), and 1,1,2-TCE (470 µg/l) were detected in these wells. Phase I and II investigations have been completed at the site. Groundwater sampling during the Phase II investigation found PCE in excess of 2,000 µg/l, 1,1,1-TCA (19 µg/l), TCE (100 µg/l) and arsenic (500 µg/l) in the downgradient monitoring wells compared to 110 µg/l, 3 µg/l, 33 µg/l and 50 µg/l in the upgradient wells.

The site ceased operating during 1993 and NYS requested the bankruptcy court to fund an IRM and RI/FS. The bankruptcy court issued an order to Cantor to implement the workplan in June 1996, groundwater sampling began in July 1996. All field work is completed and the IRM report is under review.

1.3.6.2.4 Tronic Plating Co., Site No. 152028

This site is located at 168 Central Avenue, Farmingdale and is approximately one-half mile upgradient of the MPS. Operations from 1968 to 1984 included metal electroplating and anodizing. Industrial wastewater was discharged to four leaching pools, a septic system, dry well, and three storm drains. Contaminated soil was reportedly removed from the four leaching pools in 1986. Heavy metals were detected in soils during the RI. Soil was removed from all known disposal areas in 1993.

The RI indicated that groundwater at this site is contaminated by VOCs. PCE, TCE and 1,1,1-TCA were found in groundwater at concentrations up to 480, 18, and 42 µg/l, respectively. VOC concentrations increased with depth which indicates upgradient source(s). The investigation depth was limited to 100 feet and the bottom of the VOC plume was not delineated. Groundwater monitoring is continuing at the site and a ROD was signed in 1993. The PRP completed removing sediments in the storm drains (IRM) in August 1993. A no further action remedy was selected after the IRM was completed. The site was reclassified to Class 4 in March 1994.

1.3.6.2.5 Astro Electroplating, Inc., Site No. 152036

This site is located on 170 Central Avenue, Farmingdale and is approximately 4,000 feet upgradient of the MPS. The facility has specialized in plating nickel, chromium, and copper on premolded plastic components since 1970. Approximately 400,000 gallons of wastewater was

discharged to leaching pools and some of the discharges exceeded their SPDES permit. The discharge ceased in 1986. Four illegal cesspools filled with plating sludges were discovered on the site and two were cleaned in 1986. Total chromium, zinc, and copper were detected at concentrations greater than 190 mg/l within the area of past wastewater discharge.

TCE (43 to 100 µg/l) and 1,1,1-TCA (ND to 62 µg/l) were detected in shallow groundwater during the 1989 Phase II investigations. The horizontal or vertical extent of this plume was not delineated but an RI/FS is presently planned.

The discussion in the NYS List of Inactive Hazardous Waste sites concludes, "Evaluation of environmental data may be difficult since Astro Electroplating is located in a highly industrialized area which may include other sources of contamination."

NYSDEC proposed that this site be listed on the NPL but USEPA has given the site a low priority.

An RI/FS consent order is being negotiated. The draft work plan was received on March 5, 1997 and comments were sent on March 20, 1997. Negotiations are proceeding.

1.3.6.2.6 Wagner Seed Company, Site No. 130033

This site is located at 81 Secatogus Avenue, Farmingdale and is sidegradient of the MPS. The site was a large warehouse which contained fertilizers, herbicides, and fungicides until it burned down in June 1985. The building and surficial contaminated soil were removed in 1986. NYSDEC has requested further groundwater sampling to confirm that there was no impact to groundwater.

1.3.6.2.7 Minmilt Realty (Hygrade Metal Molding), Site No. 152147

This site is located at 540 Smith Street, Farmingdale and is sidegradient of the MPS. Operations included manufacturing metal window moldings. Vapor degreasers were used at the site and PCE was disposed of into a leaching pool and UST without a SPDES permit. Phase I and II investigations were conducted. PCE was detected in groundwater at levels up to 4,100 µg/l. Groundwater from a boring to 200 feet was analyzed for VOCs. Total VOCs were detected at 455 ug/l. The owner has signed an Order of Consent and an RI work plan was submitted in March 1994. A public meeting was held in December 1995 to present the on-site RI results. An SVE System IRM with two extraction wells was installed and has been running since February 1997. Two offsite wells downgradient of the site are pumping at a 250 gpm capacity. The RI was approved and an off-site workplan is being prepared for NYSDEC approval. A Risk Assessment was prepared.

1.3.6.2.8 Liberty Industrial Finishing (4Js Co.), Site No. 130005

This site is located at 55 Motor Avenue in Colt Industrial Park, Farmingdale and is sidegradient of the MPS. A groundwater plume of VOCs (TCE, PCE, 1,2-DCE, toluene and total xylenes) and inorganics (cadmium and chromium) was found downgradient of the Liberty property and has migrated approximately 8,000 feet beyond the southern property line with a width of 700 to 900 feet. The plume extends into the lower portion of the Upper Glacial Aquifer. The highest VOC concentrations (TCE, 1,300 µg/l, 1,2-DCE, 120 µg/l) were found at a depth of 120 feet below grade in the upper portion of the Magothy Formation. The vertical extent of the plume was not delineated and the source of the VOCs was not identified. Further investigation is planned to further delineate the extent of contamination.

1.3.6.2.9 Nassau County Fire Training Center Site No. 130042

This site is located on Round Swamp Road in the Town of Oyster Bay and is used by Nassau County as a firematics training facility. During fire fighting exercises, wood pallets and straw are ignited. Various organic solvents were reportedly used as accelerants between 1970 and 1980. An RI/FS was conducted at the site and the ROD was issued in February 1993. A plume of VOCs including vinyl chloride, PCE, 1,1-DCE, 1,2-DCA, 1,1,1-TCA, TCE, benzene and xylene extends 4,000 feet downgradient between 180 feet and 200 feet below the water table. A relatively thick bed of dark grey clay separates the plume from a deep zone 280 to 300 feet below the water table. The remedy selected in February 1993 consists of an asphalt/concrete cap with institutional controls for shallow soils, bioventing deep soils, pumping and treating on-site groundwater using three extraction wells, and pumping and treating off-site groundwater using 12 extraction wells with the treated groundwater discharged to a recharge basin or infiltration trench.

Excavation and concrete slab construction are complete. Offsite wells are installed and building construction work is progressing.

1.3.6.3 Downgradient Sites

These sites are discussed to emphasize the widespread use of solvents and contamination source areas downgradient of the Republic Airport.

1.3.6.3.1 Preferred Plating, Site No. 152030

This site is located on 32 Allen Boulevard, Farmingdale and is downgradient of the MPS. The company operated at the site from 1951 to 1976 and treated metal parts to increase corrosion resistance and provide a cohesive base for painting. Various wastes were discharged to surface

impoundments and leaching pits. Five contaminants were identified by the SCDHS, copper, chromium, cadmium, hexavalent chromium, and cyanide. Approximately 100 cubic yards of soil were excavated, treated offsite and disposed of in a RCRA subtitle C facility. This soil excavation and off-site disposal was completed in June 1994. An RI/FS addressing groundwater contamination has been completed. An on-site well (80 feet deep) was contaminated by metal wastes. A groundwater treatment system has been designed, constructed and is operating.

1.3.6.3.2 National Heatset Printing Co., Site No. 152140

This multi-tenant industrial building is located on 1 Adams Boulevard, East Farmingdale and is downgradient of the MPS. National Heatset Printing, a tenant in the building, may have disposed of organic solvents and other printing chemical wastes in on-site leaching pools. The following compounds were detected in soils at the site above 6NYCRR part 703 standards: PCE (62,000 µg/l), 1,1,1-TCA (1,600 µg/l), TCE (62,000 µg/l) and 1,2-trichloroethylene (4,100 µg/l). Groundwater contamination consisted of PCE (2,700 µg/l), TCE (100 µg/l), 1,1,1-trichloroethylene (26 µg/l) and 1,2-DCE (180 µg/l). Five private wells downgradient of the site have been contaminated. Negotiations for an Order on Consent started in January 1995.

The PRP wants to do an IRM but does not want to do an RI/FS. NYSDEC reviewed an IRM workplan and the draft consent order is being reviewed. The building owner operates an SVE system. The site was referred to the State Superfund. A contractor and proposed work plan were approved. The field investigation is planned in 1997.

1.3.6.3.3 Louis Sorrentino Property, Site No. 152111

This site is located on 115 Marine Street, Farmingdale and is downgradient of the MPS. An open dump contains heavy metal waste contaminated by lead, mercury, copper, chromium, cadmium, arsenic, silver, barium, zinc, and nickel which were also found in the soil. Barium and cadmium

have the potential to leach to the groundwater. A Phase II investigation was completed in 1993 and a supplemental Phase II and an IRM were planned for 1994. The contaminated soils were removed and an asphalt cap was placed on the site as part of an IRM. The NYSDEC is awaiting the IRM report and confirmatory sample package.

1.3.6.3.4 Pinelawn Industrial Area Site Nos. 152025, 152027, 152029, 152039,
152086

This site is located on Edison Avenue, Babylon and is approximately 4,000 feet downgradient of the MPS in a high density industrial area encompassing one-half square mile. A plume of organic solvents (PCE, TCE, and TCA) was delineated by the SCDHS in 1982 and 1983. The plume was at least 1,000 feet in width and extends approximately 2 to 3 miles downgradient. The investigation was limited to a depth of 50 to 80 feet below grade. The vertical extent of the plume was not delineated.

Two additional VOC plumes were traced in 1992 during the Babylon Plume Tracking Investigation. PCE and TCE were the primary contaminants, especially in the 100-foot zone of the aquifer.

A 1994 investigation was focused on areas east and west of the Babylon Landfill and confirmed previously defined groundwater contamination. The primary groundwater contamination was PCE, TCE, 1,1,1-TCA and its byproducts. The vertical extent of the plume was not delineated below 100 feet. VOCs were found in groundwater at maximum concentrations of 3,500 µg/l (PCE), 1,500 µg/l (1,1,1-TCA), and 520 µg/l (TCE). Total VOCs significantly increased with depth from 1,230 µg/l at 25 to 30 feet, to 4,390 µg/l at 77 to 83 feet below the surface. PCE was the primary contaminant at the 77 to 83 foot portion of the aquifer. A cap was placed on 60 acres of the landfill. A pump and treat system with two alternating pumping wells has been on line for

three years. Drainage and gas collection systems were also installed and a deed restriction was placed on property use.

1.3.6.3.5 Miller Avenue Study, Suffolk County Department of Health Services

This area is located south of Route 109 between Southern State Parkway and New Highway. SCDHS sampled a private well near New Highway and PCE and cis-1,2 dichloroethene were detected above NYS groundwater standards. A study to determine the source of this contamination included collecting groundwater samples from vertical profiling borings at a depth of 20 to 100 feet below the water table. The groundwater was collected in 20-foot intervals and analyzed in the laboratory for VOCs. The Miller Avenue Study Area is shown on Drawing 3. VOC analytical results are summarized in Appendix I.

TCE, PCE, and their breakdown products were detected in groundwater with maximum concentrations found at a depth from 70 to 110 feet. The maximum TCE concentrations (1,000 µg/l) were found at 83 feet in M2 and M3, respectively. The maximum PCE concentrations (19,000 and 4,000 µg/l) were found in M19 (73 feet) and M2 (103 feet), respectively.

The contaminant distribution indicates that the source area is downgradient of the Republic Airport. The National Heatset Corporation and Preferred Plating are the likely sources of contamination based on the analytical data collected by SCDHS and the regional groundwater flow direction. Groundwater data (M18, M20, M21, and M22) collected upgradient of these sites showed low to non-detect levels. PCE and TCE concentrations up to 19,000 µg/l (M19) and 3,000 µg/l (M17) were detected downgradient of these sites (see Appendix I).

2.0 SITE CHARACTERISTICS

2.1 Introduction

This section describes the site physical characteristics and land use.

2.2 Surface Features

The Fairchild property is flat and is paved or covered with buildings. The site elevation ranges from about 75 feet in the northwest corner of the property to a high of approximately 86 feet near the northeast corner of the property. There are no natural land forms or unique topographic features on the site. A man-made recharge basin divided into three cells covers approximately nine acres in the southern portion of the property.

2.3 Meteorology

The Long Island climate is characterized by warm, humid summers and moderate winters with variable amounts of snow. The mean annual temperature is about 51°F (11°C). Minimum average monthly temperatures occur in February and range from 28° to 32°F; maximum average monthly temperatures occur in July and range from 69° to 75°F.

Precipitation averages about 44 inches per year and is fairly evenly distributed throughout the year. Evapotranspiration rates are about 20 to 22 inches per year depending on season and land use.

2.4 Land Use

The Fairchild MPS is located in the northwestern corner of the Town of Babylon in an area now dominated by light manufacturing and commercial uses. The plant property is bordered by Republic Airport to the south, New Highway and Saint Charles Cemetery to the east, an abandoned industrial property owned by New York State to the north, and Route 110 and commercial properties to the west. There are no wetlands, national forests, natural recreation areas, or natural surface water bodies within one mile of the site.

2.5 Regional and Site Geology

The MPS lies on a gently sloping glacial outwash plain. The site, as well as most of Long Island, is underlain by three major unconsolidated geologic units: the upper glacial deposits, the Magothy Formation, and the Raritan Formation which is composed of an upper, unnamed clay and the lower Lloyd sand. The combined total thickness of these units beneath the site is approximately 1,300 feet and they rest on bedrock that slopes gently to the southeast. The bedrock is Precambrian and/or Paleozoic (over 500 million years old) and is composed of schist and gneiss (Suter 1949).

The upper glacial deposits are about 100 feet thick and consist mainly of sand and gravel deposited by glacial meltwater more than 15,000 years ago (McClymonds and Franke 1972). A clay layer believed to be the Gardiners clay is present at the base of the upper glacial sands at the southern portion of the study area.

The Magothy Formation beneath the site is about 700 feet thick and consists mainly of interbedded fine-grained sand, sandy clay, and interbedded clay layers and lenses. Gravel occurs at the base or in the basal zone of the Magothy, but is rare in other parts of the formation.

Minerals such as muscovite and pyrite help distinguish this formation from the upper glacial deposits. Lignite is also common in the Magothy and is a signature feature.

There is an extensive unnamed 20 to 40-foot thick clay layer at approximately 260 to 300 feet below grade in the study area. The borings drilled below 300 foot depth (MW-23D, MW-35D, MW-36D, MW-37D, S-20042, S-28211, S-79105) penetrated this clay layer (Drawing 5).

The Magothy deposits are underlain by a clay member of the Raritan Formation and the Lloyd sand member in the vicinity of the site and are approximately 150 and 350 feet thick, respectively (Smolensky, et. al, 1989).

2.6 Regional and Site Hydrogeology

The regional hydrogeologic units beneath the site are the upper glacial aquifer, the Magothy aquifer, the Raritan confining unit, and the Lloyd aquifer. The upper bedrock surface is typically considered to be the lower (no flow) boundary of the groundwater system and the Raritan clay represents the lower boundary of the upper glacial and Magothy aquifer systems.

Regional groundwater flow is characterized by an east-west trending groundwater divide near the center of the Island. Groundwater recharge to the Magothy and Lloyd aquifers occurs in the vicinity of the regional groundwater divide (four miles north of the site) where there is a downward vertical hydraulic gradient. The groundwater flow direction becomes more horizontal with increasing distance from the regional divide. Groundwater ultimately discharges to streams and creeks near the shoreline or discharges to the surrounding bays and Long Island Sound to the north or the Atlantic Ocean to the south. This is illustrated on Figure 4.

The upper glacial and Magothy aquifers have good hydraulic connection in most areas, except in areas close to the south shore where local hydrogeologic units, either the Gardiners Clay, the

"20-foot" Clay, or the Monmouth Greensand, separate the aquifers. The two aquifers are sometimes regarded as a single system because of this hydraulic interconnection. The predominant direction of groundwater flow throughout most of the upper glacial and Magothy aquifers is horizontal. The low permeability Raritan Clay (approximately 2×10^{-4} gpd/ft² [Isbister 1966]), acts as a confining unit to the Lloyd aquifer.

The estimated hydraulic conductivity of the Upper Glacial and Magothy system is 150 to 250 feet/day and 50 to 70 feet/day, respectively, with flow velocities of 270 to 450 feet/year and 180 to 250 feet per/year, respectively based on USGS reports (McClymonds and Franke, 1972) and field data.

Most of the groundwater recharge to the Magothy aquifer occurs in the recharge areas in the vicinity of the regional groundwater divide approximately four miles upgradient of the site. This indicates that most of the water flowing through the Magothy beneath the MPS originated upgradient.

The site is underlain by approximately 75 to 100 feet of glacial outwash fine to coarse sand. The water table occurs approximately 26 to 32 feet below grade (or 23 to 57 feet above MSL). Groundwater flows from the northwest to the south-southeast beneath the site which agrees with the regional flow direction (Doriski, et al 1983). The upper glacial sands are underlain by a discontinuous clay layer to the north of the Main Plant, and to the south beginning beneath Republic Airport and extending to the southern end of the study area (refer to Drawing 5). This southern clay unit is believed to be the Gardiners Clay which separates the upper glacial and Magothy aquifers. The clay thickness at the northern boundary of the study area ranges from about 40 to 70 feet. The clay layer is approximately 20 to 25 feet thick at the southern end of the study area near Route 109 and the Southern State Parkway.

The Magothy aquifer lies beneath the upper glacial sands approximately 75 to 100 feet below grade and consists of fine to coarse sand and several clay layers and lenses in the study area. A 20 to 40-foot thick clay layer was found at approximately 260 to 300 feet below land surface beneath the MPS and south of the MPS to the Southern State Parkway (see Drawing 5). The bottom of the VOC plume was found above this clay layer. VOCs were not found below this clay layer which indicates that the clay layer retards the downward contaminant migration (see Section 5 for further discussion).

Water level elevations in monitoring wells screened in the top of the Magothy generally are within one-tenth of a foot of the water levels in the upper glacial aquifer, indicating a minimal vertical hydraulic gradient. This is consistent with the predominantly horizontal groundwater flow direction described in the literature. Seasonal water level fluctuations measured in the upper glacial and shallow Magothy monitoring wells in 1992 and 1993 ranged from 3.6 to 5.2 feet. The average horizontal groundwater flow gradient is 0.0015.

Water level elevations in the deep Magothy wells (175 to 325 feet) are within one-tenth of a foot of the water levels in the upper glacial aquifer at the northern site boundary site and are approximately four to five feet lower at the southern boundary. Seasonal water level fluctuations in the deep Magothy wells are approximately four feet. The average horizontal hydraulic gradient in the deep Magothy wells is 0.002.

2.7 Demography

1990 U.S. Census information provided by the Suffolk County Planning Department indicate that the population of the Town of Babylon was 202,889 and the population of East Farmingdale was 4,510. The racial breakdown of the Town of Babylon is 82 percent white, 15 percent black, 1 percent Asian and 2 percent other and in East Farmingdale, 80 percent white, 15 percent black, 2 percent Asian and 3 percent other. The number of housing units in the Town of Babylon is

66,819, and in East Farmingdale, 1,495. The median income in the Town of Babylon is \$47,074, and in East Farmingdale, \$48,125. The percent of the population below the poverty line in the Town of Babylon is 5.1 percent and 4.0 percent in East Farmingdale. The median age of the population in the Town of Babylon is 33.0 years and in East Farmingdale, 32.0 years.

3.0 STUDY AREA INVESTIGATIONS

3.1 Introduction

Fairchild has been investigating the MPS since the listing by NYSDEC on the Registry in 1984. Data collected prior to the RI are important parts of the database for the RI investigation. The previous work was built upon in the RI to characterize the on-site sources and groundwater quality to a high degree of accuracy. The RI scope of work includes the investigation and characterization of the on-site source area and an extensive investigation of on-site and off-site groundwater quality. The purpose of this section of the RI report is to describe these investigations.

The source area investigations were conducted in accordance with the April 1992 Work Plan for the Remedial Investigation (RI)/Feasibility Study at the MPS, Fairchild Republic Company, East Farmingdale, New York, and the work plans dated January 5 and 21, 1994 which were approved by the New York State Department of Environmental Conservation (NYSDEC) on February 24, 1994. Preliminary investigation results were presented in the May 1994 MPS Suspected Source Area Investigation.

The source area investigation included the following:

- Soil sampling at the former PCE tank area (September 1992).
- Soil sampling in the excavation pit in Building 42 (February 1994).

- Suspected source area investigation (March 1994). Two suspected source areas at the MPS were investigated to determine the extent of volatile organic compounds (VOCs) in soil and to determine whether the areas are VOC sources to groundwater. New York State Department of Transportation (NYSDOT) property upgradient of the MPS was also investigated to identify off-site VOC sources indicated by the widespread occurrence of VOCs in groundwater on Fairchild property.

The plume definition investigation was conducted from August 1992 through January 1993 in accord with the April 1992 work plan. The VOC plume was found much deeper than anticipated and the RI scope was amended. The additional plume definition investigation was conducted from September 1993 through February 1994 in accord with the June 15, 1993 work plan. Preliminary plume definition results were presented in the Main Plant Remedial Investigation Groundwater Plume Definition Report, March 1994.

The on- and off-site groundwater investigation included the delineation of the off-site VOC plume by vertical profiling and three rounds of groundwater sampling. Water level fluctuations and the groundwater flow direction were established by fifteen rounds of water level measurements.

3.2 Objectives

3.2.1 Source Area Investigation

The areas investigated are shown on Drawing 6. The objectives of the investigation are as follows:

3.2.1.1 Former Vapor Degreaser

The investigation of the western portion of Building 17 was in response to the discovery of VOCs in surface soil adjacent to a former vapor degreaser in 1990. The contamination was believed to be associated with the accidental release of trichloroethylene (TCE) from the fill pipe check valve during facility closure in the late 1980s. Occasional spills occurring during off-loading operations are another possible source of contamination, but no spills were reported.

Soil, soil vapor, and groundwater in the vicinity of the former vapor degreaser in the southwest corner of Building 17 were investigated:

- to define the lateral and vertical extent of VOCs in soil in the vicinity of the vapor degreaser
- to determine the nature and extent of VOCs previously found in the soil vapor beneath Building 17
- to determine if VOCs in soil at the former vapor degreaser are a source of groundwater contamination

3.2.1.2 Former PCE Tank

Data from previous investigations indicate that there is a VOC plume in the groundwater extending off the MPS. PCE was stored in an underground tank between Buildings 17 and 27 from approximately 1975 to 1987. 1,1,1-TCA was stored in an adjacent aboveground tank for ten years beginning in 1977. The soil and soil vapor in the vicinity of the former tanks were investigated in September 1992 and March 1994. The investigation objectives were to define the

vertical and horizontal extent of VOCs in soil and soil vapor, and to determine if the former tanks were sources of VOC contamination in groundwater.

3.2.1.3 New York State Department of Transportation Property

VOCs were found in groundwater at low concentrations throughout much of the Fairchild property and on Republic Airport. Previous analytical data indicates the presence of one or more upgradient off-site sources. NYSDEC asked Fairchild to investigate possible upgradient VOC sources in addition to those already documented by the Department. The off-site investigation upgradient from the MPS was conducted to determine if VOCs were present in adjacent off-site soil, soil vapor, and groundwater and to determine if there was evidence of a release from former tanks on NYSDOT property that may have been used to store solvent.

3.2.1.4 Building 42 Soil Sampling

Soil at Building 42 was sampled to confirm the PCE contamination found in prior sampling.

3.2.2 Off-Site Plume Definition

The off-site plume consists of PCE and its degradation products (TCE, 1,1-DCE, 1,2-DCE and vinyl chloride). The plume is believed to be associated with a former underground PCE tank system (Tank No. 1) near monitoring well cluster MW-14, and may also be commingled with VOC plumes from off-site sources. The objective of the investigation was to determine the horizontal and vertical extent of the VOC plume to the extent needed to evaluate corrective measures, and to evaluate NYSDEC records to verify VOC-contamination in groundwater from off-site sources.

3.3 Source Area Investigation Sampling

The scope of source area investigation included a soil vapor survey and soil and groundwater sampling. The soil vapor sampling data is summarized in Table 3-1. The soil sampling and analysis data is summarized in Table 3-2.

3.3.1. Soil Vapor Sampling

3.3.1.1 Soil Vapor Sample Collection

A Geoprobe was used to collect soil vapor samples by driving a hollow stainless steel probe rod with a solid stainless steel drive point to the desired sampling depth. The probe rod was retracted approximately three to four inches to uncover a stainless steel drive point to collect the soil vapor samples. The drive point and stainless steel tubing were washed with Alconox™ and double rinsed with distilled water prior to use at each soil vapor sampling location.

A clean, unused piece of 1/4-inch polyethylene tubing was then attached to the drive point and purged by drawing three volumes of soil vapor with a peristaltic pump. After the tubing was purged, an initial measurement of total volatile organic compounds (TVOC) was made with a Microtip™ organic vapor analyzer (OVA). The OVA was calibrated daily using a 100 ppm isobutylene gas standard in accordance with the manufacturer's directions. The soil vapor sample was collected in a Tedlar bag connected directly to the probe rod tubing. The Tedlar bag valve was closed prior to disconnecting the bag from the polyethylene tubing. A second and final TVOC measurement was then made on a sample from the probe rod tubing using the Microtip™.

Each bag was labeled with a sample identification number, date, time of collection, and initial and final OVA readings. The sample ID was in the form "FAI-17-SV-(location designation)-1". The "17" (indicating Building 17) was replaced by "14" and "DOT" for the MW-14 PCE Tank

and NYSDOT investigation areas, respectively. The samples were analyzed using an on-site portable gas chromatograph (PGC).

Quality control samples including field blanks, trip blanks, ambient air, and duplicate samples were collected. A certified, contaminant-free (ultra-zero) air field blank in a Tedlar bag was prepared daily and accompanied the soil vapor samples. These samples, designated FAI-17-FB-032994 (the last six digits represent the date collected), were used to determine if contaminated ambient air could diffuse into the bags during transport. Ambient air samples were collected at 20 percent of the sample locations to determine whether contaminated ambient air could cause false positives. These samples were designated AA (ambient air). For example, sample designation FAI-14-AA-18-1 indicates an ambient air sample taken at location 18 as part of the MW-14 PCE Tank investigation. A duplicate soil vapor sample, designated DSV (duplicate soil vapor), was collected with every ten soil vapor samples and analyzed to evaluate the variation in the composition of the soil vapor. Appendix I contains the chain of custody documentation for the soil vapor and soil samples.

Soil vapor sampling locations in the vapor degreaser area are shown on Drawing 7. Soil vapor was sampled at five feet below grade at locations designated by the nearest numbered building column. Forty-four samples (including QA/QC) were collected in this area to delineate the VOC-contamination in the soil vapor. Background samples 17-SV-BKG1 and 17-SV-BKG2 were collected north of Building 32 along Conklin Avenue where there is no history of VOC use or storage.

Soil vapor sampling locations in the former PCE tank area are shown on Drawing 8. Soil vapor was sampled at five feet below grade. Two background samples, designated 14-SV-BKG-1 and 14-SV-BKG-2, were collected north of Building 17. Twenty-three samples (including QA/QC) were collected in this area.

Soil vapor samples were collected on NYSDOT property upgradient of the Building 17 investigation areas at locations shown on Drawing 9. Thirty-three samples, including two background samples, were collected in this area to a depth of ten feet.

Background soil vapor samples DOT-SV-BKG1 were collected north of former Building 1 and 100 feet east of DOT-SV-1 (DOT-SV-BKG2) where there is no history of VOC storage or use. Background Location 1 is upgradient and background Location 2 is side-gradient, based on the groundwater flow direction.

3.3.1.2 Soil Vapor Analyses

Soil vapor samples were analyzed with a portable gas chromatograph Photovac Model 10S50 PGC/PID as specified in the work plan. The soil vapor analysis protocol is described in Appendix J.

The 1992 work plan approved by NYSDEC called for the analysis of TCE, PCE, and TCA in soil vapor samples. Three additional compounds, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride (VC), were added to this list during the soil vapor investigation to identify additional peaks.

A commercially-prepared and certified gas mixture of 1 ppm of TCE, 1 ppm of PCE, and 20 ppm of TCA in balance with UZ air and a gas standard mixture prepared from analytical reagent grade liquid compounds of TCE, PCE, and TCA was used to calibrate the PGC. A supplemental gas mixture was prepared from reagent grade liquid cis-1,2-DCE and trans-1,2-DCE and from a cylinder of reagent grade gaseous VC. The calibration gas mixture was prepared in accord with the concentrations specified in the work plan using procedures outlined in Photovac Technical Bulletin #21 (1990). All calibrant gases were combined into a single standard. Typical detection limits were less than 0.010 ppm for TCE, PCE, cis-1,2-DCE, trans-1,2-DCE and for VC, and

0.200 ppm for 1,1,1-TCA. When a sample was diluted, the detection limit increased proportionally to the dilution factor.

A three-point calibration check was initially performed after every eight samples. This was changed to a one-point calibration check based on consistent calibration results and to ensure that all of the soil vapor samples were analyzed within the holding time specified by NYSDEC. A one-point calibration check after the three- or five-point calibration is a standard laboratory practice for GC/MS methods. The calibration was considered valid if the response factor of each compound was within ± 15 percent of the initial calibration and the next eight samples were analyzed. The calibration checks were performed using a calibrant gas mixture of 1 ppm TCE, 1 ppm PCE, 20 ppm TCA, 0.25 ppm cis-1,2-DCE, 0.25 ppm trans-1,2-DCE and VC (0.25 ppm or 0.5 ppm) in balance with UZ air. The calibration was repeated as often as needed at the PGC operator's discretion.

The PGC analytical results were evaluated and annotated based on the contents of the QC blanks, the match between the analytical results and the instrument linear calibration range, the sample dilution, the three-point calibration response, and the sample holding time.

Samples were analyzed as quickly as possible after collection and a VOC loss assessment was performed using Tedlar bags to ensure that VOC losses from the bags were within acceptable limits. TCE, PCE, and TCA losses from Tedlar bags were statistically evaluated based on periodic analysis of Tedlar bags filled with VOCs. The results of the VOC loss evaluation are presented in Appendix J.

The PGC Quality Assurance/Quality Control (QA/QC) program consisted of calibration checks, instrument blanks, syringe blanks, duplicate injections, and PGC and equipment preventive maintenance.

3.3.2 Soil Sampling

The on-site soil investigation included soil sampling in the former PCE area (September 1992), Building 42 soil sampling (February 1994), and suspected source area (SSA) investigation (March 1994).

3.3.2.1 Soil Sample Collection

3.3.2.1.1 Former PCE Tank Sampling

Three soil borings (B-1, B-2, and B-3) were drilled in the vicinity of the suspected PCE source area on September 15 and 16, 1992. The boring locations are shown on Drawing 10. Split-spoon soil samples were collected at each boring continuously from land surface to the water table, approximately 35 feet below grade. The soil samples were screened in the field for VOCs using a calibrated organic vapor analyzer (OVA) and VOCs were not found. Boring logs are presented in Appendix K. The split-spoons were decontaminated prior to use in each boring and between each sample by steam cleaning or by cleaning in Alconox™ with a distilled water rinse.

3.3.2.1.2 Building 42 Sampling

Two soil samples were collected at the site of the former chromic acid tanks in Building 42 during the remedial investigation on February 2, 1994 in accord with the April 1992 work plan (see Drawing 6). The samples were collected at locations designated as B42-2 and B42-3 in the southeast and southwest corners of the excavation, respectively, at a depth of five feet, which corresponds to the locations of samples previously collected in this building. The sample locations are shown on Figure 5.

The RI samples were collected with a hand auger and the sample container headspace was screened in the field for TVOCs using a Microtip organic vapor analyzer. The Microtip was calibrated with isobutylene prior to sampling in accord with the manufacturer's recommended calibration protocol. TVOCs were not detected and soil staining and odor were not evident.

3.3.2.1.3 Suspected Source Area Sampling

The soil borings were drilled using a hollow stem auger rig. The soil samples were collected using a stainless steel split-spoon. The soil boring logs include the sample depth, moisture content, percent recovery, blow counts, Munsell soil color, lithologic description, and TVOC headspace data. The boring reports are included in Appendix K. The split-spoons were decontaminated by steam cleaning or by cleaning in an Alconox™ detergent solution with a distilled water rinse prior to use in each borehole.

The soil boring locations in the vapor degreaser area were selected based on the soil vapor results and the suspected source locations, and are shown on Drawing 11. Soil samples were collected at grade or just below the concrete floor, and at five-foot intervals to the water table which was encountered at approximately 30 feet.

Soil borings at the former PCE tank area were drilled at locations where high TVOC concentrations were found in soil vapor, and at the former 500 gallon aboveground TCA tank and former 3,000 gallon underground PCE tank. Soil samples were collected continuously to a depth of ten feet, then every five feet to the water table at approximately 30 feet below grade (see Drawing 10).

Soil borings were drilled on NYSDOT property at locations where the highest VOCs were found during the soil vapor survey. Boring locations are shown on Drawing 12. Soil samples were

collected at five-foot intervals from land surface to the water table. The water table was encountered at 25 to 30 feet below grade.

Split-spoon soil samples were screened in the field with a calibrated Photovac Microtip™ OVA to qualitatively define the VOC-contamination. A clean glass jar was filled halfway with soil, sealed tightly with aluminum foil, and labeled with the boring designation and depth interval. The sealed jars were stored at 60° to 70°F for approximately one hour prior to headspace measurement. The measurement was made by piercing the aluminum foil with the OVA probe tip and recording the highest meter reading. Three samples from the vadose zone at each boring were selected for laboratory analysis based on headspace VOC data.

Soil samples were collected approximately ten feet above and ten feet below the water table at borings 14-SS-4, 14-SS-17, DOT-SS-5, and 17-SS-VD1 to determine the hydrologic characteristics of the vadose zone and shallow aquifer. An acetate tube inside the split-spoon sampler was used to collect an undisturbed sample for permeability analysis. The samples were analyzed for porosity, grain size, and total organic carbon (TOC).

A field blank was collected for every 20 soil samples and analyzed in the laboratory to assess the effectiveness of decontamination procedures. Laboratory-grade distilled water was poured onto the decontaminated split-spoon. The rinsate was recovered and sent to the laboratory for volatile organic analysis.

3.3.2.2 Soil Sample Analyses

3.3.2.2.1 Former PCE Tank Area Samples

Three soil samples from each boring were sent to the laboratory and analyzed for Target Compound List VOCs by NYSDEC ASP Method 91-1.

3.3.2.2.2 Building 42 Samples

The samples were analyzed for VOCs by NYSDEC ASP Method 91-1 and PCBs by Method 91.3 in accord with the April 1992 work plan and NYSDEC's April 23, 1992 letter to Geraghty & Miller. A field blank, trip blank, matrix spike, and matrix spike duplicates were used to assure the quality of the sampling and analytical procedures.

3.3.2.2.3 Suspected Source Area Samples

Soil samples were analyzed for the Target Compound List VOCs by NYSDEC ASP Method 91-1, with C.L.P. deliverables. Samples were delivered chilled to the laboratory under standard chain of custody within 48 hours of collection. QA/QC samples included equipment field blanks, matrix spike/matrix spike duplicates, and duplicates. Table 3-2 summarizes the number and types of samples collected in each area.

Samples from borings 14-SS-4, 14-SS-17, DOT-SS-5, and 17-SS-VD1 were analyzed for TOC by the laboratory in accord with the USEPA and NYSDEC-recommended protocol. Independent Testing Laboratories (Whitestone, New York) analyzed soil samples from these borings for permeability (ASTM 2434-68), grain size distribution (ASTM D 1140), and the moisture/ density relationship (ASTM D 2216 & D 854).

3.3.3 Groundwater Data Collection

3.3.3.1 Groundwater Sampling

Drawing 1A shows the monitoring well locations. Two monitoring wells were constructed at the MPS and one monitoring well was constructed on NYSDOT property at the locations shown on Drawing 6. Monitoring well MW-38S was constructed at the northwest corner of Building 17

to determine groundwater quality upgradient of the soil and groundwater contamination found near the former vapor degreaser. Monitoring well MW-39S was constructed at the degreaser solvent tank fill pipe which is a suspected VOC source. Monitoring well MW-40D was constructed on NYSDOT property at the VOC soil vapor hotspot. Stained soil was found in the soil samples collected from this boring below the water table. Appendix K contains the boring logs.

The wells were installed with ten feet of two-inch diameter 0.010-inch slot, schedule 40 PVC screen, and schedule 40 PVC riser. A gravel pack of Morie #2 sand extended to at least two feet above the top of the screen. Bentonite pellets were used as a seal above the gravel pack and the remaining annular space was grouted with a bentonite-cement slurry. A flush-mounted steel protective casing was cemented in place at the surface. Well construction details are included in Appendix K and summarized in Table 3-3. Monitoring wells MW-38S and MW-39S were screened from approximately 28 to 38 feet below grade to bridge the water table. Monitoring well MW-40D was screened from 39 to 49 feet below grade to include the depth where the highest VOC concentrations were found in soil headspace. The monitoring wells were developed on March 25 and 31, 1994 using a submersible pump and the development schedule and technique were approved by the on-site NYSDEC representative. The wells were developed until pH, conductivity, and temperature measurements stabilized and turbidity was less than 50 NTU.

Monitoring wells MW-38S and MW-39S were sampled on March 28, 1994, and MW-40D was sampled on April 4, 1994 using dedicated bailers. Well sampling logs are contained in Appendix L.

3.3.3.2 Groundwater Sample Analyses

Samples were analyzed for VOCs (NYSDEC ASP Method 91-1), iron, manganese, and pH with CLP deliverables. Iron, manganese, and pH were analyzed to provide information for

remediation decisions. Groundwater samples were split with Mr. LaFemina, the NYSDEC representative.

The groundwater sampling Quality Assurance program included matrix spike, matrix spike duplicate, and field blank samples.

3.4 Plume Definition Sampling

3.4.1 Plume Definition Investigation (August 1992 through January 1993)

3.4.1.1 Groundwater Sampling

The April 1992 field sampling plan specified drilling and sampling to define the plume associated with former PCE tank. Thirteen boreholes were drilled for groundwater vertical profiling. Groundwater samples were collected at 20-foot intervals from the water table to a depth of approximately 200 feet. The boreholes were drilled with hollow stem augers with a five-foot screened lead auger to allow the collection of the vertical profiling groundwater samples. Groundwater samples were collected in accord with Geraghty & Miller's April 1992 Field Sampling Plan, Appendix M. The vertical extent of the plume was deeper than 200 feet and could not be investigated by hollow stem auger drilling which is limited to less than 200 feet. The vertical extent of the plume could not be delineated during this investigation.

Two deep monitoring wells, MW-32D and MW-33D, screened from 300 to 310 and 315 to 325 feet, respectively, were constructed and sampled upgradient and downgradient of the plume. Two shallow monitoring wells, MW-21S and MW31S, were constructed to supplement the groundwater elevation database at the Airport.

3.4.1.2 Groundwater Sample Analyses

The groundwater samples from vertical profiling borings were analyzed for PCE, TCE, 1,2-DCE, 1,1,1-TCA, 1,1-DCE, 1,1-DCA, vinyl chloride, chlorobenzene, benzene, toluene, ethylbenzene, and xylenes using a Photovac 10S50 portable gas chromatograph (PGC) with a photoionization detector (PID). Two groundwater samples from each vertical profiling boring were analyzed in the laboratory for TCL VOCs.

Groundwater samples collected from monitoring wells MW-32D and MW-33D were analyzed in the laboratory for TCL VOCs.

3.4.2 Plume Definition Investigation (September 1993 through February 1994)

3.4.2.1 Groundwater Sampling

The second plume definition phase consisted of vertical profiling as four deep monitoring wells were drilled. Groundwater samples were collected to a depth of 350 feet and the vertical extent of the plume was delineated.

Monitoring wells MW-23D, MW-36D, and MW-37D are located on Republic Airport, south of the site; and MW-35D is located on St. Charles Cemetery, east of Republic Airport (Drawing 13).

The boreholes were drilled using the mud rotary technique. Aquifer Drilling and Testing (ADT) drilled the soil borings and constructed the wells using a Failing-7 mud rotary drill rig. The top 35 feet of MW-23D, 36D, and 37D were temporally cased with eight-inch ID hollow stem augers and the boreholes were drilled inside the casing with an eight-inch drill bit. The first 80 feet were drilled with a 14-inch drill bit and cased off with an eight-inch ID black steel casing. The borehole was then drilled with an eight-inch drill bit. MW-23D was drilled to 313 feet; MW35D,

36D and 37D were drilled to 350 and 365 feet. Natural gamma logs were obtained in each borehole. Boring logs, gamma logs, and monitoring well construction information are in Appendix K respectively.

The screened interval for each well was selected based on the vertical groundwater profiling results, lithological information (soil samples, gamma logs, cuttings), and with NYSDEC's concurrence. All deviations from the work plan were discussed during field activities and the location of the screened intervals in each well was approved by NYSDEC. Several times a well screen had to be set at a shallower depth than originally planned because of problems with borehole stability. The final screen setting did not affect the data useability.

The monitoring wells were developed by surge-block and air-lift no sooner than 48 hours after the well installation. The wells were purged until turbidity was below 50 NTUs or until the well was developed for two hours.

Groundwater samples were collected using a Hydropunch sampler at approximately 50-foot intervals from 100 to 350 feet to delineate the plume vertical extent. MW-23D was sampled from 250 feet because PCE contamination extended to a depth of at least 200 feet.

After the Hydropunch was lowered to the bottom of the borehole the sampling chamber was checked for the presence of liquid. Groundwater should appear in the Hydropunch only after the screen is opened and the presence of any liquid in the sampler before opening the screen would indicate leakage and deteriorate the quality of the groundwater sample. The Hydropunch was checked for water when it was lowered to the well bottom, and again when it was driven to the sampling point approximately five feet below the well bottom before the screen was exposed. The water level was measured again after opening the screen to determine how much water entered the Hydropunch.

3.4.2.2 Groundwater Sample Analyses

Groundwater samples were analyzed with a Photovac Model 10S50 PID PGC in accord with the field screening methodology specified in the RI Field Sampling Plan. The samples were analyzed for TCE, PCE, 1,2-DCE total, 1,1-DCE, and 1,1,1-TCA.

Conductivity, pH, and the temperature of the groundwater sample and drilling mud were measured in the field and the results were compared to assure the collection of a representative sample. Table 3-4 summarizes the pH and temperature measurements and natural gamma log readings.

The monitoring wells were sampled and analyzed in accord with the proposed monitoring well construction work plan (June 15, 1993) and a November 1993 agreement with NYSDEC to monitor chemical oxygen demand (COD) Table 3-5.

The sampling program included sampling and analysis for VOCs (NYSDEC ASP CLP Method 91.1) and COD (EPA Method 410.4). COD was analyzed to determine the effect of bentonite mud on groundwater quality. The analytical methods and QA/QC procedures were based on the April 15, 1992 MPS RI/FS QAPP. NYSDEC amended the QAPP to require that VOCs be analyzed by Method 601. The laboratory inadvertently used NYSDEC Method 91-1 instead of Method 601. Information provided by IEA Laboratories indicates that Method 91-1 does not affect the usability of the data.

Groundwater sampling logs are presented in Appendix L.

3.5 RI Monitoring Well Sampling

Two groundwater sampling rounds were conducted at the MPS in July and September 1994. Groundwater sampling procedures, analytical methods, and QA/QC requirements were in accord with the April 1992 Geraghty & Miller Field Sampling Plan (FSP). The groundwater sampling logs are presented in Appendix L. Monitoring wells are located on Drawings 1A, 13, and 14.

Groundwater samples were collected at the eleven monitoring wells installed during the RI and at 32 monitoring wells installed prior to 1992. The following wells were sampled:

MW-1D	MW-9S	MW-15D	MW-23D
MW-2S	MW-9D	MW-16S	MW-31S
MW-2D	MW-10S (0S-1)	MW-16D	MW-32D
MW-3S	MW-10D	MW-17S	MW-33D
MW-3D	MW-11S	MW-17D	MW-35D
MW-6S	MW-11D	MW-18S	MW-36D
MW-6D	MW-13S	MW-18D	MW-37D
MW-7S	MW-13D	MW-19S	MW-38S
MW-7D	MW-14S	M1-19D	MW-39S
MW-8S	MW-14D	S-66133	MW-40D
MW-8D	MW-15S	MW-21S	

Four monitoring wells specified in the April 1992 work plan were not sampled. Monitoring well MW-1S was dry; wells S-2684 and S-3623 are located in well pits identified as confined spaces which restricted access; and well S-66157 was not sampled because the riser pipe above the screened zone was plugged at 48.65 feet below land surface.

Groundwater samples from the first sampling round were analyzed for the Target Compound List/Target Analytical List (TCL/TAL) and wet chemistry parameters in accord with the April

1992 RI work plan. The VOC analytical methodology for the second round was based on the analytical results from the first sampling round. The second round of samples were analyzed for VOCs by NYSDEC ASP Method 91-1 or USEPA Method 542.2. Groundwater samples from wells where at least one of the VOC contaminants in the first sampling round was detected at a concentration equal to or exceeding 5 µg/l were analyzed for TCL VOCs by NYSDEC ASP Method 91-1. Samples collected from wells where the first round of samples contain all VOCs at less than 5 µg/l, or were non-detect, were analyzed using USEPA Method 524.2.

Groundwater samples from the following wells were analyzed for VOCs by NYSDEC ASP Method 91-1:

MW-3S	MW-11D	MW-16S	MW-19D
MW-3D	MW-13S	MW-16D	MW-35D
MW-8S	MW-13D	MW-17S	MW-36D
MW-9S	MW-14S	MW-17D	MW-39S
MW-10S	MW-14D	MW-18S	MW-40D
MW-10D	MW-15S	MW-18D	S-66133
MW-11S	MW-15D	MW-19S	

Groundwater samples from the following wells were analyzed for VOCs by USEPA Method 524.2:

MW-1D	MW-6D	MW-9D	MW-32D
MW-2S	MW-7S	MW-21S	MW-33D
MW-2D	MW-7D	MW-23D	MW-37D
MW-6S	MW-8D	MW-31S	MW-38S

Dissolved oxygen (DO) was also measured in the field during the second sampling round.

3.6 Groundwater Elevation Measurements

Fifteen rounds of monthly water level measurements were made in all wells on Fairchild property and on Republic Airport from October 28, 1992 to December 28, 1993 in accord with the April 1992 RI work plan. Water level data are presented in Tables 3-6 and 3-7. The groundwater elevation contour maps are shown on Drawings 15, 16 and 17. The water level measurement results are described in Section 2.0, Regional and Site Hydrogeology.

3.7 Building Demolition Sampling, Soil Sampling and Groundwater Sampling

Fairchild plans to redevelop the site for retail, commercial, and possibly light industrial use. Numerous original buildings will be demolished and the property regraded. Fairchild requested that the concrete, masonry and excavated soil be used to fill the ORB or regrade the property. NYSDEC gave permission to use these materials if they were non-hazardous. Fairchild retained MAC Consultants, Inc., (MAC) of Hauppauge, New York to prepare a sampling plan, characterize the soil and building materials and prepare a Delisting Petition to reduce the MPS Inactive Hazardous Waste Site boundaries.

MAC prepared a sampling plan in September 1996 and collected samples in November and December 1996 and February 1997. The November 1996 sampling included drilling and sampling 21 soil borings and collecting five concrete cores for VOCs, Total Chromium and TCLP VOCs and TCLP Chromium from the Building 17 floor slab. Figure 6 shows the sampling locations at and around the PCE tank, vapor degreaser, TCE fill area, and Sulfuric Anodizing, Chemical Milling and Alodine areas. The February 1997 sampling included drilling and sampling 13 additional soil borings at and around the TCE fill pipe, PCE tank, Sulfuric Anodizing, Chemical Milling and Alodine areas for VOCs, Total Chromium, TCLP VOCs and

Chromium. At NYSDEC's request 11 monitoring wells were also sampled for VOC's to update the groundwater monitoring database.

4.0 NATURE AND EXTENT OF CONTAMINATION

4.1 Quality Assurance Requirements

Data obtained during the Fairchild Main Plant RI were used to characterize current site conditions, identify contamination sources, define the horizontal and vertical extent of contamination, assess potential health risk, and develop remedial alternatives.

All samples were collected by EDER and analyzed in accord with data quality objectives specified in the Geraghty & Miller April 1992 Quality Assurance Project Plan and QA/QC requirements developed in EDER's 1993-1994 work plans. The work plans were approved by the Department before commencing the work. The guidance document, "Data Quality Objectives: Development Guidance for Uncontrolled Hazardous Waste Site Remedial Response Activities" USEPA (1987), was used to determine the analytical levels required to establish appropriate confidence limits for the intended use of the data.

Groundwater samples collected from the vertical profiling borings during the 1992-1994 Plume Definition Investigation were analyzed using a portable gas chromatograph (PGC) in accord with Level II analytical requirements. Level II analytical requirements are applicable to screening field analyses using the PGC. The samples were analyzed for the major contaminants of concern, their degradation products, and petroleum hydrocarbons using a Photovac 10S50 PGC with a photoionization detector. These constituents are PCE, TCE, 1,2-DCE, 1,1,1-TCA, 1,1-DCE, 1,1-DCA, vinyl chloride, chlorobenzene, benzene, toluene, ethylbenzene, and xylenes. Samples with the highest and lowest total VOC content in each boring were analyzed in the laboratory for Target Compound List (TCL) VOCs using the NYSDEC ASP protocol. Groundwater samples collected from vertical profiling borings MW-23D, MW-35D, MW-36D, and MW-37D were

analyzed by PGC for TCE, PCE, 1,2-DCE, 1,1-DCE, and 1,1,1-TCA. Data obtained from the vertical profiling borings were used as a screening tool to characterize the extent of groundwater contamination and to choose monitoring well locations.

Soil vapor samples collected during the 1994 Suspected Source Areas investigation were analyzed by PGC for PCE, TCE, 1,1,1-TCA, cis and trans-1, 2-DCE, and vinyl chloride. Soil vapor analytical results were used as a screening tool to delineate the probable extent of contamination in the source areas.

All groundwater samples collected from monitoring wells and soil samples collected in the source areas were analyzed in accord with Level IV analytical requirements. Level IV is characterized by rigorous QA/QC protocols and documentation and is applicable to analyses performed in an off-site, NYSDEC-certified analytical laboratory in accord with NYSDEC ASP protocols.

Groundwater samples were analyzed for TCL volatile and semi-volatile organics, pesticides and PCBs, Target Analytical List inorganic compounds, and wet chemistry parameters. Groundwater samples collected from the wells where the first round samples contained VOCs at less than 5 µg/l or were non-detect were analyzed by USEPA Method 524.2. The USEPA 524.2 Method quantification limit is 1 µg/l and the NYSDEC ASP 91-1 Method quantification limit is 10 µg/l. Sampling procedures were in accord with the April 1992 Geraghty & Miller Field Sampling Plan approved by NYSDEC.

The Level IV analytical data were validated by an independent data validator and used to delineate the nature and extent of contamination and for risk assessment purposes. All validation reports are included as appendices in the MPS Remedial Investigation report. A copy of all laboratory results, validation, and data useability reports were forwarded to NYSDEC.

4.2 Groundwater Analytical Results

The groundwater analytical results discussed in this section are based on sampling results from test borings drilled in July through December 1992 and from on-site monitoring wells sampled in December 1987, February 1988, March 1992, June/July 1992, December 1993, and March, July and September 1994. The PGC chromatograms are presented in Appendix N. The validation reports for groundwater analytical results are presented in Appendix O. This section discusses all exceedances of NYS Groundwater Standards as requested by NYSDEC in comments on the draft "Main Plant Remedial Investigation Groundwater Plume Definition Report" (July 7, 1994).

Groundwater analytical results are summarized for upgradient, on-site, and downgradient monitoring wells and vertical profiling borings. The upgradient monitoring wells and borings are MW-1S, MW-1D, MW-2S, MW-2D, MW-2XD, MW-3S, MW-3D, MW-3XD, MW-16S, MW-16D, MW-33D, MW-38S, and MW-40D.

The on-site monitoring wells and borings are MW-5S, MW-5D, MW-6S, MW-6D, MW-7S, MW-7D, MW-8S, MW-8D, MW-9S, MW-9D, MW-10S, MW-10D, MW-11S, MW-11D, MW-13S, MW-13D, MW-14S, MW-14D, MW-15S, MW-15D, MW-17S, MW-17D, MW-18S, MW-18D, MW-18-8, MW-29XD, MW-39S and MW-0S-2.

The downgradient monitoring wells and borings are MW-19S, MW-19D, MW-19XD, MW-20XD, MW-21S, MW-22XD, MW-23D, MW-23XD, MW-24XD, MW-25XD, MW-26XD, MW-27XD, MW-28XD, MW-30XD, MW-31S, MW-31XD, MW-32D, MW-35D, MW-35XD, MW-36D, MW-36XD, MW-37D, MW-37XD, S-66133, S-2684 and S-3623.

4.2.1 Volatile Organic Compounds

The following volatile organic compounds (VOCs) were detected in groundwater at concentrations that exceeded the New York State standards:

Compound	NYS Standard (µg/l)
Acetone	50
Benzene	0.7
2-Butanone	50
Carbon Tetrachloride	5
Chlorobenzene	5
Chloroethane	5
Chloroform	7
1,1-Dichloroethane	5
1,1-Dichloroethene	5
1,2-Dichloroethene (total)	10
Ethylbenzene	5
Methylene Chloride	5
Tetrachloroethene	5
Toluene	5
1,1,1-Trichloroethane	5
Trichloroethene	5
Vinyl Chloride	2
Xylene(s) (total)	15

4.2.1.1 1987 and 1988 Analytical Results

The analytical results from 1987 and 1988 are presented in Appendix C.

4.2.1.1.1 Upgradient Monitoring Wells

The following New York State groundwater standard (Guidance Value) exceedances were found in samples collected from five wells in 1987.

TCE was found in MW-2D well at a concentration of 7 µg/l. PCE was found in MW-1D well at a concentration of 7 µg/l. 1,1,1-TCA was found in four wells at concentrations ranging from 8 µg/l in MW-3D to 1,500 µg/l in MW-1D. Vinyl chloride was found in MW-3S well at a concentration of 24 µg/l. Chloroethane was found in two wells at concentrations ranging from 8 µg/l in MW-1D to 29 µg/l in MW-3S. 1,1-DCE was found in MW-1D at a concentration of 75 µg/l. 1,1-DCA was found in three wells at concentrations ranging from 7 µg/l in MW-2S to 43 µg/l in MW-3S. 1,2-DCE was found in two wells at concentrations ranging from 16 µg/l in MW-3D to 27 µg/l in MW-3S. Benzene and xylenes were found in MW-3S at concentrations of 19 µg/l and 99 µg/l, respectively.

The following New York State groundwater standard (Guidance Value) exceedances were found in samples collected in 1988 from the same wells as in 1987.

TCE was found in MW-2D at a concentration of 7 µg/l. PCE was found in MW-3D at a concentration of 6 µg/l. 1,1,1-TCA was found in five wells at concentrations ranging from 9 µg/l in MW-2S to 1,800 µg/l in MW-1D. PCE was also found in the blank associated with MW-2D and MW-3D samples. Acetone was found in MW-1D at an estimated concentration of 55 µg/l. It was also found in blank associated with this sample. Vinyl chloride was found in MW-3D at a concentration of 110 µg/l. 1,1-DCE was found in MW-1D in the sample and in the duplicate

sample at concentrations of 75 µg/l and 10 µg/l, respectively. 1,1-DCA was found in MW-3D at a concentration of 110 µg/l. 1,2-DCE was found in MW-3S at a concentration of 8 µg/l. Benzene, toluene, and xylene were found in MW-3D at concentrations of 13 µg/l, 59 µg/l, and 260 µg/l, respectively.

4.2.1.1.2 On-Site Monitoring Wells

The following New York State groundwater standard (Guidance Value) exceedances were found in samples collected from 18 wells in 1987. The on-site wells included: MW-5S, MW-5D, MW-6S, MW-6D, MW-7S, MW-7D, MW-8S, MW-8D, MW-9S, MW-10S, MW-10D, MW-11S, MW-11D, MW-12S, 18-1, PW-7, PW-12, and PW-14.

TCE was found in six wells at concentrations ranging from 6 µg/l in MW-8S to 85 µg/l in MW-11S. PCE was found in one well cluster MW-11 at concentrations ranging from 19 µg/l in the deep well to 1,400 µg/l in the shallow well. 1,1,1-TCA was found in the same well cluster MW-11 at concentrations ranging from 16 µg/l in the deep well to 680 µg/l in the shallow well. Vinyl chloride was found in four wells at concentrations ranging from 8 µg/l in MW-10S to 92 µg/l in MW-11D. 1,1-DCE was found in MW-11S at a concentration of 22 µg/l. 1,1-DCA was found in three wells at concentrations ranging from 8 µg/l in MW-7S to 23 µg/l in MW-11D. 1,2-DCE was found in three wells at concentrations ranging from 13 µg/l in OS-2 to 140 µg/l in MW-11D. Chlorobenzene was found in MW-8D at concentrations ranging from 17 µg/l to 11 µg/l in the sample and in the duplicate sample. Benzene was found in MW-7D and in MW-11D at a concentration of 2 µg/l. Xylenes were found in MW-10S at concentrations ranging from 54 µg/l to 68 µg/l in the sample and in the duplicate sample.

The following New York State groundwater standard (Guidance Value) exceedances were found in samples collected from 12 wells in 1988.

TCE was found in four wells at concentrations ranging from 9 µg/l in MW-8S to 63 µg/l in MW-11S. PCE was found in three wells at concentrations ranging from 7 µg/l in MW-8S to 560 µg/l in MW-11S. 1,1,1-TCA was found in four wells at concentrations ranging from 8 µg/l in MW-7D to 330 µg/l in MW-11S. PCE was also found in blanks associated with the samples collected from 7D and MW-11S wells. Vinyl chloride was found in three wells at concentrations ranging from 16 µg/l in MW-10S to 84 µg/l in MW-11D. Methylene chloride was found in MW-11S at an estimated concentration of 23 µg/l and was not found in the duplicate sample collected from this well. Methylene chloride was also found in the blank associated with the samples collected from MW-11S. 1,1-DCE was found in MW-11S at an estimated concentration of 9 µg/l. 1,2-DCE was found in OS-2 at a concentration of 14 µg/l. 1,1-DCA was found in four wells at concentrations ranging from 6 µg/l in MW-10S to 36 µg/l in MW-11D. Benzene was found at an estimated concentration of 3 µg/l in MW-11D. Chlorobenzene was found in the sample and the duplicate sample collected from MW-8D at concentrations of 18 µg/l and 19 µg/l, respectively. Ethylbenzene was found in MW-11D at a concentration of 9 µg/l. Xylenes were found in three wells at concentrations ranging from 23 µg/l in MW-11D and OS-2 to 51 µg/l in MW-10S.

4.2.1.2 1992 Analytical Results

Table 4-1 shows the analytical results from 1992.

4.2.1.2.1 Upgradient Monitoring Wells

The following New York State groundwater standard (Guidance Value) exceedances were found in water samples collected from seven wells.

TCE was found in three wells at estimated concentrations ranging from 13 µg/l in MW-16D to 260 µg/l in MW-16S. 1,1,1-TCA was found in two wells at concentrations ranging from 37 µg/l

(estimated) in MW-1S to 68 µg/l in MW-2D. 1,1-DCE was found in two wells at estimated concentrations ranging from 7 µg/l in MW-1S to 12 µg/l in MW-2D. 1,1-DCA was found in three wells at estimated concentrations ranging from 8 µg/l in a sample collected from MW-1S to 20 µg/l in the duplicate sample. 1,2-DCE was found in three wells at estimated concentrations ranging from 19 µg/l in MW-16S to 36 µg/l in MW-3S. Carbon tetrachloride was found in MW-2D at an estimated concentration of 9 µg/l.

Benzene, toluene, ethylbenzene, and xylenes were found in MW-3S at concentrations of 93 µg/l (estimated), 1,500 µg/l, 670 µg/l and 2,000 µg/l, respectively. Chlorobenzene was also found in MW-3S at an estimated concentration of 29 µg/l. Tentatively identified compounds (TICs) were found in six wells at estimated concentrations ranging from 15 µg/l in MW-16S to 2,400 µg/l in MW-3S for total TICs.

4.2.1.2.2 On-Site Monitoring Wells

The following New York State groundwater standard (Guidance Value) exceedances were found in samples collected from 21 wells.

TCE was found in 11 wells at estimated concentrations ranging from 6 µg/l in MW-8S to 920 µg/l in MW-13D. PCE was found in seven wells at estimated concentrations ranging from 6 µg/l in MW-10S to 150 µg/l in MW-13S. 1,1,1-TCA was found in four wells at estimated concentrations ranging from 6 µg/l in MW-10S to 89 µg/l in MW-10D. Vinyl chloride was found in five wells at estimated concentrations ranging from 3 µg/l in MW-9S to 200 µg/l in MW-10S. Chloroethane was found in MW-14D at a concentration of 67 µg/l. 1,1-DCE was found in MW-10D at an estimated concentration of 6 µg/l. 1,1-DCA was found in five wells at concentrations ranging from 6 µg/l (estimated) in MW-13D and MW-14D to 100 µg/l in MW-10D. 1,2-DCE was found in eight wells at estimated concentrations ranging from 23 µg/l in MW-9S to 780 µg/l in MW-10S. Benzene was found in eight wells at estimated concentrations

ranging from 0.9 µg/l in OS-2 to 9 µg/l in MW-18D. Ethylbenzene was found in three wells at estimated concentrations ranging from 7 µg/l in MW-10S to 270 µg/l in MW-11D. Xylenes were found in four wells at estimated concentrations ranging from 17 µg/l in MW-10S to 1,200 µg/l in MW-11D. TICs were found in 16 wells at estimated concentrations ranging from 12 µg/l in MW-17S to 1,672 µg/l in MW-10S.

4.2.1.2.3 Downgradient Monitoring Wells

The following New York State groundwater standard (Guidance Value) exceedances were found in samples collected from six wells.

TCE was found in four wells at concentrations ranging from 18 µg/l (estimated) in S-2684 to 930 µg/l in MW-19S. PCE was found in four wells at estimated concentrations ranging from 10 µg/l in S-66133 to 3,100 µg/l in MW-19S. Vinyl chloride was found in S-2684 at an estimated concentration of 3 µg/l. 1,1-DCA was found in MW-19S at an estimated concentration of 130 µg/l. 1,2-DCE was found in four wells at concentrations ranging from 19 µg/l in S-66157 to 1,200 µg/l (estimated) in MW-19S. Benzene was found in three wells at estimated concentrations ranging from 0.8 µg/l in S-2684 to 12 µg/l in MW-19S. Xylenes were found in MW-19S at an estimated concentration of 36 µg/l. Chlorobenzene was found in S-3623 at an estimated concentration of 6 µg/l. TICs were found in four wells at estimated concentrations ranging from 16 µg/l in S-66157 to 1,710 µg/l in MW-19S.

4.2.1.3 1992-1993 Analytical Results from Groundwater Vertical Profiling

Vertical profiling analytical results are presented in Table 4-2. VOCs were analyzed using the portable gas chromatograph (PGC) during the plume definition investigation (July 1992 to February 1993). Groundwater samples were collected through a screened lead auger typically every 20 feet. Seven to fourteen samples from each test boring were analyzed using the portable

gas chromatograph (PGC). The two samples with the highest and lowest VOC concentrations were analyzed for VOCs in the laboratory (see Table 4-3).

In some cases there were significant differences between the PGC and lab results. Generally, the difference between lab and PGC results is caused by the different performance of field and laboratory instrumentation and a possible loss in VOCs when the sample is handled and transported to a lab. PGC results are commonly obtained within a few hours after the sample is collected and only minimum VOC loss is anticipated. Table 4-4 summarizes PGC and lab analytical results for TCE, PCE and 1,1,1-TCA. The lab-to-PGC results ratios for PCE, TCE and 1,1,1-TCA were calculated and compared to evaluate the cause of the discrepancies between the PGC and lab data.

The lab-to-PGC ratio for TCE ranges from 0.1 to 1.75, and averages 0.73. The lab-to-PGC ratio for PCE ranges from 0.21 to 5, with an average of 1.0. The lab-to-PGC ratio for 1,1,1-TCA ranges from 0.0002 to 1.15. The 1,1,1-TCA average was not calculated since the data range is within four orders of magnitude and the average would not be representative.

The lab-to-PGC ratios for TCE and PCE generally indicate that the PGC identifies those two compounds quite accurately, with no significant loss between the PGC and lab analysis.

The lab-to-PGC ratio for 1,1,1-TCA is similar to TCE and PCE in samples MW-2XD-40 and MW-2XD-100. In the other three samples, where 1,1,1-TCA was identified by PGC and the lab (MW-19XD-45, MW-23XD-195 and MW-24XD-195), the lab-to-PGC ratio departs significantly from this pattern. The volatility of TCE, PCE and 1,1,1-TCA is similar and the loss of these compounds from the same samples should be insignificant, based on the TCE and PCE data. This indicates that the very low lab-to-PGC ratios for 1,1,1-TCA are likely caused by misidentifying the peaks on the gas chromatograms.

The 1,1,1-TCA data produced by the PGC during the plume definition investigation are only reliable when supported by lab data. The gas chromatograms were re-evaluated and Table 2 from the Plume Definition Report was revised to address the possible misidentification of 1,1,1-TCA data. All 1,1,1-TCA PGC analytical data related to borings where the lab 1,1,1-TCA data did not confirm the PGC analyses were rejected and are qualified "R" in Table 4-2.

Only selected VOCs were analyzed by the PGC. The PGC and lab data are discussed together. The highest concentration of a compound is indicated when a particular compound was analyzed using PGC and in the laboratory.

4.2.1.3.1 Upgradient Test Borings

The following concentrations of VOCs were found in two test borings.

The maximum TCE concentrations were 303 µg/l at 120 feet in MW-2XD and 88.7 µg/l at 145 feet in MW-3XD. The maximum PCE concentrations were 25 µg/l at 100 feet in MW-2XD and 30 µg/l at 120 feet in MW-3XD. The maximum 1,1,1-TCA concentrations were 5,990 µg/l at 140 feet in MW-2XD and 2 µg/l (estimated) at 200 feet in MW-3XD. The maximum vinyl chloride and chloroethane concentrations were 45 µg/l and 160 µg/l, respectively, at 45 feet in MW-3XD. The maximum estimated concentration of methylene chloride and acetone were 20 µg/l and 64 µg/l, respectively, at 100 feet in MW-2XD. Methylene chloride and acetone were found in the blank associated with this sample. The maximum 1,1-DCE concentration was 654 µg/l at 100 feet in MW-3XD and 11 µg/l at 65 feet in MW-2XD. The maximum 1,1-DCA concentration was 13 µg/l (estimated) at 100 feet in MW-2XD and 22 µg/l at 45 feet in MW-3XD. The maximum 1,2-DCE concentration was 24.7 µg/l at 160 feet in MW-2XD and 195 µg/l at 65 feet in MW-3XD. The maximum benzene concentration was 14 µg/l at 45 feet in MW-3XD. The maximum toluene concentration was 4 µg/l (estimated) at 100 feet in MW-2XD and

1,000 µg/l at 45 feet in MW-3XD. The maximum chlorobenzene, ethylbenzene, and xylenes concentrations were 670 µg/l, 950 µg/l and 2,150 µg/l, respectively, at 45 feet in MW-3XD.

4.2.1.3.2 On-Site Test Borings

The only on-site test boring is MW-29XD. The following maximum concentrations of VOCs were found in MW-29XD.

The maximum TCE concentration was 74.8 µg/l at 85 feet. The maximum PCE concentration was 22,720 µg/l at 185 feet. The maximum 1,1,1-TCA concentration was 82 µg/l at 125 feet. The maximum vinyl chloride concentration was 112 µg/l at 125 feet. The maximum chloroethane concentration was 19 µg/l (estimated) at 125 feet. The maximum estimated methylene chloride and acetone concentrations were 148 µg/l and 414 µg/l, respectively, at 185 feet. The maximum 1,1-DCE concentration was 7.2 µg/l at 105 feet. The maximum 1,1-DCA concentration was 210 µg/l at 125 feet. The maximum 1,2-DCE concentration was 608 µg/l at 105 feet. The maximum benzene and toluene concentrations were 62.7 µg/l and 6.4 µg/l, respectively, at 185 feet. The highest chlorobenzene and xylene concentration were 39 µg/l and 28 µg/l, respectively, at 125 feet.

4.2.1.3.3 Downgradient Test Borings

The following concentrations of VOCs were found in samples collected from 14 test borings.

TCE was found in 13 test borings. The maximum TCE concentrations for each boring were as follows: 1,127 µg/l at 85 feet in MW-19XD, 712 µg/l at 200 feet in MW-20XD, 282 µg/l at 135 feet in MW-22XD, 2,028 µg/l at 195 feet in MW-23XD, 2,546 µg/l at 195 feet in MW-24XD, 1.5 µg/l at 80 feet in MW-25XD, 567 µg/l at 195 feet in MW-26XD, 2,802 µg/l at 110 feet in MW-27XD, 47.1 µg/l at 140 feet in MW-28XD, 133 µg/l at 80 feet in MW-30XD, 15.5 µg/l at

70 feet in MW-31XD, 191 µg/l at 251 feet in MW-36XD, and 361 µg/l at 154 feet in MW-37XD.

PCE was found in 13 test borings. The maximum PCE concentrations for each boring were as follows: 186 µg/l at 125 feet in MW-19XD, 12.3 µg/l at 160 feet in MW-20XD, 10,600 µg/l at 135 feet in MW-22XD, 1,038 µg/l at 195 feet in MW-23XD, 757 µg/l at 175 feet in MW-24XD, 5.3 µg/l at 60 feet in MW-25XD, 164 µg/l at 195 feet in MW-26XD, 20.5 µg/l at 130 feet in MW-27XD, 167.2 µg/l at 120 feet in MW-28XD, 4.7 µg/l at 100 feet in MW-30XD, 1.5 µg/l at 70 feet in MW-31XD, 1.6 µg/l at 201 feet for MW-36XD, and 11.1 µg/l at 154 feet in MW-37XD.

1,1,1-TCA was found in six test borings. The maximum estimated 1,1,1-TCA concentrations for each boring were as follows: 6 µg/l at 105 feet in MW-19XD, 4 µg/l at 200 feet in MW-20XD, 70 µg/l at 195 feet in MW-23XD, 161 µg/l at 195 feet in MW-24XD, 2 µg/l at 195 feet in MW-26XD, and 2 µg/l at 70 feet in MW-31XD.

Vinyl chloride was found in nine test borings. The maximum vinyl chloride concentrations for each boring were as follows: 16 µg/l (estimated) at 45 feet in MW-19XD, 5 µg/l (estimated) at 110 feet in MW-20XD, 18.5 µg/l at 155 feet in MW-22XD, 10 µg/l at 195 feet in MW-23XD, 84 µg/l (estimated) at 195 feet in MW-24XD, 0.8 µg/l (estimated) at 140 feet in MW-25XD, 12 µg/l (estimated) at 195 feet in MW-26XD, 7 µg/l at 130 feet in MW-27XD, and 2.5 µg/l at 140 feet in MW-28XD.

Chloroethane was found in test boring MW-19XD at an estimated concentration of 7 µg/l at 45 feet.

Methylene chloride was found in four test borings. Methylene chloride was found in blanks associated with all the samples and the laboratory equipment calibration requirements were not

met in these analyses. The maximum estimated methylene chloride concentrations for each boring were as follows: 7 µg/l at 200 feet in MW-20XD, 16 µg/l at 195 feet in MW-23XD, 33 µg/l at 195 feet in MW-24XD, and 1 µg/l at 70 feet in MW-31XD.

Acetone was found in five test borings. Acetone was found in blanks associated with all the samples and the laboratory equipment calibration requirements were not met in the analyses of MW-20XD, MW-23XD, and MW-27XD samples. The maximum estimated acetone concentrations for each boring were as follows: 9 µg/l at 105 feet in MW-19XD, 63 µg/l at 200 feet in MW-20XD, 46 µg/l at 35 feet in MW-23XD, 106 µg/l at 110 feet in MW-27XD, and 3 µg/l at 120 feet in MW-28XD.

1,1-DCE was found in 10 test borings. The maximum 1,1-DCE concentrations for each boring were as follows: 11.6 µg/l at 125 feet in MW-19XD, 12.4 µg/l at 135 feet in MW-22XD, 41 µg/l (estimated) at 195 feet in MW-23XD, 109 µg/l (estimated) at 195 feet in MW-24XD, 1 µg/l at 80 feet in MW-25XD, 1.1 µg/l at 195 feet in MW-26XD, 34 µg/l at 70 feet in MW-27XD, 1.4 µg/l at 170 feet in MW-31XD, 0.4 µg/l (estimated) at 151 feet in MW-36XD, and 62.8 µg/l at 154 feet in MW-37XD.

1,1-DCA was found in five test borings. The maximum 1,1-DCA concentrations for each boring were as follows: 42 µg/l at 45 feet in MW-19XD, 2 µg/l (estimated) at 110 feet in MW-20XD, 6,779 µg/l at 135 feet in MW-22XD, 1,583 µg/l at 175 feet in MW-23XD, and 2,098 µg/l at 175 feet in MW-24XD.

1,2-DCE was found in 13 test borings. The maximum 1,2-DCE concentrations for each boring were as follows: 1,574 µg/l at 125 feet in MW-19XD, 32.6 µg/l at 160 feet in MW-20XD, 298 µg/l at 175 feet in MW-22XD, 1,305 µg/l (estimated) at 195 feet in MW-23XD, 2,370 µg/l (estimated) at 195 feet in MW-24XD, 1.1 µg/l at 80 feet in MW-25XD, 54 µg/l at 195 feet in MW-26XD, 80 µg/l (estimated) at 110 feet in MW-27XD, 38.2 µg/l at 120 feet in MW-28XD,

9.6 µg/l at 40 feet in MW-30XD, 8.7 µg/l at 170 feet in MW-31XD, 1.8 µg/l at 251 feet in MW-36XD, and 132 µg/l at 154 feet in MW-37XD.

2-Butanone was found in two test borings. The maximum estimated 2-butanone concentrations for each boring were as follows: 8 µg/l at 200 feet in MW-20XD and 120 µg/l at 35 feet in MW-23XD. 2-Butanone was found in blank associated with MW-23XD sample.

Benzene was found in four test borings. The maximum benzene concentrations for each boring were as follows: 3µg/l (estimated) at 45 and 105 feet in MW-19XD, 703 µg/l at 135 feet in MW-22XD, 34 µg/l (estimated) at 195 feet in MW-23XD, and 163 µg/l (estimated) at 195 feet in MW-24XD.

Toluene was found in five test borings. The maximum toluene concentrations for each boring were as follows: 42.9 µg/l at 35 feet in MW-22XD, 31.4 µg/l at 55 feet in MW-23XD, 1.4 µg/l at 155 feet in MW-26XD, 4.2 µg/l at 100 feet in MW-30XD, and 5.2 µg/l at 70 feet in MW-31XD.

Chlorobenzene was found in four test borings. The maximum chlorobenzene concentrations for each boring were as follows: 3µg/l (estimated) at 45 feet in MW-19XD, 5.5 µg/l at 115 feet in MW-24XD, 0.3 µg/l (estimated) at 80 feet in MW-25XD, and 0.7 µg/l (estimated) at 75 feet in MW-26XD.

Ethylbenzene was found in MW-24XD at an estimated concentration of 0.2 µg/l at 115 feet.

Xylenes were found in four test borings. The maximum xylene concentrations for each boring were as follows: 122.7 µg/l at 95 feet in MW-22XD, 43.4 µg/l at 135 feet in MW-23XD, 1 µg/l at 175 feet in MW-24XD and 0.1 µg/l (estimated) at 95 feet in MW-26XD.

4.2.1.4 1992-1993 Analytical Results from Deep Monitoring Wells

Six monitoring wells installed in the deep portion of the aquifer upgradient and downgradient of the MPS were sampled in 1992-1993 as a part of the plume definition investigation (see Table 4-3).

New York State groundwater standards (Guidance Value) were not exceeded in samples from upgradient well MW-33D.

4.2.1.4.1 Downgradient Wells

Samples exceeded New York State groundwater standard (Guidance value) from five wells. TCE was found in two wells at concentrations ranging from 20 µg/l in MW-23D to 650 µg/l in MW-36D. PCE was found in MW-23D at a concentration of 18 µg/l. Methylene chloride was found in MW-36D an estimated concentration of 20 µg/l and was also found in blank associated with this sample. Acetone was found in MW-36D at a concentration of 60 µg/l. 1,2-DCE was found in MW-23D at a concentration of 19 µg/l and at 16 µg/l (estimated) in MW-36D. Benzene, toluene, ethylbenzene and xylenes were found in MW-35D at concentrations of 3 µg/l (estimated), 15 µg/l, 6 µg/l (estimated), and 47 µg/l, respectively. TICs were found in MW-35D at an estimated concentration of 239 µg/l for total TICs.

4.2.1.5 1994 Analytical Results

Groundwater samples in 1994 were collected in March 1994 during the suspected source area investigation and in July and September 1994. Analytical data are presented in Tables 4-5, 4-6, and 4-7.

4.2.1.5.1 Upgradient Wells

Samples exceeded New York State groundwater standard (Guidance value) from ten wells. TCE was found in three wells at concentrations ranging from 8 µg/l (estimated) to 140 µg/l. TCE was found in July in MW-3D at a concentration of 15 µg/l and in MW-16D at 8 µg/l (estimated). Vinyl chloride was found in MW-3S and MW-16D in July and September at estimated concentrations ranging from 2 µg/l to 15 µg/l. Chloroethane was found in MW-3S in July at a concentration of 55 µg/l. 1,1-DCA was found in MW-3S and MW-40D at estimated concentrations ranging from 5 µg/l to 18 µg/l and was also found in the associated blank. 1,2-DCE was found in MW-3S at a concentration of 50 µg/l (estimated) and in MW-16S at 11 µg/l. 1,2-DCE was found in MW-3S well at an estimated concentration of 50 µg/l in September and was not found in this well in July. Benzene was found in MW-3S at concentrations of 73 µg/l and 25 µg/l (estimated) in July, and in MW-40D at a concentration of 2 µg/l (estimated). Toluene was found in two wells: MW-3S in July and September at concentrations of 210 µg/l and 450 µg/l, respectively, and MW-40D at an estimated concentration of 6 µg/l. Chlorobenzene was found in MW-3S and MW-40D at concentrations ranging from 12 µg/l to 300 µg/l. Ethylbenzene was found in MW-3S and MW-40D wells at concentrations ranging from 11 µg/l to 1,200 µg/l. Xylenes were found in MW-3S and MW-40D wells at concentrations ranging from 15 µg/l to 3,900 µg/l. TICs (total) were found in seven wells at estimated concentrations ranging from 6 µg/l to 6,055 µg/l. TICs were found in MW-2D at an estimated concentration of 8 µg/l and in MW-3D at 58 µg/l (estimated) in July, and were not found in these wells in September. TICs were found in MW-38S at a concentration of 6 µg/l in July and were not found in this well in March and September.

4.2.1.5.2 On-Site Wells

Samples exceeded New York State groundwater standard (Guidance value) from 22 wells. TCE was found in 12 wells at concentrations ranging from 6 µg/l (estimated) to 1,500 µg/l. TCE was

found in three wells at estimated concentrations ranging from 5 µg/l to 9 µg/l. PCE was found in six wells at concentrations ranging from 14 µg/l to 140 µg/l. 1,1,1-TCA was found in three wells at concentrations ranging from 5 µg/l (estimated) to 10 µg/l (estimated), respectively. Vinyl chloride was found in five wells at concentrations ranging from 2 µg/l (estimated) to 10 µg/l. Chloroethane was found in three wells at concentrations ranging from 5 µg/l (estimated) to 120 µg/l. Methylene chloride was found in MW-39S at an estimated concentration of 10 µg/l. 1,1-DCA was found in five wells at concentrations ranging from 6 µg/l (estimated) to 23 µg/l. 1,2-DCE was found in eight wells at concentrations ranging from 12 µg/l to 920 µg/l. Benzene was found in five wells at estimated concentrations ranging from 1 µg/l to 4 µg/l. Chlorobenzene was found in MW-13D and MW-17D at concentrations of 5 µg/l and 10 µg/l, respectively. Ethylbenzene was found in three wells at estimated concentrations ranging from 6 µg/l to 40 µg/l. Xylenes were found in MW-39S in March at an estimated concentration of 83 µg/l. TICs (total) were found in 14 wells at estimated concentrations ranging from 1 µg/l to 2,893 µg/l.

4.2.1.5.3 Downgradient Wells

Samples exceeded New York State groundwater standard (Guidance value) from ten wells in July and September 1994. TCE was found in three wells at concentrations ranging from 130 µg/l (estimated) to 1,600 µg/l. PCE was found in 3 wells at concentrations ranging from 6 µg/l (estimated) to 5,100 µg/l. 1,1,1-TCA was found in MW-35D well in July and September at concentrations of 11 µg/l and 9 µg/l (estimated), respectively. Vinyl chloride was found in S-66133 well at an estimated concentration of 3 µg/l. Chloroethane was found in MW-19D at an estimated concentration of 81 µg/l. Methylene chloride was found in MW-36D at a estimated concentration of 18 µg/l. Acetone was found in MW-19S at an estimated concentration of 130 µg/l and in MW-36D at 61 µg/l. 1,2-DCE was found in three wells at concentrations ranging from 18 µg/l (estimated) to 31 µg/l. Chloroform was found in MW-19D at a concentration of 28 µg/l (estimated) and in the duplicate sample at 270 µg/l. Chlorobenzene was found in MW-19D

at an estimated concentration of 36 µg/l. TICs (total) were found in MW-19D and MW-23D at estimated concentrations ranging from 1 µg/l to 360 µg/l.

4.2.1.6 February 1997 Analytical Results

Table 4-7A shows the analytical results.

4.2.1.6.1 Upgradient Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from wells MW-3S and MW-3D in 1997.

1,1 -DCA (7µg/l), benzene (2 µg/l) and ethylbenzene (26µg/l) were found in MW-3S. Acetone was found in MW-3D at a concentration of 6µg/l.

4.2.1.6.2 On-Site Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from seven wells (MW-9S, MW-9D, MW-10D, MW-11S, MW-11D,, MW-14S and MW-14D) in 1997.

Acetone was found in wells MW-9D and MW-10D at concentrations of 5 µg/l. 1,1,1-TCA was found in MW-10D at a concentration of 5 µg/l. TCE was found in MW-9S at a concentration of 9 µg/l. PCE was found in MW-11S, MW-14S and MW-14D at concentrations ranging from 5 µg/l to 34 µg/l. Chlorobenzene was found in MW-14D at a concentration of 6 µg/l. Ethylbenzene was found in MW-14D at a concentration of 11 µg/l.

4.2.1.6.3 Downgradient Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from wells MW-19S and MW-19D in 1997.

Chloroethane was found in one well, MW-19D, at a concentration of 22 µg/l. 1,1-DCA was found in MW-19D at a concentration of 8 µg/l. 1,2 DCE was found in MW-19D at a concentration of 47 µg/l. TCE was found in MW-19D at a concentration of 30 µg/l. PCE was found in MW-19D at a concentration of 142 µg/l.

4.2.2 Semi-Volatile Organic Compounds

The following semi-volatile organic compounds were detected in groundwater at concentrations exceeding New York State standards:

Semi-Volatile Organic Compound	NYS Standard (µg/l)
benzo (a) anthracene	.0002
benzo (a) fluoranthene	0.002 (G)
benzo (b) fluoranthene	0.002 (G)
benzo (k) fluoranthene	0.002 (G)
bis (2-ethyl hexyl) phthalate	50
chrysene	0.002
1,2 dichlorobenzene	4.7**
1,3 dichlorobenzene	5
1,4 dichlorobenzene	4.7**
2,4 dimethylphenol	1+
2,6 dinitrotoluene	5

Semi-Volatile Organic Compound	NYS Standard (µg/l)
di-n-octyl phthalate	50
indeno (1,2,3-cd) pyrene	0.002 (G)
naphthalene	10 (G)
1,2,4 trichlorobenzene	5

NOTES:

(G) Guidance Value

** The standard applies to the sum of both isomers.

+ The standard applies to the sum of all phenolic compounds.

4.2.2.1 1988 Analytical Results

Groundwater analytical data are presented in Appendix C.

4.2.2.1.1 Upgradient Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from five wells. 1,2-Dichlorobenzene was found in MW-3S at a concentration of 10 µg/l and in MW-3D at 5 µg/l (estimated). Naphthalene was found in MW-3D at a concentration of 18 µg/l. Bis (2-ethylhexyl) phthalate was found in MW-2D at a concentration of 78 µg/l and was also found in blank associated with this sample.

4.2.2.1.2 On-Site Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from 15 wells. 1,2-Dichlorobenzene was found in five wells at concentrations ranging from 5 µg/l (estimated) to 21

µg/l. 1,4-Dichlorobenzene was found in MW-8D at a concentration of 7 µg/l. Naphthalene was found in MW-10S at a concentration of 180 µg/l and in OS-2 at 260 µg/l. Bis (2-ethylhexyl) phthalate was found in MW-10S at a concentration of 60 µg/l and in OS-2 at 270 µg/l, and was also found in blanks associated with these samples. Di-n-octyl phthalate was found in MW-9D at a concentration of 115 µg/l, in the duplicate sample at 170 µg/l, and in OS-2 at a concentration of 230 µg/l. Di-n-octyl phthalate was also found in blanks associated with these samples.

4.2.2.2 1994 Analytical Results

Groundwater samples in 1994 were collected in March 1994 during the suspected source area investigation and in July and September 1994. Groundwater analytical results are presented in Table 4-8 and 4-9.

4.2.2.2.1 Upgradient Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from three wells. 1,3-Dichlorobenzene was found in MW-3S in September at an estimated concentration of 10 µg/l. 1,4-dichlorobenzene was found in MW-3S and MW-3D at concentrations ranging from 8 µg/l (estimated) to 28 µg/l. 1,2-dichlorobenzene was found in MW-3S and MW-3D at estimated concentrations ranging from 2 µg/l to 8 µg/l. 2,4-dimethylphenol was found in MW-3S and MW-40D at estimated concentrations ranging from 2 µg/l to 12 µg/l. Naphthalene was found in MW-3S, MW-3D, and MW-40D at concentrations ranging from 11 µg/l to 100 µg/l. 1,2,4-trichlorobenzene was found in MW-3D in July at an estimated concentration of 7 µg/l. TICs were found in ten wells at estimated concentrations ranging from 2 µg/l to 2,015 µg/l.

4.2.2.2.2 On-Site Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from seven wells. 1,2-dichlorobenzene was found in MW-7D in July and September at estimated concentrations ranging from 4 µg/l to 7 µg/l. 1,4-dichlorobenzene was found in MW-7D in July and September at an estimated concentration of 1 µg/l. Naphthalene was found in MW-10S in July at a concentration of 22 µg/l. 2,6-dinitrotoluene was found in MW-7S at an estimated concentration of 8 µg/l. Benzo(a)anthracene was found in three wells at estimated concentrations ranging from 0.3 µg/l to 1 µg/l. Chrysene was found in three wells at estimated concentrations ranging from 0.4 µg/l to 2 µg/l. Benzo(b)fluoranthene was found in three wells at estimated concentrations ranging from 0.3 µg/l to 2 µg/l. Benzo(k)fluoranthene was found in three wells at estimated concentrations ranging from 0.2 µg/l to 1 µg/l. Benzo(a)fluoranthene was found in MW-15S and MW-17S at estimated concentrations ranging from 0.3 µg/l to 1 µg/l. Indeno(1,2,3-cd)pyrene was found in MW-15S in July and September at an estimated concentration of 0.6 µg/l. TICs were found in 22 wells at estimated concentrations ranging from 2 µg/l to 451 µg/l.

4.2.2.2.3 Downgradient Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) in downgradient wells. 1,2-dichlorobenzene was found in MW-19D and in the duplicate sample in July and September at estimated concentrations ranging from 1 µg/l to 2 µg/l. 1,4-dichlorobenzene was found in MW-19D and in the duplicate sample in July and September at estimated concentrations ranging from 6 µg/l to 7 µg/l. TICs were found in eight wells at estimated concentrations ranging from 2 µg/l to 37 µg/l.

4.2.3 Total and Dissolved Metals

The following metals were detected in groundwater at concentrations that exceeded the New York State groundwater standards:

Metal	NYS Standard µg/l
antimony	3(G)
arsenic	25
beryllium	3(G)
cadmium	10
chromium	50
copper	200
iron	300*
lead	25
manganese	300*
mercury	2
sodium	20,000
zinc	300

NOTES:

(G) Guidance Value

* The sum of iron and manganese shall not exceed 500 µg/l.

Total and dissolved analytical results for samples exceeding New York State groundwater standards are given for 1994 data. Iron and manganese results are combined as the standard states that the sum of both elements shall not exceed 500 µg/l.

4.2.3.1 1987 and 1988 Analytical Results

Groundwater analytical data are presented in Appendix C. Volatile organic compounds, semi-volatile organic compounds, PCBs, pesticides and total metals were analyzed.

4.2.3.1.1 Upgradient Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from six wells. Iron and manganese were found in five wells in 1987 and 1988 at concentrations ranging from 70 µg/l to 17,000 µg/l for iron and 141 µg/l to 6,680 µg/l for manganese. Sodium was found in four wells in 1987 and 1988 at concentrations ranging from 26,000 µg/l to 380,000 µg/l.

4.2.3.1.2 On-Site Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from 13 wells. Antimony was found in MW-9S in 1987 at a concentration of 6 µg/l. Copper was found in OS-2 in 1988 at a concentration of 40.8 µg/l. Lead was found in MW-7S in 1988 at a concentration of 165 µg/l. Iron and manganese were found in ten wells in 1987 and 1988 at concentrations ranging from 82 µg/l (estimated) to 36,300 µg/l for iron and 540 µg/l to 11,000 µg/l for manganese. Sodium was found in seven wells at concentrations ranging from 20,000 µg/l to 29,900 µg/l.

4.2.3.2 1994 Analytical Results

Groundwater samples in 1994 were collected in July and September 1994. Groundwater analytical results are presented in Table 4-10 through 4-13.

4.2.3.2.1 Upgradient Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from ten wells. Total arsenic was found in MW-2S in July at a concentration of 79.8 µg/l and in September at 41.4 µg/l.

Total lead was found in four wells at concentrations ranging from 27.7 µg/l to 94.0 µg/l. Total antimony was found in September in MW-38S an estimated concentration of 38.5 µg/l and in MW-40D at 27.2 µg/l. Total cadmium was found in MW-40D in September at a concentration of 37 µg/l. Total chromium was found in MW-40D in July and September and in the duplicate sample at concentrations ranging from 111.0 µg/l to 1,370 µg/l. Total and dissolved iron and manganese were found in ten wells at concentrations ranging from 295 µg/l to 64,400 µg/l for total iron, 15.3 µg/l to 4,500 µg/l for total manganese, 32.0 µg/l to 33,500 µg/l for dissolved iron, and 121 µg/l to 4,170 µg/l for dissolved manganese.

4.2.3.2.2 On-Site Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from 23 wells. Total arsenic was found in MW-15S and MW-39S at concentrations ranging from 33.2 µg/l to 104 µg/l (estimated). Total mercury was found in MW-18S in July at a concentration of 2.9 µg/l. Total lead was found in five wells at concentrations ranging from 33.9 µg/l to 678 µg/l. Dissolved lead was found in MW-15S in September at a concentration of 26.8 µg/l. Total antimony was found in MW-18S at an estimated concentration of 25.2 µg/l and in MW-39S at 33.7 µg/l (estimated). Dissolved antimony was found in MW-17D at an estimated concentration of 27.5 µg/l. Total beryllium was found in five wells in September at concentrations ranging from 3 µg/l (estimated) to 24.6 µg/l. Dissolved beryllium was found in MW-15D in September at an estimated concentration of 3.2 µg/l. Total cadmium was found in three wells at concentrations ranging from 14 µg/l to 107 µg/l. Dissolved cadmium was found in MW-18S in September at a

4.2.4 Pesticides/PCBs

The following pesticides and PCBs were detected in groundwater at concentrations that exceeded the New York State standards:

Pesticides	NYS Standard (µg/l)
alpha-chlordane	0.1
dieldrin	ND
endrin	ND
4,4 DDE	ND*
4,4 DDT	ND*
PCBs	NYS Standard (µg/l)
Arochlor - 1221	0.1**
Arochlor - 1232	0.1**
Arochlor - 1242	0.1**
Arochlor - 1248	0.1**
Arochlor - 1254	0.1**
Arochlor - 1260	0.1**

NOTES:

ND Not Detected

* Standard applies to the sum of these compounds.

** Standard applies to the sum of these compounds.

concentration of 19.6 µg/l. Total chromium was found in five wells at concentrations ranging from 59 µg/l to 614 µg/l. Dissolved copper was found in MW-9D in July at a concentration of 1,100 µg/l. Total and dissolved iron and manganese were found in 23 wells at concentrations ranging from 46.3 µg/l (estimated) to 146,000 µg/l (estimated) for total iron, 41.7 µg/l to 7,880 µg/l for total manganese, 33.2 µg/l (estimated) to 45,300 µg/l for dissolved iron, and 37.1 µg/l to 7,720 µg/l for dissolved manganese. Total and dissolved sodium was found in three wells at concentrations ranging from 20,200 µg/l to 32,300 µg/l for total sodium, and 20,400 µg/l to 31,900 µg/l for dissolved sodium. Total zinc was found in MW-18S and MW-39S at concentrations ranging from 442 µg/l to 2,300 µg/l.

4.2.3.2.3 Downgradient Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from ten wells. Total arsenic was found in MW-31S in September at a concentration of 58.1 µg/l. Total lead was found in MW-19S at a concentration of 28.5 µg/l (estimated) and in MW-31S at 117 µg/l. Total beryllium was found in MW-21S at a concentration of 3.7 µg/l (estimated) and in MW-31S at 10.2 µg/l. Total cadmium was found in MW-19S at a concentration of 19.2 µg/l. Total chromium was found in three wells at concentrations ranging from 55.8 µg/l to 103 µg/l. Total and dissolved iron and manganese were found in nine wells at concentrations ranging from 469 µg/l to 128,000 µg/l for total iron, 17.6 µg/l to 10,500 µg/l for total manganese, 378 µg/l to 3,190 µg/l for dissolved iron, and 17 µg/l to 9,920 µg/l for dissolved manganese. Total sodium was found in MW-35D and MW-36D in July and September at concentrations ranging from 48,300 µg/l to 48,600 µg/l and 22,300 µg/l. Dissolved sodium was found in MW-35D and MW-36D at concentrations ranging from 20,700 µg/l to 46,700 µg/l. Total zinc was found in MW-31S in September at a concentration of 307 µg/l.

4.2.4.1 1988 Analytical Results

Groundwater analytical results are presented in Appendix C.

4.2.4.1.1 On-Site Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from one well. Arochlor-1254 was found in OS-2 in the concentration of 2.6 µg/l.

4.2.4.2 1994 Analytical Results

Groundwater samples in 1994 were collected in July and September 1994. Groundwater analytical results are presented in Table 4-14 and 4-15.

4.2.4.2.1 Upgradient Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from seven wells. Dieldrin was found in five wells at estimated concentrations ranging from 0.005 µg/l to 0.01 µg/l. 4,4-DDE was found in MW-2S in July at an estimated concentration of 0.008 µg/l. Endrin was found in MW-3S in September at an estimated concentration of 0.009 µg/l. 4,4-DDT was found in three wells at estimated concentrations ranging from 0.009 µg/l to 0.02 µg/l. Arochlor-1232 was found in MW-3D in September at an estimated concentration of 6.5 µg/l. Arochlor-1242 was found in MW-3S in September at an estimated concentration of 0.84 µg/l. Arochlor-1248 was found in MW-3S and MW-40D at estimated concentrations ranging from 0.44 µg/l to 1.5 µg/l. Arochlor-1254 was found in three wells at estimated concentrations ranging from 0.14 µg/l to 0.58 µg/l. Arochlor-1260 was found in MW-2S in July at an estimated concentration of 0.58 µg/l.

4.2.4.2.2 On-Site Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from nine wells. Dieldrin was found in three wells at estimated concentrations ranging from 0.007 µg/l to 0.01 µg/l. Endrin was found in MW-13S in July at an estimated concentration of 0.01 µg/l. 4,4-DDT was found in three wells at estimated concentrations ranging from 0.003 µg/l to 0.01 µg/l. Alpha-chlordane was found in MW-15S at an estimated concentration of 0.2 µg/l. Arochlor-1232 was found in MW-14D in July at an estimated concentration of 1.5 µg/l and in September at 2.4 µg/l. Arochlor-1248 was found in MW-14S in September at an estimated concentration of 0.2 µg/l. Arochlor-1254 was found in three wells at estimated concentrations ranging from 0.14 µg/l to 4.3 µg/l. Arochlor-1260 was found in MW-15S and MW-18S in July and September at estimated concentrations ranging from 0.5 µg/l to 3.6 µg/l.

4.2.4.2.3 Downgradient Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from one well. Dieldrin was found in MW-19D and in the duplicate sample in July and September at an estimated concentration of 0.01 µg/l. Arochlor-1221 was found in MW-19D in July at an estimated concentration of 3.2 µg/l. Arochlor-1232 was found in MW-19D and in the duplicate sample in September at estimated concentrations of 1.7 µg/l and 2.3 µg/l, respectively.

4.2.5 Wet Chemistry

The following wet chemistry parameters were detected in groundwater at concentrations that exceeded the New York State standards:

Wet Chemistry Parameters	NYS Groundwater Standard (µg/l)
ammonia-nitrogen	2
sulfide	0.05

4.2.5.1 1994 Analytical Results

Groundwater samples in 1994 were collected in July and September 1994. Groundwater analytical results are presented in Table 4-16 and 4-17.

Two groundwater sampling rounds were performed in July and September 1994.

4.2.5.1.1 Upgradient Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from two wells. Ammonia-nitrogen was found in MW-3S and MW-16D in July and September at concentrations ranging from 2.14 mg/l to 3.26 mg/l.

4.2.5.1.2 On-Site Monitoring Wells

Samples exceeded New York State groundwater standard (Guidance value) from two wells. Sulfide was found in MW-9S in September at a concentration of 2.7 mg/l. Ammonia-nitrogen was found in MW-17D in July at a concentration of 2.79 mg/l and in September at 2.56 mg/l.

4.2.5.1.3 Downgradient Monitoring Wells

No groundwater standard exceedances were found in downgradient monitoring wells.

4.3 Soil and Soil Vapor Analytical Results

The validation reports for soil analytical results are presented in Appendix P.

4.3.1 September 1992 Sampling at the Former PCE Tank Area

Three soil borings (B-1, B-2, and B-3) were drilled in the vicinity of the suspected PCE source area on September 15 and 16, 1992.

Three soil samples from each boring were sent to the laboratory and analyzed for Target Compound List VOCs by NYSDEC ASP Method 91-1. VOCs in all samples were below the instrument detection limit. The data are presented in Table 4-18.

The data show no evidence of VOC-contaminated soil.

4.3.2 February 1994 Sampling in Building 42

Two soil samples were collected in the excavation pit in Building 42 during the remedial investigation on February 2, 1994.

The samples were analyzed for VOCs by NYSDEC ASP Method 91-1 and PCBs by Method 91-3 in accord with the April 1992 work plan and NYSDEC's April 23, 1992 letter to Geraghty & Miller. The analytical results are presented in Tables 4-19 and 4-20. A field blank, trip blank, matrix spike, and matrix spike duplicates samples were used to assure the quality of the sampling and analytical procedures.

Methylene chloride, 2-butanone, benzene, and acetone were found in sample FRC-SS-B42-3, collected in the southwest corner of the excavation at estimated concentrations of 2, 4, 1, and 54

µg/kg, respectively. Xylenes (total) were found in sample FRC-SS-B42-2 and collected in the southeast corner at an estimated concentration of 1 µg/kg. Methylene chloride, 2-butanone, and acetone are common laboratory contaminants and are not likely to be associated with the sample. PCBs in both samples were below detection limits.

Concentrations of VOCs and PCBs in soil do not exceed the State's cleanup objectives based on groundwater protection and health risk (NYSDEC Cleanup Policy and Guidelines, October 1991, and NYSDEC TAGM, November 16, 1992).

The sampling results do not confirm the presence of PCBs under Building 42.

4.3.3 March 1994 Suspected Source Area Investigation Results

Soil vapor surveys were conducted in the suspected source areas (the former vapor degreaser area, the former PCE tank area, and the NYSDOT properties) to determine potential soil contamination. Soil samples were collected at the soil vapor hot spots to confirm the results and to define the horizontal and vertical extent of contamination in the soil. A monitoring well was installed at the NYSDOT property and a groundwater sample was analyzed for VOCs.

The investigation focused on finding residual contamination in soil which would be indicative of a source in accord with the objectives specified in the April 1992 work plan.

The soil vapor analytical results for the vapor degreaser, the PCE tank, and NYSDOT property are shown in Tables 4-21, 4-22 and 4-23, respectively. Table 4-24 shows the soil headspace VOC field screening results. Soil analytical results are summarized in Tables 4-25, 4-26, 4-27, and 4-28.

4.3.3.1 The Former Vapor Degreaser

The soil vapor data showed an area with elevated VOCs in the vicinity of the former vapor degreaser as shown in Drawing 7. The predominant VOC is TCE with lesser concentrations of PCE and 1,2-DCE. The highest TCE and PCE concentrations in soil vapor are at boring 17-SV-VD1 at concentrations of 1300 ppm and 150 ppm, respectively. VOC concentrations decrease with distance from the vapor degreaser.

The soil vapor survey indicated that VOCs were limited to the southwest portion of Building 17. TCE and PCE were found at low concentrations throughout the investigation area and background sample locations at concentrations up to 330 ppb. The ambient VOC concentrations in soil vapor probably result from VOC partitioning from groundwater. VOCs are ubiquitous in groundwater in the vicinity of Fairchild based on RI groundwater data.

Soil samples were collected at 12 locations selected from the soil vapor survey results and historical data from the suspected source locations. Seventy-six split-spoon samples were collected and 28 soil samples were analyzed for VOCs. The highest VOC concentrations in the vadose zone were found at soil boring 17-B-2 below the former aboveground TCE tank fill pipe, with PCE and TCE concentrations of 4,100 µg/kg and 4,400 µg/kg, respectively. 1,1,1-TCA was found at an estimated concentration of 370 µg/kg at the same location. The VOC concentrations in the samples collected to delineate this area ranged from non-detect to 300 µg/kg. Geraghty & Miller soil borings B-5 and B-6 were used to delineate soil contamination to the southeast of boring 17-B-2. 1,2-DCE was found at low concentrations in a minority of the samples in conjunction with TCE. An area of contaminated soil surrounded by an area with little or no contamination was defined (see Drawing 11) and the volume of soil contaminated above NYSDEC cleanup levels (January 24, 1994, NYSDEC TAGM No. 4046) was calculated.

PCE and TCE State cleanup objectives are 182 and 91 $\mu\text{g}/\text{kg}$, respectively, based on an average total organic carbon content of 1,300 mg/kg . The horizontal extent of contamination as delineated along borings 17-B1-C and 17-SS-A15.5 on the north, B-6 on the east, B-5 and 17-B-4 on the south, and 17-B-3 and 17-SS-VD1 on the west. Boring locations along with soil analytical data are shown on Drawing 11. Soil samples from borings B-5 and B-6 were collected in 1992 by Geraghty and Miller.

The vertical extent of contamination was assumed from the land surface to a depth of 15 feet based on soil contamination data at boring 17-B-2.

The volume of soil was estimated at approximately 57,000 cubic feet or 2,100 cubic yards as follows:

$$\text{VOLUME} = \text{AREA} \times \text{DEPTH}$$

Where: AREA = 3,800 square feet

DEPTH = 15 feet

Elevated VOC headspace concentrations were measured at the water table at borings 17-B1-C and 17-SS-VD2 located adjacent and between the former press pits (see Drawing 11). These results may be indicative of releases of hydraulic oil used in the presses. Hydrocarbon contamination is likely to have a limited extent and was not found at well MW-39, located only 35 feet downgradient of boring 17-B1-C.

Acetone and methylene chloride, common laboratory contaminants, were found in the associated method blanks and are not likely to be present in site soil. VOCs were found below the fill pipe to a depth of 15 feet and the concentrations decrease by up to two orders of magnitude below 15 feet. VOC concentrations in soil at the fill pipe are less than 0.03 mg/kg at 26 feet below grade just above the water table.

Soil boring 17-SS-BB18 was drilled in the Building 17, basement southwest of the vapor degreaser based on the soil vapor results. 1,1,1-TCA was not found in the soil sample collected from this boring and trace levels of TCE, PCE, and xylenes were found.

4.3.3.2 The Former PCE Tank Area

High concentrations of PCE (up to 23,000 ppm) and its degradation products were found in soil vapor north and northeast of the former PCE tank as shown in Drawing 8. These data suggest that PCE contamination exists in the soil vapor phase and is trapped a few feet below the concrete floor. The elevated VOC soil vapor area does not indicate the exact PCE source area because of the restricted gas migration below Building 17 and the age of the release.

PCE concentrations in soil vapor near Building 27 ranged from 2 to 110 ppm and are much lower than beneath Building 17, where PCE was found in soil vapor at a concentration up to 23,000 ppm. The spatial distribution of PCE near Building 27 does not show any consistent pattern. PCE concentrations at sample locations around the 110 ppm hot spot at boring 14-SV-13 decreased to 2.1 ppm at boring 14-SV-9 to 2.3 ppm at 14-SV-14 which are located 10 feet to the east and northwest, respectively. PCE was found in soil vapor at boring 14-SV-8 at a concentration of 24 ppm, but no VOC-contaminated soil was found 10 to 15 feet from this sample at boring 14-B-3 (sampled in 1992). The distribution of PCE in soil vapor near Building 27 does not indicate that this area is a possible source of groundwater contamination.

1,1,1-TCA AST was located approximately 50 feet west of the PCE tank. 1,1,1-TCA was not found in soil and only trace concentrations (less than 0.3 ppm) of 1,1,1-TCA were found in soil vapor below Building 17. The data do not suggest that the 1,1,1-TCA tank is a source, but it is possible that minor release(s) of VOCs would not be detected at this time due to volatilization and biodegradation.

PCE and TCE were found in soil at concentrations up to 0.066 and 0.004 mg/kg. Table 4-26 and Drawing 10 summarize the VOC soil data. VOC concentrations generally were highest at four to seven feet below grade and decreased with depth. Acetone was detected in a majority of the soil samples. Acetone is a common lab contaminant and there is no history of acetone use associated with the PCE tank area. Toluene and benzene were found in soil at the former PCE tank area in one of the 19 borings at estimated concentrations of 4 and 5 µg/kg, respectively.

4.3.3.3 NYSDOT Property

A portion of the NYSDOT property upgradient of the MPS and north of Conklin Street was investigated to determine the presence of VOCs. The scope of work included the collection and analysis of 36 soil vapor survey samples, 17 soil samples, and the installation of a monitoring well and groundwater sampling.

An underground industrial waste sewer (acid waste line) ran south from the waste pump-out pit at Aircraft Finishers, across Conklin Street, to Building 32. It continued overhead through Building 32 and Building 17, terminating at the wastewater treatment plant influent header at the southeast corner of Building 17. At the Fairchild property, the pipe ran above the ground and if it had leaked, it would have been noticed and immediately repaired. The pipe was made of "Durion," an acid resistant material. This pipe was capped at the wastewater treatment plant connection in 1974 after the Fairchild Republic Corporation formally notified Aircraft Finishers.

PCE, TCE, cis 1,2-DCE, TCA and vinyl chloride were found in soil vapor on NYSDOT property as shown on Drawing 9 and in Table 4-23. The soil vapor data indicated a hot spot on the south side of Building 2 in the vicinity of a buried industrial wastewater sewer line (sample locations DOT-SV-5 and DOT-SV-29). PCE, TCE, and cis 1,2-DCE were found at 14 ppm, 74 ppm, and 6.9 ppm, respectively. Vinyl chloride was found at concentrations up to 16 ppb.

Total VOC concentrations in soil headspace were highest at sample locations DOT-SV-5 and DOT-SV-29 (62.7 ppm and 15.7 ppm, respectively).

Two soil borings were drilled on NYSDOT property to investigate the VOC soil vapor hotspot. TCE and PCE were found in the soil at concentrations up to 0.16 mg/kg and 0.015 mg/kg, respectively. Stained and odorous soil was found in boring DOT-SS-5 below the water table. Toluene and ethylbenzene were found at 0.6 and 0.2 mg/kg in a soil sample collected below the water table. Table 4-27 and Drawing 12 summarize VOC concentrations in soil. The VOC contaminated soil may be associated with leaks from the adjacent sewer line or a former petroleum storage tank described in the June 11, 1991 NYSDEC Region I Initial Spill Report. This tank, located about 100 feet north of boring DOT-S-5, was used to store #2 fuel oil or waste oil.

4.3.3.4 Total Organic Carbon Content

The average total organic carbon content in soil is 1311 mg/kg based on data summarized in Table 4-28. Soil grain size distribution analysis results are presented in Appendix Q.

4.4 Building Demolition and Reduction of MPS Inactive Hazardous Waste Site Boundaries Soil and Concrete Core Sampling Analytical Results

Predemolition sample locations are on Figure 6.

4.4.1 VOC Soil Sampling

4.4.1.1 Former PCE Tank Area

Eight soil borings (SS-4, SS-5, SS-6, SS-7, SS-8, SS-18, SS-19, and SS-21) were drilled in the vicinity of the former PCE tank area on November 18, 19, and 21, 1996 by MAC. The data are in Table 4-29 and 4-30. The following table shows the sampling depths.

Soil Sample	Depth (feet below ground surface)
SS-4, SS-6, SS-8, SS-18, SS-19, SS-21	3-5
	10-12
SS-5, SS-7	3-5
	10-12
	18-20
	26-28

Twenty soil samples were sent to the laboratory and analyzed for VOCs by U.S. EPA Method 8240. PCE was detected in SS-4 (3-5 feet) above the laboratory detection limits at 12 ug/kg and in SS-5 (3-5), SS-7, and SS-18 at an estimated concentration of 6 ug/kg, 4 ug/kg and 3 ug/kg, respectively. TCE was detected in SS-18 (3-5 feet) at an estimated concentration of 3 ug/kg. 2-Butanone was detected in SS-8 (10-12) at an estimated concentration of 2 ug/kg. 4-Methyl-2-Pentanone was detected in SS-8 (3-5 feet) at an estimated concentration of 2 ug/kg.

4.4.1.2 Former Vapor Degreaser and Fill Areas

Four soil borings (SS-1, SS-2, SS-17, and SS-20) were drilled in the vicinity of the former vapor degreaser and fill pipe areas on November 20 and 21, 1996 by MAC. The data are in Table 4-29 and 4-30. The following Table shows the sampling depths.

Soil Sample	Depth (feet below ground surface)
SS-17, SS-20	3-5
	10-12
SS-1, SS-2	3-5
	10-12
	18-20
	26-28

Twelve soil samples were sent to the laboratory and analyzed for VOCs by U.S. EPA Method 8240. PCE was detected in SS-1 (3-5 feet) above the laboratory detection limits at 570 ug/kg. TCE was detected in SS-1 (3-5 feet) above the laboratory detection limits at 170 ug/kg and in SS-17 (10-12 feet) at an estimated concentration at 1 ug/kg. 4-Methyl-2-Pentanone was detected in SS-2 (3-5 feet) at an estimated concentration of 1 ug/kg. Acetone was detected in SS-1 (3-5, 8-10, 18-20 feet) at an estimated concentration of 2 ug/kg, 2ug/kg, 2 ug/kg, SS-2 (3-5,10-12, 18-20, 26-28 feet) at an estimated concentration of 4 ug/kg, 3 ug/kg, 5 ug/kg, 2 ug/kg, and SS-17 (3-5 and 10-12 feet) at an estimated concentration of 3 ug/kg and 3 ug/kg, respectively.

4.4.1.3 Former Chemical Milling and Alodine Areas

Three soil borings (SS-14, SS-15, and SS-16) were drilled in the vicinity of the former vapor degreaser and fill pipe areas on November 20 and 21, 1996 by MAC. The data are in Table 4-29 and 4-30. The following Table shows the sampling depths.

Soil Sample	Depth (feet below ground surface)
SS-14, SS-16	3-5
	10-12

SS-15	3-5
	5-9
	10-12

Acetone was detected in SS-14 (3-5, 10-12) at an estimated concentration of 4 ug/l and 3 ug/kg, and in SS-15 (3-5, 5-9, 10-12 feet) at an estimated concentration of 7 ug/kg, 2 ug/kg and 2 ug/kg, respectively.

4.4.1.4 Soil Sampling in Other Areas

Five soil borings (SS-3, SS-9, SS-10, SS-11, and SS-12) were drilled in Buildings 46, 63, 64, and between 42 and 64 to provide coverage across the MPS Inactive Hazardous Waste site on November 20 and December 2, 1996 by MAC. The data are in Table 4-29 and 4-30. The following Table shows the sampling depths.

Soil Sample	Depth (feet below ground surface)
SS-3, S-11, S-12	3-5
	10-12
SS-10	3-5
	8-10
SS-9	3-5
	10-12
	18-20
	26-28

Twelve soil samples were sent to the laboratory and analyzed for VOCs by U.S. EPA Method 8240. Acetone was detected in SS-9 (3-5) above the laboratory method detection limit at 58 ug/kg and in SS-11 (3-5, 10-12) at estimated concentrations of 9 ug/kg and 6 ug/kg, and in SS-12 (3-5, 10-12, 15-18, 26-28) at estimated concentrations of 5 ug/kg, 2 ug/kg, 3 ug/kg, and 4 ug/kg respectively. 1,2-Dichloroethene, 2-Butanone, chlorobenzene and xylenes were detected in SS-9 (3-5) at estimated concentration of 3 ug/kg, 8 ug/kg, 1 ug/kg and 2 ug/kg respectively. TCE was detected in SS-9 (3-5) above the laboratory detection limit at 39 ug/kg and in SS- 9 (10-12) at estimated concentrations and in SS-12 (16-18) at estimated concentrations of 3 ug/kg and 6 ug/kg, respectively. PCE was detected in SS-9 (3-5) above the laboratory detection limit at 44 ug/kg and in SS-9 (10-12) at an estimated concentration of 3 ug/kg.

4.4.2 Chromium Sampling Results

The laboratory data are in Table 4-31.

4.4.2.1 Former Chemical Milling and Alodine Areas

Seven borings (SS-14, SS-15, SS-16, SS-25, SS-26, SS-27, and SS-28) were drilled in the Chemical Milling and Alodine areas on November 19, 1996 and February 3, 1997 to assess chromium concentration in these areas. All borings were advanced to 10-12 feet below the ground surface and samples were collected from the 3--5 foot and 10-12 foot interval except for SS-15 which was also sampled at the 5-9 foot interval. The data are in Table 4-31.

Fifteen samples were sent to the laboratory and analyzed for Total Chromium by U.S. EPA Method SW 846 and for TCLP Chromium by USEPA Method 1311. Chromium was detected in SS-15 (10-12), SS-25, (3-5 and 10-12), SS-27 (3-5, 10-12), and SS-28 (3-5 and 10-12) above the laboratory method detection limit at 242 mg/kg, 5.1 mg/kg, 12.3 mg/kg, 5.4 mg/kg, 5.2 mg/kg, 10.2 mg/kg, 14 mg/kg, 4.6 mg/kg and 3.3 mg/kg, respectively. Chromium was detected

in SS-14 (3-5 and 10-12), SS-15 (3-5, 5-9, and SS-16 (3-5 and 10-12) at estimated concentrations at 293 mg/kg, 592 mg/kg, 230 mg/kg, 143 mg/kg, 27.8 mg/kg and 20.8 mg/kg, respectively. None of the samples analyzed for TCLP Chromium exceeded the 5 mg/l hazardous waste criteria.

4.4.2.2 Former Sulfuric Anodizing Area

Five soil borings (SS-13, SS-29, SS-30, SS-31 and SS-32) were drilled on December 2, 1996 and February 3, 1997 in the former Sulfuric Anodizing area to delineate any chromium in soils by MAC. The soil samples were collected from the 3-5 and 10-12 foot interval except in SS-13 where the samples were collected from the 7-9 and 10-12 foot interval. The data are in Table 4-31.

Ten soil samples were sent to the laboratory and analyzed for Total Chromium by USEPA Method SW 846 and for TCLP Chromium by USEPA Method 1311. Total Chromium was detected in all the analyzed samples; SS-13, 791 and 106 mg/kg, SS-29, 13.5 and 6.6 mg/kg, SS-30, 652 and 69.2 mg/kg, SS-31, 17.3 and 38 mg/kg and SS-32 62.6 and 58.5 mg/kg. None of the samples analyzed for TCLP Chromium exceeded the 5 mg/l hazardous waste criteria.

4.4.3 Concrete Core Sampling

The laboratory data are in Table 4-32.

4.4.3.1 Former Vapor Degreaser

A concrete core from the floor was collected near the former vapor degreaser (SS-1) and analyzed for VOCs by US EPA Method 8240, and TCLP VOCs by USEPA Method 1311. Acetone was detected at an estimated concentration of 3.2 mg/kg. None of the samples analyzed for TCLP VOCs exceeded the 5 mg/l hazardous waste criteria.

4.4.3.2 Former PCE Tank

A concrete core from the floor was collected near the former PCE tank and analyzed for VOCs by USEPA Method 8240 and TCLP VOCs by Method 1311. Acetone and 2-butanone were detected at estimated concentrations of 4.6 and 1.4, respectively. None of the samples analyzed for TCLP VOCs exceeded the 5 mg/l hazardous waste criteria.

4.4.3.3 Former Chemical Milling and Alodine Areas

Three cores from the floor (SS-14, SS-15, and SS-16) were sampled for Total Chromium by USEPA Method SW 846 and for TCLP Chromium by USEPA Method 1311. Total Chromium was detected in SS-14, SS-15 and SS-16 at estimated concentrations of 50.6 mg/kg, 10.5 mg/kg, and 480 mg/kg, respectively. Chromium was detected in SS-14, SS-15, and SS-16 sample extracts at concentrations of 0.056 mg/l, 0.0786 mg/l and 1.14 mg/l. None of the samples analyzed for TCLP VOCs exceeded the 5 mg/l hazardous waste criteria.

5.0 CONTAMINANT FATE AND TRANSPORT

Contaminant fate and transport evaluations are based on the site physical characteristics and the known nature and extent of chemical contamination. This information was collected during the RI and previous investigations.

5.1 Potential Routes of Migration

The RI database indicates the presence of contamination in soil at the MPS and in groundwater in the vicinity of the MPS. Groundwater is the primary contaminant migration route of concern. Additional routes of contaminant migration include stormwater infiltration and air. The potential transport of contaminant through these routes appears to be minimal because the MPS area is mostly paved or covered by buildings.

5.2 Contaminant Persistence and Migration

The persistence of a chemical or its tendency to degrade and transform depends on its physical and chemical properties. The rate at which a contaminant will migrate from the source into air, soil, groundwater, or surface water depends on several factors including the solubility of the contaminant, its volatility, and its tendency to adsorb onto soil particles and atmospheric particulates. Migration is also affected by the physical and environmental characteristics of the site such as geology, soil composition, groundwater flow rate, weather, terrain, and vegetative cover.

Vapor pressure, water solubility, and the chemical's carbon/water partition coefficient are used to estimate the environmental fate of a contaminant. The vapor pressure of a liquid or solid is the

pressure at which its corresponding gas phase is in equilibrium with the liquid or solid and vapor pressure indicates the extent to which a chemical will volatilize under varying conditions. In general, chemicals with relatively low vapor pressures are less likely to move into a gaseous phase than those with higher vapor pressures.

The water solubility of a chemical can be used to indicate how efficiently it may be transported by surface runoff and groundwater flow. Water solubility can also affect a chemical's tendency to oxidize, reduce, photolyze, and hydrolyze. The carbon/water partitioning coefficient (K_{oc}) is a chemical specific parameter used to indicate the extent to which a chemical may adsorb onto a soil particle. In general, the higher the K_{oc} , the more readily the chemical will sorb onto soil particles. This coefficient is used to estimate the equilibrium distribution between a chemical dissolved in groundwater and adsorbed onto soil particles.

5.2.1 VOCs

VOC contaminants of concern include PCE, TCE and their degradation products found in groundwater and in the source area at the MPS. Other VOCs were detected sporadically in groundwater but source areas were not identified for these compounds (1,1,1-TCA, chloromethane, chloroform, 2-butanone, 2-hexanone, benzene, toluene, and xylenes). Table 5-1 shows the site-specific contaminants of concern found in soil and groundwater and their water/carbon partition coefficients, solubilities and vapor pressures.

VOCs in groundwater are transported in the dissolved phase. VOC concentrations in groundwater gradually decrease due to sorption, dilution, and chemical and biological degradation. Contaminants found at the water table can volatilize and be transported through the vadose zone. VOCs in the vadose zone soil can volatilize or be dissolved by water percolating through the soil and migrate to the groundwater.

5.2.2 Semi-VOCs

Semi-volatile compounds typically have low water solubilities, low vapor pressures, and high K_{oc} . They are persistent in the environment, adsorb readily onto soil particles, and have low degradation rates.

5.2.3 PCBs and Pesticides

PCBs and pesticides are persistent in the environment and have very low solubility in water. These chemicals readily adsorb onto soil particles and generally do not migrate a significant distance from the source.

5.2.4 Metals

Metals are persistent in the environment because they do not readily volatilize and tend to adsorb onto soil particles. The oxidation state of a metal can change its tendency to be mobile in the environment.

5.3 Contaminant Migration in Groundwater

5.3.1 VOCs in Groundwater

VOC contamination was found in groundwater during the RI and in previous investigations. The VOC plume associated with releases from the former PCE tank system was delineated on-site and off-site on Republic Airport property. Another VOC plume was found downgradient of the former vapor degreaser. Contaminated groundwater was also found on the southwestern portion of the Republic Airport and upgradient of the MPS on NYSDOT property.

approximately 50 feet downgradient of the source area at a depth of 185 feet. The highest TCE and 1,2-DCE concentrations of 2,546 µg/l and 2,370 µg/l, respectively, were found in test boring MW-24XD at a depth of 195 feet, approximately 5,200 feet downgradient of the source area.

Total VOC concentrations decreased from 83 mg/l in boring MW-29XD near the source area to approximately 13 mg/l in test boring MW-23XD in the middle of the plume, 3,400 feet downgradient, to less than 1 mg/l in test boring MW-37XD at the southern extent of the plume. The total VOC concentration is based on data from all samples collected in these borings. The maximum PCE concentration decreases by more than 20 times from the source area to the middle of the plume which indicates attenuation, dilution and/or decay.

The vertical profile of PCE in groundwater is shown on Drawing 19. The bottom of the VOC plume was delineated above the 20 to 40 foot thick unnamed clay layer found at approximately 260 to 300 feet below land surface beneath the MPS and Republic Airport. VOCs were not found in any of the samples collected below this clay layer (MW-23XD, MW-36XD, MW-37XD, MW-35XD, MW-23D) which indicates that the clay layer effectively retards downward migration. The highest concentrations of PCE were found in the deep zone in test borings MW-29XD, MW-22XD, and MW-23XD at 22.7, 10.6, and 2.03 mg/l, respectively. The distribution of the PCE contamination with concentrations more than 1 mg/l indicates that contaminants migrate in the predominantly horizontal direction.

The gamma log of boring MW-29XD (see Appendix K) shows that the source area is underlain by highly permeable, medium to coarse outwash sand which allowed the PCE to sink through the saturated zone. (The specific gravity of PCE is 1.63) The deep semi-confining or confining layers (see Hydrogeological Cross-Section on Drawing 5) have effectively restricted deeper vertical migration. The vertical PCE distribution shown on Drawing 19 indicates that PCE contamination near the source area extends to a depth of approximately 200 to 220 feet.

The lateral extent of the PCE plume associated with the former PCE tank is shown on Drawing 18. The distribution of PCE differs in the shallow (less than 100 feet) and deep zones (100 to 300 feet). The PCE plume in the shallow zone (defined by the 20 µg/l isocontour line) extends approximately 5,000 feet downgradient. The VOC plume in the deep zone extends approximately 6,500 feet downgradient.

The shallow zone is comprised mostly of gravelly, medium to coarse glacial sands. The flow velocity in this material is 270 to 450 feet/year based on USGS publications and field data. The deep zone is comprised of fine to coarse sands with interbedded layers of silty, clayey sand or clays. The groundwater flow velocity in the deep zone ranges from 180 to 250 feet/year. The higher flow velocity in the shallow zone suggests that the plume in this zone would extend further than in the deep zone, but the analytical data indicate that the opposite is true.

Time of travel (TOT) estimates were calculated to illustrate the apparent flow contradiction. PCE was used initially at the main plant in 1975 (see Section 1.2.4.3). The PCE plume TOT is based on conservative assumptions which do not consider the affects of dilution, dispersion, and attenuation. TOT calculations used the following parameters based on USGS and field data:

Aquifer Characteristics	Upper Glacial	Magothy
Hydraulic Conductivity ¹ (ft/day)	150-250	50-70
Hydraulic Gradient ² (ft/ft)	0.0015	0.002
Effective Porosity ¹	0.3	0.2
Groundwater Pore Velocity (ft/yr)	270-450	180-250

NOTES:

¹ McClymonds N.E. and O.L. Franke, USGS, 1972

² RI Field Data

TOT estimates of the possible extent of the plume in the shallow and deep zones are shown on Drawing 18. The TOT analysis indicates that the plume in the shallow zone generally matches the predicted plume extent, but the extent of the plume in the deep zone is approximately 1,500 feet further downgradient than predicted by the TOT calculations. This indicates that the southern component of the plume may be attributable to a source(s) other than the PCE tank and is commingled with upgradient off-site contamination released before 1975 or from an unknown source(s) at the Republic Airport downgradient of the MPS. The contaminant concentrations associated with the potential sources at Republic Airport should be higher in the shallow zone than in the deeper zone. The low level contamination found in the shallow zone and the high concentrations found in the deep zone characteristically indicate an upgradient source(s).

Fairchild water supply well S-28211 (depth 600 feet), located at the southwest corner of Building 29, was used as a major source of process and potable water at the MPS from 1966 to plant closure in 1987. The average pumping rate is estimated at 250 mgd based on data provided by Fairchild (see Table 1-1). Two East Farmingdale Water District wells, S-66556 and S-79105 (depth 750 ft), with average pumping rates of 300 mgd, are approximately 6,600 feet downgradient of the site. The PCE isocontour lines indicate that pumping these wells did not affect contaminant migration. Drawing 18 shows that the plume in the shallow and deep zone is aligned along the regional groundwater flow direction and is not biased toward wells screened approximately 250 to 350 feet below the bottom of the plume. The continuous clay beneath the area shown in deeper borings and well logs has restricted the influence of these pumping wells.

A smaller PCE plume was found in the shallow zone downgradient of the vapor degreaser and PCE was detected in wells MW-39S and 18-8 at concentrations of 30 and 63 $\mu\text{g/l}$, respectively. Analytical data from the 1992 and 1994 sampling rounds indicated that the PCE contamination does not extend beyond the property line. PCE concentrations at monitoring wells MW-9S, 9D, 10S, and 10D located downgradient of the vapor degreaser at the Fairchild property line were less than 10 $\mu\text{g/l}$, which is representative of upgradient water quality (see Section 5.3.1.1.3).

5.3.1.2 TCE Contamination

TCE was found in groundwater throughout the investigation area. The conceptual three-dimensional extent of the TCE plume is shown on Drawings 20 and 21. Drawing 20 shows the distribution of TCE in the shallow zone (less than 100 feet) and in the deep zone (100 to 300 feet). Analytical data collected from the groundwater vertical profiling borings and monitoring wells indicate that the distribution of high levels of TCE in the shallow and deep zones differs and, in general, TCE concentrations in the shallow zone were much lower than in the deep zone.

5.3.1.2.1 TCE Contamination in the Shallow Zone (less than 100 feet in depth)

TCE was found in the shallow zone at concentrations exceeding 1000 µg/l at a few discontinuous areas (Drawing 20). The rest of the study area is characterized by low level TCE contamination at concentrations less than 100 µg/l.

The highest TCE concentration of 1,127 µg/l was found in groundwater vertical profiling boring MW-19XD which is approximately 600 feet downgradient of the former PCE tank. TCE was found at 965 µg/l in boring MW-23XD approximately 3,500 feet downgradient of the PCE tank and at 361 µg/l at the edge of the PCE plume in boring MW-37XD.

TCE was found at a concentration of 260 µg/l in MW-16S upgradient of suspected sources at the MPS, located upgradient of the MPS, but was below 30 µg/l in the adjacent monitoring well in cluster 16 (MW-16D) and in downgradient wells MW-14S, 14D, 15S, and 15D. These data indicate that the TCE contamination found near well MW-16S is of limited extent and is not associated with the MPS.

Another TCE plume was delineated downgradient of the former vapor degreaser area using data from the 1991, 1992, and 1994 groundwater sampling rounds. The RI database indicates that

TCE concentrations downgradient of the vapor degreaser have decreased with time and distance. TCE was found at monitoring well 18-8, 40 feet downgradient of the former vapor degreaser in 1991 at a concentration of 1,000 µg/l but was 190 µg/l in 1994. The concentration of TCE at monitoring well clusters 9 and 10, approximately 650 feet downgradient of the vapor degreaser, was less than 40 µg/l in 1992 and was 24 µg/l in 1994. Clusters 9 and 10 are located near the Fairchild property line and TCE concentrations at these clusters are comparable to the 88.7 µg/l TCE found in upgradient MW-3XD.

A high concentration of TCE (1,072 µg/l) was found in boring MW-27XD located in the southwest portion of Republic Airport. The source of this contamination is unknown.

5.3.1.2.2 TCE Contamination in the Deep Zone

TCE contamination in the deep zone was found throughout the Republic Airport at concentrations exceeding 100 µg/l. The TCE plume extends toward the southern boundary of the Airport. Two areas of high TCE contamination (at concentrations more than 1,000 µg/l) were delineated at Republic Airport based on data from the vertical profiling borings and monitoring well sampling, as shown on Drawing 20. TCE was found in borings MW-23XD and MW-24XD at 2,028 and 2,546 µg/l, respectively. TCE was also found in boring MW-27XD and monitoring well MW-36D at 2,802 and 1,600 µg/l, respectively.

The high concentrations of TCE (303 µg/l) found in upgradient boring MW-2XD is likely associated with VOC contamination from an upgradient source(s).

The vertical profile of the TCE plume in groundwater is shown on Drawing 21. Most of the TCE contamination was found in the deep zone. The bottom of the plume was delineated above the clay layer in the area of the MPS and Republic Airport at a depth of approximately 260 to 300

feet. TCE was not found below this clay which indicates that the clay effectively retards downward migration.

TCE occurs elsewhere on the Airport property. The width of the TCE plume and the groundwater flow data suggest that the source area is larger than the MPS and that VOCs associated with the former PCE tank and former vapor degreaser plumes are commingled with contamination from other sources.

TCE may occur as a breakdown product of PCE, and TCE is found in the PCE plume. The VOC contamination found in the southwest of the Airport appears to be from offsite sources based on groundwater flow direction.

The extent of the TCE plume in the deep zone is much larger than in the shallow zone. If the MPS was the TCE source area for both zones, the shallow plume would be larger or at least comparable with the size of the TCE plume in the deep zone, and TCE concentrations at the source area would be higher than at downgradient locations.

5.3.1.3 1,1,1-TCA Contamination

The suspected 1,1,1-TCA source areas at the MPS were investigated during the RI and previous investigations. The former 1,1,1-TCA aboveground storage tank was investigated during the suspected source area investigation in March 1994. 1,1,1-TCA was not found in soil and only trace concentrations of 1,1,1-TCA (less than 0.3 ppm) were found in a few soil vapor samples below Building 17. 1,1,1-TCA was not found in soil in the suspected source area at the former 1,1,1-TCA tank, and 1,1,1-TCA was not found in groundwater in borings MW-29XD and MW-19XD 50 and 600 feet, respectively, downgradient of the 1,1,1-TCA tank. The data do not suggest that the former 1,1,1-TCA tank area is a source.

1,1,1-TCA was also stored in the drum storage area in Building 25, but no evidence of spills or releases were found in this area during the site RCRA closure in 1988.

1,1,1-TCA was also used at the Wind Tunnel facility operated by Grumman Corporation. 1,1,1-TCA was found in 1991 in the dry well, but low concentrations of 1,1,1-TCA found at the MPS and at the Airport cannot be related to this source. The former dry well is over 1,000 feet hydraulically sidegradient to the VOC plume delineated at the MPS. The wind tunnel investigation is discussed in Section 1.3.4.7 and the sampling data are presented in Appendix F.

1,1,1-TCA concentrations found in upgradient test boring (MW-2XD) and monitoring well (MW-1D) significantly higher than 1,1,1-TCA concentrations found at the MPS and on the Airport property. The highest 1,1,1-TCA concentrations were found in 1987 in upgradient well MW-1D (1,500 µg/l) and in 1992 in vertical profiling boring MW-2XD (5,990 µg/l). 1,1,1-TCA concentration in the on-site and downgradient vertical profiling borings ranged from non-detect to 161 µg/l (boring MW-24D). Analytical results from the two rounds of groundwater sampling in 1994 indicated 1,1,1-TCA contamination at concentrations less than 11 µg/l. The spatial distribution of 1,1,1-TCA in groundwater does not follow any consistent pattern.

The RI investigation data do not indicate any evidence of significant releases of 1,1,1-TCA at the MPS.

5.3.1.4 Other Volatile Organic Compounds

Low concentrations of petroleum hydrocarbons (BTEX) and chlorinated hydrocarbons (chlorobenzene, methylene chloride, and 1,1-DCA) were found in several areas upgradient of the site, on-site, and downgradient of the Airport. These contaminants were found in upgradient wells and vertical profiling borings at the similar or higher concentrations than at the MPS and Republic Airport. No significant petroleum hydrocarbon contamination was found in the soil

during the suspected source area investigation. Petroleum hydrocarbons were found at the elevated concentrations in a number of sites in the vicinity of the MPS and the RI analytical database indicates that groundwater quality at the MPS was evidently affected by off-site sources.

Fairchild's underground storage tanks were removed prior to 1987 and could not be a continuing source of contamination. The concentrations of petroleum hydrocarbons in upgradient wells and vertical profiling borings were detected at similar or higher concentrations than at the MPS and Republic Airport. No significant sources of petroleum hydrocarbon contamination were found in the soil based on RI data. The presence of petroleum hydrocarbons in upgradient wells indicates offsite sources (MW-3S and MW-40D).

5.3.1.5 Groundwater Quality Impacts from the Old Recharge Basin

High TCE concentrations were found in the southwestern portion of the Airport downgradient of the ORB. This contamination cannot be attributed to Fairchild's discharge to the ORB since there is no evidence that Fairchild's discharges to the ORB could have caused the high VOC concentrations found in this portion of the Airport. The ORB received large amounts of water when it was active, and significant dilution and dispersion would have reduced VOC concentrations below the levels found in the southwestern portion of the Airport. VOCs were found in the vicinity of the ORB at low or non-detect levels based on data from 1987 through 1988 and 1992 sampling rounds which indicates that the ORB is not a current source of VOC contamination. Time of travel analysis shows that the VOC contamination found at the Airport cannot be explained as a slug of contaminated groundwater (detached plume) moving downgradient of the ORB. Analytical data and groundwater flow considerations regarding the ORB's impact on groundwater quality are discussed below.

5.3.1.5.1 On-Site Surface Water and Groundwater Quality

Fairchild discharged treated process water and stormwater from the MPS to the ORB from 1950 to 1981. Fairchild's water usage and wastewater streams, quantities discharged, and VOC analytical data are discussed in section 1.2.5. The analytical data from prior discharges show that only low concentrations of VOCs were discharged to the ORB and this is confirmed by the groundwater, surface water, and sediment data collected at the ORB. Analytical data collected during the ORB RI are discussed in EDER's, Old Recharge Basin Final Remedial Investigation Report, January 1995.

Surface water and groundwater quality in the ORB and in the vicinity of and downgradient of the ORB were investigated during the hydrogeological and remedial investigations conducted from 1982 to 1993. The monitoring well network is shown on Drawing 20.

PCE and TCE were detected in both upgradient and downgradient wells during the 1987 and 1988 sampling at concentrations from non-detect to 4 µg/l which are below NYSDEC groundwater standards. The concentration of PCE in sidegradient well 6S was 6 µg/l and TCE was detected in downgradient well 12S at 8 µg/l.

PCE and TCE were found in 1992 through 1993 at upgradient and downgradient well clusters 11 and 10 at comparable concentrations varying from 7 to 20 µg/l. PCE and TCE concentrations were below the State groundwater standards in downgradient clusters 2, 3, 4, 8, and 9. These data do not indicate any significant groundwater impact from the ORB.

VOCs were detected at higher concentrations at sidegradient monitoring wells 6S and 6D, located approximately 20 feet from the ORB, during the 1992-1993 sampling events. Fairchild stopped all its discharges to the ORB in 1983. Concentrations of 1,1,1-TCA in wells 6S and 6D in 1987 and 1988 ranged from 6 to 12 µg/l; PCE and TCE concentrations ranged from non-detect to 6

µg/l. 1,1,1-TCA concentrations found in these wells in 1992 and 1993 increased by 20 to 50 times and ranged from 131 to 660 µg/l. Concentrations of PCE increased by five times and concentrations of TCE increased by 30 times from 1987 to 1993. If the ORB was the source of the VOCs found at 6S and 6D, VOC concentrations should be higher in 1987 than they were in 1992, considering that Fairchild's discharge to the ORB ceased in 1983. These data clearly indicate that Fairchild could not be a source of the VOCs found at the ORB and that they should be attributed to off-site sources.

Geraghty & Miller sampled ORB surface water in 1988 and EDER sampled ORB surface water during the RI in 1992 and 1993. The ORB consisted of the North and South Ponds in 1988. PCE and TCE contamination was not found in North Pond where Fairchild's discharge pipe was located. Concentrations of PCE and TCE in the South Pond ranged from 18 to 66 µg/l and 8 to 22 µg/l, respectively. If Fairchild was responsible for the VOC contamination in the ORB, concentrations of VOCs in the North Pond should be equal to or greater than in the South Pond.

PCE and TCE concentrations in surface water in 1992 and 1993 ranged from non-detect to 2 µg/l. These data indicate that Fairchild's prior discharges to the ORB did not impact surface water quality and that the ORB is not a current source of VOC contamination.

5.3.1.5.2 VOC Contamination in ORB Sediment

Geraghty & Miller conducted an extensive study of the ORB sediment quality in 1988. Thirty-five samples were collected from a depth of 0 to 17 feet and PCE and 1,1,1-TCA were found below the State's groundwater protection cleanup levels. PCE was found in three out of 35 samples at concentrations ranging from 2 (estimated) µg/kg to 6 µg/kg and 1,1,1-TCA was found in three samples at concentrations from 1 (estimated) µg/l to 13 µg/kg. TCE and 1,2-DCE were found only at one location at a depth of 5 to 7 feet at a concentration of 1,800 and 5,000

(estimated) $\mu\text{g/kg}$, respectively, and at a depth of 7 to 9 feet at a concentration of 22 $\mu\text{g/kg}$ and 24 $\mu\text{g/kg}$, respectively.

North Pond sediments, in general, contained higher concentrations of VOCs than the South Pond. At the same time, PCE and TCE concentrations in surface water were higher in the South Pond than in the North Pond. These data suggest that the sediments are stable and do not affect surface water or groundwater quality.

EDER collected four surface soil samples during the RI in 1992 and TCE was found at 2 (estimated) $\mu\text{g/kg}$ in one of these samples. Concentrations of PCE and 1,1,1-TCA in these samples were below the 10 and 14 $\mu\text{g/kg}$ method detection limit.

Analytical data on sediment, surface water, and groundwater associated with the ORB indicate the limited extent of VOC contamination in the sediment and that it does not contribute to on-site groundwater and surface water contamination.

5.3.1.5.3 VOC Contamination in Downgradient Groundwater

VOC contamination downgradient of the ORB was investigated during the off-site plume definition study and the PCE and TCE plumes are delineated on Drawings 18 and 20. PCE and TCE were found at high concentrations on Republic Airport at sampling locations MW-26XD, MW-27XD, MW-28XD, MW-36XD, and monitoring well MW-36D which are 3,000 to 6,000 feet downgradient of the ORB. Maximum concentrations of PCE and TCE were 167.2 $\mu\text{g/l}$ (MW-28XD) and 2,802 $\mu\text{g/l}$ (MW-27XD), respectively.

Monitoring wells 7S, 7D, MW-6S, MW-6D, MW-7S, MW-7D, and MW-30XD are located between the MPS and Well 27-XD. Groundwater quality data at these wells indicates that the

high concentration of TCE found in Well-27XD are not related to the MPS. These data are summarized on Drawing 20 (Trichloroethylene in Groundwater).

PCE and TCE were detected in on-site groundwater at maximum concentrations of 19 µg/l (well 10D) and 32 µg/l (well 6D), respectively. Concentrations of VOCs found at Republic Airport are one to two orders of magnitude higher than those in the vicinity of the ORB. The ORB cannot be a current source of this contamination since an active source would cause higher VOC concentrations in groundwater closer to the source and downgradient concentrations would be lower.

5.3.1.5.4 The Old Recharge Basin as a Former Source

The maximum concentrations of PCE and TCE in groundwater downgradient of the ORB are 167.2 µg/l (MW-28XD) and 2,802 µg/l (MW-27XD), respectively. Average concentrations of PCE and TCE in Fairchild's discharge during the period of its operations were 15 µg/l (see section 5.0).

The groundwater contamination at Republic Airport is characterized by PCE and TCE concentrations 10 to 180 times greater than in Fairchild's discharges. The low concentrations of VOCs in Fairchild's discharges could not have caused the high downgradient concentrations.

5.3.1.5.5 Time of Travel

NYSDEC introduced the hypothesis that downgradient contamination found at the Republic Airport can be explained as a detached plume which has migrated from the ORB. The previous sections of this report show that the VOC data indicate that the ORB is not a current or prior source of groundwater contamination. A time of travel analysis provides further evidence that the ORB is not a present or past source of groundwater contamination. The idea of a detached

plume linking VOCs from Republic Airport to the ORB assumes that wastewater discharged by Fairchild contained high concentrations of VOCs which contaminated the groundwater and that a slug of contaminated groundwater has traveled to its present location at the Airport. To assess the NYSDEC hypothesis, water quality data were reviewed and time of travel calculations were made using a regional velocity figure ranging from 1 to 1.34 ft/day, based on USGS and field data (NYSDEC letter to M. Hodge and C. Graff, November 8, 1994).

Since the bottom of the ORB was below the water table, groundwater would be continuously affected by discharge to the ORB and would readily migrate downgradient. Fairchild terminated all discharges to the ORB in 1983. Monitoring well cluster 4 and groundwater vertical profiling boring MW-27XD were used in the time of travel calculations assuming flow velocities of 1 and 1.34 ft/day, respectively.

A slug moving from the ORB in 1983 would travel approximately 1,500 feet in four years based on the groundwater flow velocity of 1 ft/day. Monitoring well cluster 4 is located approximately 1,700 feet downgradient of the ORB. Groundwater contamination originating from the ORB prior to 1983 should have been found at cluster 4 during the first round of extensive groundwater sampling at the ORB in 1987. The analytical data for samples collected at wells 4S and 4D in 1987 indicate that the concentrations of all VOC compounds were below the 1 µg/l method detection limit. The fact that no contamination was found in 1987 in groundwater at cluster 4 shows that the VOC contamination found at Republic Airport cannot be explained as a slug of contaminated groundwater (detached plume) moving downgradient of the ORB.

Boring MW-27XD, sampled in 1992, is located approximately 3,500 feet downgradient of the ORB. A slug moving from the ORB in 1983 would travel approximately 4,400 feet in nine years at a groundwater flow velocity of 1.34 ft/day. Groundwater contamination originating from the ORB in 1983 should have migrated past MW-27XD in 1992. TCE was found in the sample collected at a depth of 90 feet in boring MW-27XD at a concentration of 1,072 µg/l. Based on

the detached plume theory the contamination should have passed this sampling location in 1992. This data shows that VOC contamination found at Republic Airport cannot be explained as a slug of contaminated water.

5.3.1.6 VOC Contamination Downgradient of Republic Airport

VOC contamination was found in groundwater south of Republic Airport. The Suffolk County Department of Health Services (SCDHS) conducted the Miller Avenue investigation in 1989 to identify the source of contamination. Data collected by SCDHS indicated that there was a significant source of VOC groundwater contamination south of the Airport. PCE and its degradation products were found at high concentrations at shallow depths and are likely associated with the contamination identified at the National Heatset site (see Drawing 3). The RI data demonstrates that PCE contamination associated with Fairchild would not be expected at shallow depths and groundwater data collected upgradient of the suspected source showed low or non-detect levels which clearly indicates a source downgradient of the Airport. SCDHS found that low concentrations of VOCs were widespread south of the Airport and this is consistent with the RI data which also shows widespread low VOC concentrations at numerous locations on Airport property.

PCE contamination was found in a number of monitoring wells and groundwater profiling borings upgradient of the MPS. Well locations and PCE concentrations in the shallow and deep zones are shown on Drawing 18. PCE was found in the shallow zone at a maximum concentration of 12.4 µg/l in boring MW-3XD. PCE concentrations in the deep zone vary from non-detect in MW-33D to 25 µg/l in MW-2XD to 30 µg/l in MW-3XD. Higher concentrations are found in the deep zone than in the shallow zone indicating that the source(s) is probably off site (see Section 1.3.6).

5.3.1.7 Impacts to East Farmingdale Water District Wells

The East Farmingdale Water District wells are located outside the currently delineated plume area and below the bottom of the VOC plume associated with the former PCE tank. The bottom of the plume was delineated 300 feet above the well screens in the water supply wells. There is no data to show that these wells are affected by VOC contamination. The clay layer defined by borings and geophysical logs at approximately 300 feet below land surface retards the vertical migration of contamination.

5.3.2 Semivolatiles and Pesticides/PCBs in Groundwater

Semi-volatile and pesticides/PCB compounds were detected in low concentrations in several wells located throughout the investigation area. Most of these compounds were detected in the upgradient and on-site wells at similar concentrations. The spatial distribution of contamination does not follow any consistent pattern and no contamination evidently associated with the MPS was delineated.

5.3.3 Metals in Groundwater

Several metals were detected in groundwater at concentrations that exceeded the New York State standards. Lead, antimony, cadmium, and chromium were found in upgradient wells MW-40D and MW-38S at concentrations higher or similar than at the MPS and downgradient at the Airport.

Iron and manganese were found at elevated concentrations throughout the study area. These compounds are characterized by elevated ambient concentrations in the Upper Glacial aquifer in Long Island based on the USGS publications and are not likely associated with the MPS.

Most of the metals detected at concentrations exceeding the standards were in unfiltered samples. The concentrations of dissolved metals were, in general, below the standards. The difference between total and dissolved metals is likely associated with metals adsorbed on soil particles and/or contained in colloidal form. Groundwater samples for dissolved metals analysis were filtered in the field before preservation. This procedure removes fine particles and colloidal matter and yields water containing only the dissolved constituents which are being transported with groundwater. The RI metals data indicate that the MPS has not affected groundwater quality.

5.4 Soil Contamination

VOCs were found in soil and soil vapor in the immediate vicinity of the former vapor degreaser (See section 4.3 for detailed discussion of soil and vapor analytical results). PCE and TCE are present in soil at concentrations up to 4.1 and 4.4 mg/kg, respectively. These concentrations exceed NYSDEC's recommended soil cleanup objectives and the extent of VOC-contaminated soil and soil vapor was defined.

High concentrations of VOCs were found in soil vapor at the former PCE tank. PCE was found at concentrations up to 23,000 ppm in soil vapor. PCE concentrations in soil are less than 0.07 mg/kg and all VOC concentrations are below NYSDEC soil cleanup guidelines. The VOCs in soil vapor are likely associated with a past release from the PCE tank, the piping, or the PCE pump. High VOC concentrations in soil vapor under the building are due to restricted soil ventilation. High VOC concentrations remain in groundwater at the former PCE tank.

A soil vapor extraction (SVE) pilot study was performed at these sites to establish the feasibility of remediating contamination in soil and soil vapor. The SVE system installed at the former PCE tank area consisted of one vapor extraction well, VW-P1, and associated manifold piping and

equipment. The SVE system installed at the former vapor degreaser area included three SVE wells, VW-D1, VW-D2 and VW-D3, and associated piping and equipment.

Both SVE systems operated continuously from March 13, 1996 to May 1, 1997. The systems were inspected daily during the first nine days of operation. After the first nine days of operation, both SVE systems were inspected weekly for four weeks, then monthly thereafter.

Soil gas samples were collected from each SVE wellhead and analyzed for 1,2-DCE, TCE, PCE, and TCA. Based on the SVE flow rates and laboratory analytical results, the cumulative mass of VOCs removed from the former PCE tank area and the former vapor degreaser area is approximately 710 pounds. Approximately 100 pounds of VOCs were removed from the former PCE tank area and 610 pounds of VOCs were removed from the former vapor degreaser area. The system was shutdown after an asymptotic low was reached and soil boring SB-23 was within the NYSDEC recommended soil cleanup criteria.

6.0 SUMMARY AND CONCLUSIONS

6.1 Ability of the RI Database to Support the Feasibility Study

- The RI database is sufficient to support the evaluation of corrective and remedial measures in a Feasibility Study.

6.2 Site Background

- The MPS was originally listed in the Registry in 1984 as portion of a larger, approximately 88-acre site which included the east side of Route 110 as well as an additional 12 acres on the west side of Route 110 where the Old Recharge Basin is located. Fairchild petitioned the NYSDEC on August 2, 1989 to reduce the site area from 88 acres to approximately six-acres, and to separate the Old Recharge Basin and main plant sites into two sites. NYSDEC approved the petition. NYSDEC increased the area to approximately 12 acres on February 9, 1993 based on data that contamination might exist outside of the six acre site. Fairchild petitioned NYSDEC on July 8, 1994 to re-evaluate the 12-acre site boundary and an approximate 4.5-acre site was approved based on the results of the site investigations.
- Fairchild manufactured aircraft and related parts from 1931 to 1987. A NYSDEC-approved RCRA closure plan was carried out from 1987 through 1988. All hazardous waste was removed from the site to eliminate the need for post closure maintenance. The site closure was certified by EDER on August 3, 1988 and included the removal of all hazardous materials, residues, and the aboveground

and underground storage tanks except fuel oil tanks used for primary heat which were removed in 1992.

- Manufacturing operations included standard metal working/fabrication processes including chemical milling.
- TCE and 1,1,1-TCA were used in parts cleaning operations and PCE was used to control the viscosity of the liquid maskant used in chemical milling. PCE was used as a substitute for toluene to conform to air pollution regulations and U.S. Air Force contractual requirements beginning in 1975. The painting shops did not use chlorinated hydrocarbons because these solvents were not compatible with the paint.

Water and Wastewater Usage

- Fairchild obtained its water supply from groundwater throughout its operating history. Fairchild pumped Well No. 15 as the primary water supply from 1966 to 1988 and water from this well was used for potable, process, and cooling/air conditioning water. Fairchild's average pumpage during the 1970s is estimated at 1.7 million gallons per day (MGD). This pumpage estimate characterizes Fairchild's operations during the plant's operating lifetime since the same manufacturing activities and methods were used during this time. Non-contact industrial and air conditioning cooling water, and stormwater were discharged through the stormwater sewer to the Old Recharge Basin located west of the site beginning in the early 1940s. Wastewater treated at the wastewater treatment plant located on the MPS was discharged to the Old Recharge Basin through the main stormwater sewer line from 1950 to 1981.

- Fairchild constructed a wastewater treatment plant in 1950 to reduce hexavalent chromium to trivalent chromium and to precipitate metal hydroxides in wastewater from the chemical milling, alodine process, anodizing, spotweld wash, and paint shop. The plant was located adjacent to the south wall of Building 17. Wastewater was treated in batches from 1950 to 1963. The facility was upgraded in 1963 to handle continuous waste streams and again in 1986 to meet POTW pretreatment standards.
- The New York State Department of Health issued a permit to discharge to the Old Recharge Basin on January 13, 1941. Fairchild obtained a State Pollution Discharge Elimination System (SPDES) permit for discharges to the ORB in accord with the Clean Water Act of 1972.
- The VOC data for the Fairchild discharges to the ORB and WWTP from 1981 to 1987 indicate low concentrations of PCE and TCE in the 50 µg/l range. Fairchild's production during this time was relatively high in comparison to the years 1965 to 1975. No significant changes in plant operations occurred after 1965 and these estimated concentrations are representative of the previous years.

Previous Investigations

- Data collected prior to the RI were useful in identifying the location and extent of source areas, groundwater flow patterns and the contaminants of concern. These investigations and reports are listed chronologically:
 1. Phase II Hydrogeological Investigation, Geraghty & Miller, April 1988.
 2. Supplemental Phase II Investigation Report, Geraghty & Miller, May 1990.

3. Three-Dimensional Groundwater Flow Model and Advective Transport Analysis, Geraghty & Miller, September 1990.
 4. Summary of Environmental Investigations, Geraghty & Miller, January 1992.
- The Fairchild plant was closed in 1987 and NYSDEC approved an updated version of the Closure Plan on November 17, 1987. The site closure was certified by EDER in an August 3, 1988 letter to the NYSDEC. Closure activities included removing aboveground and underground storage tanks and residues, and decommissioning four process areas and four Solid Waste Management Units (SWMUs). All hazardous wastes and materials were removed from the site.
 - Public water supply wells and private wells were inventoried to identify wells that could be impacted by contamination from the MPS. There are five Well Fields located in the projected groundwater flow path from the MPS. The East Farmingdale Water Supply District Wells S-66556 and S-79105 are approximately 6,600 feet downgradient of the site and Suffolk County Water Authority, Albany Avenue Well field (S-34595, S-47886, and S-63205) and the Tenny Avenue Well field (S-20460 and S-37681) are approximately 14,000 feet south of the site. The North 5th Street Well field (S-29491) and Lambert Avenue Well field (S-22351) are approximately 5 to 6 miles from the site.

Regional Conditions

- Land use surrounding the MPS is industrial/commercial and many area facilities are known to have used chlorinated hydrocarbons. Groundwater quality and flow direction data collected or developed during the RI indicate that VOCs from off-

site sources have affected groundwater quality on-site and downgradient on the Republic Airport property. The upgradient sites are Old Bethpage Landfill, Nassau County Fire Training Center, Claremont Poly Chemical Corp., 110 Moore Sand Co., I.W. Industries, Target Rock Corp., B.H. Aircraft, Kenmark Textiles, Brandt Airflex, Hazardous Waste Disposal, Inc., Circuitron Corp., East Farmingdale Volunteer Fire Co., Inc., Cantor Brothers, Inc., Tronic Plating Co., Astro Electroplating, Inc., and Lockheed Terminal, Gate 1.

6.3 Site Characteristics

- The MPS is underlain by three major unconsolidated geologic units: the upper glacial deposits, the Magothy Formation, and the Raritan Formation, which is composed of an upper, unnamed clay and the lower Lloyd sand.
- The upper glacial deposits are about 100 feet thick and consist mainly of sand and gravel. The Magothy Formation beneath the site is about 700 feet thick and consists mainly of interbedded fine-grained sand, sandy clay, and interbedded clay layers and lenses. There is an extensive 20 to 40-foot thick clay layer in the study area at approximately 260 to 300 feet below grade.
- The predominant direction of groundwater flow throughout most of the upper glacial and Magothy aquifers is horizontal. The water table occurs approximately 26 to 32 feet below grade (or 23 to 57 feet above MSL). Groundwater beneath the site flows from the northwest to the south-southeast.
- Most of the groundwater recharge to the Magothy occurs in recharge areas in the vicinity of the regional groundwater divide approximately four miles upgradient

of the site and most of the groundwater flowing through the Magothy beneath the MPS originated upgradient.

6.4 Study Area Investigations

- The RI scope of work includes the source area investigation and the groundwater plume definition investigation. The source area investigation was based on the April 1992 work plan and work plan addendums on January 5 and 21, 1994. The groundwater plume definition investigation was based on an April 1992 work plan and June 15, 1993 addendum.
- The source area investigation included soil, soil vapor, and groundwater sampling in the former vapor degreaser area, former PCE tank, Building 42, and NYSDOT property.
- The groundwater plume definition investigation included groundwater sampling in 17 vertical profiling borings, constructing six deep monitoring wells, three groundwater sampling rounds, and 15 rounds of groundwater elevation measurements.

6.5 Nature and Extent of Contamination

6.5.1 Suspected Source Area Investigation

Former PCE Tank Area

- Three soil borings (B-1, B-2, and B-3) were drilled in the vicinity of the suspected PCE source area on September 15 and 16, 1992. Soil samples from each boring

were sent to the laboratory and analyzed for Target Compound List VOCs. VOCs in all samples were below the instrument detection limit. The data show no evidence of VOC-contaminated soil.

- PCE and its degradation products were found in soil vapor in the vicinity of the tank at concentrations up to 23,000 ppm and in soil at concentrations up to 0.066 mg/kg. The highest VOC concentrations in soil vapor were found under Building 17 because the concrete floor slab and foundation effectively reduced VOC volatilization and biodegradation rates. VOC concentrations in soil do not exceed State cleanup objectives based on groundwater protection.
- The remedial investigation data and absence of other nearby potential PCE sources suggests that the PCE tank system is the source of the plume extending unto the Republic Airport property.
- A former aboveground TCA tank, 30 feet west of the former PCE tank, was suspected as a TCA source, but an investigation in this area failed to find TCA in the soil and only minor amounts of TCA were found in soil vapor.

Building 42 Area

- Two soil samples were collected to confirm the presence of VOCs and PCBs in the excavation pit in Building 42 during the RI on February 2, 1994. Concentrations of VOCs and PCBs in soil did not exceed the State's cleanup objectives based on groundwater protection and health risk. The sampling results did not confirm the presence of PCBs under Building 42.

Former Vapor Degreaser0

- The southwest corner of Building 17 was investigated to define the extent of trichloroethylene (TCE) and other VOCs in soil associated with a release from an aboveground TCE tank fill pipe. Soil contaminated with VOCs exceeding State cleanup objectives was found and defined. VOCs were also found in soil vapor under the southwest portion of Building 17. A soil vapor extraction system was operating as an Interim Remedial Measure in this area but has been shutoff as VOCs reached asymptotic levels. The amount of TCE discharged at the MPS cannot be quantified.

NYSDOT Property

- VOCs including PCE and TCE were found in soil, soil vapor, and groundwater on NYSDOT property upgradient of the MPS. The data indicate that there are TCE and PCE sources upgradient of the Fairchild property.

Plume Definition Investigation

- The RI data indicate that the VOC plume consists of PCE and its degradation products, TCE, 1,1-DCE and 1,2-DCE, and vinyl chloride and extends approximately 6,500 feet downgradient of the main plant. The plume was delineated using the 20 µg/l PCE concentration threshold as specified in the plume definition work plan. This plume is associated with a former underground PCE tank system near the MW-14 well cluster.
- The RI data indicate that the plume extends to a maximum depth of approximately 300 feet below grade. A low permeability semi-confining unit (clay layer) was

found at approximately 300 feet below grade in all four deep soil borings and this unit retards downward migration.

- A significant VOC plume was found in the southwest corner of the Airport. The source of this plume is unknown and upgradient off-site sources are suspected.
- Another VOC plume that did not extend to the site boundary was found downgradient of the vapor degreaser. The RI database indicates that PCE and TCE concentrations downgradient of the vapor degreaser have decreased with time and distance. Further delineation of the plume is not practical because PCE and TCE were found in upgradient and sidegradient groundwater at concentrations similar to those found downgradient of the vapor degreaser.

Groundwater Elevation Measurements

- Groundwater in the upper Glacial and Magothy aquifers flows in a southeastern direction. The average horizontal hydraulic gradient in the Upper Glacial is 0.0015 ft/ft and in the Magothy is 0.002 ft/ft.
- Water level elevations in monitoring wells screened in the top of the Magothy are generally within one-tenth of a foot of water levels in the Upper Glacial aquifer, indicating a minimal vertical hydraulic gradient.

6.6 Contaminant Fate and Transport

- Groundwater is the primary contaminant migration route of concern. The potential transport of contaminants through stormwater infiltration and air appears to be minimal because the MPS area is paved or covered by buildings.

- The RI data indicate that PCE, TCE, and their degradation products comprise the largest portion of the contaminant mass found in groundwater and in the source area at the MPS.

PCE Contamination

- The distribution of PCE differs in the shallow (less than 100 feet) and deep zones (100 to 300 feet). The PCE plume in the shallow zone (defined by the 20 µg/l isocontour line) extends approximately 5,000 feet downgradient. The VOC plume in the deep zone extends approximately 6,500 feet downgradient.
- The highest concentrations of PCE were found in the deep zone near the source area at boring MW-29XD. The deep, semi-confining or confining layers (260 to 300 feet below land surface) have effectively restricted deeper vertical migration. The vertical PCE distribution indicates that PCE contamination near the source area extends to a depth of approximately 200 to 220 feet.
- Total VOC concentrations decreased from 83 µg/l in boring MW-29XD near the source area to approximately 13 mg/l in test boring MW-23XD in the middle of the plume, 3,400 feet downgradient to less than 1 mg/l in test boring MW-37XD at the southern extent of the plume. The total VOC concentration is based on data from all samples collected in these borings. The decrease in VOC concentrations indicates significant attenuation and retardation through subsurface transport.
- The shallow zone is comprised mostly of gravelly, medium to coarse glacial sands. The flow velocity in this material is 270 to 450 feet/year based on USGS publications and field data. The deep zone is comprised of fine to coarse sands with interbedded layers of silty, clayey sand or clays. The groundwater flow

velocity in the deep zone ranges from 180 to 250 feet/year. The higher flow velocity in the shallow zone suggests that the plume in this zone would extend further than in the deep zone, but the analytical data indicate that the opposite is true. This relationship indicates that the southern component of the plume in the deep zone may be attributable to a source(s) other than the PCE tank and is associated with upgradient off-site contamination released before 1975 or from an unknown source(s) at Republic Airport downgradient of the MPS. The low level contamination found in the shallow zone and the high concentrations found in the deep zone characteristically indicate an upgradient source(s).

- The PCE isocontour lines indicate that pumping from Fairchild and East Farmingdale Water Authority wells did not affect contaminant migration. Drawing 18 shows that the plume in the shallow and deep zone is aligned along the regional groundwater flow direction and is not biased toward these wells which are screened approximately 250 to 350 feet below the bottom of the plume. The continuous clay beneath the area minimized the influence of these wells.

TCE Contamination

- TCE was found in groundwater throughout the investigation area. Analytical data collected from the groundwater vertical profiling borings and monitoring wells indicate that the distribution of high levels of TCE in the shallow and deep zones differs and, in general, TCE concentrations in the shallow zone were much lower than in the deep zone.
- TCE was found in the shallow zone at concentrations from 100 to 1,000 µg/l at a few discontinuous areas. The rest of the study area is characterized by low level TCE contamination at concentrations less than 100 µg/l.

- TCE contamination in the deep zone was found on a large portion of Republic Airport at concentrations exceeding 100 µg/l. The TCE plume extends toward the southern boundary of the Airport. Two areas of high TCE contamination were delineated at Republic Airport based on data from the vertical profiling borings and monitoring well sampling.
- Most of the TCE contamination was found in the deep zone. The bottom of the plume was delineated above the clay layer in the area of the MPS and Republic Airport at a depth of approximately 260 to 300 feet. TCE was not found below this clay which indicates that the clay effectively retards downward migration.
- The width of the TCE plume on Airport property and the groundwater flow data suggest that the source area is larger than the MPS and that VOCs associated with the former PCE tank plume are commingled with contamination from other sources.
- TCE is a breakdown product of PCE, and TCE is found in the MPS plume.
- Based on results of the RI and soil borings near the vapor degreaser, there is also a source of TCE at the Main Plant site near Building 17. The TCE found downgradient of the Main Plant cannot all be attributed to offsite upgradient sources, however, the TCE found in groundwater on the southwest airport property appears to be from an offsite source based on the groundwater flow direction. The VOC contamination found in the southwest of the Airport is clearly not related to the Main Plant PCE plume based on groundwater flow data and the lack of associated PCE.

- The extent of the TCE plume in the deep zone is much larger than in the shallow zone. If the MPS was the TCE source area, the shallow plume would be larger or at least comparable with the size of the TCE plume in the deep zone and TCE concentrations at the source area would be higher than at downgradient locations. The RI database indicates that the opposite is the case, and the spatial and vertical distribution of TCE indicates that it is likely associated with an upgradient source(s).

1,1,1-TCA Contamination

- 1,1,1-TCA concentrations found in upgradient test boring (MW-2XD) and monitoring well (MW-1D) are higher than 1,1,1-TCA concentrations found at the MPS and on the Airport property.
- 1,1,1-TCA was not found in soil in the suspected source area at the former 1,1,1-TCA tank, and 1,1,1-TCA was not found in groundwater in borings MW-29XD and MW-19XD 50 and 600 feet, respectively, downgradient of the 1,1,1-TCA tank.
- There are no documented releases of 1,1,1-TCA in the drum storage area in Building 25.
- The groundwater flow data show that the 1,1,1-TCA found in the dry well at the Wind Tunnel facility in 1991 cannot be related to 1,1,1-TCA found at the MPS and the Airport.
- The spatial distribution of 1,1,1-TCA in groundwater does not follow any consistent pattern and no plume can be delineated.

Other VOC Contaminants

- Low concentrations of petroleum hydrocarbons (BTEX) and chlorinated hydrocarbons (chlorobenzene, methylene chloride, and 1,1-DCA) were found in several areas upgradient of the site, on-site, and downgradient of the Airport. These contaminants were found in upgradient wells and vertical profiling borings at concentrations similar to or higher than at the MPS and Republic Airport.
- No significant petroleum hydrocarbon contamination was found in the soil during the suspected source area investigation. Petroleum hydrocarbons were found at elevated concentrations in a number of sites in the vicinity of the MPS and the RI analytical database indicates that groundwater quality at the MPS was evidently affected by off-site sources.

Groundwater Quality Impacts from the Old Recharge Basin

- High TCE concentrations were found in the southwestern portion of the Airport downgradient of the ORB. There is no evidence that Fairchild's discharges to the ORB could have caused the high VOC concentrations found in this portion of the Airport.
- The ORB received large amounts of water when it was active, and significant dilution and dispersion would have reduced VOC concentrations below the levels found in the southwestern portion of the Airport.
- VOCs were found in the vicinity of the ORB at low or non-detect levels based on sampling data from 1987 through 1988 and 1992 which indicate that the ORB is not a current source of VOC contamination.

- Time of travel analysis shows that the VOC contamination found at the Airport cannot be explained as a slug of contaminated groundwater (detached plume) moving downgradient of the ORB.

Semivolatiles and Pesticides/PCBs

- Semi-volatile compounds and Pesticides/PCBs were detected in low concentrations in several wells in the investigation area. Most of these compounds were detected in the upgradient and on-site wells at similar concentrations. The spatial distribution of contamination does not follow any consistent pattern and no contamination evidently associated with the MPS was delineated.

Metals in Groundwater

- Iron and manganese were found at elevated concentrations throughout the study area, but USGS indicates that these metals are often found at elevated concentrations in the Upper Glacial aquifer and are not likely to be associated with the MPS.
- Several metals were detected in groundwater at concentrations that exceeded the New York State standards. Lead, antimony, cadmium and chromium were found in upgradient wells MW-40D and MW-38S at concentrations higher or similar than at the MPS and downgradient at the Airport.
- The RI analytical data for metals indicate that the MPS does not affect groundwater quality at the site.

Soil Contamination

- VOCs were found in soil and soil vapor in the immediate vicinity of the former vapor degreaser and VOCs were found in soil vapor at the former PCE tank.
- A soil vapor extraction (SVE) pilot study was performed at these sites. An SVE system operated from March 13, 1996 to May 1997 as an Interim remedial Measure (IRM). Approximately 700 pounds of VOCs were removed from the former PCE tank area and the former vapor degreaser area.

Impacts to East Farmingdale Water District Wells

- The East Farmingdale Water District wells have not been affected by the PCE plume.
- The bottom of the plume was delineated 300 feet above the well screens in the water supply wells. There is no data to show that these wells are affected by VOC contamination presently.
- The clay layer found at approximately 300 feet below land surface restricts downward migration of contamination.

FAIRCHILD INDUSTRIES INC.
EAST FARMINGDALE, NEW YORK

TABLE 1-1A

STORAGE TANK INVENTORY

Tank ID No.	Aboveground or Underground	Type	Size (gallons)	Date Constructed	Date Closed	Method of Closure	Contents	Containment	Documented Releases or Spills	Closure Soil/ Groundwater Samples	State/County Closure Certification	Location - Building No.	Plant Engineering File Number	Comments
1	UST	Steel	3,000	1971	6/8/87	Removed	Perchloroethylene (Toluene prior to 1975)	None		MW-14 shallow, MW-14 deep	SCDHS (Nanos) NYSDEC (O'Brien)	17	PE 37-03	MW-14 shallow MW-14 deep
2	UST	Steel	2,000	1979	11/2/87	Removed	Soltrol 220	None			SCDHS (Swords)	17	PE 47-08K	Contents similar to JP-4 fuel
3	UST	Steel	2,000	1979	11/2/87	Removed	Soltrol 220	None			SCDHS (Swords)	17	PE 47-08K	Contents similar to JP-4 fuel
4	UST	Steel	12,000	1975	11/5/87	Removed	JP-5	None			SCDHS	25	PE 47-08H	Leak tested 11/83
5	UST	Steel	15,000	1941	5/8/87	Removed	#6 fuel oil	None	Piping & french drain leaked	160 cu. yds. soil removed/MW installed	NYSDEC (Acampora)	18	PE-17-05	MW-18-1, 18-3, 18-4, 18-5, 18-6
6	UST	Steel	30,000	1980	12/31/92	Removed	#6 fuel oil	None		Contaminated soil removed	NYSDEC (Rice)	18		
7	UST	Steel	12,000	1941	7/18/88	Removed	#2 diesel oil	None		3,480 cu. yds., #6 fuel oil contaminated soil removed/MW's installed	NYSDEC (Acampora)	18	PE 68-01	MW-18-5, 18-6, 18-7, 18-8, 18-9 Leak tested 8/86
8	UST	Steel	4,000	1965	3/21/88	Removed	Diesel fuel	None			SCDHS	42	PE 47-08P	Leak tested 8/86
9	UST	Steel	10,000	1979	3/21/88	Removed	Unleaded gasoline	None			SCDHS	42	PE 47-08P	Leak tested 8/86
10	UST	Steel	5,000	1975	3/21/88	Removed	Gasoline - regular	None			SCDHS	42	PE 47-08P	Leak tested 8/84
11	AST	Steel	2,700	1971	3/26/87	Removed	Trichloroethylene	Berned			No Data	25		Removed and scrapped by FRC Maintenance

Table 1-1A Continued . . .

Tank ID No.	Aboveground or Underground	Type	Size (gallons)	Date Constructed	Date Closed	Method of Closure	Contents	Containment	Documented Releases or Spills	Closure Soil/ Groundwater Samples	State/County Closure Certification	Location - Building No.	Plant Engineering File Number	Comments
12	AST	Steel	2,000	1969	3/26/87	Removed	Trichloroethylene (1,1,1-TCA in 1979)	Bernmed			No Data	17		Removed and scrapped by FRC Maintenance TCA stored once in 1979
13	AST	Steel	500	1977	4/23/87	Removed	1,1,1-Trichloroethane	None			No Data	17		Picked up by vendor (Baron & Blakelee)
14	AST	Steel	8,875	1979	4/8/88	Removed	Spent Acid	Bernmed			Verified by Contract Documents	63	PE 47-08T	
15	AST	Steel	10,000	1979	4/8/88	Removed	Liquid Caustic	Bernmed			Verified by Contract Documents	63	PE 47-08T	
16	AST	Steel	1,500	1972	8/88	Removed	Liquid Caustic	Bernmed			No Data	17		Removed by RGM
17	AST	Steel	2,000	1977	8/88	Removed	Sulfuric Acid	Bernmed			No Data	17		Removed by RGM
18	AST	Concrete	2,000	1951	Cleaned 3/88	Integral to bldg. structure	WWTP Sludge	None			No Data	17		
19	UST	Steel	10,000	1961	11/31/87	Removed	#2 fuel oil	None			SCDHS (Swords)	27	PE-47-08K	Leak tested 8/86
21	UST	Steel	3,000	1979	12/31/92	Removed	#2 fuel oil	None			NYSDEC (Rice)	64		Leak tested 6/90
22	UST	Steel	5,000	1975	12/31/92	Removed	#2 fuel oil	None			NYSDEC (Rice)	65		Leak tested 11/91
23	AST	Steel	5,000	1955	10/7/87	Cleaned, made inoperable	JP-4	None			SCDHS (Swords)	42		Leak tested 5/83
24	UST	Steel	2,000	1981	1/15/87	Removed	Soltrol 220	None			Verified by Contract Documents	17		
25	UST	Steel	3,000	1981	1/15/88	Removed	Soltrol 220	None			Verified by Contract Documents	17		
26	AST	Steel	4,000	1981	4/5/88	Removed	Hydraulic tube oil	None			Verified by Contract Documents	32	PE-47-0	

Table 1-1A Continued . . .

Tank ID No.	Aboveground or Underground	Type	Size (gallons)	Date Constructed	Date Closed	Method of Closure	Contents	Containment	Documented Releases or Spills	Closure Soil/ Groundwater Samples	State/County Closure Certification	Location - Building No.	Plant Engineering File Number	Comments
27	UST	Steel	5,000	1977	4/1/88	Removed	Waste coolant	None			Verified by Contract Documents	32	PE-47-08N	Leak tested 10/85
28	UST	Steel	15,000	1979	12/31/92	Removed	#2 fuel oil	None			NYSDEC (Rice)	63		Leak tested 11/91
30	UST	Steel	25,000	1943	9/4/87	Removed	#6 fuel oil	None	No tank leak, contaminated soil	MW-1 shallow, MW-1 deep installed	NYSDEC (Goetz) SCDHS (Swords)	55	PE-47-08L	Pipes uncovered during excavation are possible source of contamination
31	UST	Steel	550	1965	12/31/92	Removed	#2 fuel oil	None			NYSDEC (Rice)	53		
32	UST	Steel	5,000	1952	12/31/92	Removed	#2 fuel oil	None			NYSDEC (Rice)	54		Leak tested 9/87
33	UST	Steel	3,000	1961	4/13/84	Removed	Paint solvent	None			No Data	17		
34	UST	Steel	2-2,000	1961	4/13/84	Removed	Paint solvent	None			No Data	27		
35	UST	Steel	500	1961	4/13/84	Removed	Paint solvent	None			No Data	27		
36	UST	Steel	2,000	1971	4/13/84	Removed	Kerosene	None			No Data	25		
37	AST	Steel	1,200	1982	3/26/87	Removed	Trichloroethylene	Bermed			No Data	17	1987 Storage Tank Log Book	Removed & scrapped by FRC Maintenance
38	AST	Steel	1,500	1972	8/88	Removed	Liquid Caustic	Bermed			No Data	17		Removed by RGM
39	AST	Steel	4,000	1981	4/5/88	Removed	Hydraulic lube oil	None			Verified by Contract Documents	32	PE-47-0	
40	AST	Steel	4,000	1981	4/5/88	Removed	Hydraulic lube oil	None			Verified by Contract Documents	32	PE-47-0	
41	AST	Steel	4,000	1981	4/5/88	Removed	Hydraulic lube oil	None			Verified by Contract Documents	32	PE-47-0	
42	UST	Steel	15,000	1941	5/8/87	Removed	#6 fuel oil	None	Piping & french drain leaked	160 cu. yds. soil removed/MW installed	NYSDEC (Acampora)	18	PE-17-05	MW-18-1,18-3,18-4,18-5,18-6

Table I-1A Continued . . .

Tank ID No.	Aboveground or Underground	Type	Size (gallons)	Date Constructed	Date Closed	Method ¹ of Closure	Contents	Containment	Documented Releases or Spills	Closure Soil/ Groundwater Samples	State/County Closure Certification	Location - Building No.	Plant Engineering File Number	Comments
43	UST	Steel	15,000	1941	5/8/87	Removed	#6 fuel oil	None	Piping & french drain leaking	160 cu. yds. soil removed/NIS installed	NYSDEC (Acompara)	18	PE-17-05	MW-18-1,18-3,18-4,18-5,18-6
44	UST	Steel	30,000	1980	12/31/92	Removed	#6 fuel oil	None		Contaminated soil removed	NYSDEC (Rice)	18		
45	UST	Steel	30,000	1980	12/31/92	Removed	#6 fuel oil	None		Contaminated soil removed	NYSDEC (Rice)	18		
46	UST	Steel	3,000	1979	12/31/92	Removed	#2 fuel oil	None			NYSDEC (Rice)	64		Leak tested 6/90
47	AST	Steel	5,000	1955	10/7/87	Cleaned made inoperable	JP-4	None			SCDHS (Swords)	42		Leak tested 5/83
48	UST	Steel	12,000	1965	12/31/92	Removed	#2 fuel oil	None			NYSDEC (Rice)	55		Leak tested 4/87
50	UST	Steel	10,000	1961	12/15/87	Removed	#4 fuel oil	None			Verified by Contract Documents	27	PE-47-08Q	Leak tested 8/86
51	UST	Steel	12,000	1965	9/4/87	Removed	#2 fuel oil	None			NYSDEC (Rice)	55		
52	UST	Steel	25,000	1942	7/27/87	Removed	Gasoline	None		FP removed, water stripped, discharged to sewer ³	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE-106-06	
53	UST	Steel	25,000	1942	7/27/87	Removed	Gasoline	None		FP removed, water stripped, discharged to sewer ³	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE-106-06	
54	UST	Steel	25,000	1942	7/27/87	Removed	Gasoline	None		FP removed, water stripped, discharged to sewer ³	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE-106-06	
55	UST	Steel	25,000	1942	7/27/87	Removed	Gasoline	None		FP removed, water stripped, discharged to sewer ³	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE-106-06	

Table 1-1A Continued . . .

Tank ID No.	Aboveground or Underground	Type	Size (gallons)	Date Constructed	Date Closed	Method ¹ of Closure	Contents	Containment	Documented Releases or Spills	Closure Soil/ Groundwater Samples	State/County Closure Certification	Location - Building No.	Plant Engineering File Number	Comments
56	UST	Steel	12,000	1942	7/27/87	Removed	Gasoline	None		FP removed, water stripped, discharged to sewer ²	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE 106-06	
57	UST	Steel	12,000	1942	7/27/87	Removed	Gasoline	None		FP removed, water stripped, discharged to sewer ²	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE 106-06	
58	UST	Steel	12,000	1942	7/27/87	Removed	Gasoline	None		FP removed, water stripped, discharged to sewer ²	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE 106-06	
59	UST	Steel	12,000	1942	7/27/87	Removed	Gasoline	None		FP removed, water stripped, discharged to sewer ²	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE 106-06	
60	UST	Steel	4,000	1942	7/27/87	Removed	Gasoline	None		FP removed, water stripped, discharged to sewer ²	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE 106-06	
61	UST	Steel	4,000	1942	7/27/87	Removed	Gasoline	None	Tank had hole, excavation inspected by K. Goetz (DEC)	FP removed, water stripped, discharged to sewer ²	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE 106-06	No contamination found
62	UST	Steel	4,000	1942	7/27/87	Removed	Gasoline	None		FP removed, water stripped, discharged to sewer ²	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE 106-06	
63	UST	Steel	12,000	1942	7/27/87	Removed	Gasoline	None		FP removed, water stripped, discharged to sewer ²	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE 106-06	
64	UST	Steel	7,500	1942	7/27/87	Removed	Oil	None		FP removed, water stripped, discharged to sewer ²	SCDHS (O'Brien) NYSDEC (O'Neill)	55	PE 106-06	

Table 1-1A Continued . . .

Tank ID No.	Aboveground or Underground	Type	Size (gallons)	Date Constructed	Date Closed	Method ¹ of Closure	Contents	Containment	Documented Releases or Spills	Closure Soil/ Groundwater Samples	State/County Closure Certification	Location - Building No.	Plant Engineering File Number	Comments
65	UST	Steel	7,500	1942	7/27/87	Removed	Oil	None		FP removed, water stripped, discharged to sewer ¹	SCDHS (O'Brien) NYSDEC (ONeill)	55	PE 106-06	
66	UST	Steel	3,000	1942	7/27/87	Removed	Waste oil	None		FP removed, water stripped, discharged to sewer ¹	SCDHS (O'Brien) NYSDEC (ONeill)	55	PE 106-06	
69	UST	Steel	1,000	1943	8/31/87	Removed	Waste solvent	None	1 hole, no leak, contaminated soil removed	Field Inspection Form in File	NYSDEC (Goetz) SCDHS (Swords)	55 west side	PE 47-08C	
70	UST	Steel	12,000	1943	7/27/87	Removed	Varsol, Petroleum Hydrocarbon	None	8 holes, contaminated soil removed	Field Inspection Form in File	SCDHS (Swords) NYSDEC (Goetz)	55 west side	PE 47-08C	Formerly contained #6 fuel oil
71	UST	Steel	12,000	1943	7/27/87	Removed	Varsol, Petroleum Hydrocarbon	None	No holes, contaminated soil removed	Field Inspection Form in File	SCDHS (Swords) NYSDEC (Goetz)	55 west side	PE 47-08C	Formerly contained #6 fuel oil
72	UST	Steel	550	1974	8/25/87	Removed	Waste oil	None	Contaminated soil under separator, 100 cu. yd. are removed	Monitoring Wells MW-10 shallow, MW-10 deep, OS-2	NYSDEC (Magee)	65	PE 47-08B	Closure letter from NYSDEC (ONeill)
73	UST	Steel	2,000	1974	8/25/87	Removed	Waste fuel	None			NYSDEC (Magee)	65	PE 47-08B	Closure letter from NYSDEC (ONeill)
74	UST	Steel	1,000	1956	10/5/87	Removed	#2 fuel oil	None		File Log & Contract Documents	SCDHS (Swords)	30	PE 47-08D	
75	UST	Steel	550	1985	4/21/88	Removed	Hazardous waste	None	Contaminated soil borings, soil removed		No Data	67	PE 47-08U	Geraghty & Miller report indicates metals, TCE and other VOC contamination
76	UST	Steel	550	1981	7/27/87	Removed	Waste oil	None			NYSDEC (ONeill) SCDHS (O'Brien)	55	PE 106-06	

Table 1-1A Continued . . .

Tank ID No.	Aboveground or Underground	Type	Size (gallons)	Date Constructed	Date Closed	Method of Closure	Contents	Containment	Documented Releases or Spills	Closure Soil/ Groundwater Samples	State/County Closure Certification	Location - Building No.	Plant Engineering File Number	Comments
77	UST	Fiberglass	1,000	1985	12/31/92	Removed	#2 fuel oil	None			NYSDEC (Rice)	55		
78	AST	Steel	275	1986	Not available	Removed	#2 fuel oil	None			No Data	54		Removed and scrapped by FRC Maintenance
79	UST	Steel	175	1943	8/31/87	Removed	Still bottom residue	None	Piping leak, #6 Fuel Oil contaminated soil	File Log	SCDHS (Swords) NYSDEC (Goetz)	55 west side	PE 47-08C	
80	UST	Steel	1,000	1943	11/4/87	Removed	Waste oil	None			NYSDEC (Walker)	42	PE 47-08K	
81	UST	Steel	275	1941	11/4/87	Removed	Gasoline	None			NYSDEC (Walker)	Well 13	PE 47-08K	
82	UST	Steel	550	1975	11/5/87	Removed	Waste fuel (JP-5)	None			SCDHS	Fuel Farm	PE 47-08H	
83	UST	Steel	1,000	1961	12/15/87	Removed	Paint solvent	None		Field Inspection Report	SCDHS (Swords)	27	PE 47-08Q	
84	UST	Steel	550	1961	12/15/87	Removed	Waste paint solvent	None			Verified by Contract Documents	17/33	PE 47-08Q	Paint solvents are non-chlorinated
85	UST	Steel	2,500	1961	1/15/88	Removed	Maskant dump tank	None			Verified by Contract Documents	17	PE 47-08M	
86	UST	Steel	5,000	1961	1/15/88	Removed	Hazardous waste	None			Contract Documents - PO #9-354754	27	PE 47-08O	
87	UST	Steel	1,500	1961	12/31/92	Removed	#2 fuel oil	None			NYSDEC (Rice)	27		Leak tested 4/88
88	UST	Steel	275	1942	3/10/89	Removed	Gasoline	None			Letter to SCDHS Contract Documents	43		
89	UST	Steel	--	1943	3/10/89	Heat exchanger drained of oil	Oil	None			SCDHS (Pin)	30		
90	UST	Steel	1,000	1943	1969	Removed	Solvent	None			No Data	63		Removal during construction of Building 63

Table 1-1A Continued . . .

Tank ID No.	Aboveground or Underground	Type	Size (gallons)	Date Constructed	Date Closed	Method of Closure	Contents	Containment	Documented Releases or Spills	Closure Soil/ Groundwater Samples	State/County Closure Certification	Location - Building No.	Plant Engineering File Number	Comments
91	UST	Steel	550	1944	3/20/89	Removed	#2 fuel oil	None			Letter to SCDHS	39		
92	AST	Steel	275	1981	12/31/92	Removed	#2 fuel oil	None			NYSDEC (Rice)	39		
93	UST	Steel	3,000	1951	3/21/89	Removed	Jet fuel	None			Letter to SCDHS	17		
94	UST	Steel	-	N/A	3/89	Tank not found	Fuel oil	None			SCDHS (Pin)	44 north side		Exploratory excavation reveals that tank does not exist
95	UST	Steel	550	N/A	3/89	Tank not found	Waste oil	None			SCDHS (Pin)	60 wind tunnel entrance		Exploratory excavation reveals that tank does not exist
96	UST	Steel	1,000	1943	1969	Removed	Solvent	None			No data	63		Removal during construction of Building 63
97	UST	Steel	1,000	1943	1969	Removed	Solvent	None			No data	63		Removal during construction of Building 63

NOTES:

1. Closure as per Suffolk County Department of Health Services (SCDHS) - Article 12.
2. Tanks 52-66: R. Strezpak (SCDPW) inspected pretreatment of tank contents; A. Santino (SCDHS) was notified prior to start of removals; prior notification of NYSDDEC by Tyree (removal contractor).
- SCDHS - Suffolk County Department of Health Services
- NYSDEC - New York State Department of Environmental Conservation
- UST - Underground Storage Tank
- AST - Aboveground Storage Tank
- FRC - Fairchild Republic Company
- MW - Monitoring Well
- FP - Free Product

FAIRCHILD INDUSTRIES
MAIN PLANT RJ
EAST FARMINGDALE, NEW YORK

TABLE 1-1A

FAIRCHILD WATER SUPPLY WELLS INVENTORY

Identification Number		Location	Owner	Service	Year of Construction	Year Last Used/Year Sealed	Depth (ft)	Screened Interval Depth from TOC' (ft)	Casing (Inch)	Average Pumping Rate (mgal/year)	Pump Capacity (gpm)	Remarks
Well No.	Permit No.											
1	S2735	South of bldg. 17	Fairchild	Domestic Process Fire	1941	1988/1988	96	80-96	12	8.0 (1963) 14 (1983-1988)	500	Used as a backup well for well 15 from 1966
2	S2736	South of bldg. 17	Fairchild	Domestic Process Fire	1941	NA ^(b) /1988	82	61-82	12	19.65 (1963)	500	
4	S1824	Bldg. 6 west	DOT	Domestic	1937	NA/NA	47		6	2.9 (1963)	40	
5	S2684	150' NE of bldg. 24	DOT	Domestic Process Fire	1941	1987/NS ^(b)	80	41-47	6	0.5 (1963)	40	
6	S3623	Bldg. 40	DOT	Domestic Fire Muffler Cooling	1944	Active	78	61-67	10	15.3 (1963) 0.0 (1987-1991)	300	Used as a backup well for fire protection
7	S3015	Bldg. 19 basement	Fairchild	Air Condition	1942	1964/1988	90	75-88	10	48.3 (1963)	300	
9	S727	Bldg. 10 (East of bldg. 5)	DOT	Fire	1937	1987/A ^(a)	74		10	0.21 (1963)	150	
10	S1792	Bldg. 1	Fairchild	Domestic Photo. Reprod.	1939	1969/A	78	61-70	10	5.1 (1963)	150	
11	S3441	South of bldg. 5	DOT	Air Condition	1943	1965/NA	92	74-89	10	20.3 (1963)	350	
12	S4230	Adjoining passage from cafeteria to bldg. 17	Fairchild	Air Condition	1946	NA/1988	88	72-88	8	75.3 (1963)	275	
13	S9311	South of bldg. 17	Fairchild	Domestic Process Fire	1951	1988/1988	145	83-136	12	70.7 (1963) 16.5 (1983-1988)	1200	Used as a backup well for well 15 from 1966
14	S9312	East of bldg. 33	Fairchild	Domestic Process Fire	1951	1973/1988	230	168-221	12	258.8 (1963)	1200	
15	S28211	West of bldg. 29S	Fairchild	Industrial and Sanitary	1966	1988/NS	576	526-576	16	251.7 (1983 - 1988)	1400	Used as a principle water supply well for Fairchild plant from 1966 to 1988
16	S1994	Bldg. 55 boiler room	Fairchild	Domestic Process Fire	1940	1988/1988	85	71-84	12	35.3 (1963)	400	
17	S3892	Bldg. 55 basement SE	Fairchild	Domestic Process Fire	1942	1988/1988	94	74-91	12	63.5 (1963)	500	
18	S3244	Below fire tank	Fairchild	Domestic Process Fire	1943	1968/A	99	75-99	12	24.9 (1963)	500	
19	S3403	North of bldg. 54	Fairchild	Domestic Process Fire	1944	1966/1988	97	75-97	12	0.025 (1963)	500	

Table 1-1A Continued . . .

Identification Number		Location	Owner	Service	Year of Construction	Year Last Used/Year Sealed	Depth (ft)	Screened Interval Depth from TOC' (ft)	Casing (inch)	Average Pumping Rate (mgal/year)	Pump Capacity (gpm)	Remarks
Well No.	Permit No.											
20	S16937	Bldg. 62 (R&D) 2600' S. of Conklin St.	Telephonics Corporation	Domestic Process	1958	1986/NA	200	179-200	8	Total wells 20 & 21	200	
21	S16936	Bldg. 62 (R&D) 2500' S. of Conklin St.	Telephonics Corporation	Domestic Process	1958	1986/NA	211	190-211	8	34.8 (1963) 0.0 (1987-1991)	200	
22	S19226	230' East of fuel flow bldg. 61	DOT	Domestic	1960	1966/NA	52	40-52	6	0.7 (1963)	50	
23	S20253	Inside Radome bldg. 52	DOT	Domestic	1960	1974/NA	77	75-77	2	0.03 (1963) 0.0 (1987-1991)	5-8	
	S1994	NA	Ranger Aircraft Engineering	Industrial	1940	NA/NA	85	72-85	12	NA	400	Shut off before 1963
	S3485	NA	Republic Aviation	Domestic Process	1942	NA/NA	50	46-50	6	NA	10	Shut off before 1963
	S3538D	NA	Republic Aviation	Air Condition	1942	NA/NA	92	74-89	10	NA	350	Shut off before 1963
	S10940	NA	Republic Aviation	General	1953	NA/NA	51	35-51	8	NA	300	Shut off before 1963

NOTES:

1. Top of Casing.
 2. NA - Data not available.
 3. NS - Not sealed.
 4. A - Abandoned in place
- Fairchild uses water supplied by EFWA from 1988.
Republic Airport uses water supplied by EFWA from 1976.

The information presented in the table is based on data provided by Fairchild Industries, Inc. and the NYSDEC Water Department office at Stony Brook.

FAIRCHILD INDUSTRIES, INC.
OLD RECHARGE BASIN RI
EAST FARMINGDALE, NEW YORK

eder associates

TABLE 1-2

TCE AND PCE SAMPLING RESULTS FROM OLD RECHARGE BASIN

Sampling Date	Concentration (mg/l)	
	TCE	PCE
6/15/81	0.072	NA
7/29/82	<0.010	<0.010
8/13/82	<0.010	<0.010
9/8/82	<0.010	<0.010
10/27/82	<0.010	<0.010
11/11/82	<0.010	<0.010
12/6/82	<0.010	<0.010
2/3/83	<0.010	<0.010
3/3/83	<0.010	<0.010
4/6/83	<0.010	<0.010
5/5/83	<0.010	<0.010
6/6/83	<0.010	<0.010
7/7/83	<0.010	<0.010
8/4/83	<0.010	0.099
9/1/83	<0.010	<0.010
10/6/83	<0.010	<0.010
11/8/83	<0.010	<0.010
12/12/83	0.029	<0.010
Max. Concentration	0.072	0.099
Average Concentration*	0.015	0.015

NOTES:

NA - Not Analyzed

- * - Average concentrations were calculated assuming that the concentrations reported as below method detection limit (MDL) are equal to the MDL.

FAIRCHILD INDUSTRIES, INC.
 OLD RECHARGE BASIN RI
 EAST FARMINGDALE, NEW YORK

TABLE 1-3

TCE AND PCE SAMPLING RESULTS
FROM WASTEWATER TREATMENT PLANT EFFLUENT

Sampling Date	Concentration, mg/l	
	TCE	PCE
1/20/82	54	14
4/23/82	0.007	NA
5/5/82	<0.010	NA
5/21/82	<0.010	NA
12/2/82 (g)	<0.010	NA
12/2-3/82 (c)	<0.010	NA
12/9/82 (g)	0.010	NA
12/9-10/82 (c)	<0.010	NA
12/16/82 (g)	<0.010	NA
12/16-17/82 (c)	<0.010	NA
12/21/82 (g)	<0.010	NA
12/21-22/82 (c)	<0.010	NA
12/28/82 (g)	0.014	NA
12/28-29/82 (c)	0.030	NA
1/6/83 (g)	<0.010	NA
1/6-7/83 (c)	<0.010	NA
1/13/83 (g)	0.017	NA
1/13-14/83 (c)	<0.010	NA
1/21/83 (g)	<0.010	NA
1/20-21/83 (c)	<0.010	NA
1/28/83 (g)	<0.010	NA

Table 1-3 Continued . . .

Sampling Date	Concentration, mg/l	
	TCE	PCE
1/27-28/83 (c)	<0.010	NA
2/3/83 (g)	<0.010	NA
2/3-4/83 (c)	<0.010	NA
2/10/83 (g)	<0.010	NA
2/10-11/83 (c)	<0.010	NA
2/17/83 (g)	0.011	NA
2/17-18/83 (c)	0.012	NA
11/10/83 (g)	<0.010	<0.010
11/10-11/83 (c)	<0.010	<0.010
11/17/83 (g)	<0.010	<0.010
11/17-18/83 (c)	<0.010	<0.010
11/23/83 (g)	<0.010	<0.010
11/23-24/83 (c)	<0.010	<0.010
2/7/84	<0.010	<0.010
3/1/84	<0.010	0.005
4/12/84	<0.010	<0.010
5/12/84	<0.010	<0.010
7/30/84	0.020	<0.002
7/31/84	0.005	<0.002
8/1/84	0.008	<0.002
8/22/84	0.009	<0.002
1/3/86 (g)	<0.001	0.024
1/3/86 (c)	<0.001	0.021
1/8/86 (g)	0.002	0.003
1/10/86 (c)	0.005	0.007

Table 1-3 Continued . . .

Sampling Date	Concentration, mg/l	
	TCE	PCE
1/15/86 (g)	0.008	0.026
1/16/86 (c)	0.009	0.029
1/22/86 (g)	<0.001	0.006
1/23/86 (c)	0.001	0.006
1/29/86 (g)	<0.001	0.008
1/30/86 (c)	0.002	0.005
2/5/86 (g)	0.002	0.005
2/6/86 (c)	0.002	0.001
2/12/86 (c)	0.002	0.003
2/13/86 (c)	0.001	0.004
2/19/86 (c)	<0.001	<0.001
2/19/86 (g)	0.002	0.009
2/26/86 (c)	0.005	0.003
2/26/86 (g)	0.009	0.013
3/5/86 (g)	0.001	0.005
3/5/86 (c)	0.004	0.001
3/12/86 (g)	0.001	0.007
3/13/86 (c)	<0.001	<0.001
3/20/86 (c)	<0.001	0.002
3/26/86 (g)	0.003	0.021
3/27/86 (c)	0.002	0.006
4/2/86 (g)	0.001	0.003
4/3/86 (c)	<0.001	0.002
4/9/86 (g)	<0.001	0.003
4/16/86 (g)	<0.001	<0.001

Table 1-3 Continued . . .

Sampling Date	Concentration, mg/l	
	TCE	PCE
4/17/86 (c)	<0.001	0.001
4/23/86 (g)	<0.001	0.001
4/24/86 (c)	<0.001	0.002
4/30/86 (g)	<0.001	0.003
5/1/86 (c)	<0.001	0.003
5/7/86 (g)	<0.001	0.012
5/8/86 (c)	<0.001	0.003
5/14/86 (g)	<0.001	0.003
5/15/86 (c)	<0.001	0.001
5/21/86 (g)	<0.001	0.005
5/22/86 (c)	<0.001	0.002
5/29/86 (g)	<0.001	0.001
5/30/86 (c)	<0.001	<0.001
6/4/86 (g)	<0.001	0.002
6/5/86 (c)	<0.001	<0.001
6/12/86 (c)	0.003	0.001
6/12/86 (g)	0.003	0.002
6/18/86 (g)	<0.001	0.008
6/19/86 (c)	<0.001	0.002
6/25/86 (g)	<0.001	0.002
6/26/86 (c)	<0.001	<0.001
7/2/86 (g)	<0.001	0.001
7/3/86 (c)	<0.001	<0.001
7/10/86 (g)	<0.001	<0.001
7/10/86 (c)	<0.001	<0.001

Table 1-3 Continued . . .

Sampling Date	Concentration, mg/l	
	TCE	PCE
7/17/86 (g)	<0.001	0.001
7/17/86 (c)	<0.001	<0.001
7/23/86 (g)	0.001	0.002
7/24/86 (c)	<0.001	<0.001
7/31/86 (c)	<0.001	0.003
7/31/86 (g)	<0.001	0.004
8/6/86 (g)	<0.001	0.002
8/7/86 (c)	<0.001	<0.001
8/14/86 (g)	<0.001	0.003
8/14/86 (c)	<0.001	<0.001
8/20/86 (g)	<0.001	0.003
8/21/86 (c)	<0.001	<0.001
8/27/86 (g)	<0.001	0.001
8/28/86 (c)	<0.001	0.001
9/3/86 (g)	<0.001	0.002
9/4/86 (c)	<0.001	<0.001
9/10/86 (g)	<0.001	0.002
9/11/86 (c)	<0.001	0.001
9/18/86 (g)	<0.001	0.002
9/18/86 (c)	<0.001	0.076
9/24/86 (g)	<0.001	0.002
9/25/86 (c)	<0.001	<0.001
10/1/86 (g)	<0.001	0.002
10/2/86 (c)	<0.001	<0.001
10/9/86 (g)	<0.001	0.002

Table 1-3 Continued . . .

Sampling Date	Concentration, mg/l	
	TCE	PCE
10/9/86 (c)	<0.001	<0.001
10/15/86 (g)	0.170	0.016
10/16/86 (c)	0.054	0.014
10/23/86 (g)	0.140	0.007
10/23/86 (c)	0.093	0.003
10/30/86 (c)	0.003	<0.001
10/29/86 (c)	0.003	<0.001
11/5/86 (g)	0.002	0.001
11/6/86 (c)	0.002	<0.001
Max. Concentration	54	14
Average Concentration*	0.44	0.15

NOTES:

NA - Not Analyzed

(g) - Grab Sample

(c) - Composite Sample

* - Average concentrations were calculated assuming that the concentrations reported as below method detection limit (MDL) are equal to the MDL.

FAIRCHILD INDUSTRIES, INC.
 OLD RECHARGE BASIN RI
 EAST FARMINGDALE, NEW YORK

TABLE 1-4

TCE AND PCE SAMPLING RESULTS FROM NEW RECHARGE BASIN

Sampling Date	Concentrations, mg/l	
	TCE	PCE
2/7/84	<0.010	<0.010
3/1/84	<0.010	<0.010
4/12/84	<0.010	<0.010
5/12/84	<0.010	<0.010
6/28/84	<0.002	<0.002
7/30/84	NA	<0.002
7/31/84	NA	<0.002
8/1/84	NA	<0.002
8/22/84	NA	0.002
1/3/85	0.001	<0.001
2/7/85	0.003	0.001
3/6/85	0.003	0.001
4/14/85	0.001	<0.001
5/31/85	0.002	<0.001
6/5/85	<0.001	<0.001
7/3/85	0.003	<0.001
8/1/85	0.002	<0.001
9/5/85	0.003	<0.001
10/4/85	0.002	<0.001
11/7/85	0.002	<0.001
12/5/85	0.002	<0.001

Table 1-4 Continued . . .

Sampling Date	Concentrations, mg/l	
	TCE	PCE
1/9/86	0.002	<0.001
2/6/86	0.002	<0.001
3/6/86	0.002	<0.001
4/10/86	0.002	<0.001
5/1/86	0.002	0.003
5/30/86	0.002	<0.001
7/3/86	<0.001	0.002
8/14/86	0.003	0.001
9/25/86	0.003	<0.001
10/23/86	0.004	<0.001
11/20/86	0.002	<0.001
12/18/86	0.002	<0.001
5/10/88	<0.001	<0.001
6/14/88	<0.001	<0.001
7/15/88	<0.001	0.002
8/12/88	<0.001	<0.002
Max. Concentration	0.004	0.003
Average Concentration*	0.003	0.002

Notes:

NA - Not Analyzed

* - Average concentrations were calculated assuming that the concentrations reported as below method detection limit (MDL) are equal to the MDL.

FAIRCHILD INDUSTRIES, INC.
OLD RECHARGE BASIN RI
EAST FARMINGDALE, NEW YORK

TABLE 1-5

TCE AND PCE SAMPLING RESULTS FROM SEWAGE TREATMENT PLANT INFLUENT
(STP Discharged into POTW)*

Sampling Date	Concentration, mg/l	
	TCE	PCE
3/9/83	NA	0.110
6/28/84	NA	0.052
7/12/84	NA	0.005
8/9/84	NA	0.001
9/6/84	NA	0.001
10/4/84	NA	0.001
11/1/84	NA	0.001
1/3/85	NA	<0.001
2/7/85	NA	<0.003
3/6/85	NA	<0.001
4/14/85	NA	<0.001
5/31/85	NA	<0.001
6/5/85	NA	0.002
1/9/86	NA	0.001
3/6/86	NA	0.008
4/10/86	NA	<0.001
5/1/86	NA	0.005
5/30/86	NA	<0.001

Table 1-5 Continued . . .

Sampling Date	Concentration, mg/l	
	TCE	PCE
7/3/86	NA	0.003
8/14/86	NA	0.043
9/25/86	NA	0.006
10/23/86	NA	0.015
Max. Concentration	NA	0.110
Average Concentration**	NA	0.012

NOTES:

NA - Not Analyzed

* - STP - Sewage Treatment Plant

POTW - Publicly Owned Treatment Works

** - Average concentrations were calculated assuming that the concentrations reported as below method detection limit (MDL) are equal to the MDL.

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 1-6

PUBLIC SUPPLY WELL INVENTORY

State No.	Plant No.	Depth (feet)	Capacity (gpm)	Pumpage (mgd)	Status	Comments
East Farmingdale Water District - Route 109 Well Field						
S-66556	#4-2	750	1,400	229	Active	pH/Chloride
S-79105	#4-1	750	1,400	178	Active	pH/Chloride
SCWA - Albany Avenue Well Field						
S-120181	#1	84			Retired	Sealed
S-14218	#2	85			Retired	Sealed
S-15499	#3	84			Retired	Sealed
S-34595	#4	482		246	Active	
S-47886	#5	508		280	Active	
S-63205	#6	419			Active	
SCWA - Tenny Avenue Well Field						
S-19554	#1	100			Retired	Sealed
S-20460	#2	494	800		Active	
S-37681	#3	573	1,100		Active	
SCWA - North 5th Street						
S-29491	#1	4998	1,200		Active	
SCWA - Lambert Avenue						
S-22351	#1	557	1,800		Active	

NOTES:

gpm - gallons per minute

mgd - million gallons per day

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 1-7

SUMMARY OF CONTAMINATED SITES IN VICINITY OF FACILITY

Facility Name	Problem	Status/Period Disposal	Comments
Old Bethpage Landfill 130001	PCE TCE 1,2-DCE 1,1-DCA	1968-1980	Groundwater system in operation. TCE not attributable to landfill.
Nassau County Fire Training Center 130042	PCE 1,1-DCE 1,2-DCA 1,1,1-TCA TCE Benzene Xylene	1970-1980	Cap for shallow soils and institutional controls, bioventing, pumping and treating.
Claremont Poly Chemical Corporation 130015	1,1,1-TCA TCE 1,1-DCA PCE	1966-1980	RIFS completed, ROD signed.
110 Moore Sand Company 152100	Metals	Unknown	Insufficient information to evaluate.
I.W. Industries 152102	Cis-1,2-DCE Benzene	1972 to present	Insufficient information to evaluate. Investigation continuing.
Target Rock 152119	VOC's dumped 1,1,1 TCA PCE and others	Delisted 1994 1975-1983	No investigation below 100 feet or beyond property line.
B.H. Aircraft Spill 91-07269	1,1-DCA 1,1,1-TCA TCE	Unknown	No further information.

Order Associates
Table 1-7 Continued. . .

Facility Name	Problem	Status/Period Disposal	Comments
Kenmark, Inc. (S.J. and J. Service Stations, Inc.) 152032	Heavy metals Chloromethane 1,1,1 TCA PCE	No action remedy ROD 3/30/94 - Not Defined	No investigation below 100 feet or beyond property line.
Brandt Airflex	TCE PCE	Unknown	No further information.
Hazardous Waste Disposal 152113	BTEX PCE 1,1,1 TCA 1,2 DCE	Phase 1 and Phase 2 investigation completed 1979-1982	No investigation below 100 feet or beyond property line.
Circuitron 152082	VOC's in groundwater 1,1,1 TCA TCE 1,1 DCE	ROD 9/94 1961-1986	No investigation below 100 feet. Contamination found at a depth of 100 feet but vertical extent of plume not delineated.
East Farmingdale Volunteer Fire Co., Inc. Spill No. 90-06823	BTEX PCE TCE	Remediation of BTEX ongoing Not Defined	No PCE and TCE source area identified.
Cantor Brothers 152021	PCE DCE TCE 1,1,1 TCA	ACO signed 1975-1993	No investigation below 100 feet or beyond property line.
Tronic Plating Co. 152028	PCE TCE 1,1,1 TCA	ROD 1993 no further action 1968-1984	No investigation below 100 feet. Contamination found at a depth of 100 feet but vertical extent of plume not delineated.
Astro Electroplating, Inc. 152036	Heavy metals TCE 1,1,1 TCA	ACO signed 1970 to the present	No investigation below 100 feet or beyond property line.
Lockheed Terminal Gate 1 Spill No. 89-02351	PCE TCE	No information/unknown	Polytechnic Institute used PCE and TCE.
Wagner Seed Company 13003	Pesticides	Further monitoring required 6/1/85 fire/f	

Table 1-7 Continued...

Facility Name	Problem	Status/Period Disposal	Comments
Minimilt Realty (Hygrade Metal Moulding) 152147	PCE	RI workplan submitted 3/94 1965-1990	No investigation below 100 feet. Contamination found at a depth of 80 feet but vertical extent of plume not delineated. No off-site study performed.
Liberty Industrial Finishing (4J's Co.) 13005	Heavy metals TCE 1,2 DCE	RI completed 1942-1977	No investigation below 100 feet. Contamination found at a depth of 100 feet but vertical extent of plume not delineated. Source of VOC's not identified.
Preferred Plating 152030	Copper, Chromium, Cadmium, Hexavalent Chromium and Cyanide VOCs	RI design/1951-1976 Complete	Miller Avenue SCDHS Study - likely source of contamination at five private wells downgradient.
National Heatset Printing 152140	PCE 1,1,1-TCA TCE 1,2-DCE	Ongoing investigation/1983 to present	Miller Avenue SCDHS Study - likely source of contamination of five private wells downgradient.
Louis Sorrentino Property 152111	Heavy metals	Phase II complete supplemental Phase II, IRM 1994/1961 to 1984	
Pinelawn Industrial Area 152025, 152027, 152029, 152039, 152086	PCE TCE TCA	Under investigation Not defined	No investigation below 100 feet. Contamination found at a depth of 100 feet but vertical extent of plume not delineated.

NOTES:

BTEX - Benzene Toluene Ethylbenzene and Xylene
TCE - Trichloroethylene
1,2 DCE - 1,2-Dichloroethylene
TCA - Tetrachloroethylene
ACO - Administrative Consent Order

PCE - Tetrachloroethylene
1,1,1 TCA - 1,1,1-Tetrachloroethane
DCE - Dichloroethylene
ROD - Record of Decision
RI - Remedial Investigation

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 3-1

SOIL VAPOR SAMPLING SUMMARY

Sample Type	Area of Investigation			Total
	Former Vapor Degreaser	Former PCE Tank	NYSDOT Property	
Soil Vapor Samples	31	18	33	82
QA/QC ¹	13	5	11	29
Total	44	23	44	11

NOTE:

1. The QA/QC samples include duplicate, field blank and ambient air samples.

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 3-2

SOIL SAMPLING AND ANALYSIS SUMMARY

Description	Area of Investigation			Total
	Former Vapor Degreaser	Former PCE Tank	NYS DOT Property	
Number of Soil Borings	12	7	2	21
Split Spoon Samples	76	55	17	148
Number of Field Blanks	4	3	1	8
Number of Soil Samples Analyzed for VOCs	28	18	6	52
Number of Matrix Spike and Matrix Spike Duplicates	2	1	1	4
Number of Soil Samples Collected for Total Organic Carbon	2	4	3	9
Number of Samples Collected for Geotechnical Analysis	4	2	2	8

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 3-3

MONITORING WELL CONSTRUCTION DETAILS

Well ID	Date Completed	Total Depth of Boring, (ft)	Screen interval, (ft)
MW-1S	10/23/87	40.0	28-38
MW-1D	10/22/87	68.6	58.6-68.6
MW-2S	10/30/87	37.8	27.8-37.8
MW-2D	10/29/87	69.6	59.6-69.6
MW-3S	10/27/87	40.1	30.1-40.1
MW-3D	10/26/87	69.7	59.7-69.7
MW-6S	11/13/87	36.7	26.7-36.7
MW-6D	11/13/87	69.2	59.2-69.2
MW-7S	11/12/87	35.7	25.7-35.7
MW-7D	11/12/87	68.9	58.9-68.9
MW-8S	11/09/87	37.9	27.9-37.9
MW-8D	11/06/87	69.2	59.2-69.2
MW-9S	11/05/87	37.1	27.1-37.1
MW-9D	11/05/87	69.6	59.6-69.6
MW-10S [OS-1(a)]	10/08/76	38.2	18.2-38.2
MW-10D	11/04/87	69.1	59.1-69.1
MW-11S	11/03/87	42	27.1-37.1
MW-11D	11/03/87	72	59.4-69.4
MW-13S	1/26/88	40	27-37
MW-13D	1/25/88	72	60.5-70.5
MW-14S	1/29/88	40	30-40

Table 3-3 Continued . . .

Well ID	Date Completed	Total Depth of Boring, (ft)	Screen interval, (ft)
MW-14D	1/27/88	72	60.5-70.5
MW-15S	2/01/88	40	30-40
MW-15D	1/29/88	72	60-70
MW-16S	2/02/88	40.5	30.5-40.5
MW-16D	2/02/88	72	60.5-70.5
MW-17S	3/23/88	40	27-37
MW-17D	3/22/88	70	59-69
MW-18S	3/24/88	40	26-36
MW-18D	3/24/88	70	59.5-69.5
MW-19S	3/28/88	40	26-36
MW-19D	3/28/88	70	60-70
MW-23D	10/26/93	313	300-310
MW-35D	12/17/93	351	175-185
MW-36D	12/2/93	351	245-255
MW-37D	11/11/93	363	257-267
MW-21S	8/3/92	30	13.5-28.5
MW-31S	3/8/93	28	13-28
MW-32D	1/20/93	325	315-325
MW-33D	12/17/93	310	300-310
MW-38S	3/21/94	38.8	39
MW-39S	3/23/94	38.0	38
MW-40D	3/30/94	48.8	49
MW-S-66133	12/21/78	142	132-142
MW-S-66157	2/05/79	78	68-78
MW-S-2684	5/13/41	81	76-81

Table 3-3 Continued . . .

Well ID	Date Completed	Total Depth of Boring, (ft)	Screen interval, (ft)
MW-S-3623	1/24/44	78	61-78

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 3-4

GROUNDWATER HYDROPUNCH SAMPLING/
FIELD ANALYSIS SUMMARY

Sample ID	Sample Date	Volume Of Groundwater In The Hydropunch ⁽¹⁾	Sample Depth (ft.)	Sample Appearance	Field Parameters						Average Gamma Log Reading ⁽²⁾ (counts/sec) /Soil Description
					Groundwater			Mud			
					pH	Cond. (mS)	Temp. (F°)	pH	Cond. (mS)	Temp (F°)	
MW-23D-253	10/19/9	0.5 gal/min	253	Cloudy, trace silty sediments	5.9	100	58	7.9	700	62	20
MW-23D-292	10/20/93	dry/no water yield	292	no water yield	NA	NA	NA	NA	NA	NA	120/light gray fat clay
MW-23D-313	10/21/93	0.1 gal/min	313	slightly cloudy trace very fine silty sand	6.5	100	60	6.3	600	65	40
MW-35D-112	12/9/93	0.06 gal/min	112	Slight light gray turbidity	6.7	300	54	9.2	1100	53	25
MW-35D-151	12/10/93	0.1 gal/min	151	Slight light gray turbidity	6.5	300	54	8.7	1000	52	15
MW-35D-201	12/10/93	0.08 gal/min	201	Slight light gray turbidity	7.3	400	54	8.5	900	54	20

Table 3-4 Continued . . .

Sample ID	Sample Date	Volume Of Groundwater In The Hydropunch ⁽¹⁾	Sample Depth (ft.)	Sample Appearance	Field Parameters						Average Gamma Log Reading ⁽²⁾ /Soil Description
					Groundwater			Mud			
					pH	Cond. (mS)	Temp. (F°)	pH	Cond. (mS)	Temp (F°)	
MW-35D-250	12/13/93	0.36 gal/min	250	Cloudy turbid with very fine gray silty sand	6.6	200	49	8.4	800	46	10
MW-35D-301	12/14/93	0.08 gal/min	301	Cloudy turbid with vf gray silty sand	6.4	500	51	7.8	900	4.7	45
MW-35D-351	12/15/93	0.04 gal/min	351	cloudy turbid gray color	7.7	300	52	8.3	700	46	NA
MW-36D-102	11/16/93	0.24 gal/min	102	light turbid yellow brown	6.9	200	55	9.0	1000	53	20
MW-36D-151	11/17/93	0.3 gal/min	151	tan turbid	6.9	200	58	8.9	1000	52	40
MW-36D-202	11/18/93	0.3 gal/min	202	light tan turbid	7.0	200	53	8.8	900	52	10
MW-36D-251	11/18/93	0.05 gal/min	251	lightly turbid tan color	6.8	200	54	8.8	900	52	25
MW-36D-302	11/19/93	0.18 gal/min	302	gray-black lightly turbid	6.2	100	54	8.5	900	52	30
MW-36D-351	11/20/93	0.02 gal min in 6 min, no additional recovery through next 3 hours	301	gray black turbid	7.3	100	49	7.8	800	48	NA/Dark gray clay

Table 3-4 Continued . . .

Sample ID	Sample Date	Volume Of Groundwater In The Hydropunch ⁽¹⁾	Sample Depth (ft.)	Sample Appearance	Field Parameters						Average Gamma Log Reading ⁽²⁾ (counts/sec) /Soil Description
					Groundwater			Mud			
					pH	Cond. (mS)	Temp. (F°)	pH	Cond. (mS)	Temp (F°)	
MW-37D-154	10/28/93	0.1 gal/min	154	cloudy, small silty sediments	6.4	200	57	9.2	1000	59	30
MW-37D-200 ⁽³⁾	10/29/93	7 gal/min	200	partly or wholly mud sample	7.8	800	57	7.8	900	55	25/clayey sand with gravel
MW-37D-253	11/1/93	0.1 gal/min	253	cloudy, dark in color,	7.4	100	52	8.0	1000	50	45
MW-37D-363	11/4/93	0.03 gal/min	363	cloudy, dark in color, some black silt sediments	6.2	200	52	6.8	700	56	NA/fine silty sand

NOTES:

- (1) Groundwater volume in the Hydropunch 5-10 minutes after exposing the screen to the formation.
- (2) Site specific relationship between gamma log readings and soil material:

<u>avg. counts/sec</u>	<u>soil description</u>
10-20	well graded sand with gravel
20-50	silty clayey and
50-90	sandy clay, clay
>90	dense clay

- (3) This sample is partially or wholly drilling mud
NA - Not available

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 3-5

CHEMICAL OXYGEN DEMAND ANALYTICAL RESULTS

Samples	Sample Date	Days After Well Development	Result (mg/l)
FRC-MW-23D-1	12/06/93	5	52.4
FRC-MW-23D-2	12/17/93	15	17.6
FRC-MW-23D-3	01/03/94	30	<10.0
FRC-MW-23D-4	02/02/94	60	13.2
FRC-MW-35D-1	12/29/93	2	26.3
FRC-MW-35D-2	01/14/94	17	<10.0
FRC-MW-35D-3	01/27/94	31	26.3
FRC-M2-35D-4	02/25/94	59	107
FRC-MW-36D-1	12/17/93	2	<10.0
FRC-MW-36D-2	12/29/93	14	<10.0
FRC-MW-36D-3	01/14/94	30	<10.0
(FRC-M2-100-1) ⁽¹⁾	01/14/94	30	<10.0
FRC-MW-36D-4	02/25/94	72	<10.0
FRC-MW-37D-1	12/06/93	6	24.1
FRC-MW-37D-2	12/20/93	19	13.2
FRC-MW-37D-3	12/01/94	30	<10.0
FRC-ME-37D-4	02/02/94	60	13.2

⁽¹⁾ FRC-MW-36D-3 Duplicate

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 3 - 6

WATER LEVEL DATA

Well I.D.	Screen Interval (ft.)	Measuring Point Elevation (ft., AMSL)	10-28-92		11-30-92		12-28-92		1-28-93	
			Depth To Water (ft., BMP)	Water Level Elevation (ft., AMSL)	Depth To Water (ft., BMP)	Water Level Elevation (ft., AMSL)	Depth To Water (ft., BMP)	Water Level Elevation (ft., AMSL)	Depth To Water (ft., BMP)	Water Level Elevation (ft., AMSL)
MW-1S	28 - 38	85.95	32.15	53.80	31.66	54.29	ND	ND	30.70	55.25
MW-1D	58.6 - 68.6	85.91	32.09	53.82	31.75	54.16	ND	ND	30.61	55.30
MW-2S	27.8 - 37.8	81.63	29.05	52.58	28.64	52.99	27.75	53.88	27.61	54.02
MW-2D	59.6 - 69.6	81.64	29.03	52.61	28.66	52.98	27.75	53.89	27.61	54.03
MW-3S	30.1 - 40.1	85.71	31.95	53.76	31.39	54.32	30.75	54.96	30.68	55.03
MW-3D	59.7 - 69.7	85.77	31.85	53.92	31.43	54.34	30.81	54.96	30.70	55.07
MW-4S	27.6 - 37.6	81.97	28.24	53.73	27.79	54.18	27.20	54.77	27.12	54.85
MW-4D	60.2 - 70.2	81.92	28.22	53.70	27.82	54.10	27.14	54.78	27.08	54.84
MW-5S	26.9 - 36.9	78.97	27.54	51.43	26.89	52.08	26.22	52.75	26.17	52.80
MW-5D	59.6 - 69.6	78.95	27.52	51.43	26.92	52.03	26.20	52.75	26.14	52.81
MW-6S	26.7 - 36.7	78.94	28.12	50.82	27.66	51.28	26.78	52.16	26.81	52.13
MW-6D	59.2 - 69.2	78.89	28.16	50.73	27.58	51.31	26.82	52.07	26.77	52.12
MW-7S	25.7 - 35.7	80.00	29.22	50.78	28.82	51.18	28.02	51.98	27.99	52.01
MW-7D	58.9 - 68.9	79.82	28.99	50.83	28.66	51.16	27.84	51.98	27.79	52.03
MW-8S	27.9 - 37.9	80.34	28.75	51.59	28.30	52.04	27.54	52.80	27.47	52.87
MW-8D	59.2 - 69.2	80.15	28.47	51.68	28.09	52.06	27.36	52.79	27.29	52.86
MW-9S	27.1 - 37.1	79.86	28.58	51.28	28.18	51.68	27.36	52.50	27.29	52.57
MW-9D	59.6 - 69.6	79.22	27.98	51.24	27.44	51.78	26.73	52.49	27.66	51.56
MW-10S	18.2 - 38.2	79.22	ND	ND	26.64	52.58	26.57	52.65	26.50	52.72
MW-10D	59.1 - 69.1	79.38	ND	ND	27.57	51.81	26.76	52.62	26.67	52.71
MW-11S	27.1 - 37.1	82.82	30.94	51.88	30.56	52.26	29.77	53.05	29.67	53.15
MW-11D	59.4 - 69.4	82.07	30.25	51.82	29.92	52.15	29.03	53.04	28.88	53.19
MW-13S	27 - 37	79.96	28.09	51.87	27.66	52.30	26.81	53.15	26.71	53.25
MW-13D	60.5 - 70.5	79.87	27.97	51.90	27.68	52.19	26.83	53.04	26.72	53.15

Table 3-8 Continued . . .

Well I.D.	Screen Interval (ft)	Measuring Point Elevation (ft. AMSL)	10-28-92		11-30-92		12-28-92		1-28-93	
			Depth To Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth To Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth To Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth To Water (ft. BMP)	Water Level Elevation (ft. AMSL)
MW-14S	30 - 40	83.39	31.06	52.33	30.74	52.65	29.92	53.47	29.83	53.56
MW-14D	60.5 - 70.5	83.54	31.34	52.20	30.87	52.67	30.07	53.47	29.98	53.56
MW-15S	30 - 40	82.89	30.64	52.25	30.29	52.60	29.50	53.39	29.38	53.51
MW-15D	60 - 70	82.80	30.54	52.26	30.24	52.56	29.41	53.39	29.28	53.52
MW-16S	30.5 - 40.5	83.84	30.83	53.01	30.43	53.41	29.71	54.13	29.61	54.23
MW-16D	60.5 - 70.5	83.83	30.77	53.06	30.43	53.40	29.69	54.14	29.56	54.27
MW-17S	27 - 37	80.01	28.07	51.94	27.75	52.26	26.90	53.11	26.80	53.21
MW-17D	59 - 69	80.05	28.26	51.79	27.77	52.28	26.96	53.09	26.88	53.17
MW-18S	26 - 36	80.08	27.17	52.91	27.81	52.27	26.99	53.09	26.90	53.18
MW-18D	59.5 - 69.5	80.07	28.28	51.79	27.78	52.29	27.00	53.07	26.92	53.15
MW-19S	26 - 36	78.95	27.63	51.32	27.35	51.60	26.44	52.51	26.35	52.60
MW-19D	60 - 70	78.84	27.58	51.26	27.22	51.62	26.34	52.50	26.27	52.57
MW-21S	13.5 - 28.5	62.21	ND	ND	18.62	43.59	17.42	44.79	18.40	43.81
MW-33D*	300 - 310	85.88	ND	ND	ND	ND	31.09	54.79	21.10	64.78
OS-2	18.9 - 38.9	78.86	ND	ND	ND	ND	26.24	52.62	26.15	52.71
S-66133	132 - 142	66.10	23.47	42.63	ND	ND	22.02	44.08	21.99	44.11
STP-1	ND	71.75	25.09	46.66	ND	ND	ND	ND	23.54	48.21

*Depth to water in MW-33D on 1-28-93 is anomalous

Table 3-6 Continued . . .

Well I.D.	Screen Interval (ft)	Measuring Point Elevation, (ft. AMSL)	2-23-93		3-28-93		4-27-93		5-28-93	
			Depth To Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth To Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth To Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth To Water (ft. BMP)	Water Level Elevation (ft. AMSL)
MW-1S	28 - 38	85.95	30.63	55.32	29.63	56.32	28.57	57.38	29.38	56.57
MW-1D	58.6 - 68.6	85.91	30.74	55.17	29.72	56.19	28.66	57.25	29.49	56.42
MW-2S	27.8 - 37.8	81.63	27.71	53.92	26.67	54.96	25.55	56.08	26.37	55.26
MW-2D	59.6 - 69.6	81.64	27.72	53.92	26.66	54.98	--	--	26.34	55.30
MW-3S	30.1 - 40.1	85.71	30.69	55.02	29.59	56.12	28.62	57.09	29.46	56.25
MW-3D	59.7 - 69.7	85.77	30.70	55.07	31.43	55.98	28.65	57.12	29.48	56.29
MW-4S	27.6 - 37.6	81.97	27.08	54.89	27.79	55.98	25.08	56.89	25.91	56.06
MW-4D	60.2 - 70.2	81.92	27.04	54.88	27.82	55.98	25.05	56.87	25.87	56.05
MW-5S	26.9 - 36.9	78.97	26.10	52.89	26.89	54.17	23.94	55.03	24.90	54.07
MW-5D	59.6 - 69.6	78.95	26.06	52.21	26.92	54.16	23.92	55.03	24.88	54.07
MW-6S	26.7 - 36.7	78.94	27.73	52.20	27.66	53.54	24.56	54.38	25.56	53.38
MW-6D	59.2 - 69.2	78.89	26.69	52.04	27.58	53.53	24.55	54.34	25.54	53.35
MW-7S	25.7 - 35.7	80.00	27.96	52.06	28.82	53.39	25.76	54.24	26.74	53.26
MW-7D	58.9 - 68.9	79.82	27.76	52.91	28.66	53.39	25.59	54.23	26.54	53.28
MW-8S	27.9 - 37.9	80.34	27.54	52.90	28.30	54.16	25.28	55.06	26.21	54.13
MW-8D	59.2 - 69.2	80.15	27.25	52.59	28.09	54.16	25.09	55.06	26.02	54.13
MW-9S	27.1 - 37.1	79.86	27.27	52.56	26.02	53.84	25.11	54.75	26.04	53.82
MW-9D	59.6 - 69.6	79.22	26.66	52.72	25.41	53.81	24.49	54.73	25.41	53.81
MW-10S	18.2 - 38.2	79.22	26.509	52.71	25.28	53.94	24.35	54.87	25.25	53.97
MW-10D	59.1 - 69.1	79.38	26.67	52.70	25.44	53.94	24.52	54.86	25.41	53.97
MW-11S	27.1 - 37.1	82.82	29.69	53.13	28.54	54.28	27.56	55.26	28.41	54.41
MW-11D	59.4 - 69.4	82.07	28.95	53.12	27.81	54.26	26.82	55.25	27.88	54.19
MW-13S	27 - 37	79.96	26.73	53.23	25.57	54.39	24.62	55.34	25.49	54.47
MW-13D	60.5 - 70.5	79.87	26.74	53.13	25.59	54.28	24.64	55.23	25.50	54.37
MW-14S	30 - 40	83.39	29.86	53.53	28.74	54.65	27.72	55.67	28.59	54.80
MW-14D	60.5 - 70.5	83.54	30.00	53.54	28.87	54.67	27.90	55.64	28.74	54.80
MW-15S	30 - 40	82.89	29.41	53.48	28.31	54.58	27.31	55.58	28.15	54.74

Table 3-b Continued . . .

Well I.D.	Screen Interval (ft)	Measuring Point Elevation (ft., AMSL)	2-23-93		3-28-93		4-27-93		5-28-93	
			Depth To Water (ft., BMP)	Water Level Elevation (ft., AMSL)	Depth To Water (ft., BMP)	Water Level Elevation (ft., AMSL)	Depth To Water (ft., BMP)	Water Level Elevation (ft., AMSL)	Depth To Water (ft., BMP)	Water Level Elevation (ft., AMSL)
MW-150	60 - 70	82.80	29.31	53.49	28.24	54.56	27.23	55.57	28.08	54.72
MW-16S	30.5 - 40.5	83.84	29.63	54.21	28.58	55.26	27.56	56.28	28.39	55.45
MW-16D	60.5 - 70.5	83.83	29.60	54.32	28.56	55.27	27.53	56.30	28.35	55.48
MW-17S	27 - 37	80.01	26.82	53.19	25.70	54.31	24.71	55.30	25.56	54.45
MW-17D	59 - 69	80.05	26.90	53.15	25.76	54.38	24.77	55.28	25.62	54.43
MW-18S	26 - 36	80.08	26.90	53.18	25.74	54.34	24.78	55.30	25.65	54.43
MW-18D	59.5 - 69.5	80.07	26.92	53.15	25.74	54.33	24.81	55.26	25.66	54.41
MW-19S	26 - 36	78.95	26.38	52.57	25.16	53.79	24.23	52.72	25.11	53.84
MW-19D	60 - 70	78.84	26.38	52.18	25.07	53.77	24.13	54.71	25.02	53.82
MW-21S	13.5 - 28.5	62.21	17.39	44.82	15.60	46.61	15.20	47.01	16.08	46.13
MW-33D	300 - 310	85.88	ND	ND	29.64	56.24	28.84	57.04	29.68	56.20
OS-2	18.9 - 38.9	78.86	16.16	52.70	24.94	53.92	24.00	54.86	24.91	53.95
S-66133	132 - 142	66.10	21.97	44.13	20.65	45.45	20.02	46.08	21.58	44.52
STP-1	ND	71.75	23.61	48.14	22.08	49.67	21.33	50.42	22.29	49.46
MW-32D	315 - 325	61.55	ND	ND	19.72	41.83	19.27	42.28	21.46	40.09
MW-31S	13 - 28	65.51	ND	ND	16.48	49.03	15.56	49.95	16.43	49.08
C-MW1	ND	81.34	ND	ND	26.06	55.28	24.86	56.48	25.67	55.67
C-MW2	ND	77.32	ND	ND	24.12	53.20	23.08	54.24	23.95	53.37
C-MW3	ND	64.04	ND	ND	15.61	48.43	14.77	49.27	15.68	48.36
C-MW4	ND	58.91	ND	ND	11.73	47.18	11.16	47.75	12.08	46.83

Table 3-b Continued . . .

Well I.D.	Screen Interval (ft)	Measuring Point Elevation (ft. AMSL)	6-29-93			7-26-93			8-25-93			9-29-93		
			Depth to Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth to Water (ft. BMP)	Depth to Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth to Water (ft. BMP)	Depth to Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth to Water (ft. BMP)	Depth to Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth to Water (ft. BMP)
MW-1S	28 - 38	85.95	30.25	55.70	31.23		54.72	32.13		53.82	ND	ND	ND	ND
MW-1D	58.6 - 68.6	85.91	30.34	55.57	31.32		54.59	32.23		53.68	32.64		53.27	
MW-2S	27.8 - 37.8	81.63	27.27	54.36	28.23		53.40	29.18		52.45	29.69		51.94	
MW-2D	59.6 - 69.6	81.64	27.27	54.37	28.23		53.41	29.19		52.45	29.71		51.93	
MW-3S	30.1 - 40.1	85.71	30.29	55.42	31.26		54.45	32.15		53.56	32.50		53.21	
MW-3D	59.7 - 69.7	85.77	30.33	55.44	31.28		54.49	32.18		53.59	32.55		53.22	
MW-4S	27.6 - 37.6	81.97	26.67	55.30	27.64		54.33	28.54		53.43	28.90		53.07	
MW-4D	60.2 - 70.2	81.92	26.65	55.27	27.60		54.32	28.51		53.41	28.86		53.06	
MW-5S	26.9 - 36.9	78.97	25.73	53.24	26.67		52.30	27.52		51.45	28.01		50.96	
MW-5D	59.6 - 69.6	78.95	25.81	53.16	26.75		52.20	27.60		51.35	28.10		50.85	
MW-6S	26.7 - 36.7	78.94	26.41	52.54	27.35		51.59	28.19		50.75	28.68		50.26	
MW-6D	59.2 - 69.2	78.89	26.38	52.51	27.41		51.48	28.25		50.64	28.71		50.18	
MW-7S	25.7 - 35.7	80.00	27.61	52.39	28.55		51.45	29.40		50.60	29.89		50.11	
MW-7D	58.9 - 68.9	79.82	27.44	52.38	28.34		51.48	29.21		50.61	29.70		50.12	
MW-8S	27.9 - 37.9	80.34	27.08	53.26	28.03		52.31	28.89		51.45	29.37		50.97	
MW-8D	59.2 - 69.2	80.15	26.86	53.29	27.83		52.32	28.71		51.44	29.16		50.99	
MW-9S	27.1 - 37.1	79.86	26.93	52.93	27.87		51.99	28.76		51.10	29.24		50.62	
MW-9D	59.6 - 69.6	79.22	26.30	52.92	27.23		51.99	28.16		51.06	28.90		50.32	
MW-10S	18.2 - 38.2	79.22	26.14	53.08	27.09		52.13	28.02		51.20	28.46		50.76	
MW-10D	59.1 - 69.1	79.38	26.31	53.07	27.26		52.12	28.17		51.21	28.90		50.48	
MW-11S	27.1 - 37.1	82.82	29.31	53.51	30.28		52.54	31.21		51.61	31.64		51.18	
MW-11D	59.4 - 69.4	82.07	28.58	53.49	29.63		52.44	30.45		51.62	30.60		51.47	
MW-13S	27 - 37	79.96	26.46	53.50	27.39		52.57	28.34		51.62	28.77		51.19	
MW-13D	60.5 - 70.5	79.87	26.37	53.50	27.41		52.46	28.34		51.53	28.78		51.09	
MW-14S	30 - 40	83.39	29.45	53.94	30.42		52.97	31.34		52.05	31.78		51.61	
MW-14D	60.5 - 70.5	83.54	29.61	53.93	30.56		52.98	31.50		52.04	32.03		51.51	
MW-15S	30 - 40	82.89	29.03	53.86	29.99		52.90	30.92		51.97	31.36		51.53	

Table 3-8 Continued . . .

Well I.D.	Screen Interval (ft)	Measuring Point Elevation (ft. AMSL)	6-29-93		7-26-93		8-25-93		9-29-93	
			Depth to Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth to Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth to Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth to Water (ft. BMP)	Water Level Elevation (ft. AMSL)
MW-15D	60 - 70	82.80	28.95	53.85	29.91	52.89	30.85	51.95	31.30	51.50
MW-16S	30.5 - 40.5	83.84	29.24	54.60	30.22	53.62	31.12	52.72	31.54	52.30
MW-16D	60.5 - 70.5	83.83	29.21	54.62	30.19	53.64	31.10	52.73	31.50	52.33
MW-17S	27 - 37	80.01	26.44	53.57	27.40	52.61	28.23	51.78	28.79	51.22
MW-17D	59 - 69	80.05	26.51	53.54	27.45	52.60	28.39	51.66	28.85	51.20
MW-18S	26 - 36	80.08	26.53	53.55	27.59	52.49	28.41	51.67	28.84	51.24
MW-18D	59.5 - 69.5	80.07	26.54	53.53	27.46	52.61	28.51	51.56	28.94	51.13
MW-19S	26 - 36	78.95	26.01	52.94	26.95	52.00	27.90	51.05	28.35	50.60
MW-19D	60 - 70	78.84	25.93	52.91	26.87	51.97	27.81	51.03	29.28	49.56
MW-21S	13.5 - 28.5	62.21	17.08	45.13	17.99	44.22	19.05	43.16	19.67	42.54
MW-33D	300 - 310	85.88	30.52	55.36	31.47	54.41	32.36	53.52	32.70	53.18
OS-2	18.9 - 38.9	78.86	25.81	53.05	26.74	52.12	27.66	51.20	28.10	50.76
S-66133	132 - 142	66.10	22.90	43.20	23.55	42.45	24.40	41.70	24.33	41.77
S-43808	ND	64.40	ND	ND	ND	ND	ND	ND	19.45	44.95
STP-1	ND	71.75	23.31	48.44	24.26	47.49	25.25	46.50	25.75	46.00
MW-32D	315-325	61.55	22.63	38.92	23.29	38.26	24.82	36.73	23.63	37.92
MW-31S	13-28	65.51	17.54	47.97	18.50	47.01	19.54	45.97	23.01	42.50
C-MW1	ND	81.34	26.60	54.74	27.58	53.76	28.53	52.81	29.12	52.22
C-MW2	ND	77.32	24.90	52.42	25.84	51.48	26.82	50.50	27.38	49.94
C-MW3	ND	64.04	16.75	47.29	17.71	46.33	18.76	45.28	19.53	44.51
C-MW4	ND	58.91	13.13	45.78	14.07	44.84	15.15	43.76	15.90	43.01

Table 3-6 Continued . . .

Well I.D.	Screen Interval (ft)	Measuring Point Elevation (ft. AMSL)	10-27-93		11-30-93		12-28-93	
			Depth to Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth to Water (ft. BMP)	Water Level Elevation (ft. AMSL)	Depth to Water (ft. BMP)	Water Level Elevation (ft. AMSL)
MW-1S	28 - 38	85.95	Dry		Dry		Dry	
MW-1D	58.6 - 68.6	85.91	32.98	52.93	33.32	52.59	33.17	52.74
MW-2S	27.8 - 37.8	81.63	30.03	51.60	30.35	51.28	30.12	51.51
MW-2D	59.6 - 69.6	81.64	30.02	51.62	30.35	51.29	30.14	51.50
MW-3S	30.1 - 40.1	85.71	32.86	52.86	33.18	52.53	33.06	52.65
MW-3D	59.7 - 69.7	85.77	32.90	52.87	33.23	52.54	33.10	52.67
MW-4S	27.6 - 37.6	81.97	29.28	52.69	29.61	52.36	29.47	52.50
MW-4D	60.2 - 70.2	81.92	29.22	52.70	29.56	52.36	29.49	52.43
MW-5S	26.9 - 36.9	78.97	28.35	50.62	28.88	50.09	28.52	50.45
MW-5D	59.6 - 69.6	78.95	28.43	50.52	28.77	50.18	28.59	50.36
MW-6S	26.7 - 36.7	78.94	14.57	49.96	29.30	49.64	29.16	49.78
MW-6D	59.2 - 69.2	78.89	14.28	49.84	29.35	49.54	29.18	49.71
MW-7S	25.7 - 35.7	80.00	30.27	49.73	30.59	49.51	30.36	49.64
MW-7D	58.9 - 68.9	79.82	30.07	49.75	30.38	49.44	30.14	49.68
MW-8S	27.9 - 37.9	80.34	29.73	50.61	30.02	50.32	29.84	50.50
MW-8D	59.2 - 69.2	80.15	29.53	50.62	30.04	50.11	29.85	50.30
MW-9S	27.1 - 37.1	79.86	29.61	50.25	29.89	49.97	29.68	50.18
MW-9D	59.6 - 69.6	79.22	28.98	50.24	29.27	49.95	29.04	50.18
MW-10S	18.2 - 38.2	79.22	28.84	50.38	29.11	50.11	28.92	50.30
MW-10D	59.1 - 69.1	79.38	28.98	50.40	29.27	50.11	29.08	50.30
MW-11S	27.1 - 37.1	82.82	32.02	50.80	32.30	50.52	32.09	50.73
MW-11D	59.4 - 69.4	82.07	31.28	50.79	31.55	50.52	31.35	50.72
MW-13S	27 - 37	79.96	29.16	50.80	29.43	50.53	29.24	50.72
MW-13D	60.5 - 70.5	79.87	29.14	50.73	29.43	50.44	29.24	50.63
MW-14S	30 - 40	83.39	32.14	51.25	32.42	50.97	32.23	51.16
MW-14D	60.5 - 70.5	83.54	32.40	51.14	32.59	50.95	32.40	51.14
MW-15S	30 - 40	82.89	31.72	51.17	ND	ND	ND	ND

Table 3- Continued . . .

Well I.D.	Screen Interval (ft)	Measuring Point Elevation (ft, AMSL)	10-27-93		11-30-93		12-28-93	
			Depth to Water (ft, BMP)	Water Level Elevation (ft, AMSL)	Depth to Water (ft, BMP)	Water Level Elevation (ft, AMSL)	Depth to Water (ft, BMP)	Water Level Elevation (ft, AMSL)
MW-15D	60 - 70	82.80	31.64	51.16	ND	ND	ND	ND
MW-16S	30.5 - 40.5	83.84	31.89	51.95	32.20	51.64	32.02	51.82
MW-16D	60.5 - 70.5	83.83	31.85	51.98	32.27	51.56	32.10	51.73
MW-17S	27 - 37	80.01	29.14	50.87	29.44	50.57	29.23	50.78
MW-17D	59 - 69	80.05	29.18	50.87	29.48	50.57	29.28	50.77
MW-18S	26 - 36	80.08	29.20	50.88	29.48	50.60	29.30	50.78
MW-18D	59.5 - 69.5	80.07	29.32	50.75	29.61	50.46	29.42	50.65
MW-19S	26 - 36	78.95	28.74	50.21	29.01	49.94	28.77	50.18
MW-19D	60 - 70	78.84	28.65	50.19	28.93	49.91	28.70	50.14
MW-21S	13.5 - 28.5	62.21	20.05	42.16	20.28	41.93	19.79	42.42
MW-23D	300 - 310	69.64	ND	ND	26.88	42.76	26.38	43.26
MW-33D	300 - 310	85.88	33.04	52.84	33.38	52.50	33.25	52.63
MW-36D	245 - 255	61.77	ND	ND	ND	ND	21.57	40.20
MW-37D	257 - 267	56.19	ND	ND	19.20	36.99	19.00	37.19
OS-2	18.9 - 38.9	78.86	28.46	50.40	28.73	50.13	28.51	50.35
S-66133	132 - 142	66.10	24.32	41.78	24.47	41.63	23.99	42.11
S-43808	ND	64.40	19.77	44.63	20.00	44.40	19.76	44.64
STP-1	ND	71.75	26.12	45.63	26.29	45.46	25.85	45.90
MW-32D	315 - 325	61.55	24.08	37.47	23.35	38.20	22.93	38.62
MW-31S	13 - 28	65.51	20.75	44.76	20.87	44.64	20.32	45.19
C-MW1	ND	81.34	29.44	51.90	29.76	51.58	29.54	51.80
C-MW2	ND	77.32	27.74	49.58	28.01	49.31	27.76	49.56
C-MW3	ND	64.04	22.50	41.54	20.09	43.95	19.52	44.52
C-MW4	ND	58.91	16.29	42.62	16.47	42.44	15.91	43.00

Notes:

- 1) ND - No Data
- 2) BMP - Below Measuring Point
- 3) AMSL - Above Mean Sea Level

MAIN PLANT SITE RI
FIARCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

eder associates

TABLE 3-7

WATER LEVEL DATA SUMMARY

Well I.D.	Average Water Level Elevation (ft. AMSL)	Minimum Water Level Elevation (ft. AMSL)	Maximum Water Level Elevation (ft. AMSL)	Fluctuations	Vertical Gradient
MW-1S	55.32	53.80	57.38	3.58	0.77
MW-1D	54.55	52.59	57.25	4.66	
MW-2S	53.35	51.28	56.08	4.80	0.19
MW-2D	53.16	51.29	55.30	4.01	
MW-3S	54.48	52.53	57.09	4.56	-0.02
MW-3D	54.50	52.54	57.12	4.58	
MW-4S	54.34	52.36	56.89	4.53	0.02
MW-4D	54.32	52.36	56.87	4.51	
MW-5S	52.29	50.09	55.03	4.94	0.08
MW-5D	52.21	50.18	55.03	4.85	
MW-6S	51.63	49.64	54.38	4.74	0.07
MW-6D	51.56	49.54	54.34	4.80	
MW-7S	51.49	49.51	54.24	4.73	-0.06
MW-7D	51.55	49.44	54.23	4.79	
MW-8S	52.33	50.32	55.06	4.74	0.04
MW-8D	52.29	50.11	55.06	4.95	
MW-9S	52.00	49.97	54.75	4.78	0.08
MW-9D	51.92	49.95	54.73	4.78	
MW-10S	52.24	50.11	54.87	4.76	0.08
MW-10D	52.16	50.11	54.86	4.75	
MW-11S	52.55	50.52	55.26	4.74	0.02
MW-11D	52.54	50.52	55.25	4.73	
MW-12S	52.37	50.20	55.08	4.88	
MW-13S	52.60	50.53	55.34	4.81	0.08
MW-13D	52.51	50.44	55.23	4.79	
MW-14S	52.97	50.97	55.67	4.70	0.02
MW-14D	52.95	50.95	55.64	4.69	
MW-15S	50.89	51.17	55.58	4.41	0.01
MW-15D	50.88	51.16	55.57	4.41	
MW-16S	53.64	51.64	56.28	4.64	-0.01
MW-16D	53.66	51.56	56.30	4.74	
MW-17S	52.61	50.57	55.30	4.73	0.03
MW-17D	52.59	50.57	55.28	4.71	
MW-18S	52.66	50.60	55.30	4.70	0.12
MW-18D	52.54	50.46	55.26	4.80	
MW-19S	51.86	49.94	53.84	3.90	-0.02
MW-19D	51.88	49.56	54.71	5.15	

Well I.D.	Average Water Level Elevation (ft. AMSL)	Minimum Water Level Elevation (ft. AMSL)	Maximum Water Level Elevation (ft. AMSL)	Fluctuations	Vertical Gradient
MW-21S	44.17	41.93	47.01	5.08	
MW-23D	43.01	42.76	43.26	0.50	
MW-33D	54.43	52.50	57.04	4.64	
MW-36D	40.2				
MW-37D	37.09	36.99	37.99	1.00	
OS-2	52.21	50.13	54.86	4.73	
S-66133	43.57	41.63	46.08	4.45	
S-43808	44.52	44.40	44.64	0.24	
STP-1	47.58	45.46	50.42	4.96	
MW-32D	39.03	36.73	42.28	5.55	
MW-31S	46.61	42.50	49.95	7.45	
C-MW1	54.42	51.58	56.48	4.90	
C-MW2	51.36	49.31	54.24	4.93	
C-MW3	45.95	41.54	49.27	7.73	
C-MW4	44.72	42.62	47.75	5.13	
			AVERAGE =	4.55	0.08

NOTES:

- 1) ND - No Data
- 2) BMP - Below Measuring Point
- 3) AMSL - Above Mean Sea Level

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID	NYS	MW-7S	MW-7D	MW-8S	MW-8D	MW-9S	MW-9D	MW-10S	OS-2
Sample ID	GROUNDWATER	MW-7S	MW-7D	MW-8S	MW-8D	MW-9S	MW-9D	MW-10S	OS-2
QA/QC	STANDARD								
Date Collected	6 NYCRR 703	07/01/92	07/01/92	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92
Compound, concentration in ug/l									
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	3 J	10 U	200 J	27
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	2 J	10 U	50 U	10 U
Acetone	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Carbon Disulfide	N/A	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
1,2-Dichloroethene (total)	10 (1)	2 J	0.8 J	2 J	0.6 J	10 U	2 J	50 U	2 J
Chloroform	7	3 J	10 U	25 J	10 U	23 J	10 U	780 J	44
1,2-Dichloroethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
2-Butanone	5	10 U	15 J	10 U	10 U	10 U	10 U	50 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	5 J	10 U	10 U	10 U	6 J	10 U
Carbon Tetrachloride	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Bromodichloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Trichloroethene	5	10 U	1 J	6 J	0.9 J	38 J	2 J	17 J	2 J
Dibromochloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Benzene	0.7	10 U	10 U	10 U	10 U	10 U	10 U	8 J	0.9 J
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Bromoform	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Tetrachloroethene	5	10 U	10 U	7-J	1 J	3 J	5 J	6 J	2 J
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	4 J	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U	7 J	2 J
Xylene (total)	15 (1)	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
TICs (total)	N/A	467 J	8 J	ND	ND	140 J	547 J	1672 J	814 J

Notes:

ug/l - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

Laboratory Qualifiers:

U - Compound was analyzed for but not detected

J - Detected at an estimated value below the detection limit

B - Analyte also found in the blank sample

X - Matrix spike compound

ND - None Detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1 - Standard for each isomer is 5 ppb

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-1S MW-1S	MW-2S MW-2S	MW-3S MW-3S	MW-4S MW-4S	MW-5S MW-5S	MW-6S MW-6S	MW-7S MW-7S
Date Collected		07/01/92	07/01/92	06/30/92	06/30/92	06/30/92	07/01/92	07/01/92
Compound, concentration in ug/l								
Chloromethane	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Acetone	50*	10 U	10 U	35	100 U	10 U	46	10 U
Carbon Disulfide	N/A	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,1-Dichloroethane	5	7 J	10 J	12 J	100 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	10 (1)	10 U	10 U	2 J	13 J	3 J	10 U	1 J
Chloroform	7	10 U	10 U	10 U	36 J	20 J	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U
2-Butanone	50*	10 U	10 U	10 U	100 U	6 J	10 U	10 U
1,1,1-Trichloroethane	5	37 J	4 J	68	100 U	1 J	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	9 J	100 U	10 U	10 U	10 U
Bromodichloromethane	50*	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Trichloroethene	5	2 J	10 U	10 U	100 U	62 J	10 U	11 J
Dibromochloromethane	50*	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	93 J	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Bromoform	50*	10 U	10 U	10 U	100 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	10 U	100 U	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Tetrachloroethene	5	10 U	1 J	10 U	100 U	10 U	10 U	2 J
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	1500	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	29 J	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	670	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Xylene (total)	15 (1)	10 U	10 U	10 U	2000	10 U	10 U	10 U
TICs (total)	N/A	114 J	67 J	ND	2400 J	322 J	ND	ND

Notes:
ug/l - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

Laboratory Qualifiers:
U - Compound was analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in the blank sample
X - Matrix spike compound

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID	NYS	MW-10D	MW-11S	MW-11D	MW-13S	MW-13D	MW-14S	MW-14D	MW-15S
Sample ID	GROUNDWATER	MW-10D	MW-11S	MW-11D	MW-13S	MW-13D	MW-14S	MW-14D	MW-15S
QA/QC	STANDARD								
Date Collected	6 NYCRR 703	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92	06/30/92	06/30/92	06/30/92
Compound, concentration in ug/l									
Chloromethane	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	50 U	23 J	50 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	50 U	10 U	50 U	10 U	67	10 U
Methylene Chloride	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Acetone	50*	10 U	12 U	50 U	10 U	67 U	10 U	10 U	10 U
Carbon Disulfide	N/A	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
1,1-Dichloroethene	5	6 J	10 U	50 U	10 U	50 U	10 U	10 U	10 U
1,1,2-Dichloroethane	5	100	10 U	50 U	48 J	50 U	10 U	6 J	1 J
1,2-Dichloroethane (total)	10 (1)	10 U	10 U	50 U	83 J	26 J	10 U	5 J	3 J
Chloroform	7	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	50 U	10 U	50 U	2 J	10 U	0.5 J
2-Butanone	50*	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	89 J	2 J	50 U	4 J	10 J	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Bromodichloromethane	50*	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Trichloroethene	5	3 J	2 J	50 U	29 J	920 J	10 U	30	18 J
Dibromochloromethane	50*	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	5 J	0.7 J	2 J	2 J	5 J	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Bromoform	50*	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	50 U	10 U	5 J	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	50 U	10 U	5 J	10 U	10 U	10 U
Tetrachloroethene	5	4 J	10 J	50 U	150 J	10 J	66 J	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	50 J	10 U	50 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	50 U	0.8 J	50 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	270 J	10 U	50 U	10 U	140	10 U
Styrene	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Xylene (total)	15 (1)	10 U	10 U	1200 J	10 U	50 U	10 U	59	10 U
TICs (total)	N/A	58 J	ND	849 J	388 J	806 J	38 J	256 J	51 J

Notes:

ug/l - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

Laboratory Qualifiers:

U - Compound was analyzed for but not detected

J - Detected at an estimated value below the detection limit

B - Analyte also found in the blank sample

X - Matrix spike compound

ND - None Detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1 - Standard for each isomer is 5 ppb

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-15D MW-15D	MW-16S MW-16S	MW-16D MW-16D	MW-17S MW-17S	MW-17D MW-17D	MW-18S MW-18S	MW-18D MW-18D	MW-19S MW-19S	MW-19D MW-19D
Date Collected		06/30/92	06/30/92	06/30/92	06/30/92	06/30/92	06/29/92	06/29/92	07/01/92	07/01/92
Compound, concentration in ug/l										
Chloromethane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Bromomethane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Vinyl Chloride	2	10 U	20 U	2 J	10 U	10 U	10 U	140 J	200 U	100 U
Chloroethane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Methylene Chloride	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Acetone	50*	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	120 U
Carbon Disulfide	N/A	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,1-Dichloroethane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,1,1-Dichloroethane	5	2 J	20 U	5 J	2 J	10 U	1 J	20 U	200 U	100 U
1,2-Dichloroethane (total)	10 (1)	2 J	19 J	4 J	2 J	2 J	40 J	340 J	1200 J	100 U
Chloroform	7	0.8 J	20 U	10 U	10 U	0.5 J	10 U	20 U	200 U	100 U
1,2-Dichloroethane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
2-Butanone	50*	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,1,1-Trichloroethane	5	10 U	20 U	10 U	10 U	10 U	4 J	19 J	200 U	100 U
Carbon Tetrachloride	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Bromodichloromethane	50*	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,2-Dichloropropane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
cis-1,3-Dichloropropene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Trichloroethene	5	10 U	260 J	13 J	13 J	10 U	15	8 J	930	100 U
Dibromochloromethane	50*	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,1,2-Trichloroethane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Benzene	0.7	0.6 J	20 U	10 U	10 U	0.7 J	1 J	9 J	12 J	100 U
trans-1,3-Dichloropropene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Bromoform	50*	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
4-Methyl-2-pentanone	N/A	10 U	20 U	10 U	4 J	10 U	10 U	20 U	200 U	100 U
2-Hexanone	50*	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Tetrachloroethene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,1,2,2-Tetrachloroethane	5	10 U	20 U	10 U	3 J	10 U	24 J	4 J	3100 J	1800 J
Toluene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Chlorobenzene	5	2 J	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Ethylbenzene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Styrene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Xylene (total)	15 (1)	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
TICs (total)	N/A	13 J	15 J	53 J	12 J	30 J	251 J	922 J	1710 J	ND

Notes:

ug/l - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

Laboratory Qualifiers:

U - Compound was analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in the blank sample
X - Matrix spike compound

ND - None Detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1 - Standard for each isomer is 5 ppb

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD 6 NYCRR 703	S-2684 S-2684	S-3623 S-3623	S-66133 S-66133	S-66157 S-66157	MW-2D MW-2D MS	MW-2D MW-2D MSD	MW-13S MW-13S MS	MW-13S MW-13S MSD	MW-14S MW-14S MS
Date Collected		07/01/92	07/01/92	07/01/92	07/01/92	06/30/92	06/30/92	06/30/92	06/30/92	06/30/92
Compound, concentration in ug/l										
Chloromethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	3 J	10 U	50 U	10 U	10 U	10 U	16	19	10 U
Chloroethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	50 U	10 U	3 J	3 J	2 J	3 J	3 J
Acetone	50*	13 U	10 U	50 U	10 U	7 JB	6 JB	10 U	10 U	5 JB
Carbon Disulfide	N/A	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	50 U	10 U	42 X	46 X	49 X	59 X	49 X
1,1-Dichloroethane	5	4 J	2 J	50 U	10 U	3 J	3 J	52	52	10 U
1,2-Dichloroethene (total)	10 (1)	22 J	2 J	44 J	19	2 J	1 J	75	94	10 U
Chloroform	7	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	2J
1,1,1-Trichloroethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	50 U	10 U	79	78	10 U	10 U	10 U
Bromodichloromethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	18 J	3 J	540 J	44	45 X	43 X	10 X	68 X	10 U
Dibromochloromethane	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	0.8 J	2 J	50 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	120	10 U	10 J	1 J	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	50 U	10 U	10 U	10 U	130	140	71
Toluene	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	50 U	10 U	43 X	43 X	37 X	39 X	46 X
Ethylbenzene	5	10 U	6 J	50 U	10 U	43 X	42 X	40 X	45 X	51 X
Styrene	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	15 (1)	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (total)	N/A	467 J	45 J	ND	16 J	N/A	N/A	N/A	N/A	N/A

Notes:

ug/l - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

Laboratory Qualifiers:

U - Compound was analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in the blank sample
X - Matrix spike compound

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

Order associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID	Sample ID	GROUNDWATER STANDARD	NYS	MW-14S	FB-628	TB-629	FB-630	TB-630	TB-71	FB-71	REP-1	REP-2
QA/QC	Date Collected	6 NYCRR 703	MSD	06/30/92	06/28/92	06/29/92	6/30/92	6/30/92	07/01/92	07/01/92	07/1/92	7/1/92
Compound, concentration in ug/l												
Chloromethane		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride		2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone		50*	7 JB	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U
Carbon Disulfide		N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U
1,1-Dichloroethene		5	50 X	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)		10 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform		7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone		50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane		50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene		5	44 X	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane		50*	67	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U
1,1,2-Trichloroethane		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene		0.7	50 X	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoforn		50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone		N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone		50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene		5	68	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene		5	47 X	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene		5	52 X	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)		15 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (total)		N/A	N/A	ND	ND	ND	29 J	ND	ND	ND	335 J	374 J

Notes:

ug/l - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

Laboratory Qualifiers:

U - Compound was analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in the blank sample
X - Matrix spike compound

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID	MW-1S	MW-1S	MW-2S	MW-2D	MW-3S	MW-3D	MW-6S	MW-6D	MW-7S
Sample ID	MW-1S	MW-1S	MW-2S	MW-2D	MW-3S	MW-3D	MW-6S	MW-6D	MW-7S
QA/QC									
Date Collected	6/30/92	07/01/92	07/01/92	06/30/92	06/30/92	06/30/92	07/01/92	07/01/92	07/01/92
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	ND	ND	ND	270J	11J	ND	ND	94J
Total Unknown Alkane	7J	ND	ND	ND	130J	6J	ND	ND	36J
Total Unknown Siloxane	ND	ND	ND	ND	ND	7J	ND	ND	ND
Total Unknown Alkylbenzene	ND	15J	34J	ND	ND	8J	ND	ND	ND
Total Unknown C2 Alkylbenzene	ND	ND	ND	ND	ND	26J	ND	ND	ND
Total Unknown Isomer of Trichlorobenzene	ND	ND	ND	ND	ND	8J	ND	ND	ND
Methyl tert-butyl ether	ND	27JN	ND	ND	ND	230JN	ND	ND	ND
Octamethyl cyclotetra siloxane	ND	ND	ND	ND	ND	15JN	ND	ND	ND
Ethane, 1,2-Dichloro-1,1,2-Trifluoro	ND	ND	ND	ND	ND	11JN	ND	ND	ND
Total Unknown Branched Cycloalkane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	152J
2-Methyl Pentane	ND	ND	ND	ND	ND	ND	ND	ND	88JN
Methyl Cyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	80JN
Total Unknown Branched Alkane	ND	ND	8J	ND	ND	ND	ND	ND	17JN
Total Unknown Aromatic	33J	ND	25J	ND	110J	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	38J	ND	ND	ND	1400J	ND	ND	ND	ND
Naphthalene, 1,2,3,4-tetrahyd	10JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	20J	ND	ND	ND	110	ND	ND	ND	ND
Total Unknown Indene	6J	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Cycloalkane	ND	ND	ND	ND	160J	ND	ND	ND	ND
Propylbenzene	ND	ND	ND	ND	220JN	ND	ND	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte.

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC	MW-7D MW-7D	MW-8S MW-8S	MW-8D MW-8D	MW-9S MW-9S	MW-9D MW-9D	MW-10S MW-10S	OS-2 OS-2	MW-10D MW-10D	MW-11S MW-11S
Date Collected	07/01/94	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	ND	ND	9J	ND	94J	ND	58J	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Aldehyde	8J	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	117J	ND	ND	39J	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	ND	ND	190J	90J	ND	ND
Total Unknown C4 Alkylbenzene	ND	ND	ND	ND	ND	548J	493J	ND	ND
Total Unknown C5 Alkylbenzene	ND	ND	ND	14J	ND	ND	ND	ND	ND
Total Unknown Indene	ND	ND	ND	ND	ND	ND	77J	ND	ND
Ethane, 1,2-Dichloro-1,1,2-Trifluoro	ND	ND	ND	ND	ND	330JIN	120JIN	ND	ND
Total Unknown Aromatic	ND	ND	ND	ND	ND	240J	ND	ND	ND
Cyclohexane	ND	ND	ND	ND	ND	270JIN	ND	ND	ND
Total Unknown PAH	ND	ND	ND	ND	9J	ND	ND	ND	ND
Total Unknown Isomer of Naphthalene	ND	ND	ND	ND	8J	ND	ND	ND	ND
Propane, 2-methoxy-2-methyl	ND	ND	ND	ND	530JIN	ND	ND	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not required as an analyte.

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC	MW-11D MW-11D	MW-13S MW-13S	MW-13D MW-13D	MW-14S MW-14S	MW-14D MW-14D	MW-15S MW-15S	MW-15D MW-15D	MW-16D MW-16D	MW-17S MW-17S
Date Collected	06/29/92	06/29/92	6/29/92	06/30/92	06/30/92	06/30/92	06/30/92	6/30/92	07/01/92
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	83J	83J	770J	25J	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	22J	ND	ND	ND
Total Unknown Aromatic	ND	ND	ND	ND	43J	ND	ND	ND	ND
Total Unknown Cycloalkane	ND	ND	ND	ND	12J	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	28J	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	618J	ND	ND	ND	130J	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	ND	ND	7J	43J	ND	ND	ND	ND
Total Unknown C5 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Indene	63J	ND	ND	ND	ND	ND	ND	ND	ND
Propylbenzene	85JN	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	ND	170JN	ND	ND	ND	ND	ND	ND	ND
2-Methyl Pentane	ND	62JN	ND	ND	ND	ND	ND	ND	ND
Ethane, 1,2-Dichloro-1,1,2-Trifluoro	ND	59JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown Branched Alkane	ND	ND	36J	ND	ND	ND	ND	ND	ND
Methyl tert butyl ether	ND	ND	ND	6JN	ND	ND	8JN	ND	ND
Total Unknown Siloxane	ND	ND	ND	ND	ND	23J	ND	15J	12J

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte.

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	MW-17D 06/30/92	MW-18S 06/29/92	MW-18D 06/29/92	MW-19S 07/01/92	MW-19D 07/01/92	S-2684 07/01/92	S-3623 07/01/92	S-66133 07/01/92	S-66157 07/01/92
Tentatively Identified Compounds (TICs) (Concentration in ug/l)									
Total Unknown	ND	96J	154J	290J	ND	94J	8J	ND	ND
Total Unknown Aromatic	11J	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	21J	ND	ND	ND
Total Unknown Cycloalkane	ND	97J	460J	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	6J	ND	ND	550J	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	260J	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Siloxane	6J	ND	ND	ND	ND	ND	9J	ND	ND
Octamethyl cyclotetrasiloxane	7J	ND	ND	ND	ND	ND	15JN	ND	ND
2-Methyl pentane	ND	58JN	ND	ND	ND	80JN	ND	ND	ND
Total Unknown Branched Cycloalkane	ND	ND	11J	ND	ND	152J	ND	ND	ND
Total Unknown Branched Alkane	ND	ND	122J	ND	ND	15J	ND	ND	ND
Ethane, 1,1,2-Trichloro-1,2,2-Trifluoro	ND	ND	140JN	ND	ND	ND	ND	ND	ND
Ethane, 1,2-Dichloro-1,1,2-Trifluoro	ND	ND	35JN	ND	ND	ND	ND	ND	ND
Cyclohexane	ND	ND	ND	330JN	ND	88JN	ND	ND	ND
Methyl tert butyl Ether	ND	ND	ND	170JN	ND	ND	13JN	ND	ND
Cyclotrisiloxane, hexamethyl	ND	ND	ND	110J	ND	ND	ND	ND	ND
Methyl cyclohexane	ND	ND	ND	ND	ND	17JN	ND	ND	ND
Disulfide, dimethyl	ND	ND	ND	ND	ND	ND	ND	ND	16JN

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte.

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID	FB-628	TB-629	FB-630	TB-630	TB-71	FB	FB-71	REP-2
Sample ID	FB	TB	FB	TB	TB	FB	REP-1	REP-2
Date Collected	06/28/92	06/29/92	06/30/92	06/30/92	07/01/92	07/10/92	07/01/92	07/01/92
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)								
Total Unknown	ND	ND	ND	ND	ND	ND	8J	ND
Total Unknown Alkane	ND	ND	29J	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	322J
Hexamethyl cyclotrisiloxane	ND	ND	ND	ND	ND	ND	ND	52JN
Total Unknown Branched Alkane	ND	ND	ND	ND	ND	ND	63J	ND
Cyclohexane	ND	ND	ND	ND	ND	ND	150JN	ND
Ethane, 1,2-Dichloro-1,1,2-Trifluoro	ND	ND	ND	ND	ND	ND	51JN	ND
2-Methyl pentane	ND	ND	ND	ND	ND	ND	51JN	ND
Methyl cyclohexane	ND	ND	ND	ND	ND	ND	12JN	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte.

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID	NYS	MW-7S	MW-7D	MW-8S	MW-8D	MW-9S	MW-9D	MW-10S	OS-2
Sample ID	GROUNDWATER	MW-7S	MW-7D	MW-8S	MW-8D	MW-9S	MW-9D	MW-10S	OS-2
QA/QC	STANDARD								
Date Collected	6 NYCRR 703	07/01/92	07/01/92	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92
Compound, concentration in ug/l									
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	3 J	10 U	200 J	27
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	2 J	10 U	50 U	10 U
Acetone	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Carbon Disulfide	N/A	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
1,1,1-Trichloroethane	5	10 U	0.8 J	2 J	0.6 J	10 U	10 U	50 U	10 U
1,1,2-Dichloroethene (total)	10 (1)	2 J	3 J	25 J	10 U	23 J	10 U	780 J	44
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
2-Butanone	50*	10 U	15 J	10 U	10 U	10 U	10 U	50 U	10 U
1,1,1-Trichloroethane	5	0.8 J	10 U	5 J	10 U	10 U	10 U	6 J	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Bromodichloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Trichloroethene	5	10 U	1 J	6 J	0.9 J	38 J	2 J	17 J	2 J
Dibromochloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Benzene	0.7	10 U	10 U	10 U	10 U	10 U	10 U	8 J	0.9 J
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Bromoform	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Tetrachloroethene	5	10 U	10 U	7 J	1 J	3 J	5 J	6 J	2 J
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	4 J	7 J
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U
Xylene (total)	15 (1)	10 U	10 U	10 U	10 U	10 U	10 U	17 J	4 J
TICs (total)	N/A	467 J	8 J	ND	ND	140 J	547 J	1672 J	814 J

Notes:

ug/l - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

Laboratory Qualifiers:

U - Compound was analyzed for but not detected

J - Detected at an estimated value below the detection limit

B - Analyte also found in the blank sample

X - Matrix spike compound

ND - None Detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1 - Standard for each isomer is 5 ppb

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

TABLE 4-1

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-1S MW-1S	MW-1S MW-1S	MW-2S MW-2S	MW-2D MW-2D	MW-3S MW-3S	MW-3D MW-3D	MW-6S MW-6S	MW-6D MW-6D
Date Collected	6 NYCRR 703	06/30/92	07/01/92	07/01/92	06/30/92	06/30/92	06/30/92	07/01/92	07/01/92
Compound, concentration in ug/l									
Chloromethane	5	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Acetone	50*	10 U	10 U	10 U	35	100 U	10 U	46	10 U
Carbon Disulfide	N/A	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	12 J	100 U	10 U	10 U	10 U
1,1-Dichloroethane	5	8 J	20 J	10 J	3 J	13 J	3 J	10 U	1 J
1,2-Dichloroethene (total)	10 (1)	10 U	10 U	10 U	2 J	36 J	20 J	10 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
2-Butanone	50*	10 U	10 U	10 U	10	100 U	6 J	10 U	10 U
1,1,1-Trichloroethane	5	10 U	37 J	4 J	88	100 U	1 J	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	9 J	100 U	10 U	10 U	10 U
Bromodichloromethane	50*	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Trichloroethene	5	2 J	10 U	10 U	10 U	100 U	62 J	10 U	11 J
Dibromochloromethane	50*	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Bromoform	50*	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Tetrachloroethene	5	10 U	10 U	1 J	10 U	100 U	10 U	10 U	2 J
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	1500	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	29 J	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	670	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Xylene (total)	15 (1)	10 U	10 U	10 U	10 U	2000	10 U	10 U	10 U
TICs (total)	N/A	114 J	42 J	67 J	ND	2400 J	322 J	ND	ND

Notes:
ug/l - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

Laboratory Qualifiers:
U - Compound was analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in the blank sample
X - Matrix spike compound

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-10D 06/29/92	MW-11S 06/29/92	MW-11D 06/29/92	MW-13S 06/29/92	MW-13D 06/29/92	MW-14S 06/30/92	MW-14D 06/30/92	MW-15S 06/30/92
Date Collected									
Compound, concentration in ug/l									
Chloromethane	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	50 U	23 J	50 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	50 U	10 U	50 U	10 U	67	10 U
Methylene Chloride	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Acetone	50*	10 U	12 U	50 U	10 U	67 U	10 U	12 B	10 U
Carbon Disulfide	N/A	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
1,1-Dichloroethene	5	6 J	10 U	50 U	10 U	50 U	10 U	10 U	10 U
1,2-Dichloroethane	5	100	10 U	50 U	83 J	6 J	10 U	6 J	1 J
1,2-Dichloroethene (total)	10 (1)	10 U	10 U	50 U	26 J	50 U	10 U	5 J	3 J
Chloroform	7	10 U	10 U	50 U	10 U	50 U	2 J	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	0.5 J
2-Butanone	50*	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	89 J	2 J	50 U	4 J	10 J	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Bromodichloromethane	50*	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Trichloroethene	5	3 J	2 J	50 U	29 J	920 J	10 U	30	18 J
Dibromochloromethane	50*	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	5 J	0.7 J	2 J	2 J	5 J	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Bromoform	50*	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	50 U	10 U	5 J	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	50 U	10 U	5 J	10 U	10 U	10 U
Tetrachloroethene	5	4 J	10 J	50 U	150 J	10 J	66 J	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	50 J	10 U	50 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	50 U	0.8 J	50 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	270 J	10 U	50 U	10 U	140	10 U
Styrene	5	10 U	10 U	50 U	10 U	50 U	10 U	10 U	10 U
Xylene (total)	15 (1)	10 U	10 U	1200 J	10 U	50 U	10 U	59	10 U
TICs (total)	N/A	58 J	ND	849 J	388 J	806 J	38 J	256 J	51 J

Notes:

ug/l - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tenatively Identified Compounds

ND - None Detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1 - Standard for each isomer is 5 ppb

Laboratory Qualifiers:

U - Compound was analyzed for but not detected

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B - Analyte also found in the blank sample

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID	NYS	MW-15D	MW-16S	MW-16D	MW-17S	MW-17D	MW-18S	MW-18D	MW-19S	MW-19D
Sample ID	GROUNDWATER	MW-15D	MW-16S	MW-16D	MW-17S	MW-17D	MW-18S	MW-18D	MW-19S	MW-19D
QA/QC	STANDARD									
Date Collected	6 NYCRR 703	06/30/92	06/30/92	06/30/92	06/30/92	06/30/92	06/29/92	06/29/92	07/01/92	07/01/92
Compound, concentration in ug/l										
Chloromethane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Bromomethane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Vinyl Chloride	2	10 U	20 U	2 J	10 U	10 U	10 U	140 J	200 U	100 U
Chloroethane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Methylene Chloride	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Acetone	50*	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Carbon Disulfide	N/A	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,1-Dichloroethene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,1-Dichloroethane	5	2 J	20 U	5 J	2 J	10 U	10 U	20 U	200 U	100 U
1,2-Dichloroethene (total)	10 (1)	2 J	19 J	4 J	2 J	2 J	40 J	340 J	1200 J	100 U
Chloroform	7	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,2-Dichloroethane	5	0.8 J	20 U	10 U	10 U	0.5 J	10 U	20 U	200 U	100 U
2-Butanone	50*	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,1,1-Trichloroethane	5	10 U	20 U	10 U	10 U	10 U	10 U	19 J	200 U	100 U
Carbon Tetrachloride	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Bromodichloromethane	50*	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,2-Dichloropropane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
cis-1,3-Dichloropropene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Trichloroethene	5	10 U	260 J	13 J	13 J	10 U	15	8 J	930	100 U
Dibromochloromethane	50*	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,1,2-Trichloroethane	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Benzene	0.7	0.6 J	20 U	10 U	10 U	0.7 J	1 J	9 J	12 J	100 U
trans-1,3-Dichloropropene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Bromoform	50*	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
4-Methyl-2-pentanone	N/A	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
2-Hexanone	50*	10 U	20 U	10 U	4 J	10 U	10 U	20 U	200 U	100 U
Tetrachloroethene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
1,1,2,2-Tetrachloroethane	5	10 U	20 U	10 U	10 U	10 U	24 J	4 J	3100 J	1800 J
Toluene	5	10 U	20 U	10 U	3 J	10 U	10 U	20 U	200 U	100 U
Chlorobenzene	5	2 J	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Ethylbenzene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Styrene	5	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
Xylene (total)	15 (1)	10 U	20 U	10 U	10 U	10 U	10 U	20 U	200 U	100 U
TICs (total)	N/A	13 J	15 J	53 J	12 J	30 J	251 J	922 J	1710 J	ND

Notes:

ug/l - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

Laboratory Qualifiers:

U - Compound was analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in the blank sample
X - Matrix spike compound

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	S-2684 S-2684	S-3623 S-3623	S-66133 S-66133	S-66157 S-66157	MW-2D MW-2D MS 06/30/92	MW-2D MW-2D MSD 06/30/92	MW-13S MW-13S MS 06/30/92	MW-13S MW-13S MSD 06/30/92	MW-14S MW-14S MS 06/30/92
Compound, concentration in ug/l										
Chloromethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	3 J	10 U	50 U	10 U	10 U	10 U	16	19	10 U
Chloroethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	50 U	10 U	3 J	3 J	2 J	3 J	3 J
Acetone	50*	13 U	10 U	50 U	10 U	7 JB	6 JB	10 U	10 U	5 JB
Carbon Disulfide	N/A	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	50 U	10 U	42 X	46 X	49 X	59 X	49 X
1,1-Dichloroethane	5	4 J	2 J	50 U	10 U	3 J	3 J	41	52	10 U
1,2-Dichloroethene (total)	10 (1)	22 J	2 J	44 J	19	2 J	1 J	75	94	10 U
Chloroform	7	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	2J
1,1,1-Trichloroethane	5	10 U	10 U	50 U	10 U	79	78	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	18 J	3 J	540 J	44	45 X	43 X	10 X	68 X	48 X
Dibromochloromethane	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	0.8 J	2 J	50 U	10 U	44 X	45 X	48 X	44 X	53 X
trans-1,3-Dichloropropene	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	120	10 U	50 U	1 J	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	50 U	10 U	10 U	10 U	130	140	71
Toluene	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	50 U	10 U	43 X	42 X	37 X	39 X	46 X
Ethylbenzene	5	10 U	6 J	50 U	10 U	43 X	43 X	40 X	45 X	51 X
Styrene	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	15 (1)	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (total)	N/A	467 J	45 J	ND	16 J	N/A	N/A	N/A	N/A	N/A

Notes:

ug/l - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tenatively Identified Compounds

Laboratory Qualifiers:

U - Compound was analyzed for but not detected

J - Detected at an estimated value below the detection limit

B - Analyte also found in the blank sample

X - Matrix spike compound

ND - None Detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1 - Standard for each isomer is 5 ppb

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID	NYS	GROUNDWATER STANDARD	MW-14S	FB-628	TB-629	FB-630	TB-630	TB-71	FB-71	REP-1	REP-2
QA/QC		6 NYCRR 703	MSD	FB	TB	FB	TB	TB	FB	07/11/92	7/1/92
Date Collected		06/30/92	06/30/92	06/28/92	06/29/92	6/30/92	6/30/92	07/01/92	07/01/92		
Compound, concentration in ug/l											
Chloromethane	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5		10 U	3 J	3 J	10 U	10 U	3 J	10 U	10 U	10 U
Acetone	50*		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U
Carbon Disulfide	N/A		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U
1,1-Dichloroethene	5		50 X	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	10 (1)		10 U	10 U	10 U	10 U	10 U	10 U	10 U	47 J	10 U
Chloroform	7		10 U	10 U	10 U	10 U	10 U	10 U	10 U	87 J	10 U
1,2-Dichloroethane	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50*		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50*		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5		44 X	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U
Dibromochloromethane	50*		67	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5		50 X	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50*		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50*		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5		68	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5		47 X	10 U	0.4 J	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5		52 X	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	15 (1)		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (total)	N/A		N/A	ND	ND	29 J	ND	ND	ND	335 J	374 J

Notes:

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MS - Matrix Spike

MSD - Matrix Spike Duplicate

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Laboratory Qualifiers:

U - Compound was analyzed for but not detected

J - Detected at an estimated value below the detection limit

B - Analyte also found in the blank sample

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eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	MW-1S MW-1S 6/30/92	MW-1S MW-1S 07/01/92	MW-2S MW-2S 07/01/92	MW-2D MW-2D 06/30/92	MW-3S MW-3S 06/30/92	MW-3D MW-3D 06/30/92	MW-6S MW-6S 07/01/92	MW-6D MW-6D 07/01/92	MW-7S MW-7S 07/01/92
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	ND	ND	ND	270J	11J	ND	ND	94J
Total Unknown Alkane	7J	ND	ND	ND	130J	6J	ND	ND	36J
Total Unknown Siloxane	ND	ND	ND	ND	ND	7J	ND	ND	ND
Total Unknown Alkylbenzene	ND	15J	34J	ND	ND	8J	ND	ND	ND
Total Unknown C2 Alkylbenzene	ND	ND	ND	ND	ND	26J	ND	ND	ND
Total Unknown Isomer of Trichlorobenzene	ND	ND	ND	ND	ND	8J	ND	ND	ND
Methyl tert-butyl ether	ND	27JN	ND	ND	ND	230JN	ND	ND	ND
Octamethyl cyclotetra Siloxane	ND	ND	ND	ND	ND	15JN	ND	ND	ND
Ethane, 1,2-Dichloro-1,1,2-Trifluoro	ND	ND	ND	ND	ND	11JN	ND	ND	ND
Total Unknown Branched Cycloalkane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	152J
2-Methyl Pentane	ND	ND	ND	ND	ND	ND	ND	ND	88JN
Methyl Cyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	80JN
Total Unknown Branched Alkane	ND	ND	8J	ND	110J	ND	ND	ND	17JN
Total Unknown Aromatic	33J	ND	25J	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	38J	ND	ND	ND	1400J	ND	ND	ND	ND
Naphthalene, 1,2,3,4-tetrahyd	10JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	20J	ND	ND	ND	110	ND	ND	ND	ND
Total Unknown Indene	6J	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Cycloalkane	ND	ND	ND	ND	160J	ND	ND	ND	ND
Propylbenzene	ND	ND	ND	ND	220JN	ND	ND	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte.

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	MW-7D MW-7D	MW-8S MW-8S	MW-8D MW-8D	MW-9S MW-9S	MW-9D MW-9D	MW-10S MW-10S	OS-2 OS-2	MW-10D MW-10D	MW-11S MW-11S
	07/01/94	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92	06/29/92
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	ND	ND	9J	ND	94J	ND	58J	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Aldehyde	8J	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	117J	ND	ND	39J	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	ND	ND	190J	90J	ND	ND
Total Unknown C4 Alkylbenzene	ND	ND	ND	ND	ND	548J	493J	ND	ND
Total Unknown C5 Alkylbenzene	ND	ND	ND	14J	ND	ND	77J	ND	ND
Total Unknown Indene	ND	ND	ND	ND	ND	ND	120JN	ND	ND
Ethane, 1,2-Dichloro-1,1,2-Trifluoro	ND	ND	ND	ND	ND	330JN	ND	ND	ND
Total Unknown Aromatic	ND	ND	ND	ND	ND	240J	ND	ND	ND
Cyclohexane	ND	ND	ND	ND	ND	270JN	ND	ND	ND
Total Unknown PAH	ND	ND	ND	ND	9J	ND	ND	ND	ND
Total Unknown Isomer of Naphthalene	ND	ND	ND	ND	8J	ND	ND	ND	ND
Propane, 2-methoxy-2-methyl	ND	ND	ND	ND	530JN	ND	ND	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not required as an analyte.

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC	MW-11D MW-11D	MW-13S MW-13S	MW-13D MW-13D	MW-14S MW-14S	MW-14D MW-14D	MW-15S MW-15S	MW-15D MW-15D	MW-16D MW-16D	MW-17S MW-17S
Date Collected	06/29/92	06/29/92	6/29/92	06/30/92	06/30/92	06/30/92	06/30/92	6/30/92	07/01/92
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	83J	83J	770J	25J	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	22J	SJ	ND	ND
Total Unknown Aromatic	ND	ND	ND	ND	43J	ND	ND	ND	ND
Total Unknown Cycloalkane	ND	14J	ND	ND	12J	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	28J	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	618J	ND	ND	ND	130J	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	ND	ND	7J	43J	ND	ND	ND	ND
Total Unknown C5 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Indene	63J	ND	ND	ND	ND	ND	ND	ND	ND
Propylbenzene	85JN	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	ND	170JN	ND	ND	ND	ND	ND	ND	ND
2-Methyl Pentane	ND	62JN	ND	ND	ND	ND	ND	ND	ND
Ethane, 1,2-Dichloro-1,1,2-Trifluoro	ND	59JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown Branched Alkane	ND	ND	36J	ND	ND	ND	ND	ND	ND
Methyl tert butyl ether	ND	ND	ND	6JN	ND	ND	8JN	ND	ND
Total Unknown Siloxane	ND	ND	ND	ND	ND	23J	ND	15J	12J

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte.

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-1
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	MW-17D 06/30/92	MW-18S 06/29/92	MW-18D 06/29/92	MW-19S 07/01/92	MW-19D 07/01/92	S-2684 07/01/92	S-3623 07/01/92	S-66133 07/01/92	S-66157 07/01/92
Tentatively Identified Compounds (TICs) (Concentration in ug/l)									
Total Unknown	ND	96J	154J	290J	ND	94J	8J	ND	ND
Total Unknown Aromatic	11J	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	21J	ND	ND	ND
Total Unknown Cycloalkane	ND	97J	460J	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	6J	ND	ND	550J	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	260J	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Siloxane	6J	ND	ND	ND	ND	ND	9J	ND	ND
Octamethyl cyclotetrasiloxane	7J	ND	ND	ND	ND	ND	15JN	ND	ND
2-Methyl pentane	ND	58JN	ND	ND	ND	80JN	ND	ND	ND
Total Unknown Branched Cycloalkane	ND	ND	11J	ND	ND	152J	ND	ND	ND
Total Unknown Branched Alkane	ND	ND	122J	ND	ND	15J	ND	ND	ND
Ethane, 1,1,2-Trichloro-1,2,2-Trifluoro	ND	ND	140JN	ND	ND	ND	ND	ND	ND
Ethane, 1,2-Dichloro-1,1,2-Trifluoro	ND	ND	35JN	ND	ND	ND	ND	ND	ND
Cyclohexane	ND	ND	ND	330JN	ND	88JN	ND	ND	ND
Methyl tert butyl Ether	ND	ND	ND	170JN	ND	ND	13JN	ND	ND
Cyclotrisiloxane, hexamethyl	ND	ND	ND	110J	ND	ND	ND	ND	ND
Methyl cyclohexane	ND	ND	ND	ND	ND	17JN	ND	ND	ND
Disulfide, dimethyl	ND	ND	ND	ND	ND	ND	ND	ND	16JN

ND - Not Detected
J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.
N - Compound was analyzed for but not requested as an analyte.

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TABLE 4-1

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1992 SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	FB-628 FB 06/28/92	TB-629 TB 06/29/92	FB-630 FB 06/30/92	TB-630 TB 06/30/92	TB-71 TB 07/01/92	FB 07/10/92	FB-71 REP-1 07/01/92	REP-2 07/01/92
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)								
Total Unknown	ND	ND	ND	ND	ND	ND	8J	ND
Total Unknown Alkane	ND	ND	29J	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	322J
Hexamethyl cyclotrisiloxane	ND	ND	ND	ND	ND	ND	ND	52JN
Total Unknown Branched Alkane	ND	ND	ND	ND	ND	ND	63J	ND
Cyclohexane	ND	ND	ND	ND	ND	ND	150JN	ND
Ethane, 1,2-Dichloro-1,1,2-Trifluoro	ND	ND	ND	ND	ND	ND	51JN	ND
2-Methyl pentane	ND	ND	ND	ND	ND	ND	51JN	ND
Methyl cyclohexane	ND	ND	ND	ND	ND	ND	12JN	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte.

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES
EAST FARMINGDALE, NEW YORK

TABLE 4-2

PGC GROUNDWATER ANALYTICAL RESULTS

Sample ID	Sample Date	Depth (ft.)	Concentration (µg/l)												
			TCE	PCE	1,2-DCE	1,1-DCE	1,1,1-TCA	1,1-DCA**	Chloro-Benzen e	Benzen e	Toluene	Ethyl-Benzen e	m-Xylene	o-Xylene	Vinyl Chloride
MW-2XD ⁽¹⁾	8/4/92	40	2.0	0.2J	0.4J	6	125	NA	NA	NA	NA	NA	NA	NA	NA
	8/5/92	60	0.5J	0.1J	ND	10.7	271	NA	NA	NA	NA	NA	NA	NA	NA
	8/5/92	80	30.1	0.2J	ND	9.1	20.2J	NA	NA	NA	NA	NA	NA	NA	NA
	8/5/92	100	92	25	ND	654	5760	NA	NA	NA	NA	NA	NA	NA	NA
	8/5/92	120	303	17.8	ND	383	5090	NA	NA	NA	NA	NA	NA	NA	NA
	8/5/92	140	146	15.7	ND	423	5990	NA	NA	NA	NA	NA	NA	NA	NA
	8/5/92	160	91	6.8	24.7	319	3252	NA	NA	NA	NA	NA	NA	NA	NA
	8/5/92	200	57.5	0.5J	22	255	1428	NA	NA	NA	NA	NA	NA	NA	NA
MW-3XD ⁽¹⁾	8/19/92	65	3.4	ND	195	11	NA	NA	NA	ND	871	643#	856	100	ND
	8/19/92	85	35.1	12.4	ND	6.4	NA	NA	NA	0.1J	5.7	3.7	0.6J	ND	0.9J
	8/19/92	105	40.9	18.6	ND	6.9	NA	NA	NA	ND	3.9	ND	ND	ND	1.2
	8/19/92	125	75.7	30	ND	6.0	NA	NA	NA	2.9	0.6J	0.3J	ND	4.7	6.7
	8/19/92	145	88.7	19.5	ND	5.2	NA	NA	NA	1.8	0.5J	ND	ND	1.5	5
	8/19/92	165	69.9	16.1	ND	4.4	NA	NA	NA	8.3	0.2J	ND	ND	ND	2.7
	8/20/92	185	8.4	ND	ND	0.2J	NA	NA	NA	ND	6.4	105#	ND	ND	0.4J
	8/20/92	200	8.6	ND	8.2	0.7J	NA	NA	NA	ND	ND	0.3J	ND	ND	0.03J

Table 4-2 Continued . . .

Sample ID	Sample Date	Depth (ft.)	Concentration (ug/l)												
			TCE	PCE	1,2-DCE	1,1-DCE	1,1,1-TCA	1,1-DCA**	Chloro-Benzen e	Benzen e	Toluene	Ethyl-Benzen e	m-Xylene	o-Xylen e	Vinyl Chloride
MW-22XD ⁽¹⁾	8/26/92	35	58.5	ND	ND	0.3J	ND	27.5	2296#	ND	42.9	1163#	ND	ND	0.05J
	8/26/92	55	53.2	ND	0.05J	0.1J	ND	ND	801#	ND	ND	392#	ND	ND	ND
	8/26/92	75	46.9	ND	ND	ND	ND	25	811#	ND	ND	458#	ND	0.5J	0.06J
	8/26/92	95	43.2	ND	0.9J	0.5J	ND	ND	1369#	ND	ND	1707#	ND	122.7	ND
	8/27/92	115	79.6	132.8	132.4	10.9	ND	1267	2053#	ND	32.2	529#	ND	ND	ND
	8/27/92	135	282	10600	787	12.4	ND	6779	ND	703	ND	ND	ND	0.8J	ND
	8/27/92	155	112	256	213	5.5	ND	651	1157#	23	31.6	412#	ND	ND	18.5
	8/27/92	175	69.4	1704	298	9.8	ND	1919	ND	134	ND	ND	ND	ND	ND
8/27/92	195	113	123.7	204	11.5	ND	135.6	1318#	ND	33.7	420#	ND	ND	ND	
MW-23XD ⁽¹⁾	8/28/92	35	53.8L	0.4J	ND	0.9J	ND	ND	924#L	ND	26	360#L	ND	ND	0.2J
	8/28/92	55	65.3	0.6J	ND	0.9J	ND	ND	1214#	0.4J	31.4	536#	ND	ND	ND
	8/31/92	75	9.3	650	19.8	0.2J	R	234	ND	ND	ND	ND	ND	ND	ND
	8/31/92	95	963	349	235	5.1	R	28	ND	ND	ND	ND	0.7J	ND	2.2
	8/31/92	115	32.8	36.5	3.6	ND	R	ND	ND	ND	ND	ND	1.6	ND	0.4J
	8/31/92	135	477	357	233	5.3	R	452	ND	ND	ND	ND	10.9	32.5	3.5
	8/31/92	155	960	471	400	6	ND	ND	ND	ND	ND	ND	ND	26.9	2.4
	8/31/92	175	1681	728	460	16.5	R	1583	ND	ND	ND	ND	ND	ND	2.7
8/31/92	195	2028	1038	634	24.8	R	NDL	ND	207L	ND	ND	ND	ND	10	

Table 4-2 Continued . . .

Sample ID	Sample Date	Depth (ft.)	Concentration (µg/l)												
			TCE	PCE	1,2-DCE	1,1-DCE	1,1,1-TCA	1,1-DCA**	Chloro-Benzen e	Benzen e	Toluene	Ethyl-Benzen e	m-Xylene	o-Xylen e	Vinyl Chloride
MW-28XD ⁽¹⁾	9/28/92	40	ND	6.6	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND
	9/28/92	60	1.0	20.1	0.9J	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND
	9/29/92	80	16.4	69.2	15.1	ND	ND	ND	NA	NA	NA	NA	NA	NA	1.8
	9/29/92	100	29.9	101.8	31.3	ND	ND	ND	NA	NA	NA	NA	NA	NA	1.4
	9/29/92	120	44.5	167.2	38.2	ND	ND	ND	NA	NA	NA	NA	NA	NA	2.0
	9/29/92	140	47.1	64.7	13.9	ND	ND	ND	NA	NA	NA	NA	NA	NA	2.5
	9/29/92	160	22.3	47.9	14.6	ND	ND	ND	NA	NA	NA	NA	NA	NA	2.0
MW-29XD ⁽¹⁾	10/7/92	45	31.5	3080	8	1.8	ND	NA	NA	NA	NA	NA	NA	NA	ND
	10/7/92	65	24	16560	68	2.5	ND	NA	NA	NA	NA	NA	NA	NA	ND
	10/8/92	85	74.8	6000	5.3	2.4	ND	NA	NA	NA	NA	NA	NA	NA	ND
	10/8/92	105	29.2	7440	608	7.2	ND	NA	NA	NA	NA	NA	NA	NA	ND
	10/9/92	125	8	240	280	4.6	ND	NA	NA	7.8	ND	NA	NA	NA	NDL
	10/9/92	145	9	9832	288	1.0	ND	NA	NA	15.6	3.0	NA	NA	NA	ND
	10/9/92	165	5.6	10248	208	ND	ND	NA	NA	37.3	1.6	NA	NA	NA	ND
	10/9/92	185	16	22720L	26	ND	ND	NA	NA	62.7	6.4	NA	NA	NA	ND
10/9/92	200	8.0	4580	18.5	ND	ND	NA	NA	ND	2.2	NA	NA	NA	2.5	

Table 4-2 Continued . . .

Sample ID	Sample Date	Depth (ft.)	Concentration (µg/l)												
			TCE	PCE	1,2-DCE	1,1-DCE	1,1,1-TCA	1,1-DCA**	Chloro-Benzen e	Benzen e	Toluene	Ethyl-Benzen e	m-Xylene	o-Xylen e	Vinyl Chloride
MW-30XD ⁽¹⁾	10/13/92	40	7.5	3.6	9.6	ND	ND	NA	NA	ND	3.6	NA	NA	NA	ND
	10/13/92	60	1.3	1.6	1.5	ND	ND	NA	NA	ND	1.1	NA	NA	NA	ND
	10/14/92	80	1.0L	0.6J	1.0	ND	ND	NA	NA	ND	0.6J	NA	NA	NA	ND
	10/14/92	100	8.1	4.7	2.6	ND	ND	NA	NA	ND	4.2	NA	NA	NA	ND
	10/14/92	120	243L	2.2	1.8	ND	ND	NA	NA	ND	3.1	NA	NA	NA	ND
	10/14/92	140	2.4	0.6J	0.5J	ND	ND	NA	NA	ND	0.6J	NA	NA	NA	ND
	10/14/92	160	33	0.6J	0.4J	ND	ND	NA	NA	ND	1.7	NA	NA	NA	ND
	10/14/92	180	11.9	1.9	0.5J	ND	ND	NA	NA	ND	0.9J	NA	NA	NA	ND
	10/14/92	200	7.3	0.5J	ND	ND	ND	NA	NA	ND	0.9J	NA	NA	NA	ND
MW-31XD ⁽¹⁾	2/10/93	30	ND	ND	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA	NA
	2/10/93	50	2.1	1.2	ND	ND	ND	NA	NA	ND	4.8	NA	NA	NA	NA
	2/10/93	70	15.5	1.5	ND	ND	ND	NA	NA	ND	5.2	NA	NA	NA	NA
	2/10/93	90	5.0	ND	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA	NA
	2/10/93	110	3.6	ND	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA	NA
	2/10/93	130	2.4	ND	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA	NA
	2/10/93	150	ND	ND	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA	NA
	2/10/93	170	5.6	ND	8.7	1.4	ND	NA	NA	ND	ND	NA	NA	NA	NA

Table 4-2 Continued . . .

Sample ID	Sample Date	Depth (ft.)	Concentration (µg/l)												
			TCE	PCE	1,2-DCE	1,1-DCE	1,1,1-TCA	1,1-DCA**	Chloro-Benzen e	Benzen e	Toluene	Ethyl-Benzen e	m-Xylene	o-Xylen e	Vinyl Chloride
MW-35XD ⁽²⁾	12/9/93	112	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/93	151	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/93	201	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
	12/13/93	250	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
	12/14/93	301	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
	12/15/93	351	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
MW-36XD ⁽²⁾	11/16/93	102	53	1.4	0.9J	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
	11/17/93	151	50	1.4	0.3J	0.4J	ND	NA	NA	NA	NA	NA	NA	NA	NA
	11/18/93	201	117	1.6	0.5J	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
	11/18/93	251	191	0.7J	1.8	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
	11/19/93	302	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
	11/30/93	351	ND	ND	ND	0.3J	ND	NA	NA	NA	NA	NA	NA	NA	NA
MW-37XD ⁽²⁾	10/28/93	154	361	11.1	132	62.8	ND	NA	NA	NA	NA	NA	NA	NA	NA
	10/29/93	200	6.6	0.4 J	1.8	0.2 J	ND	NA	NA	NA	NA	NA	NA	NA	NA
	10/29/93	200 (MUD)	7.0	0.3 J	1.6	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
	11/1/93	253	ND	ND	ND	0.7 J	ND	NA	NA	NA	NA	NA	NA	NA	NA
	11/4/93	363	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-2 Continued . . .

NOTES:

ND - Not detected.
NA - Not analyzed.

(1) Samples collected during the Phase I plume definition investigation.

Samples were collected using 5 foot long screened lead hollow stem augers and analyzed using a Photovac Model 10S50 PID Portable Gas Chromatograph (PGC).

(2) Samples collected during the Phase II plume definition investigation.

Samples were collected using a Hydropunch sampler and analyzed by Photovac Model 10S50 PID PGC.

Groundwater sample MW37D-200 was extremely turbid and may not be representative of groundwater quality. A drilling mud sample (MW37D-200 MUD) was analyzed with results comparable to the groundwater sample, suggesting that the sample is partially mud.

DATA QUALIFIERS:

- J Indicates an estimated value below the detection limit. The detection limit for all analytes is 1 µg/l except 1,1,1-TCA which is 100 µg/l.
- R Indicates that 1,1,1-TCA results from the PGC for borings where the data were not confirmed by lab analyses were rejected because of possible peak misidentification.
- ** May be misidentified by PGC.
- # Possible bottle contamination.

Table 4-2 Continued . . .

L Indicates that the PGC data differs from the lab data by a factor of 5 or more.

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-3

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS

Sample Location: Sample Designation: Sample Date :	2XD FRC-MW-2XD-40 08/11/92	2XD FRC-MW-2XD-100 08/11/92	3XD FRC-MW-3XD-45 08/17/94	3XD FRC-MW-3XD-200 08/25/92	19XD FRC-MW-19XD-45 08/11/92	19XD FRC-MW-19XD-105 08/11/92	20XD FRC-MW-20(100-110) 08/03/92	20XD FRC-MW-20(190-200) 08/03/92	23D FRC-MW-23D 12/06/93	23XD FRC-MW-23XD-35 09/04/92
Chloromethane	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
Bromomethane	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
Vinyl Chloride	10U	100UJ	45	10U	16J	10J	5J	50U	10U	10UJ
Chloroethane	10U	100UJ	160	10U	7J	10UJ	10U	50U	10U	10UJ
Methylene Chloride	10U	20JB	2U	10U	10UJ	10UJ	10U	7JBC	2JB	2JBC
Acetone	10U	64JB	2U	2JBC	10UJ	9JB	5JBC	63JBC	17JB	46JBC
Carbon Disulfide	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
1,1-Dichloroethene	20J	466J	2U	10U	10UJ	2J	10U	50U	10U	10UJ
1,1-Dichloroethane	4J	13J	22	4J	42J	10J	2J	50U	1J	10J
1,2-Dichloroethene	10U	100UJ	2U	8J	57J	157J	23	23J	19	10UJ
Chloroform	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
1,2-Dichloroethane	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
2-Butanone	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
1,1,1-Trichloroethane	144J	1353J	2U	2J	4J	6J	10U	8J	10U	2J
Carbon Tetrachloride	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
Bromodichloromethane	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
1,2-Dichloropropane	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
cis-1,3-Dichloropropene	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
Trichloroethene	3J	42J	2U	9J	8J	30J	162	470	20	10UJ
Dibromochloromethane	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
1,1,2-Trichloroethane	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
Benzene	10U	100UJ	14	10U	3J	3J	10U	50U	10U	10UJ
trans-1,3-Dichloropropene	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
Bromoforn	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
4-Methyl-2-pentanone	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
2-Hexanone	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
Tetrachloroethene	1J	100UJ	2U	10U	98J	25J	1J	6J	18	10UJ
1,1,2,2-Tetrachloroethane	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
Toluene	10U	4J	1000	10U	10UJ	10UJ	10U	50U	2J	7J
Chlorobenzene	10U	100UJ	670	10U	3J	10UJ	10U	50U	10U	10UJ
Ethylbenzene	10U	100UJ	950	10U	10UJ	10UJ	10U	50U	10U	10UJ
Styrene	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ
Xylenes (total)	10U	100UJ	2,150	10U	10UJ	10UJ	10U	50U	10U	10UJ
TCs (total)	10U	100UJ	2U	10U	10UJ	10UJ	10U	50U	10U	10UJ

Units in ug/l

U-Compound was analyzed for but not detected.

J-Compound was analyzed for and determined to be present. The concentration listed is an estimated value.

B-Compound was found in the blanks as well as the sample.

C-Laboratory calibration requirements were not met.

eder associates

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-3

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS

Sample Location: Sample Designation: Sample Date	23XD FRC-MW-23XD-195 09/04/92	24XD FRC-MW-24XD-35 09/04/92	24XD FRC-MW-24XD-195 09/04/92	25XD FRC-MW-25XD-60 09/08/92	25XD FRC-MW-25XD-200 09/09/92	26XD FRC-MW-26XD-35 09/10/92	26XD FRC-MW-26XD-195 09/10/92	27XD FRC-MW-27XD-70 09/18/92	27XD FRC-MW-27XD-110 09/18/92	28XD FRC-MW-28XD-40 10/01/92
Chloromethane	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Bromomethane	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	10UJ	10UJ	100U	10U
Vinyl Chloride	100UJ	10UJ	84J	10UJ	10UJ	10UJ	12J	10UJ	100U	10U
Chloroethane	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Methylene Chloride	16JBC	10UJ	33JBC	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Acetone	100UJ	2JBC	200UJ	10UJ	10UJ	10UJ	20UJ	10JBC	106JBC	10U
Carbon Disulfide	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
1,1-Dichloroethene	41J	10UJ	109J	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
1,1-Dichloroethane	34J	10UJ	194J	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
1,2-Dichloroethene	1,305J	10UJ	2,370J	10UJ	10UJ	10UJ	54	10UJ	80J	10U
Chloroform	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
1,2-Dichloroethane	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
2-Butanone	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
1,1,1-Trichloroethane	70J	2J	161J	10UJ	10UJ	10UJ	2J	10UJ	100U	10U
Carbon Tetrachloride	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Bromodichloromethane	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
1,2-Dichloropropane	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
cis-1,3-Dichloropropene	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Trichloroethene	1,583J	10UJ	1,659J	10UJ	10UJ	10UJ	303	10UJ	1,213	10U
Dibromochloromethane	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
1,1,2-Trichloroethane	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Benzene	34J	10UJ	163J	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
trans-1,3-Dichloropropene	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Bromoform	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
4-Methyl-2-pentanone	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
2-Hexanone	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Tetrachloroethene	642J	1J	424J	2J	10UJ	10UJ	95	10UJ	100U	3J
1,1,2,2-Tetrachloroethane	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Toluene	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Chlorobenzene	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Ethylbenzene	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Styrene	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
Xylenes (total)	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U
VOCs (total)	100UJ	10UJ	200UJ	10UJ	10UJ	10UJ	20UJ	10UJ	100U	10U

Units in ug/l

U-Compound was analyzed for but not detected.

J-Compound was analyzed for and determined to be present. The concentration listed is an estimated value.

B-Compound was found in the blanks as well as the sample.

C-Laboratory calibration requirements were not met.

eder associates

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-3

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS

Sample Location: Sample Designation: Sample Date	28XD FRC-MW-28XD-120 10/01/92	29XD FRC-MW-29XD-125 10/14/92	29XD FRC-MW-29XD-185 10/14/92	30XD FRC-MW-30XD-80 10/19/92	30XD FRC-MW-30XD-120 10/19/92	31XD FRC-MW-31XD-70 03/12/92	31XD FRC-MW-31XD-150 03/12/92	32D FRC-MW-32D 03/01/92	33D FRC-MW-33D 12/28/92	35D FRC-MW-35D 12/29/93
Chloromethane	10U	20U	500U	10U	10U	10U	10U	10U	1U	10U
Bromomethane	10U	20U	500U	10U	10U	10U	10U	10U	1U	10U
Vinyl Chloride	10U	112	500U	10U	10U	10U	10U	10U	2U	10U
Chloroethane	10U	19J	500U	10U	10U	10U	10U	10U	1U	10U
Methylene Chloride	10U	20U	148J	10U	10U	1JBC	10U	10U	1U	10U
Acetone	3JB	20U	414J	10U	10U	10U	10U	10U	N/A	9JB
Carbon Disulfide	10U	20U	500U	10U	10U	10U	10U	10U	N/A	10U
1,1-Dichloroethene	10U	20U	500U	10U	10U	10U	10U	10U	1U	10U
1,1-Dichloroethane	10U	210	74J	10U	10U	10U	10U	10U	1U	10U
1,2-Dichloroethene	38	370	500U	10U	10U	10U	10U	10U	1U	10U
Chloroform	10U	20U	500U	10U	10U	10U	10U	10U	1U	10U
1,2-Dichloroethane	10U	20U	500U	10U	10U	10U	10U	10U	1U	10U
2-Butanone	10U	20U	500U	10U	10U	10U	10U	10U	N/A	10U
1,1,1-Trichloroethane	10U	82	500U	10U	10U	2J	10U	10U	1U	10U
Carbon Tetrachloride	10U	20U	500U	10U	10U	10U	10U	10U	1U	10U
Bromodichloromethane	10U	20U	500U	10U	10U	10U	10U	10U	1U	10U
1,2-Dichloropropane	10U	20U	500U	10U	10U	10U	10U	10U	1U	10U
cis-1,3-Dichloropropene	10U	20U	500U	10U	10U	10U	10U	10U	2U	10U
Trichloroethene	28	14	500U	133	10U	8J	10U	10U	1U	10U
Dibromochloromethane	10U	20U	500U	10U	10U	10U	10U	10U	2U	10U
1,1,2-Trichloroethane	10U	20U	500U	10U	10U	10U	10U	10U	2U	10U
Benzene	10U	26	500U	10U	10U	10U	10U	10U	N/A	3J
trans-1,3-Dichloropropene	10U	20U	500U	10U	10U	10U	10U	10U	2U	10U
Bromoform	10U	20U	500U	10U	10U	10U	10U	10U	2U	10U
4-Methyl-2-pentanone	10U	20U	500U	10U	10U	10U	10U	10U	N/A	10U
2-Hexanone	10U	20U	500U	10U	10U	10U	10U	10U	N/A	10U
Tetrachloroethene	61	322	4,790	10U	10U	10U	10U	10U	1U	10U
1,1,2,2-Tetrachloroethane	10U	20U	500U	10U	10U	10U	10U	10U	2U	10U
Toluene	10U	4J	500U	10U	10U	10U	10U	10U	N/A	15
Chlorobenzene	10U	39	500U	10U	10U	10U	10U	10U	2U	10U
Ethylbenzene	10U	20U	500U	10U	10U	10U	10U	10U	N/A	6J
Styrene	10U	20U	500U	10U	10U	10U	10U	10U	N/A	10U
Xylenes (total)	10U	28	500U	10U	10U	10U	10U	10U	N/A	47
TICs (total)	10U	20U	500U	10U	10U	10U	10U	10U	N/A	239J

Units in ug/l.

U-Compound was analyzed for but not detected.

J-Compound was analyzed for and determined to be present. The concentration listed is an estimated value.

B-Compound was found in the blanks as well as the sample.

C-Laboratory calibration requirements were not met.

N/A- Not Analyzed for.

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES
EAST FARMINGDALE, NEW YORK

TABLE 4-4

COMPARISON BETWEEN PGC & LAB GROUNDWATER ANALYTICAL RESULTS

Sample ID	TCE			PCE			1,1,1-TCA		
	PGC Results, µg/l	Lab Results, µg/l	Lab/PGC Ratio	PGC Results, µg/l	Lab Results, µg/l	Lab/PGC Ratio	PGC Results, µg/l	Lab Results, µg/l	Lab/PGC Ratio
MW-2XD-40	2	3	1.5	0.2	1	5	125	144	1.15
MW-2XD-100	92	42	0.45	25	<100	-- ⁽³⁾	5760	1353	0.23
MW-3XD-200	8.6	9	1.04	ND ⁽¹⁾	<10	--	NA ⁽²⁾	2	--
MW-19XD-45	84	8	0.1	152	98	0.64	16465	4	0.0002
MW-19XD-105	63.9	30	0.46	29.5	25	0.85	ND	6	--
MW-20XD-100	209	162	0.77	0.7J	1	1.42	NA	<10	--
MW-20XD-200	712	470	0.66	8.8	6	0.68	NA	4	--
MW-23XD-35	53.8	<10	--	0.4	<10	--	ND	2	--
MW-23XD-195	2028	1583	0.78	1038	642	0.62	1800	70	0.04
MW-24XD-35	ND	<10	--	ND	1	--	ND	2	--
MW-24XD-195	2546	1659	0.65	748	424	0.57	13470	161J	0.01
MW-25XD-60	ND	<10	--	5.3	2	0.38	ND	<10	--
MW-25XD-200	ND	<10	--	ND	<10	--	ND	<10	--
MW-26XD-35	ND	2	--	ND	<10	--	ND	<10	--
MW-26XD-195	567	300	0.53	164	95	0.58	ND	2	--
MW-27XD-70	2.3	<10	--	ND	<10	--	ND	<10	--
MW-27XD-110	2802	1213	0.43	0.4	<100	--	ND	<100	--
MW-28XD-40	ND	<10	--	6.6	3	0.45	ND	<10	--
MW-28XD-120	44.5	28	0.63	167.2	61	0.36	ND	<10	--
MW-29XD-125	8	14	1.75	240	322	1.34	ND	82	--
MW-29XD-185	16	<500	--	22720	4790	0.21	ND	<500	--
MW-30XD-80 ⁽⁴⁾	1	133	--	0.6	<10	--	ND	<10	--

Table 4-4 Continued . . .

Sample ID	TCE			PCE			1,1,1-TCA		
	PGC Results, $\mu\text{g/l}$	Lab Results, $\mu\text{g/l}$	Lab/PGC Ratio	PGC Results, $\mu\text{g/l}$	Lab Results, $\mu\text{g/l}$	Lab/PGC Ratio	PGC Results, $\mu\text{g/l}$	Lab Results, $\mu\text{g/l}$	Lab/PGC Ratio
MW-30XD-120 ⁽⁴⁾	243	<10	--	2.2	<10	--	ND	<10	--
MW-31XD-70	15.5	8	0.52	1.5	<10	--	ND	2	--
MW-31XD-150	ND	<10	--	ND	<10	--	ND	<10	--
Average	--	--	0.73	--	--	1.0	--	--	--

NOTES:

- (1) ND - Not Detected.
- (2) NA - Not Analyzed.
- (3) -- - Not Calculated.
- (4) TCE data from boring MW-30XD are outliers. They do not conform to the pattern established by other observations and were not included in calculating the average.

Data from MW-30XD indicate that samples MW-30XD-80 and MW-30XD-120 were probably mislabelled or the results were not correctly reported by the lab. These data are not included in calculating the average.

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-5

VOC ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES
MARCH 1994

Site ID Sample Location	Groundwater Standard	FRC-MW 38S-1	FRC-MW 39S-1	FRC-MW 39S Dup	FRC-MW 18-8-1	FRC-MW -40D-1	FRC-MW FB	FRC-MW TB	FRC-MW TB	FRC-MW 38S-1 MS	FRC-MW 38S-1 MSD
Date Collected	(3)	032894	032894	032894	032894	032894	032894	032894	040494	032894	032894
Chloromethane	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	50	18 U	130 U	49 U	10 U	42 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	50	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	50	44
1,1-Dichloroethane	5	10 U	100 U	50 U	10 U	2 J	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	10	10 U	920	610	140	9 J	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	(2)	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	1500	920	190	4 J	10 U	10 U	10 U	45	44
Dibromochloromethane	(2)	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	50	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	0.7	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	44	44
trans-1,3-Dichloropropene	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	(2)	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	1 J	44 J	30 J	63	3 J	10 U	10 U	10 U	1 J	1 J
1,1,2,2-Tetrachloroethane	5	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	100 U	50 U	10 U	6 J	10 U	10 U	10 U	40	39
Chlorobenzene	5	10 U	100 U	50 U	10 U	23	10 U	10 U	10 U	43	43
Ethylbenzene	5	10 U	40 J	50 U	10 U	97	10 U	10 U	10 U	10 U	10 U
Styrene	50	10 U	100 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	15	10 U	83 J	50 U	10 U	190	10 U	10 U	10 U	10 U	10 U
TICs:											
Unknown branched cycloalkane	--	ND	ND	ND	ND	1800 J	ND	ND	ND	--	--
Unknown cycloalkane	--	ND	1843 J	ND	ND	1500 J	ND	ND	ND	--	--
Unknown branched alkane	--	ND	460 J	ND	ND	1620 J	ND	ND	ND	--	--
Unknown alkane	--	ND	240 J	ND	ND	690 J	ND	ND	ND	--	--
Ethane, 1,1,2-trichloro-1,2,2-trifl	--	ND	ND	ND	ND	290 J	ND	ND	ND	--	--
Unknown branched cyclopentane	--	ND	ND	ND	ND	91 J	ND	ND	ND	--	--
Pentane, 2-methyl	--	ND	350 J	ND	ND	ND	ND	ND	ND	--	--

Notes:

1) Units in ug/L

2) Legend:

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

Dup - Duplicate Sample

3) 6 NYCRR 703 Groundwater Standards.

4) TICs - Volatile Tentatively Identified Compounds

Laboratory Qualifiers:

U - Analyzed but not detected.

J - Estimated value less than the quantitation limit.

D - Diluted

B - Found in the blank sample.

ND - Not Detected

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-5

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS

Sample Location: Sample Designation: Sample Date	36D FRC-MW-36D 12/17/93	37D FRC-MW-37D 12/06/93	33D FRC-FB 12/28/93	33D FRC-TB 12/28/93	23D, 37D FRC-TB-931206 12/06/93	36D FRC-TB-931217 12/17/93	35D FRC-TB-931229 12/29/93
Chloromethane	50U	10U	1U	1U	10U	10U	10U
Bromomethane	50U	10U	1U	1U	10U	10U	10U
Vinyl Chloride	50U	10U	2U	2U	10U	10U	10U
Chloroethane	50U	10U	1U	1U	10U	10U	10U
Methylene Chloride	20JB	10U	1U	1U	2JB	1J	10U
Acetone	60	8JB	N/A	N/A	9JB	10U	10U
Carbon Disulfide	50U	10U	N/A	N/A	10U	10U	10U
1,1-Dichloroethane	50U	10U	1U	1U	10U	10U	10U
1,1-Dichloroethane	50U	10U	1U	1U	10U	10U	10U
1,2-Dichloroethane	16J	10U	1U	1U	10U	10U	10U
Chloroform	50U	10U	1U	1U	10U	10U	10U
1,2-Dichloroethane	50U	10U	1U	1U	10U	10U	10U
2-Butanone	50U	4JB	N/A	N/A	10U	10U	10U
1,1,1-Trichloroethane	50U	10U	1U	1U	10U	10U	10U
Carbon Tetrachloride	50U	10U	1U	1U	10U	10U	10U
Bromodichloromethane	50U	10U	1U	1U	10U	10U	10U
1,2-Dichloropropane	50U	10U	2U	2U	10U	10U	10U
cis-1,3-Dichloropropene	50U	10U	1U	1U	10U	10U	10U
Trichloroethene	650	10U	2U	2U	10U	10U	10U
Dibromodichloromethane	50U	10U	2U	2U	10U	10U	10U
1,1,2-Trichloroethane	50U	10U	2U	2U	10U	10U	10U
Benzene	50U	10U	N/A	N/A	10U	10U	10U
trans-1,3-Dichloropropene	50U	10U	2U	2U	10U	10U	10U
Bromoform	50U	10U	2U	2U	10U	10U	10U
4-Methyl-2-pentanone	50U	10U	N/A	N/A	10U	10U	10U
2-Hexanone	50U	10U	N/A	N/A	10U	10U	10U
Tetrachloroethene	50U	10U	1U	1U	10U	10U	10U
1,1,2,2-Tetrachloroethane	50U	10U	2U	2U	10U	10U	10U
Toluene	50U	10U	N/A	N/A	10U	10U	10U
Chlorobenzene	50U	10U	2U	2U	10U	10U	10U
Ethylbenzene	50U	10U	N/A	N/A	10U	10U	10U
Styrene	50U	10U	N/A	N/A	10U	10U	10U
Xylenes (total)	50U	10U	N/A	N/A	10U	10U	10U
TICs (total)	50U	10U	N/A	N/A	10U	5J	10U

Units in ug/l

U-Compound was analyzed for but not detected

J-Compound was analyzed for and determined to be present. The concentration listed is an estimated value.

B-Compound was found in the blanks as well as the sample.

NA - Not Analyzed for.

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 FIRST SAMPLING ROUND

TABLE 4-8

Well ID Sample ID CA/QC	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-10 MW1D1	MW-2S MW2S1	MW-2D MW2D1	MW-3S MW3S1	MW-3D MW3D1	MW-6S MW6S1	MW-6D MW6D1	MW-7S MW7S1
Date Collected		07/12/94	07/12/94	07/12/94	07/14/94	07/13/94	07/19/94	07/19/94	07/14/94
Volatile Organic Compounds (ug/L)									
Chloromethane	5	10	10	10	50	10	10	10	10
Bromomethane	5	10	10	10	50	10	10	10	10
Vinyl Chloride	2	10	10	10	13	10	10	10	10
Chloroethane	5	10	10	10	55	10	10	10	10
Methylene Chloride	50*	10	10	10	50	10	10	10	10
Acetone	N/A	10	10	10	50	10	10	10	10
Carbon Disulfide	5	10	10	10	50	10	10	10	10
1,1-Dichloroethane	5	10	10	10	50	10	10	10	10
1,1-Dichloroethane	5	10	10	10	18	10	10	10	10
1,2-Dichloroethane (total)	10 (1)	10	10	10	3	6	10	2	10
Chloroform	7	10	10	10	50	10	10	10	10
1,2-Dichloroethane	5	10	10	10	50	10	10	10	10
2-Butanone	50*	10	10	10	50	10	10	10	10
1,1,1-Trichloroethane	5	10	10	10	50	10	10	10	10
Carbon Tetrachloride	5	10	10	10	50	10	10	10	10
Bromodichloromethane	50*	10	10	10	50	10	10	10	10
1,2-Dichloropropane	5	10	10	10	50	10	10	10	10
cis-1,3-Dichloropropene	5	10	10	10	50	10	10	10	10
Trichloroethene	5	10	10	10	50	10	10	10	10
Dibromochloromethane	50*	0.2	10	10	50	15	10	2	10
1,1,2-Trichloroethane	5	10	10	10	50	10	10	10	10
Benzene	0.7	10	10	10	73	10	10	10	10
trans-1,3-Dichloropropene	5	10	10	10	50	10	10	10	10
Bromoform	50*	10	10	10	50	10	10	10	10
4-Methyl-2-pentanone	N/A	10	10	10	50	10	10	10	10
2-Hexanone	50*	10	10	10	50	10	10	10	10
Tetrachloroethene	5	10	10	10	50	10	10	10	10
1,1,2,2-Tetrachloroethane	5	10	10	10	50	10	10	10	10
Toluene	5	10	10	10	210	10	1	10	10
Chlorobenzene	5	10	10	10	37	10	10	10	10
Ethylbenzene	5	10	10	10	450	2	10	4	10
Styrene	5	10	10	10	50	10	10	10	10
Xylene (total)	15 (1)	10	10	10	810	10	10	10	10
TICs (Total)	N/A	ND	197	8	2,490	58	ND	ND	ND

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was detected in method blank
J - Compound was detected below method detection limits
VOCs were analyzed by NYSDCEC Method ASP 91-1

TABLE 4-6
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-7D MW7D1	MW-8S MW8S1	MW-8D MW8D1	MW-9S MW9S1	MW-9D MW9D1	MW-10S MW10S1	MW-10D MW10D1
Volatile Organic Compounds (ug/L)								
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	10 (1)	3 J	1 J	10 U	35	10 U	10 U	23
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	2 J	11	10 U	24	10 U	10 U	10 U
Dibromochloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoforn	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	15 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	ND	ND	ND	153 J	6 J	1,172 J	130 J

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was detected in method blank
J - Compound was detected below method detection limits
VOCs were analyzed by NYSDEC Method ASP 91-1

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID CAVOC	NYS GROUNDWATER STANDARD	MW-11S MW11S1	MW-11D MW11D1	MW-13S MW13S1	MW-13D MW13D1	MW-14S MW14S1	MW-14D MW14D1	MW-15S MW15S1	MW-15D MW15D1
Date Collected	5 NYCRR 703	07/15/94	07/15/94	07/18/94	07/18/94	07/15/94	07/15/94	07/18/94	07/18/94
Volatile Organic Compounds (ug/L)									
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	10(1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	15 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	ND	27 J	741 J	216 J	45 J	7 J	ND	67 J

Notes:

ug/L - Micrograms per liter
FB - Trip Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

Laboratory / Data Validation Qualifiers:

U - Compound was analyzed for but not detected
B - Compound was detected in method blank
J - Compound was detected below method detection limits
VOCs were analyzed by NYSDCE Method ASP 91-1

TABLE 4-6

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	07/18/94	MW-16S MW16S1	MW-16D MW16D1	MW-17S MW17S1	MW-17D MW17D1	MW-18S MW18S1	MW-18D MW18D1	MW-19S MW19S1	MW-19D MW19D1	MW-21S MW21S1
Date Collected	6 NYCRR 703	07/18/94	07/18/94	07/18/94	07/18/94	07/18/94	07/21/94	07/21/94	07/19/94	07/19/94	07/19/94
Volatile Organic Compounds (ug/L)											
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	81 J	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Acetone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Carbon Disulfide	N/A	10 U	10 U	0.3 J	10 U	10 U	10 U	10 U	100 U	250 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
1,1-Dichloroethane	5	1 J	1 J	10 U	1 J	1 J	3 J	8 J	100 U	250 U	10 U
1,2-Dichloroethane (total)	10 (11)	11	5 J	19	1 J	1 J	14	22	100 U	18 J	10 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
2-Butanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	2 J	4 J	100 U	250 U	10 U
Bromodichloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Dibromochloromethane	130	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
1,1,2-Trichloroethane	50*	10 U	10 U	34	3 J	3 J	16	3 J	100 U	170 J	10 U
Benzene	0.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Bromodorm	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Tetrachloroethene	5	10 U	10 U	2 J	10 U	10 U	10 U	10 U	100 U	250 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	2 J	10 U	10 U	15	1 J	1,700	4,100	10 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
Xylene (total)	15 (11)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	250 U	10 U
TICs (Total)	N/A	ND	12 J	ND	7 J	15 J	15 J	465 J	ND	260 J	ND

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was detected in method blank
J - Compound was detected below method detection limits
VOCs were analyzed by NYSEDEC Method ASP 91-1

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-6
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID CAVOC	NYS GROUNDWATER STANDARD	MW-23D MW23D1	MW-31S MW31S1	MW-32D MW32D1	MW-33D MW33D1	MW-35D MW35D1	MW-36D MW36D1	MW-37D MW37D1	MW-38S MW38S1	MW-39S MW39S1
Date Collected	6 NYCRR 703	07/21/94	07/22/94	07/19/94	07/13/94	07/22/94	07/20/94	07/20/94	07/20/94	07/19/94
Volatile Organic Compounds (ug/L)										
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Acetone	50*	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Carbon Disulfide	N/A	10 U	2 J	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	10 (1)	3 J	10 U	10 U	10 U	2 J	100 U	10 U	10 U	10 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
2-Butanone	50*	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Bromochloromethane	50*	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Dibromochloromethane	50*	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Bromoform	50*	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
Xylene (total)	15 (1)	10 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U
TICs (Total)	N/A	12 J	ND	ND	ND	ND	ND	ND	6 J	ND

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was detected in method blank
J - Compound was detected below method detection limits
VOCs were analyzed by NYSDC Method ASP 91-1

TABLE 4-4
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-40D MW40D1 07/12/94	MW-40D MW991 DUP 07/12/94	S-661331 S661331 07/19/94	S-661333 MW2991 DUP 07/19/94	FB194012 FB 07/12/94	TB1940712 TB 07/12/94	FB2940713 FB 07/13/94	TB2940713 TB 07/13/94	FB3940714 FB 07/14/94
Volatile Organic Compounds (ug/L)										
Chloromethane	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	3 J	50 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	0.5 J
Acetone	50*	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	N/A	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	3 J	50 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	10 (1)	10 U	10 U	31	30 J	10 U	10 U	10 U	10 U	10 U
Chloroform	7	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50*	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50*	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50*	10 U	10 U	390	430	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Bromofom	50*	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	10 U	10 U	9 J	8 J	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	12 J	13 J	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	3 J	4 J	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Styrene	5	10 U	10 U	20 U	50 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	15 (1)	40 J	15 J	20 U	50 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	2782 J	2586 J	ND	ND	13 J	ND	6 J	ND	ND

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was detected in method blank
J - Compound was detected below method detection limits
VOCs were analyzed by NYSDOC Method ASP 91-1

TABLE 4-5

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	TB3940714 TB 07/14/94	FB4940715 FB 07/15/94	TB4940715 TB 07/15/94	FB5940718 FB 07/18/94	TB5940718 TB 07/18/94	FB6940719 FB 07/19/94	TB6940719 TB 07/19/94	TB7940720 TB 07/20/94	FB940721 FB 07/21/94
Volatile Organic Compounds (ug/L)										
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	1 J	3 J	1 J	10 U	10 U	10 U	10 U	10 U	1 J
Acetone	50*	10 U	10 U	12 J	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane (total)	10 (11)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	7	0.8 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	15 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was detected in method blank
J - Compound was detected below method detection limits
VOCs were analyzed by NY/DEC Method ASP 91-1

TABLE 4-4
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID Q/DOC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	TB940721 TB 07/22/94	FB940722 FB 07/22/94	TB940722 TB 07/22/94	MW-2D MW2D1 MS 07/12/94	MW-2D MW2D1 MSD 07/12/94	MW-16D MW16D1 MS 07/18/94	MW-16D MW16D1 MSD 07/18/94	MW-36D MW36D1 MS 07/20/94	MW-36D MW36D1 MSD 07/20/94
Volatile Organic Compounds (ug/L)										
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	10 U	10 U	2 J	100 U	100 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Methylene Chloride	5	0.7 J	10 U	10 U	10 U	10 U	10 U	10 U	11 J	13 J
Acetone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Carbon Disulfide	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
1,1-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
1,1-Dichloroethane (total)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
1,2-Dichloroethane (total)	10 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
2-Butanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Bromodichloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Trichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Dibromochloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Benzene	0.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Bromoforn	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
4-Methyl-2-pentanone	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
2-Heptanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Tetrachloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Chlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
Xylene (total)	15 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U
TICs (Total)	N/A	ND	ND	ND	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1 - Standard for each isomer is 5 ppb

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was detected in method blank
J - Compound was detected below method detection limits
VOCs were analyzed by NYSDEC Method ASP 91-1

TABLE 4-6

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QAVOC	MW-1D MW1D1	MW-2S MW2S1	MW-2D MW2D1	MW-3S MW3S1	MW-3D MW3D1	MW-6S MW6S1	MW-6D MW6D1	MW-7S MW7S1	MW-7D MW7D1
Date Collected	07/12/94	07/12/94	07/12/94	07/14/94	07/13/94	07/19/94	07/19/94	07/14/94	07/14/94
Tentatively Identified Compounds (TICs) (Concentration in ug/l)									
Total Unknown	ND	24JN	ND	ND	21JN	ND	ND	ND	ND
Total Unknown Alkane	ND	36JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown Cycloalkane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	17JN	ND	1320J	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	67JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown Siloxane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclotrisiloxane, octamethyl	ND	ND	8JN	ND	ND	ND	ND	ND	ND
Total Unknown Indene	ND	37JN	ND	ND	ND	ND	ND	ND	ND
Ethane, Chlorotrifluoro	ND	ND	ND	810JN	ND	ND	ND	ND	ND
Cyclohexane	ND	ND	ND	130JN	ND	ND	ND	ND	ND
Pentane, 2-methyl	ND	ND	ND	120JN	ND	ND	ND	ND	ND
Cyclopentane, methyl	ND	ND	ND	110JN	ND	ND	ND	ND	ND
Benzene, 1-bromo-2-ethyl	ND	ND	ND	ND	19JN	ND	ND	ND	ND
Benzene, 1,2,3-trichloro	ND	ND	ND	ND	11JN	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	7JN	ND	ND	ND	ND

Well ID Sample ID QAVOC	MW-8S MW8S1	MW-8D MW8D1	MW-9S MW9S1	MW-9D MW9D1	MW-9D MW9D1	MW-10S MW10S1	MW-10D MW10D1	MW-11S MW11S1	MW-11D MW11D1
Date Collected	07/14/94	07/14/94	07/14/94	07/14/94	DUP	07/15/94	07/15/94	07/15/94	07/15/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	ND	118JN	ND	ND	65JN	130JN	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	ND	ND	ND	15JN
Total Unknown Cycloalkane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	ND	ND	99JN	ND	ND	6JN
Total Unknown C4 Alkylbenzene	ND	ND	35JN	ND	ND	573JN	ND	ND	ND
Total Unknown Siloxane	ND	ND	ND	6JN	6JN	ND	ND	ND	ND
Ethane, Chlorotrifluoro	ND	ND	ND	ND	ND	87JN	ND	ND	ND
Cyclohexane	ND	ND	ND	ND	ND	78JN	ND	ND	ND
Cyclopentane, methyl	ND	ND	ND	ND	ND	270JN	ND	ND	ND
Ethane, 1,2-dichloro-1,1,2-trifluoro	ND	ND	ND	ND	ND	ND	ND	ND	6JN
Benzene, butyl	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND - Not Detected
J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.
N - Compound was analyzed for but not requested as an analyte.

TABLE 4-8
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1984 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	MW-13S MW13S1	MW-13D MW13D1	MW-14S MW14S1	MW-14D MW14D1	MW-15S MW15S1	MW-15D MW15D1	MW-16S MW16S1	MW-16D MW16D1	MW-17S MW17S1
Date Collected	07/18/94	07/18/94	07/15/94	07/15/94	07/18/94	07/18/94	07/18/94	07/18/94	07/18/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	22JN	34JN	10JN	7JN	ND	67JN	ND	12JN	ND
Total Unknown Alkane	19JN	130JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown Cycloalkane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	ND	5JN	ND	ND	ND	ND	ND	ND
Total Unknown Silane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane, octamethyl	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Indene	73JN	25JN	30JN	ND	ND	ND	ND	ND	ND
Ethane, Chlorotrifluoro	140JN	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	130JN	ND	ND	ND	ND	ND	ND	ND	ND
Pentane, 2-methyl	190JN	ND	ND	ND	ND	ND	ND	ND	ND
Pentane, 3-methyl	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclopentane, methyl	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene, 1-bromo-2-ethyl	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene, 1,2,3-trichloro	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10JN	9JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown Branched Cycloalkane	27JN	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane, methyl	ND	18JN	ND	ND	ND	ND	ND	ND	ND
Butane, 2,3-dimethyl	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND - Not Detected
J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.
N - Compound was analyzed for but not requested as an analyte.

TABLE 4-4

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QACOC Date Collected	MW-17D MW17D1 07/19/94	MW-18S MW18S1 07/22/94	MW-18D MW18D1 07/22/94	MW-19S MW19S1 07/19/94	MW-19D MW19D1 07/19/94	MW-21S MW21S1 07/19/94	MW-23D MW23D1 07/22/94	MW-31S MW31S1 07/22/94	MW-32D MW32D1 07/19/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	7J	ND	ND	ND	ND	ND	12JN	ND	ND
Total Unknown Alkane	ND	ND	125JN	ND	ND	ND	ND	ND	ND
Ethane, Chlorotrifluoro	ND	13JN	60JN	ND	120JN	ND	ND	ND	ND
Cyclohexane	ND	ND	110JN	ND	ND	ND	ND	ND	ND
Cyclopentane, methyl	ND	ND	92JN	ND	140JN	ND	ND	ND	ND
Ethane, 1,2-dichloro-1,	ND	ND	21JN	ND	ND	ND	ND	ND	ND
Ethane, 1,1,2-Trichloro	ND	ND	34JN	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	16JN	ND	ND	ND	ND	ND	ND

Well ID Sample ID QACOC Date Collected	MW-33D MW33D1 07/13/94	MW-35D MW35D1 07/22/94	MW-36D MW36D1 07/20/94	MW-37D MW37D1 07/20/94	MW-38S MW38S1 07/20/94	MW-39S MW391 07/18/94	MW-40D MW40D1 07/12/94	MW-40D MW991 DUP 07/12/94	S-66133 S661331 07/19/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	ND	ND	ND	6JN	ND	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	ND	503JN	69JN	ND
Total Unknown Cycloalkane	ND	ND	ND	ND	ND	ND	759JN	670JN	ND
Ethane, Chlorotrifluoro	ND	ND	ND	ND	ND	ND	230JN	200JN	ND
Cyclohexane	ND	ND	ND	ND	ND	ND	670JN	667JN	ND
Pentane, 2-methyl	ND	ND	ND	ND	ND	ND	ND	230JN	ND
Pentane, 3-methyl	ND	ND	ND	ND	ND	ND	ND	170JN	ND
Ethane, 1,1,2-Trichloro	ND	ND	ND	ND	ND	ND	490JN	460JN	ND
Hexane	ND	ND	ND	ND	ND	ND	130JN	120JN	ND

ND - Not Detected
J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.
N - Compound was analyzed for but not requested as an analyte.

TABLE 4-5
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	S-66133 MW2991 DUP 07/19/94	FB194012 FB 07/12/94	TB19400712 TB 07/12/94	FB2940713 FB 07/13/94	TB2940713 TB 07/13/94	FB3940714 FB 07/14/94	TB3940714 TB 07/14/94	FB4940715 FB 07/15/94	TB4940715 TB 07/15/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	13JN	ND	6J	ND	ND	ND	ND	ND

Well ID Sample ID QA/QC Date Collected	FB5940718 FB 07/18/94	TB5940718 TB 07/18/94	FB6940719 FB 07/19/94	TB6940719 TB 07/19/94	FB7940720 TB 07/20/94	FB940721 FB 07/21/94	TB940721 TB 07/21/94	FB940722 FB 07/22/94	TB940722 TB 07/22/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND - Not Detected
J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero
N - Compound was analyzed for but not requested as an analyte.

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Analytical Method Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-1D MW-1D2	MW-2S MW-2S2	MW-2D MW-2D2	MW-3S MW-3S2	MW-3D MW-3D2	MW-6S MW-6S2	MW-6D MW-6D2	MW-7S MW-7S2
		524.2 9/19/94	524.2 9/23/94	524.2 9/24/94	91-1 9/19/94	91-1 9/19/94	524.2 9/22/94	524.2 9/22/94	524.2 9/21/94
Volatile Organic Compounds (ug/L)									
Chloromethane	5	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	15 J	10 U	1 U	0.9 J	1 U
Chloroethane	5	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
Methylene Chloride	5	2 U	2 U	2 U	100 U	10 U	2 U	2 U	2 U
Acetone	50*	5 R	5 R	5 R	100 U	10 U	5 R	5 R	5 R
Carbon Disulfide	N/A	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
1,1-Dichloroethane	5	2 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
1,1-Dichloroethane (total)	10 (1)	2 U	0.3 J	1 U	1 J	10 U	1 U	2 U	1 U
Chloroform	7	1 U	2 U	1 U	50 J	10 U	1 U	3 U	0.5 J
1,2-Dichloroethane	5	1 U	1 U	1 U	100 U	10 U	2 U	2 U	2 U
2-Butanone	50*	5 R	5 R	5 R	100 U	10 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5	1 U	1 U	1 U	100 U	10 U	5 R	5 R	5 R
Carbon Tetrachloride	5	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
1,2-Dichloropropane	5	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	5	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
Dibromochloromethane	50*	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
Benzene	0.7	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	5	1 U	1 U	1 U	25 J	10 U	1 U	1 U	1 U
Bromoforn	50*	5 U	5 U	5 U	100 U	10 U	1 U	1 U	1 U
4-Methyl-2-pentanone	N/A	5 U	5 U	5 U	100 U	10 U	5 U	5 U	5 U
2-Hexanone	50*	5 U	5 R	5 R	100 U	10 U	5 R	5 R	5 R
Tetrachloroethene	5	0.3 J	1 U	0.5 J	100 U	10 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
Toluene	5	1 U	0.3 J	1 U	450	10 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	300	10 U	1 U	1 U	1 U
Ethylbenzene	5	1 U	1 U	1 U	1200	10 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	100 U	10 U	1 U	1 U	1 U
Xylene (total)	15 (1)	2 U	2 U	2 U	3900	10 U	2 U	2 U	2 U
Vinyl Acetate	N/A	5 R	1 R	1 R	NA	NA	1 R	1 R	1 R
TICs (Total)	N/A	ND	78 J	ND	3086 J/N	ND	ND	ND	ND

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
CB - Container Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds
1-Standard for each isomer is 5 ppb.
• - NYSEEC Guidance Value
NA - Not analyzed in Method 91-1
ND - None detected
N/A - Not applicable

Laboratory Qualifiers:
U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in blank sample
X - Matrix spike compound
N - Compound was not a requested analyte
R - Rejected

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Analytical Method Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-7D MW7D2	MW-8S MW8S2	MW-8D MW8D2	MW-9S MW9S2	MW-9D MW9D2	MW-10S MW10S2	MW-10D MW-10D2	MW-11S MW11S2
		524.2 9/21/94	91-1 9/19/94	524.2 9/19/94	91-1 9/20/94	524.2 9/20/94	91-1 9/20/94	91-1 9/20/94	91-1 9/20/94
Volatile Organic Compounds (ug/L)									
Chloromethane	5	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
Bromomethane	5	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
Vinyl Chloride	2	1 U	10 U	1 U	7 J	1 U	6 J	10 U	10 U
Chloroethane	5	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
Methylene Chloride	5	2 U	10 U	2 U	10 U	2 U	10 U	10 U	10 U
Acetone	50*	5 R	10 U	5 R	10 U	5 R	10 U	4 J	10 U
Carbon Disulfide	N/A	1 U	10 U	5 U	5 J	5 U	10 U	10 U	10 U
1,1-Dichloroethane	5	0.7 J	10 U	1 U	10 U	0.5 J	2 J	10 U	10 U
1,1-Dichloroethane (total)	5	1 U	10 U	0.2 J	10 U	0.6 J	10 U	11	10 U
Chloroform	10 (1)	3	10 U	2 U	18	2 U	49	1 J	10 U
1,2-Dichloroethane	7	2 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
2-Butanone	5	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
1,1,1-Trichloroethane	50*	1 U	10 U	5 R	10 U	5 R	10 U	10 U	10 U
Carbon Tetrachloride	5	2	10 U	1 U	10 U	2	10 U	5 J	7 J
Bromodichloromethane	5	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
1,2-Dichloropropane	50*	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
Trichloroethene	5	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
Dibromochloromethane	5	4	7 J	0.3 J	17	4	9 J	3 J	6 J
1,1,2-Trichloroethane	50*	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
Benzene	5	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	0.7	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
Bromoform	5	1 U	10 U	1 U	10 U	1 U	3 J	10 U	10 U
4-Methyl-2-pentanone	50*	5 U	10 U	5 U	10 U	5 U	10 U	10 U	10 U
2-Hexanone	N/A	5 U	10 U	5 U	10 U	5 U	10 U	10 U	10 U
Tetrachloroethene	50*	5 R	10 U	5 R	10 U	5 R	10 U	10 U	1 U
1,1,2,2-Tetrachloroethane	5	0.5 J	4 J	0.8 J	2 J	3	4 J	2 J	80
Toluene	5	1 U	10 U	0.2 J	10 U	1 U	10 U	10 U	10 U
Chlorobenzene	5	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
Ethylbenzene	5	0.2 J	10 U	1 U	10 U	1 U	10 U	10 U	10 U
Styrene	5	1 U	10 U	1 U	10 U	1 U	10 U	10 U	10 U
Xylene (total)	15 (1)	2 U	10 U	1 U	10 U	2 U	6 J	10 U	10 U
Vinyl Acetate	N/A	1 R	NA	0.2 J	10 U	2 U	3 J	10 U	10 U
TICs (Total)	N/A	ND	ND	ND	101 J	1 J	1311 J	NA	NA
								110 JN	ND

Notes

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
CB - Container Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds
1-Standard for each isomer is 5 ppb.
* - NYSDEC Guidance Value
NA - Not analyzed in Method 91-1
ND - None detected
N/A - Not applicable

Laboratory Qualifiers:

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Analytical Method Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-11D MW11D2	MW-13S MW13S2	MW-13D MW13D2	MW-14S MW14S2	MW-14D MW14D2	MW-15S MW15S2	MW-15D MW15D2	MW-16S MW16S2
		91-1 9/20/94	91-1 9/21/94	91-1 9/21/94	91-1 9/21/94	91-1 9/21/94	91-1 9/21/94	91-1 9/21/94	91-1 9/21/94
Volatile Organic Compounds (ug/L)									
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	10 U	10 U	10 U	10 U	3 J	10 U	2 J	10 U
Chloroethane	5	11	12	10 U	10 U	120	10 U	10 U	10 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	5	10 U	10 U	6 J	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	10 (1)	10 U	12	3 J	10 U	7 J	2 J	4 J	11
Chloroform	7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5	10 U	10 U	1 J	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	2 J	6 J	8 J	10 U	2 J	21	5 J	140
Dibromochloromethane	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.7	10 U	10 U	10 U	1 J	3 J	10 U	10 U	10 U
trans-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	10 U	110	2 J	74	10 U	10 U	10 U	0.6 J
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5	10 U	10 U	10 U	10 U	3 J	10 U	10 U	10 U
Chlorobenzene	5	10 U	10 U	3 J	10 U	2 J	10 U	10 U	10 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	36	10 U	10 U	10 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	15 (1)	10 U	10 U	10 U	10 U	0.8 J	10 U	10 U	10 U
Vinyl Acetate	N/A	NA	NA	NA	NA	NA	NA	NA	NA
TICs (total)	N/A	53 JN	280 JN	188 JN	16 JN	276 JN	ND	52 JN	ND

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
CB - Container Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds
1-Standard for each isomer is 5 ppb.
• - NYSDEC Guidance Value
NA - Not analyzed in Method 91-1
ND - None detected
N/A - Not applicable

Laboratory Qualifiers:

U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in blank sample
X - Matrix spike compound
N - Compound was not a requested analyte
R - Rejected

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Analytical Method Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-16D MW16D2 9/21/94	MW-17S MW17S2 9/20/94	MW-17D MW17D2 9/20/94	MW-18S MW18S2 9/21/94	MW-18D MW18D 9/21/94	MW-19S MW19S2 9/27/94	MW-19D MW19D2 9/27/94	MW-19D MW299D2 DUP 9/27/94
Volatile Organic Compounds (ug/L)									
Chloromethane	5	10 U	10 U	10 U	10 U	10 U	250 UJ	250 U	200 U
Bromomethane	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Vinyl Chloride	2	2 J	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Chloroethane	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Methylene Chloride	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Acetone	50*	10 U	10 U	10 U	10 U	10 U	130 J	250 U	1000 R
Carbon Disulfide	N/A	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
1,1-Dichloroethene	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
1,1-Dichloroethane	5	4 J	10 U	1 J	2 J	7 J	250 U	250 U	200 U
1,2-Dichloroethene (total)	10 (1)	2 J	6 J	1 J	14	33	250 U	250 U	200 U
Chloroform	7	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
1,2-Dichloroethane	5	1 J	10 U	10 U	10 U	10 U	250 U	28 J	270
2-Butanone	50*	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
1,1,1-Trichloroethane	5	10 U	10 U	10 U	1 J	10 U	250 UJ	250 UJ	1000 R
Carbon Tetrachloride	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Bromodichloromethane	50*	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
1,2-Dichloropropane	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
cis-1,3-Dichloropropene	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Trichloroethene	50*	4 J	12	3 J	16	3 J	250 U	130 J	150 J
Dibromochloromethane	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
1,1,2-Trichloroethane	0.7	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Benzene	5	0.6 J	10 U	2 J	10 U	2 J	250 U	250 U	200 U
trans-1,3-Dichloropropene	50*	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Bromodorm	N/A	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
4-Methyl-2-pentanone	50*	10 U	10 U	10 U	10 U	1 J	250 U	250 U	200 U
2-Hexanone	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	1000 U
Tetrachloroethene	5	10 U	3 J	10 U	14	2 J	2200	3600	5100
1,1,2,2-Tetrachloroethane	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Toluene	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Chlorobenzene	5	3 J	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Ethylbenzene	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Styrene	5	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Xylene (total)	15 (1)	10 U	10 U	10 U	10 U	10 U	250 U	250 U	200 U
Vinyl Acetate	N/A	NA	NA	NA	NA	NA	250 U	250 U	200 U
TICs (Total)	N/A	13 JN	ND	7 JN	22 JN	551 JN	ND	NA	200 R

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
CB - Container Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds
1-Standard for each isomer is 5 ppb.
* - NYSDEC Guidance Value
NA - Not analyzed in Method 91-1
ND - None detected
N/A - Not applicable

Laboratory Qualifiers:
U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in blank sample
X - Matrix spike compound
N - Compound was not a requested analyte
R - Rejected

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Analytical Method Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-21S MW21S2	MW-23D MW23D2	MW-31S MW31S2	MW-32D MW32D2	MW-32D MW-1992 DUP	MW-33D MW33D2	MW-33D MW592 DUP	MW-35D MW35D2
		91-1 9/22/94	524.2 9/23/94	524.2 9/23/94	524.2 9/22/94	524.2 9/22/94	524.2 9/19/94	524.2 9/19/94	91-1 9/23/94
Volatile Organic Compounds (ug/L)									
Chloromethane	5	10 UJ	1 U	1 U	1 U	1 U	1 U	1 U	10 UJ
Bromomethane	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Vinyl Chloride	2	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Chloroethane	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Methylene Chloride	5	1 J	2 U	2 U	2 U	2 U	2 U	2 U	10 U
Acetone	50*	10 U	5 R	5 R	5 R	5 R	5 R	5 R	10 U
Carbon Disulfide	N/A	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
1,1-Dichloroethene	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
1,1-Dichloroethane	5	10 U	0.4 J	1 U	1 U	1 U	0.3 J	1 U	10 U
1,2-Dichloroethene (total)	10 (1)	10 U	2	1 U	1 U	1 U	0.3 J	0.3 J	2 J
Chloroform	7	10 U	2 U	2 U	2 U	2 U	1 U	1 U	1 J
1,2-Dichloroethane	5	10 UJ	1 U	1 U	1 U	1 U	1 U	1 U	10 U
2-Butanone	50*	10 U	5 R	5 R	5 R	5 R	5 R	5 R	10 UJ
1,1,1-Trichloroethane	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Carbon Tetrachloride	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 UJ
Bromodichloromethane	50*	10 U	1 U	1 U	1 U	1 U	1 U	1 U	9 J
1,2-Dichloropropane	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
cis-1,3-Dichloropropene	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Trichloroethene	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Dibromochloromethane	50*	10 U	1 U	1 U	1 U	1 U	0.5 J	0.4 J	2 J
1,1,2-Trichloroethane	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Benzene	0.7	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
trans-1,3-Dichloropropene	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Bromoform	50*	10 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
4-Methyl-2-pentanone	N/A	10 UJ	5 U	5 U	5 U	5 U	5 U	5 U	10 U
2-Hexanone	50*	10 UJ	5 R	5 R	5 R	5 R	5 U	5 U	10 UJ
Tetrachloroethene	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 UJ
1,1,2,2-Tetrachloroethane	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Toluene	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Chlorobenzene	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Ethylbenzene	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Styrene	5	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Xylene (total)	15 (1)	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U
Vinyl Acetate	N/A	NA	1 R	1 R	1 R	2 U	2 U	0.1 J	10 U
TICs (Total)	N/A	ND	1 JN	ND	ND	ND	ND	ND	NA

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
CB - Container Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds
1 - Standard for each isomer is 5 ppb.
* - NYSDEC Guidance Value
NA - Not analyzed in Method 91-1
ND - None detected
N/A - Not applicable

Laboratory Qualifiers:
U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in blank sample
X - Matrix spike compound
N - Compound was not a requested analyte
R - Rejected

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Analytical Method Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-36D MW36D2 9/22/94	MW-37D MW37D2 9/22/94	MW-38S MW38S2 9/19/94	MW-39S MW39S2 9/20/94	MW-40D MW40D2 9/19/94	S-66133 S661332 9/22/94	FB919942 FB 524.2 9/19/94	TB9119942 TB 524.2 9/19/94
Volatile Organic Compounds (ug/L)									
Chloromethane	5	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
Bromomethane	5	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
Vinyl Chloride	2	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
Chloroethane	5	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
Methylene Chloride	5	18 J	2 U	2 U	10 J	10 U	4 J	2 U	0.9 J
Acetone	50*	61 J	5 R	5 R	50 U	10 U	20 U	5 R	5 R
Carbon Disulfide	N/A	100 U	1 U	5 U	50 U	10 U	20 U	5 U	5 U
1,1-Dichloroethene	5	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
1,1-Dichloroethane	5	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
1,2-Dichloroethene (total)	10 (1)	22 J	1 U	0.6 J	50 U	5 J	20 U	1 U	1 U
Chloroform	7	100 U	1 U	1 U	340	10 U	30	2 U	2 U
1,2-Dichloroethane	5	100 U	1 U	1 U	50 U	10 U	2 J	1 U	1 U
2-Butanone	50*	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
1,1,1-Trichloroethane	5	100 U	1 U	5 R	50 U	10 U	20 U	5 R	5 R
Carbon Tetrachloride	5	100 U	1 U	0.3 J	50 U	3 J	20 U	1 U	1 U
Bromodichloromethane	50*	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
1,2-Dichloropropane	5	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
cis-1,3-Dichloropropene	5	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
Trichloroethene	5	1600	1 U	1 U	50 U	10 U	20 U	1 U	1 U
Dibromochloromethane	50*	100 U	1 U	0.5 J	470	1 J	350	1 U	1 U
1,1,2-Trichloroethane	5	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
Benzene	0.7	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
trans-1,3-Dichloropropene	5	100 U	1 U	1 U	50 U	2 J	20 U	1 U	1 U
Bromoform	50*	100 U	1 U	1 U	50 U	10 U	20 U	1 U	1 U
4-Methyl-2-pentanone	N/A	100 U	5 U	5 U	50 U	10 U	20 U	5 U	5 U
2-Hexanone	50*	100 U	5 R	5 U	50 U	10 U	20 U	5 R	5 R
Tetrachloroethene	5	100 U	1 U	2	30 J	0.8 J	6 J	1 U	1 U
1,1,2,2-Tetrachloroethane	5	100 U	1 U	0.1 J	50 U	10 U	20 U	1 U	1 U
Toluene	5	100 U	1 U	1 U	50 U	2 J	20 U	1 U	1 U
Chlorobenzene	5	100 U	1 U	1 U	50 U	25	20 U	1 U	1 U
Ethylbenzene	5	100 U	1 U	1 U	50 U	11	20 U	1 U	1 U
Styrene	5	100 U	1 U	1 U	50 U	31	20 U	1 U	1 U
Xylene (total)	15 (1)	100 U	2 U	0.1 J	50 U	NA	20 U	2 U	2 U
Vinyl Acetate	N/A	NA	1 R	5 R	NA	NA	NA	5 R	5 R
TICs (Total)	N/A	ND	ND	ND	ND	3202 JN	ND	ND	ND

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
CB - Container Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds
1-Standard for each isomer is 5 ppb.
* - NYSDEC Guidance Value
NA - Not analyzed in Method 91-1
ND - None detected
N/A - Not applicable

Laboratory Qualifiers:
U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in blank sample
X - Matrix spike compound
N - Compound was not a requested analyte
R - Rejected

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID	NYS GROUNDWATER STANDARD 6 NYCRR 703	FB920942 FB 524.2 9/20/94	TB920942 TB 524.2 9/20/94	FB921942 FB 524.2 9/21/94	TB921942 TB 524.2 9/21/94	FB922942 FB 524.2 9/22/94	TB922942 TB 524.2 9/22/94	FB923942 FB 524.2 9/23/94	TB923942 TB 524.2 9/23/94
Volatile Organic Compounds (ug/L)									
Chloromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	3 U	2	2 U	2	2 U	1 J	2 U	1 J
Acetone	50*	5 R	5 R	5 R	5 R	5 R	5 R	5 R	5 R
Carbon Disulfide	N/A	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane (total)	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane (total)	10 (1)	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	2	2	1 U	1 J
1,2-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50*	5 R	5 R	5 R	5 R	5 R	5 R	5 R	5 R
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	0.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	N/A	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50*	5 R	5 R	5 R	5 R	5 R	5 R	5 R	5 R
Tetrachloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylene (total)	15 (1)	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl Acetate	N/A	1 R	1 R	1 R	1 R	1 R	1 R	1 R	1 R
TICs (Total)	N/A	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
CB - Container Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds
1-Standard for each isomer is 5 ppb.
* - NYSDEC Guidance Value
NA - Not analyzed in Method 91.1
ND - None detected
N/A - Not applicable

Laboratory Qualifiers:
U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in blank sample
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Analytical Method Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	FB927942 FB 524.2 9/27/94	TB927942 TB 524.2 9/27/94	MW-19D MW19D2 MS 91-1 9/27/94	MW-19D MW19D2 MSD 91-1 9/27/94	MW-32D MW32D2 MS 524.2 9/22/94	MW-32D MW32D2 MSD 524.2 9/22/94	MW-33D MW33D2 MS 524.2 9/19/94	MW-33D MW33D2 MSD 524.2 9/19/94	CB927942 CB 524.2 9/27/94
Volatile Organic Compounds (ug/L)										
Chloromethane	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	2	2	250 U	250 U	2 U	2 U	2 U	2 U	2 U
Acetone	50*	5 R	5 R	250 U	250 U	5 R	5 R	5 R	5 R	5 R
Carbon Disulfide	N/A	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1400 XJ	1500 XJ	4 X	4 X	4 X	4 X	4 X
1,1-Dichloroethane	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene (total)	10 (1)	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1	0.8 J	250 U	250 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichloroethane	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50*	5 R	5 R	250 UJ	250 UJ	1 R	1 R	1 R	1 R	1 R
1,1,1-Trichloroethane	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50*	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Benzene	0.7	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Bromolorm	50*	5 U	5 U	250 U	250 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	N/A	5 U	5 U	250 U	250 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50*	5 R	5 R	250 U	250 U	1 R	1 R	1 R	1 R	1 R
Tetrachloroethene	5	1 U	1 U	3200	3400	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1200 X	1200 X	4 X	4 X	4 X	4 X	4 X
Ethylbenzene	5	1 U	1 U	1300 X	1400 X	5 X	5 X	5 X	5 X	5 X
Styrene	5	1 U	1 U	250 U	250 U	1 U	1 U	1 U	1 U	1 U
Xylene (total)	15 (1)	2 U	2 U	250 U	250 U	2 U	2 U	2 U	2 U	2 U
Vinyl Acetate	N/A	1 R	1 R	NA	NA	1 R	1 R	1 R	1 R	1 R
TICs (Total)	N/A	ND	ND	NA	NA	N/A	N/A	N/A	N/A	ND

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
CB - Container Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds
1-Standard for each isomer is 5 ppb.
• - NYSEDEC Guidance Value
NA - Not analyzed in Method 91-1
ND - None detected
N/A - Not applicable

Laboratory Qualifiers:
U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in blank sample
X - Matrix spike compound
N - Compound was not a requested analyte
R - Rejected

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	MW-1D MW1D2 09/19/94	MW-2S MW2S2 09/23/94	MW-2D MW2D2 09/24/94	MW-3S MW3S2 09/19/94	MW-3D MW3D2 09/19/94	MW-6S MW6S2 9/22/94	MW-6D MW6D2 9/22/94	MW-7S MW7S2 09/21/94	MW-7D MW7D2 09/21/94	MW-8S MW8S2 09/19/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)										
Total Unknown	ND	58JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	14JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	1917JN	ND	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	5JN	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	ND	ND	ND	100JN	ND	ND	ND	ND	ND	ND
Chlorotrifluoroethane	ND	ND	ND	970JN	ND	ND	ND	ND	ND	ND
Methyl cyclopentane	ND	ND	ND	99JN	ND	ND	ND	ND	ND	ND

Well ID Sample ID QA/QC Date Collected	MW-8D MW8D2 09/19/94	MW-9S MW9S2 09/20/94	MW-9D MW9D2 09/20/94	MW-10S MW10S2 09/20/94	MW-10D MW10D2 09/20/94	MW-11S MW11S2 09/20/94	MW-11D MW11D2 09/20/94	MW-13S MW13S 09/21/94	MW-13D MW13D2 09/21/94	MW-14S MW14S2 09/21/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)										
Total Unknown	ND	ND	ND	863JN	ND	ND	ND	130JN	123JN	ND
Total Unknown Alkane	ND	ND	ND	448JN	ND	ND	ND	6JN	ND	ND
Total Unknown Alkylbenzene	ND	35JN	ND	ND	ND	ND	10JN	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	27JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	39JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C5 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Siloxane	ND	ND	1J	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	69JN	22JN	ND
2-Methyl pentane	ND	ND	ND	ND	ND	ND	ND	34JN	ND	ND
Chlorotrifluoroethane	ND	ND	ND	ND	110JN	ND	ND	41JN	18JN	16JN
Propane, 2-methoxy-2-methyl	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indane	ND	ND	ND	ND	ND	ND	29JN	ND	ND	ND
Benzene, 1-methylethyl	ND	ND	ND	ND	ND	ND	14JN	ND	ND	ND
Butane, 2,3-dimethyl	ND	ND	ND	ND	ND	ND	ND	ND	20JN	ND
Ethane, 1,1,2-trichloro-1,2,2-tri	ND	ND	ND	ND	ND	ND	ND	ND	5JN	ND

ND - Not Detected
J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.
N - compound was analyzed for but not requested as an analyte.

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID CA/QC	MW-14D MW14D2	MW-15S MW15S2	MW-15D MW15D2	MW-16S MW16S2	MW-16D MW16D2	MW-17S MW17S2	MW-17D MW17D2	MW-18S MW18S2	MW-18D MW18D2	MW-19S MW19S2
Date Collected	09/21/94	09/21/94	09/21/94	09/21/94	09/21/94	09/20/94	09/20/94	09/21/94	09/21/94	09/27/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)										
Total Unknown	35JN	ND	ND	ND	ND	ND	ND	ND	172JN	ND
Total Unknown Alkane	11JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	59JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	21JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	26JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	150JN	ND
Propylbenzene	78JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methyl pentane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorotrifluoroethane	28JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propane, 2-methoxy-2-methyl	ND	ND	52JN	ND	13JN	ND	7JN	22JN	74JN	ND
Butane, 2,3-dimethyl	ND	ND	ND	ND	ND	ND	ND	ND	95JN	ND
Ethane, 1,1,2-trichloro-1,2,2-tri	ND	ND	ND	ND	ND	ND	ND	ND	15JN	ND
Hexane, 3-methyl	18JN	ND	ND	ND	ND	ND	ND	ND	45JN	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - compound was analyzed for but not requested as an analyte.

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7

GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID	MW-19D	MW-19D	MW-21S	MW-23D	MW-31S	MW-32D	MW-33D	MW-35D	MW-36D
Sample ID	MW19D2	MW299D2	MW21S2	MW23D2	MW31S2	MW32D2	MW33D2	MW35D2	MW36D2
QA/QC	DUP	DUP				DUP			
Date Collected	09/27/94	09/27/94	09/22/94	09/23/94	09/23/94	09/22/94	09/19/94	09/23/94	09/22/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	360JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethane, 1,1,2-trichloro-1,2,2-tri	ND	ND	ND	1JN	ND	ND	ND	ND	ND
Well ID	MW-37D	MW-38S	MW-39S	MW-40D	S-66133				
Sample ID	MW37D2	MW38S2	MW39S2	MW40D2	S661332				
QA/QC									
Date Collected	09/22/94	09/19/94	09/20/94	09/19/94	09/22/94	09/19/94	09/20/94	09/20/94	09/21/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	120JN	ND	ND	ND	ND	ND
Total Unknown Branched Alkane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Cycloalkane	ND	ND	ND	840JN	ND	ND	ND	ND	ND
Hexane	ND	ND	ND	340JN	ND	ND	ND	ND	ND
Cyclohexane	ND	ND	ND	770JN	ND	ND	ND	ND	ND
2-Methyl pentane	ND	ND	ND	370JN	ND	ND	ND	ND	ND
3-Methyl pentane	ND	ND	ND	300JN	ND	ND	ND	ND	ND
Octamethyl, cyclooctasiloxane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorotrifluoroethane	ND	ND	ND	110JN	ND	ND	ND	ND	ND
Ethane, 1,1,2-trichloro-1,2,2-tri	ND	ND	ND	180JN	ND	ND	ND	ND	ND
Hexane, 3-methyl	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trifluoroethane	ND	ND	ND	92JN	ND	ND	ND	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - compound was analyzed for but not requested as an analyte.

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-7
GROUNDWATER ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID	Sample ID	QA/QC	Date Collected	TB921942 TB	FB922942 FB	TB922942 TB	FB922942 FB	TB923942 TB	FB923942 FB	TB927942 TB	FB927942 FB	TB927942 TB	FB927942 FB	CB927942 CB	09/27/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)															
Total Unknown	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND - Not Detected
J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.
N - compound was analyzed for but not requested as an analyte.

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-1D MW1D1	MW-2S MW2S1	MW-2D MW2D1	MW-3S MW3S1	MW-3D MW3D1	MW-6S MW6S1	MW-6D MW6D1	MW-7S MW7S1
Date Collected	6 NYCRR 703	07/12/94	07/12/94	07/12/94	07/13/94	07/13/94	07/19/94	07/19/94	07/14/94
Semi-Volatile Compounds (ug/L)									
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
bis(2-Chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
2-Chlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	2 J	1 J	10 U	10 U	11 U
1,4-Dichlorobenzene	4.7 (2)	10 U	10 U	10 U	12	10 U	10 U	0.8 J	11 U
1,2-Dichlorobenzene	4.7 (2)	10 U	10 U	10 U	8 J	10 U	10 U	3 J	11 U
2-Methylphenol	1 (1)	10 U	10 U	10 U	2 J	10 U	10 U	10 U	11 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
4-Methylphenol	1 (1)	10 U	10 U	10 U	2 J	10 U	10 U	10 U	11 U
N-Nitroso-di-n-propylamine	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
Isophorone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
2-Nitrophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
2,4-Dimethylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
2,4-Dichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
Naphthalene	10*	10 U	10 U	10 U	74	10 U	10 U	10 U	11 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
4-Chloro-3-methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
2-Methylnaphthalene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	24	10 U	10 U	10 U	11 U
2,4,6-Trichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
2,4,5-Trichlorophenol	1 (1)	26 U	25 U	25 U	10 U	10 U	10 U	25 U	28 U
2-Chloronaphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
2-Nitroaniline	5	26 U	25 U	25 U	25 U	25 U	25 U	25 U	28 U
Dimethylphthalate	50*	10 U	10 U	10 U	25 U	25 U	25 U	25 U	11 U
Acenaphthylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
3-Nitroaniline	5	26 U	25 U	25 U	25 U	25 U	25 U	25 U	8 J
									28 U

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not Applicable
NS - Not specified
* - Guidance value
1 - Standard applies to the sum of all phenolic compounds
2 - Standard applies to the sum of both isomers

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was found in method blank
J - Compound was detected below method detection limits

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	GROUNDWATER STANDARD 6 NYCRR 703	NYS	MW-10 MW1D1	MW-2S MW2S1	MW-2D MW2D1	MW-3S MW3S1	MW-3D MW3D1	MW-6S MW6S1	MW-6D MW6D1	MW-7S MW7S1
Date Collected			07/12/94	07/12/94	07/12/94	07/13/94	07/13/94	07/19/94	07/19/94	07/14/94
Semi-Volatile Compounds (ug/L)										
Acenaphthene	20*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1 (1)	26 U	26 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol	1 (1)	26 U	26 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dibenzofuran	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	1 (1)	26 U	26 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (1)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1 (1)	26 U	26 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzophenanthrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	4 J	128 J	9 J	730 J	76 J	ND	ND	ND	16 J

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was found in method blank
J - Compound was detected below method detection limits

1 - Standard applies to the sum of all phenolic compounds
2 - Standard applies to the sum of both isomers

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8
GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-7D MW7D1	MW-8S MW8S1	MW-8D MW8D1	MW-9S MW9S1	MW-9D MW9D1	MW-9D MW1991 DUP	MW-10S MW10S1	MW-10D MW10D1
Date Collected		07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/15/94	07/15/94
Semi-Volatile Compounds (ug/L)									
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dimethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not Applicable
NS - Not specified
* - Guidance value
1 - Standard applies to the sum of all phenolic compounds
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Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-7D MW7D1	MW-8S MW8S1	MW-8D MW8D1	MW-9S MW9S1	MW-9D MW9D1	MW-10S MW10S1	MW-10D MW10D1
Date Collected	6 NYCRR 703	07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/15/94	07/15/94
Semi-Volatile Compounds (ug/L)								
Acenaphthene	20*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine (1)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	35 J	7 J	8 J	69 J	ND	359 J	3 J

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

ND - None Detected

N/A - Not Applicable

NS - Not Specified

* - Guidance value

1 - Standard applies to the sum of all phenolic compounds

2 - Standard applies to the sum of both isomers

Laboratory / Data Validation Qualifiers:

U - Compound was analyzed for but not detected

B - Compound was found in method blank

J - Compound was detected below method detection limits

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QAOOC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-11S MW11S1 07/15/94	MW-11D MW11D1 07/15/94	MW-13S MW13S1 07/18/94	MW-13D MW13D1 07/18/94	MW-14S MW14S1 07/15/94	MW-14D MW14D1 07/15/94	MW-15S MW15S1 07/18/94	MW-15D MW15D1 07/18/94
Semi-Volatile Compounds (ug/L)									
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (2)	10 U	10 U	10 U	0.5 J	0.9 J	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not Applicable
NS - Not specified
* - Guidance value
1 - Standard applies to the sum of all phenolic compounds
2 - Standard applies to the sum of both isomers

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was found in method blank
J - Compound was detected below method detection limits

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID CAVOC	NYS GROUNDWATER STANDARD	MW-11S MW11S1	MW-11D MW11D1	MW-13S MW13S1	MW-13D MW13D1	MW-14S MW14S1	MW-14D MW14D1	MW-15S MW15S1	MW-15D MW15D1
Date Collected	6 NYCRR 703	07/15/94	07/15/94	07/18/94	07/18/94	07/18/94	07/18/94	07/18/94	07/18/94
Semi-Volatile Compounds (ug/L)									
Acenaphthene	20*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dibenzofuran	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (1)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	3 J	16 J	48 J	2 J	4 J	2 J	6 J	5 J

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

ND - None Detected

N/A - Not Applicable

NS - Not Specified

* - Guidance value

1 - Standard applies to the sum of all phenolic compounds

2 - Standard applies to the sum of both isomers

Laboratory / Data Validation Qualifiers:

U - Compound was analyzed for but not detected

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QAO	GROUNDWATER STANDARD 6 NYCRR 703	NYS	MW-16S MW16S1	MW-16D MW16D1	MW-17S MW17S1	MW-17D MW17D1	MW-18S MW18S1	MW-18D MW18D1	MW-19S MW19S1	MW-19D MW19D1	MW-21S MW21S1
Date Collected			07/18/94	07/18/94	07/18/94	07/18/94	07/21/94	07/21/94	07/19/94	07/19/94	07/19/94
Semi-Volatile Compounds (ug/L)											
Phenol	1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	1	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (2)	4.7 (2)	10 U	10 U	10 U	0.6 J	10 U	10 U	10 U	2 J	10 U
1,2-Dichlorobenzene	4.7 (2)	4.7 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1 (1)	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (1)	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50*	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (1)	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (1)	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10*	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dimethylphthalate	50*	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not Applicable
NS - Not Specified
* - Guidance value
1 - Standard applies to the sum of all phenolic compounds
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Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-16S MW16S1 07/18/94	MW-16D MW16D1 07/18/94	MW-17S MW17S1 07/18/94	MW-17D MW17D1 07/18/94	MW-18S-1 MW18S1 07/21/94	MW-18D-1 MW18D1 07/21/94	MW-19S MW19S1 07/19/94	MW-19D MW19D1 07/19/94	MW-21S MW21S1 07/19/94
Semi-Volatile Compounds (ug/L)										
Acenaphthene	20*	10 U	10 U	10 U	0.8 J	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1 (1)	25 U	25 U	25 U	25 U	25 UJ	25 UJ	25 UJ	25 U	25 UJ
4-Nitrophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 UJ
Dibenzofuran	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 U	10 U	10 U	0.6 J	10 U	10 U	10 U	0.6 J	10 U
4-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	0.3 J	10 U
4,6-Dinitro-2-methylphenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (1)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	10 U	10 U
Phenanthrene	50*	10 U	10 U	10 U	10 U	0.6 J	10 U	10 U	10 U	25 U
Anthracene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	N/A	10 U	10 U	10 U	10 U	0.3 J	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	10 U	0.5 J	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	0.4 J	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002*	10 U	10 U	10 U	10 U	0.4 J	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	10 U	10 U	10 U	10 U	0.4 J	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	7 J	6 J	12 J	ND	9 J	ND	ND	15 J	2 J

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not Applicable
NS - Not specified
* - Guidance value
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Laboratory / Data Validation Qualifiers:
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-23D MW23D1	MW-31S MW31S1	MW-32D MW32D1	MW-33D MW33D1	MW-35D MW35D1	MW-36D MW36D1	MW-37D MW37D1	MW-38S MW38D1	MW-39S MW39S1
Date Collected	6 NYCRR 703	07/21/94	07/22/94	07/19/94	07/13/94	07/22/94	07/20/94	07/20/94	07/20/94	07/18/94
Semi-Volatile Compounds (ug/L)										
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10*	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Nitroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethylphthalate	50*	10 U	10 U	10 U	0.4 J	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U

Notes:
ug/L - Micrograms per liter
FB - Field Blank
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MS - Matrix Spike
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B - Compound was found in method blank
J - Compound was detected below method detection limits

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QAVOC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-23D-1 MW23D1 07/21/94	MW-31S MW31S1 07/22/94	MW-32D MW32D1 07/19/94	MW-33D MW33D1 07/13/94	MW-35D MW35D1 07/22/94	MW-36D MW36D1 07/20/94	MW-37D MW37D1 07/20/94	MW-38S MW38D1 07/20/94	MW-39S MW39S1 07/19/94
Semi-Volatile Compounds (ug/L)										
Acenaphthene	20*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1(1)	25 UJ	25 UJ	25 UJ	25 U	25 UJ	25 UJ	25 UJ	25 UJ	26 U
4-Nitrophenol	1(1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	26 U
Dibenzofuran	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1(1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	1(1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	26 U
N-Nitrosodiphenylamine (1)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1(1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1(1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	26 U
Phenanthrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	0.6 J	0.3 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.6 J
Benzo(a)anthracene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	10 U	10 U	22 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11 U
Benzo(b)fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	ND	6 J	ND	2 J	3 J	ND	ND	31 J	50 J

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not Applicable
NS - Not specified
* - Guidance value
1 - Standard applies to the sum of all phenolic compounds
2 - Standard applies to the sum of both isomers

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was found in method blank
J - Compound was detected below method detection limits

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-40D MW40D1 07/12/94	MW-40D MW591 DUP 07/12/94	S-66133 S661331 07/19/94	S-66133 MW2991 DUP 07/19/94	FB5940718 FB 07/18/94	FB6940719 FB 07/19/94	FB940721 FB 07/21/94	FB1940712 FB 07/12/94	FB2940713 FB 07/13/94
Semi-Volatile Compounds (ug/L)										
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7 (2)	3 J	3 J	1 J	1 J	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	4 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	11	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	8 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	26 U	25 U	25 U	25 U
2-Chloronaphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	26 U	25 U	25 U	25 U
Dimethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	26 U	25 U	25 U	25 U

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None Detected
N/A - Not Applicable
NS - Not specified
* - Guidance value
1 - Standard applies to the sum of all phenolic compounds
2 - Standard applies to the sum of both isomers

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was found in method blank
J - Compound was detected below method detection limits

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	FB3940714 FB 07/14/94	FB4940715 FB 07/15/94	FB940722 FB 07/22/94	MW-36D MW36D1 MS 07/20/94	MW-2D MW2D1 MS 07/12/94	MW-16D MW16D1 MS 07/18/94	MW-16D MW16D1 MSD 07/18/94
Semi-Volatile Compounds (ug/L)								
Phenol	1	11 U	10 U	10 U	66	57	70	89
bis(2-Chloroethyl)ether	1	11 U	10 U	25 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	11 U	10 U	25 U	64	60	71	64
1,3-Dichlorobenzene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (2)	11 U	10 U	10 U	38	33	40	38
1,2-Dichlorobenzene	4.7 (2)	11 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1 (1)	11 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (1)	11 U	10 U	25 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	11 U	10 U	25 U	39	37	44	39
Hexachloroethane	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (1)	11 U	10 U	25 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (1)	11 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	11 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	11 U	10 U	10 U	42	35	42	40
4-Chloroaniline	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	11 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	11 U	10 U	10 U	62	60	64	62
Hexachlorocyclopentadiene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	11 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	28 U	25 U	10 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10*	11 U	10 U	10 U	25 U	25 U	25 U	25 U
2-Nitroaniline	5	28 U	25 U	10 U	10 U	10 U	10 U	10 U
Dimethylphthalate	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	11 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	28 U	25 U	10 U	25 U	25 U	25 U	25 U

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

ND - None Detected

N/A - Not Applicable

NS - Not specified

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QAOCC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	FB3940714 FB 07/14/94	FB4940715 FB 07/15/94	FB940722 FB 07/22/94	MW-36D MW36D1 MS 07/20/94	MW-36D MW36D1 MSD 07/20/94	MW-2D MW2D1 MS 07/12/94	MW-2D MW2D1 MSD 07/12/94	MW-16D MW16D1 MS 07/18/94	MW-16D MW16D1 MSD 07/18/94
Semi-Volatile Compounds (ug/L)										
Acenaphthene	20*	11 U	10 U	10 U	44	42	41	47	46	43
2,4-Dinitrophenol	1 (1)	28 U	25 U	25 U	25 UJ	25 UJ	25 U	25 U	25 U	25 U
4-Nitrophenol	1 (1)	28 U	25 U	25 U	74	75	70	74	74	72
Dibenzoturan	N/A	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	11 U	10 U	10 U	44	43	46	48	43	41
Diethylphthalate	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1 (1)	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	11 U	10 U	10 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1 (1)	28 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (1)	50*	11 U	10 U	10 U	0.9 J	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1 (1)	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1 (1)	28 U	25 U	25 U	88	83	94	100	91	88
Phenanthrene	50*	11 U	10 U	10 U	10 U	10 U	0.2 J	10 U	10 U	10 U
Anthracene	50*	11 U	10 U	10 U	10 U	10 U	0.3 J	10 U	10 U	10 U
Carbazole	N/A	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	11 U	10 U	10 U	10 U	10 U	0.6 J	10 U	10 U	10 U
Pyrene	50*	11 U	10 U	10 U	35	37	39	43	39	38
Butylbenzylphthalate	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	N/A	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	N/A	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	3 J	ND	ND	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

Laboratory / Data Validation Qualifiers:
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B - Compound was found in method blank
J - Compound was detected below method detection limits

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N/A - Not Applicable
NS - Not Specified
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8
GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	MW-1D MW1D1 07/12/94	MW-2S MW2S1 07/12/94	MW-2D MW2D1 07/12/94	MW-3S MW3S1 07/13/94	MW-3D MW3D1 07/13/94	MW-6S MW6S1 07/19/94	MW-8D MW8D1 07/19/94	MW-7S MW7S1 07/14/94	MW-7D MW7D1 07/14/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	4JN	5JN	3JN	203JN	35JN	ND	ND	10JN	22JN
Total Unknown Acid	ND	ND	ND	ND	16JN	ND	ND	3JN	3JN
Total Unknown Alcohol	ND	ND	3JN	ND	ND	ND	ND	ND	4JN
Total Unknown Alkane	ND	4JN	ND	ND	ND	ND	ND	3JN	6JN
2-Cyclohexen-1-one	ND	ND	3JN	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	3JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	357JN	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	16JN	ND	54JN	ND	ND	ND	ND	ND
Total Unknown C5 Alkylbenzene	ND	21JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown Indene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Isomer of Naphthalene	ND	11JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown Aldehyde	ND	4JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown Isomer of 1H-Indene, 2,3-	ND	17JN	ND	ND	ND	ND	ND	ND	ND
Indane	ND	6JN	ND	ND	ND	ND	ND	ND	ND
Indan, 1-methyl	ND	12JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown PAH	ND	6JN	ND	ND	ND	ND	ND	ND	ND
Benzene, propyl	ND	ND	ND	82JN	ND	ND	ND	ND	ND
Benzoic acid, 2,4-dimethyl	ND	ND	ND	16JN	ND	ND	ND	ND	ND
Phosphoric acid, t-butyl	ND	ND	ND	84JN	ND	ND	ND	ND	ND
Benzene, 1-bromo-2-ethyl	ND	ND	ND	ND	14JN	ND	ND	ND	ND
Unknown Isomer of 1,1'-biphenyl, dichloro	ND	ND	ND	ND	11JN	ND	ND	ND	ND

ND - Not Detected
J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.
N - Compound was analyzed for but not requested as an analyte.

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-3

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	MW-8S MW8S1	MW-8D MW8D1	MW-9S MW9S1	MW-9D MW9D1	MW-9D MW1991	MW-10S MW10S1	MW-10D MW10D1	MW-11S MW11S1	MW-11D MW11D1
Date Collected	07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/15/94	07/15/94	07/15/94	07/15/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	7JN	8JN	3JN	ND	ND	33JN	ND	ND	ND
Total Unknown Acid	ND	ND	3JN	ND	ND	ND	ND	ND	ND
2-Cyclohexen-1-ol	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Cyclohexen-1-one	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	28JN	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	ND	ND	68JN	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	ND	19JN	ND	ND	218JN	ND	ND	ND
Total Unknown C5 Alkylbenzene	ND	ND	11JN	ND	ND	28JN	ND	ND	ND
Total Unknown Indene	ND	ND	5JN	ND	ND	ND	ND	ND	ND
Total Unknown Isomer of Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Aldehyde	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Isomer of 1H-Indene, 2,3-Indane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indan, 1-methyl	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C10H12	ND	ND	ND	ND	ND	12JN	ND	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte.

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8
GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	MW-13S MW13S1 07/18/94	MW-13D MW13D1 07/18/94	MW-14S MW14S1 07/15/94	MW-14D MW14D1 07/15/94	MW-15S MW15S1 07/18/94	MW-15D MW15D1 07/18/94	MW-16S MW16S1 07/18/94	MW-16D MW16D1 07/18/94	MW-17S MW17S1 07/18/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	26JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Acid	19JN	ND	4JN	ND	ND	ND	ND	ND	ND
Total Unknown Alcohol	3JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	ND	ND	ND	10JN
2-Cyclohexen-1-ol	ND	ND	ND	2JN	3JN	2JN	2JN	3JN	ND
2-Cyclohexen-1-one	ND	ND	ND	ND	3JN	3JN	3JN	3JN	ND
Ethanol, 2-butoxy-, phosphate	ND	2JN	ND	ND	ND	ND	ND	ND	ND
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Well ID Sample ID QA/QC Date Collected	MW-17D MW17D1 07/18/94	MW-18S MW18S1 07/21/94	MW-18D MW18D1 07/21/94	MW-19S MW19S1 07/19/94	MW-19D MW19D1 07/19/94	MW-21S MW21S1 07/19/94	MW-23D MW23D1 07/21/94	MW-31S MW31S1 07/22/94	MW-32D MW32D1 07/19/94
Total Unknown	ND	3JN	ND	ND	3JN	2JN	ND	4JN	ND
Total Unknown Alcohol	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	4JN	ND	ND	ND	ND	ND	ND	ND
2-Cyclohexen-1-ol	ND	2JN	ND	ND	ND	ND	ND	2JN	ND
2-Cyclohexen-1-one	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	5JN	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C5 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Bromo-ethyl-benzene	ND	ND	ND	ND	3JN	ND	ND	ND	ND
Total Unknown C8 Alkyl Phenol	ND	ND	ND	ND	2JN	ND	ND	ND	ND
Total Unknown Dichloro-Biphenyls	ND	ND	ND	ND	2JN	ND	ND	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero

N - Compound was analyzed for but not requested as an analyte

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-8

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	MW-33D MW33D1	MW-35D MW35D1	MW-36D MW36D1	MW-37D MW37D1	MW-38S MW38S1	MW-38S MW38S1	MW-40D MW40D1	MW-40D MW40D1 DUP	S-66133 S661331
	07/13/94	07/22/94	07/20/94	07/20/94	07/20/94	07/18/94	07/12/94	07/12/94	07/19/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	2JIN	3JIN	ND	ND	ND	22JIN	48JIN	25JIN	ND
Total Unknown Acid	ND	ND	ND	ND	ND	28JIN	ND	ND	ND
Total Unknown Alcohol	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	31JIN	ND	14JIN	ND	ND
2-Cyclohexen-1-one	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	ND	ND	ND	54JIN	23JIN	ND
Total Unknown C4 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C5 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene, propyl	ND	ND	ND	ND	ND	ND	7JIN	3JIN	ND
Unknown isomer of 1,1'-biphenyl, dichloro	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Isomer of Methylnaphthols	ND	ND	ND	ND	ND	ND	ND	4JIN	ND
Phenol, 4,4'-butylidene bis	ND	ND	ND	ND	ND	ND	ND	8JIN	ND

Well ID Sample ID QA/QC Date Collected	S-66133 MW2991 DUP	FB5940718 FB	FB6940719 FB	FB940721 FB	FB1940712 FB	FB2940713 FB	FB3940714 FB	FB4940715 FB	FB940722 FB
	07/19/94	07/18/94	07/19/94	07/21/94	07/12/94	07/13/94	07/14/94	07/15/94	07/22/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	ND	ND	2JIN	ND	2JIN	ND	ND	ND
Total Unknown Amide	ND	ND	ND	ND	ND	ND	3JIN	ND	ND
Butylated Hydroxytolu	ND	ND	ND	ND	6JIN	ND	ND	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte.

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID CAIOC	NYS GROUNDWATER STANDARD	MW-1D MW-1D2	MW-2S MW-2S2	MW-2D MW-2D2	MW-3S MW-3S2	MW-3D MW-3D2	MW-6S MW-6S2	MW-6D MW-6S2	MW-7S MW-7S2
Date Collected	6 NYCRR 703	9/19/94	9/23/94	9/24/94	9/19/94	9/19/94	9/22/94	9/22/94	9/21/94
Semi-Volatile Organic Compounds (ug/L)									
Phenol	1	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	1	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 J	2 J	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (2)	10 U	10 U	10 U	28	8 J	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7 (2)	10 U	10 U	10 U	8 J	2 J	10 U	0.8 J	10 U
2-Methylphenol	1 (1)	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (1)	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Isophorone	50*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (1)	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (1)	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	12 J	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Naphthalene	10*	10 U	10 U	10 U	20 U	2 J	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	100	12	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	20 U	4 J	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	25 U	25 U	25 U	50 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10*	10 U	10 U	10 U	20 U	25 U	25 U	25 U	25 U
2-Nitroaniline	5	25 U	25 U	25 U	50 U	25 U	25 U	25 U	25 U
Dimethylphthalate	50*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	50 U	25 U	25 U	25 U	25 U

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None detected
N/A - Not applicable
NS - Not specified
* - Guidance value

1-Standard applies to the sum of all phenolic compounds
2-Standard applies to the sum of both isomers

Laboratory Qualifiers:

U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in blank sample
X - Matrix spike compound
N - Compound was not a requested analyte

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-3

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	GROUNDWATER STANDARD 6 NYCRR 703	NYS MW-1D2	MW-2S	MW-2D	MW-3S	MW-3D	MW-6S	MW-6D	MW-7S
Date Collected	9/19/94	9/23/94	9/24/94	9/19/94	9/19/94	9/19/94	9/22/94	9/22/94	9/21/94
Semi-Volatile Organic Compounds (ug/L)									
Acenaphthene	20*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1 (1)	25 U	25 U	25 U	50 U	25 U	26 U	25 U	25 U
4-Nitrophenol	1 (1)	25 U	25 U	25 U	50 U	25 U	26 U	25 U	25 U
Dibenzofuran	N/A	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Diethylphthalate	50*	10 U	0.2 J	10 U	20 U	10 U	10 U	0.3 J	10 U
4-Chlorophenyl-phenylether	1 (1)	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	25 U	25 U	25 U	50 U	25 U	26 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1 (1)	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine (1)	50*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1 (1)	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1 (1)	25 U	25 U	25 U	50 U	25 U	26 U	25 U	25 U
Phenanthrene	50*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Anthracene	50*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Carbazole	N/A	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	20 U	10 U	0.2 J	0.5 J	10 U
Fluoranthene	50*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	50*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	N/A	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	N/A	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	5 JN	29 JN	2 JN	2015 JN	303 JN	5 JN	42 JN	24 JN

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

Laboratory Qualifiers:

U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in blank sample
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ND - None detected
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NS - Not specified
* - Guidance value

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2-Standard applies to the sum of both isomers

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-7D MW-7D2	MW-8S MW8S2	MW-8D MW8D2	MW-9S MW9S2	MW-9D MW9D2	MW-10S MW10S2	MW-10D MW-10D2	MW-11S MW11S2
Semi-Volatile Organic Compounds (ug/L)									
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (3)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7 (3)	7 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dimethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

ND - None detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1-Standard applies to the sum of all phenolic compounds

2-Standard applies to the sum of both isomers

Laboratory Qualifiers:

U - Compound analyzed for but not detected

J - Detected at an estimated value below the detection limit

B - Analyte also found in blank sample

X - Matrix spike compound

N - Compound was not a requested analyte

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID CAVOC	GROUNDWATER STANDARD 6 NYCRR 703	MW-7D MW-7D2	MW-8S MW8S2	MW-8D MW8D2	MW-9S MW9S2	MW-9D MW9D2	MW-10S MW10S2	MW-10D MW-10D2	MW-11S MW11S2
Date Collected		9/21/94	9/19/94	9/19/94	9/20/94	9/20/94	9/20/94	9/20/94	9/20/94
Semi-Volatile Organic Compounds (ug/L)									
Acenaphthene	20*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol	1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dibenzofuran	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (1)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzofuranthracene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	0.6 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzobiphenylanthracene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzokifluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzofluoranthene	ND	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	75 JN	3 JN	11 JN	54 JN	45 JN	451 JN	2 JN	5 JN

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None detected
N/A - Not applicable
NS - Not specified
* - Guidance value

1-Standard applies to the sum of all phenolic compounds
2-Standard applies to the sum of both isomers

Laboratory Qualifiers:

U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in blank sample
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N - Compound was not a requested analyte

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-11D MW11D2	9/20/94	MW-13S MW13S2	9/21/94	MW-13D MW13D2	9/21/94	MW-14S MW14S2	9/21/94	MW-14D MW14D2	9/21/94	MW-15S MW15S2	9/21/94	MW-15D MW15D2	9/21/94	MW-16S MW16S2	9/21/94
Semi-Volatile Organic Compounds (ug/L)																	
Phenol	1	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
bis(2-Chloroethyl)ether	1	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2-Chlorophenol	1 (1)	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
1,3-Dichlorobenzene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
1,4-Dichlorobenzene	4.7 (3)	10 U		10 U		10 U		0.8 J		1 J		10 U		10 U		10 U	
1,2-Dichlorobenzene	4.7 (3)	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2-Methylphenol	1 (2)	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2,2'-oxybis(1-Chloropropane)	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
4-Methylphenol	1 (2)	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
N-Nitroso-di-n-propylamine	50*	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Hexachloroethane	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Nitrobenzene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Isophorone	50*	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2-Nitrophenol	1 (2)	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2,4-Dimethylphenol	1 (2)	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
bis(2-Chloroethoxy)methane	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2,4-Dichlorophenol	1 (1)	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
1,2,4-Trichlorobenzene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Naphthalene	10*	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
4-Chloroaniline	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Hexachlorobutadiene	1 (1)	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
4-Chloro-3-methylphenol	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2-Methylnaphthalene	N/A	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Hexachlorocyclopentadiene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2,4,6-Trichlorophenol	1 (1)	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2,4,5-Trichlorophenol	1 (1)	25 U		25 U		25 U		25 U		25 U		25 U		25 U		25 U	
2-Chloronaphthalene	10*	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2-Nitroaniline	5	25 U		25 U		25 U		25 U		25 U		25 U		25 U		25 U	
Dimethylphthalate	50*	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Acenaphthylene	N/A	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2,6-Dinitrotoluene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U	
3-Nitroaniline	5	25 U		25 U		25 U		25 U		25 U		25 U		25 U		25 U	

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None detected
N/A - Not applicable
NS - Not specified
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID CA/OC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-11D MW11D2	MW-13S MW13S2	MW-13D MW13D2	MW-14S MW14S2	MW-14D MW14D2	MW-15S MW15S2	MW-15D MW15D2	MW-16S MW16S2
		9/20/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94
Semi-Volatile Organic Compounds (ug/L)									
Acenaphthene	20*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol	1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dibenzofuran	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (1)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzofuran	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzofuran	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzofuran	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzofuran	ND	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzofuran	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	36 JN	169 JN	2 JN	5 JN	126 JN	11 JN	ND	2 JN

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None detected
N/A - Not applicable
NS - Not specified
* - Guidance value
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Laboratory Qualifiers:
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-16D MW16D2	MW-17S MW17S2	MW-17D MW17D2	MW-18S MW18S2	MW-18D MW18D	MW-19S MW19S2	MW-19D MW19D2	MW-19D MW29D2 DJP
Date Collected	6 NYCRR 703	9/21/94	9/20/94	9/20/94	9/21/94	9/21/94	9/27/94	9/27/94	9/27/94
Semi-Volatile Organic Compounds (ug/L)									
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (3)	10 U	10 U	10 U	0.5 J	10 U	10 U	2 J	2 J
1,2-Dichlorobenzene	4.7 (3)	10 U	10 U	10 U	1 J	10 U	10 U	2 J	2 J
2-Methylphenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	25 U	25 U	25 U	10 U	10 U	25 U	25 U	25 U
Dimethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

Laboratory Qualifiers:
U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
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X - Matrix spike compound
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-16D MW16D2	MW-17S MW17S2	MW-17D MW17D2	MW-18S MW18S2	MW-18D MW18D	MW-19S MW19S2	MW-19D MW19D2	MW-19D MW299D2 DUP 9/27/94
Semi-Volatile Organic Compounds (ug/L)									
Acenaphthene	20*	10 U	10 U	0.6 J	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1 (2)	25 U	25 U	25 U	25 U	10 U	10 U	10 U	10 U
4-Nitrophenol	1 (2)	25 U	25 U	25 U	25 U	10 U	10 U	10 U	10 U
Dibenzofuran	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50*	0.2 J	10 U	10 U	10 U	0.2 J	10 U	0.3 J	10 U
4-Chlorophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	25 U	25 U	25 U	25 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (1)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50*	10 U	0.4 J	10 U	0.3 J	10 U	10 U	10 U	10 U
Anthracene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	0.8 J	10 U	0.5 J	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	0.8 J	10 U	0.5 J	10 U	10 U	10 U	10 U
Butylbenzylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002	10 U	0.4 J	10 U	0.3 J	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	0.6 J	10 U	0.4 J	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	0.7 J	10 U	10 U	2 J	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002*	10 U	0.4 J	10 U	0.3 J	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002*	10 U	0.2 J	10 U	0.2 J	10 U	10 U	10 U	10 U
Benzo(e)pyrene	ND	10 U	0.3 J	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	ND	58 JN	ND	18 JN	17 JN	ND	29 JN	28 JN

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

ND - None detected

N/A - Not applicable

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-21S MW21S2 9/22/94	MW-23D MW23D2 9/23/94	MW-31S MW31S2 9/23/94	MW-32D MW32D2 9/22/94	MW-32D MW-1992 DUP 9/22/94	MW-33D MW33D2 9/19/94	MW-33D MW992 DUP 9/19/94	MW-35D MW35D2 9/23/94
Semi-Volatile Organic Compounds (ug/L)									
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (3)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7 (3)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	1 (2)	10 U	10 U	10 U	10 U	10 U	2 J	2 J	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dimethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
TICs - Tentatively Identified Compounds

ND - None detected
N/A - Not applicable
NS - Not specified
* - Guidance value
1-Standard applies to the sum of all phenolic compounds
2-Standard applies to the sum of both isomers

Laboratory Qualifiers:
U - Compound analyzed for but not detected
J - Detected at an estimated value below the detection limit
B - Analyte also found in blank sample
X - Matrix spike compound
N - Compound was not a requested analyte

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-21S MW21S2 9/22/94	MW-23D MW23D2 9/23/94	MW-31S MW31S2 9/23/94	MW-32D MW32D2 9/22/94	MW-32D MW-1992 DUP 9/22/94	MW-33D MW33D2 9/19/94	MW-33D MW992 DUP 9/19/94	MW-35D MW35D2 9/23/94
Semi-Volatile Organic Compounds (ug/L)									
Acenaphthene	20*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol	1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dibenzofuran	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (1)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	ND	14 JN	5 JN	ND	ND	ND	ND	37 JN

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

ND - None detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1-Standard applies to the sum of all phenolic compounds

2-Standard applies to the sum of both isomers

Laboratory Qualifiers:

U - Compound analyzed for but not detected

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B - Analyte also found in blank sample

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-36D MW36D2 9/22/94	MW-37D MW37D2 9/22/94	MW-38S MW38S2 9/19/94	MW-39S MW39S2 9/20/94	MW-40D MW40D2 9/19/94	S-66133 S661332 9/22/94	FB919942 FB 9/19/94	FB920942 FB 9/20/94	FB921942 FB 9/21/94
Semi-Volatile Organic Compounds (ug/L)										
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (3)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	4.7 (3)	10 U	10 U	10 U	10 U	10 U	0.4 J	10 U	10 U	10 U
2-Methylphenol	1 (2)	10 U	10 U	10 U	10 U	1 J	1 J	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	10 U	10 U	10 U	10 U	2 J	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	1 J	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Chloronaphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dimethylphthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

ND - None detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1-Standard applies to the sum of all phenolic compounds

2-Standard applies to the sum of both isomers

Laboratory Qualifiers:

U - Compound analyzed for but not detected

J - Detected at an estimated value below the detection limit

B - Analyte also found in blank sample

X - Matrix spike compound

N - Compound was not a requested analyte

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	Date Collected	NYSD STANDARD 6 NYCRR 703	MW-36D MW36D2	MW-37D MW37D2	MW-38S MW38S2	MW-39S MW39S2	MW-40D MW40D2	S-66133 S661332	FB919942 FB 9/19/94	FB920942 FB 9/20/94	FB921942 FB 9/21/94
Semi-Volatile Organic Compounds (ug/L)											
Acenaphthene		20*	10 U	10 U	10 U	10 U	1 J	10 U	10 U	10 U	10 U
2,4-Dinitrophenol		1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol		1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dibenzofuran		N/A	10 U	10 U	10 U	10 U	0.7 J	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate		50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether		1 (1)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene		50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline		5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol		1 (2)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (1)		50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether		1 (2)	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene		0.35	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol		1 (1)	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene		50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene		50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole		N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate		50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene		50*	0.3 J	10 U	10 U	10 U	10 U	0.2 J	10 U	10 U	0.2 J
Pyrene		50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate		50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine		5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene		0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene		0.002	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate		50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octylphthalate		50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene		0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene		0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(e)pyrene		ND	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene		0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene		N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene		N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)		N/A	12 JN	2 JN	4 JN	10 JN	156 JN	4 JN	ND	ND	ND

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

ND - None detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1-Standard applies to the sum of all phenolic compounds

2-Standard applies to the sum of both isomers

Laboratory Qualifiers:

U - Compound analyzed for but not not detected

J - Detected at an estimated value below the detection limit

B - Analyte also found in blank sample

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eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD 6 NYCRR 703	FB922942 FB 9/22/94	FB923942 FB 9/23/94	FB927942 FB 9/27/94	MW-19D MW19D2 MS 9/27/94	MW-32D MW32D2 MS 9/22/94	MW-32D MW32D2 MSD 9/22/94	MW-33D MW33D2 MS 9/19/94	MW-33D MW33D2 MSD 9/19/94
Semi-Volatile Organic Compounds (ug/L)									
Phenol	1	11 U	10 U	10 U	88 X	94 X	110 JX	120 JX	120 JX
bis(2-Chloroethyl)ether	1	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	1 (1)	11 U	10 U	10 U	84 X	93 X	88 JX	97 JX	99 JX
1,3-Dichlorobenzene	5	11 U	10 U	10 U	2 J	2 J	10 U	10 U	10 U
1,4-Dichlorobenzene	4.7 (3)	11 U	10 U	10 U	47 X	48 X	38 X	42 X	48 X
1,2-Dichlorobenzene	4.7 (3)	11 U	10 U	10 U	2 J	2 J	10 U	10 U	10 U
2-Methylphenol	1 (2)	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	1 (2)	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	50*	11 U	10 U	10 U	34 X	36 X	38 X	42 JX	44 X
Hexachloroethane	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	1 (2)	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	1 (2)	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	1 (1)	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	11 U	10 U	10 U	38 X	40 X	39 X	42 X	49 X
4-Chloroaniline	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	1 (1)	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	N/A	11 U	10 U	10 U	63 X	70 X	65 JX	71 JX	80 X
Hexachlorocyclopentadiene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	1 (1)	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	1 (1)	28 U	25 U	25 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	28 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Dimethylphthalate	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	N/A	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	28 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

ND - None detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1-Standard applies to the sum of all phenolic compounds

2-Standard applies to the sum of both isomers

Laboratory Qualifiers:

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QAVOC	NYS GROUNDWATER STANDARD 6 NYCRR 703	FB FB922942	FB FB923942	FB FB927942	MW-19D MS 9/27/94	MW-19D MSD 9/27/94	MW-32D MS 9/22/94	MW-32D MSD 9/22/94	MW-33D MS 9/19/94	MW-33D MSD 9/19/94
Semi-Volatile Organic Compounds (ug/L)										
Acenaphthene	20*	11 U	10 U	10 U	37 X	41 X	42 X	47 X	52 X	53 X
2,4-Dinitrophenol	1 (2)	28 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol	1 (2)	28 U	25 U	25 U	89 X	89 X	80 JX	88 JX	90 JX	91 JX
Dibenzofuran	N/A	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	11 U	10 U	10 U	38 X	38 X	38 X	43 X	49 X	48 X
Diethylphthalate	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	1 (1)	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	11 U	10 U	10 U	0.3 J	0.3 J	10 U	10 U	10 U	10 U
4-Nitroaniline	5	28 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol	1 (2)	28 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodiphenylamine (1)	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	1 (2)	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.35	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1 (1)	28 U	25 U	25 U	120 X	120 X	120 JX	130 JX	140 JX	140 JX
Phenanthrene	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	N/A	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	50	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	11 U	10 U	10 U	0.3 J	0.3 JB	0.2 J	10 U	10 U	10 U
Pyrene	50*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	50*	11 U	10 U	10 U	35 X	42 X	38 X	40 X	54 X	51 X
3,3'-Dichlorobenzidine	50*	11 U	10 U	10 U	0.3 J	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	5	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	0.002	11 U	10 U	10 U	0.5 J	0.5 JB	0.3 J	0.3 J	10 U	10 U
Di-n-octylphthalate	50	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	0.002*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	N/A	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	N/A	11 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
TICs (Total)	N/A	ND	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

TICs - Tentatively Identified Compounds

ND - None detected

N/A - Not applicable

NS - Not specified

* - Guidance value

1-Standard applies to the sum of all phenolic compounds

2-Standard applies to the sum of both isomers

Laboratory Qualifiers:

U - Compound analyzed for but not detected

J - Detected at an estimated value below the detection limit

B - Analyte also found in blank sample

X - Matrix spike compound

N - Compound was not a requested analyte

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	MW-1D MW1D2	MW-2S MW2S2	MW-2D MW2D2	MW-3S MW3S2	MW-3D MW3D2	MW-6S MW6S2	MW-6D MW6D2	MW-7S MW7S2	MW-7D MW7D2	MW-8S MW8S2
Date Collected	09/19/94	09/23/94	09/24/94	09/19/94	09/19/94	09/22/94	9/22/94	09/21/94	09/21/94	09/19/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)										
Total Unknown	3JN	11JN	2JN	185JN	46JN	5JN	38JN	24JN	75JN	3JN
Total Unknown Aromatic	ND	ND	ND	25JN	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	1580JN	218JN	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	5JN	ND	191JN	27JN	ND	ND	ND	ND	ND
Total Unknown C5 Alkylbenzene	ND	4JN	ND	ND	ND	ND	ND	ND	ND	ND
Phenol, 4-(2,4-trimethylpentyl)	2JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C9H10O2	ND	ND	ND	ND	4JN	ND	ND	ND	ND	ND
Total Unknown C10H12	ND	2JN	ND	16JN	ND	ND	ND	ND	ND	ND
Total Unknown C11H10	ND	ND	ND	ND	4JN	ND	ND	ND	ND	ND
Total Unknown C11H14	ND	7JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Methyl Naphthalene	ND	ND	ND	18JN	ND	ND	ND	ND	ND	ND
Total Unknown Dichlorobiphenyl iso	ND	ND	ND	ND	4JN	ND	ND	ND	ND	ND
Ethanol, 2-phenoxy-	ND	ND	ND	ND	ND	ND	4JN	ND	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9
GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	MW-8D MW8D2	MW-9S MW9S2	MW-9D MW9D2	MW-10S MW10S2	MW-10D MW10D2	MW-11S MW11S2	MW-11D MW11D2	MW-13S MW13S2	MW-13D MW13D2	MW-14S MW14S2
	09/19/94	09/20/94	09/20/94	09/20/94	09/20/94	09/20/94	09/20/94	09/21/94	09/21/94	09/21/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)										
Total Unknown	2JN	15JN	23JN	47JN	2JN	3JN	3JN	161JN	2JN	3JN
Total Unknown Aromatic	ND	32JN	ND	14JN	ND	ND	ND	ND	ND	ND
Total Unknown Acid	ND	ND	ND	ND	ND	2JN	ND	ND	ND	ND
Total Unknown Alcohol	ND	ND	ND	ND	ND	ND	ND	4JN	ND	2JN
Total Unknown Alkane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	104JN	ND	ND	27JN	ND	ND	ND
Total Unknown C4 Alkylbenzene	ND	3JN	ND	220JN	ND	ND	6JN	ND	ND	ND
Total Unknown C5 Alkylbenzene	ND	4JN	ND	15JN	ND	ND	ND	ND	ND	ND
Benzoic acid, dimethyl	ND	ND	ND	30JN	ND	ND	ND	ND	ND	ND
Benzene, 1-bromo-2-ethyl	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phosphoric acid, tributyl	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol, 4-(2,2,4-trimethylpentyl)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C9H10	ND	ND	ND	10JN	ND	ND	ND	ND	ND	ND
Total Unknown C9H10O2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C10H12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C11H10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C11H14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethanol, 2-butoxy-, phosphate	9JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol, 4,4'-bitylidenebis(2	ND	ND	22JN	ND	ND	ND	ND	ND	ND	ND
Total Unknown Dihydro-dimethyl Ind	ND	ND	ND	12JN	ND	ND	ND	ND	ND	ND
Total Unknown Branched Alkane	ND	ND	ND	ND	ND	ND	ND	4JN	ND	ND

ND - Not Detected
J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.
N - Compound was analyzed for but not requested as an analyte.

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	MW-14D MW14D2	MW-15S MW15S2	MW-15D MW15D2	MW-16S MW16S2	MW-16D MW16D2	MW-17S MW17S2	MW-17D MW17D2	MW-18S MW18S2	MW-18D MW18D2	MW-19S MW19S2
Date Collected	09/21/94	09/21/94	09/21/94	09/21/94	09/21/94	09/20/94	09/20/94	09/21/94	09/21/94	09/27/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)										
Total Unknown	8JN	3JN	ND	ND	ND	18JN	ND	ND	17JN	ND
Total Unknown Aromatic	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Acid	ND	2JN	ND	ND	ND	ND	ND	2JN	ND	ND
Total Unknown Alcohol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	2JN	ND	2JN	ND	40JN	ND	16JN	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	52JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	19JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown PAH C20H12	ND	2JN	ND	ND	ND	ND	ND	ND	ND	ND
Indan, 1-methyl	3JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Cyclohexen-1-one	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Cyclohexen-1-ol	ND	2JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C7H8	2JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C8H9Br	2JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C9H10	30JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C9H10O2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C10H14	5JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C10H12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C11H10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C11H14	2JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol, 4,4'-(1-methylethyl)	3JN	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Dichlorobiphenyl iso	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phosphoric acid tributyl est	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero

N - Compound was analyzed for but not requested as an analyte

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9
GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	MW-19D MW19D2 09/27/94	MW-19D MW29SD2 DUP 09/27/94	MW-21S MW21S2 09/22/94	MW-23D MW23D2 09/23/94	MW-31S MW31S2 09/23/94	MW-32D MW32D2 09/22/94	MW-37D MW1992 DUP 09/22/94	MW-33D MW33D2 09/19/94	MW-33D MW992 DUP 09/19/94	MW-35D MW35D2 09/23/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)										
Total Unknown	12JN	13JN	ND	14JN	5JN	ND	ND	ND	ND	37JN
Total Unknown Aromatic	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Acid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alcohol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	5JN	5JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C4 Alkylbenzene	3JN	2JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C5 Alkylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C8H9Br	2JN	2JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C9H10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C9H10O2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C10H14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C10H12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C11H10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown C11H14	3JN	2JN	ND	ND	ND	ND	ND	ND	ND	ND
Total Unknown Dichlorobiphenyl iso	2JN	2JN	ND	ND	ND	ND	ND	ND	ND	ND
Phosphoric acid tributyl est	2JN	2JN	ND	ND	ND	ND	ND	ND	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte.

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-9

GROUNDWATER ANALYTICAL RESULTS FOR SEMI-VOLATILE COMPOUNDS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	MW-36D MW36D2	MW-37D MW37D2	MW-38S MW38S2	MW-39S MW39S2	MW-40D MW40D2	S-166133 S661332	FB920942 FB	FB921942 FB	FB922942 FB
Date Collected	09/22/94	09/22/94	09/19/94	09/20/94	09/19/94	09/22/94	09/20/94	09/21/94	09/22/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)									
Total Unknown	ND	2JN	4JN	10JN	126JN	2JN	ND	ND	ND
Total Unknown Alcohol	ND	ND	ND	ND	ND	2JN	ND	ND	ND
Total Unknown Alkane	ND	ND	ND	ND	7JN	ND	ND	ND	ND
Total Unknown C3 Alkylbenzene	ND	ND	ND	ND	20JN	ND	ND	ND	ND
Ethanol, 2-(2-methoxyethoxy)-	12JN	ND	ND	ND	ND	ND	ND	ND	ND
1(3H)-Isobenzofuranone	ND	ND	ND	ND	3JN	ND	ND	ND	ND

Well ID Sample ID QA/QC	FB923942 FB	FB92792 FB
Date Collected	09/23/94	09/27/94
Tentatively Identified Compounds (TICs) (Concentrations in ug/l)		
Total Unknown	ND	ND

ND - Not Detected

J - The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

N - Compound was analyzed for but not requested as an analyte.

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-10
GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-1D MW1D1 07/12/94	MW-2S MW2S1 07/12/94	MW-2D MW2D1 07/12/94	MW-3S MW3S1 07/13/94	MW-3D MW3D1 07/13/94	MW-6S MW6S1 07/19/94	MW-6D MW6D1 07/19/94	MW-7S MW7S1 07/14/94
Metals, Dissolved (ug/L)									
Arsenic	25	1.0 U	4.6 B	1.0 U	8.0 B	1.0 U	1.0 U	1.0 U	1.0 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	1.0 U	1.0 U	1.7 J	2.0 U	2.3 B	1.0 U	1.0 U	2.0 U
Selenium	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U
Thallium	4*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aluminum	NS	45.0 U	45.0 U	45.0 U	45.0 U	45.0 U	124.0 B	144.0 B	45.0 U
Antimony	3*	28.4 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U
Barium	1000	8.0 B	42.2 B	48.2 B	80.4 B	75.8 B	5.8 B	33.4 B	6.5 B
Beryllium	3*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	10	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	4.1 B	3.0 U
Calcium	NS	23,600.0	27,500.0	12,200.0	79,900.0	18,300.0	1,970.0 B	12,200.0	3,390.0
Chromium	50	3.0 U	3.0 U	4.3 B	3.0 U	3.0 U	3.0 U	3.0 U	3.2 B
Cobalt	NS	3.0 U	3.0 U	3.0 U	3.0 U	6.9 B	3.0 U	3.0 U	3.0 U
Copper	200	19.2 B	8.4 B	16.2 B	5.0 U	10.8 B	6.7 B	11.7 B	5.0 U
Iron	300 (1)	32.0 U	9,140.0	32.0 U	29,700.0	1,300.0	44.5 B	227.0	32.0 U
Magnesium	35000	3,410.0	4,000.0	2,070.0	8,770.0	2,430.0	491.0 J	2,020.0 J	764.0 B
Manganese	300 (1)	4,170.0	127.0	99.6	1,240.0	1,160.0	3.0 U	774.0	3.0 U
Nickel	NS	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	127.0	13.0 U
Potassium	NS	4,410.0	7,990.0	3,960.0	5,740.0	2,860.0	484.0 U	1,890.0 B	746.0 B
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	8,220.0	14,400.0	7,500.0	14,500.0	7,900.0	3,560.0 B	14,100.0	2,590.0
Vanadium	NS	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U
Zinc	300	50.4	24.5	44.2	26.1	55.4	33.1	23.8	30.2

Notes:
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory / Data Validation Qualifiers
U - Analyte result less than instrument detection limit (IDL)
B - Analyte result between IDL and contract required detection limit (CRDL)
J - Compound was detected below method detection limits
NR - Not Required

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-10

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-7D MW7D1	MW-8S MW8S1	MW-8D MW8D1	MW-9S MW9S1	MW-9D MW9D1	MW-9D MW1991 DUP	MW-10S MW10S1	MW-10D MW10D1
Date Collected	6 NYCRR 703	07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/15/94	07/15/94
Metals, Dissolved (ug/L)									
Arsenic	25	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	2.0 U	2.0 U	2.0 U	2.0 U	2.6 B	2.0 U	1.0 U	1.0 U
Selenium	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	4*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aluminum	NS	45.0 U	45.0 U	45.0 U	45.0 U	164.0 B	45.0 U	45.0 U	45.0 U
Antimony	3*	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U
Barium	1000	39.2 B	48.2 B	39.7 B	48.2 B	77.4 B	76.4 B	66.7 B	49.1 B
Beryllium	3*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	10	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Calcium	NS	13,300.0	25,100.0	11,400.0	28,800.0	15,000.0	15,000.0	24,000.0	14,100.0
Chromium	50	3.0 U	15.8	3.6 B	3.4 B	4.3 B	3.0 U	3.0 U	3.0 U
Cobalt	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Copper	200	5.0 U	5.0 U	5.0 U	5.0 U	1,100.0	5.0 U	5.0 U	5.0 U
Iron	300 (1)	33.2 B	32.0 U	68.7 B	285.0	107.0	139.0	15,300.0	127.0
Magnesium	35000	2,070.0	2,500.0	1,900.0	5,000.0	2,590.0	2,560.0	3,500.0	2,400.0
Manganese	300 (1)	2,720.0	176.0	3,440.0	73.1	3,330.0	3,280.0	1,320.0	6,240.0
Nickel	NS	13.0 U	13.0 U	19.2 B	13.0 U	39.6 B	56.0	21.6 B	58.1
Potassium	NS	2,590.0	4,580.0	2,640.0	2,550.0	3,600.0	4,020.0	2,940.0	2,380.0
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	12,500.0	14,200.0	20,400.0	8,900.0	29,300.0	28,200.0	8,220.0	15,900.0
Vanadium	NS	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U
Zinc	300	41.2	24.4	19.4 B	16.9 B	19.6 B	39.1	28.3	26.5

Notes:
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory / Data Validation Qualifiers
U - Analyte result less than instrument detection limit (IDL)
B - Analyte result between IDL and contract required detection limit (CRDL)
J - Compound was detected below method detection limits
NR - Not Required

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-10

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NTS GROUNDWATER STANDARD 6 NYCRR 703	MW-11TS MW11TS1 07/15/94	MW-11TD MW11D1 07/15/94	MW-13S MW13S1 07/18/94	MW-13D MW13D1 07/18/94	MW-14S MW14S1 07/15/94	MW-14D MW14D1 07/15/94	MW-15S MW15S1 07/18/94	MW-15D MW15D1 07/18/94
Metals, Dissolved (ug/L)									
Arsenic	25	1.0 U	3.6 B	1.0 U	1.0 U	1.0 U	5.3 B	1.0 U	12.5
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Selenium	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	4*	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Aluminum	NS	99.6 B	45.0 B	45.0 U	221.0	86.8 B	45.0 U	88.1 B	56.3 B
Antimony	3*	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U
Barium	1000	53.3 B	45.0 B	51.4 B	89.4 B	60.2 B	23.6 B	33.8 B	72.8 B
Beryllium	3*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	10	3.0 U	3.0 U	3.5 B	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Calcium	NS	23,800.0	29,200.0	30,200.0	18,600.0	30,400.0	19,500.0	21,500.0	24,000.0
Chromium	50	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Cobalt	NS	10.9 B	5.8 B	8.8 B	11.2 B	10.4 B	3.0 B	3.0 U	8.3 B
Copper	200	9.2 B	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Iron	300 (1)	7,530.0	13,000.0	6,400.0	266.0	4,220.0	12,200.0	264.0	42,200.0
Magnesium	35000	2,900.0	3,520.0	3,460.0	2,550.0	3,860.0	2,260.0	3,210.0	4,240.0
Manganese	300 (1)	1,110.0	920.0	2,390.0	7,270.0	1,560.0	606.0	96.4	1,240.0
Nickel	NS	13.0 U	22.8 B	13.0 U	57.6	13.0 U	17.3 B	13.0 U	30.6 B
Potassium	NS	3,400.0	3,550.0	2,790.0	2,250.0	3,230.0	2,020.0	2,200.0	2,290.0
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	7,730.0	7,440.0	8,360.0	10,500.0	6,580.0	5,310.0	9,760.0	10,500.0
Vanadium	NS	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U
Zinc	300	22.2	16.8 B	19.0 B	18.3 B	14.7 B	72.8	27.3	17.8 B

Notes:
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory / Data Validation Qualifiers
U - Analyte result less than instrument detection limit (IDL)
B - Analyte result between IDL and contract required detection limit (CRDL)
J - Compound was detected below method detection limits
NR - Not Required

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-10

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-16S MW16S1	MW-16D MW16D1	MW-17S MW17S1	MW-17D MW17D1	MW-18S MW18S1	MW-18D MW18D1	MW-19S MW19S1	MW-19D MW19D1	MW-21S MW21S1
Date Collected	6 NYCRR 703	07/18/94	07/18/94	07/18/94	07/18/94	07/21/94	07/21/94	07/19/94	07/19/94	07/19/94
Metals, Dissolved (ug/L)										
Arsenic	25	1.8 B	12.3	1.0 U	10.9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	1.0 U	1.0 U	1.0 U	1.0 U	1.0 B	2.0 B	1.0 U	1.0 U	1.0 U
Selenium	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U
Thallium	4*	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
Aluminum	NS	45.0 U	54.8 B	45.0 U	45.0 U	45.0 U	45.0 U	45.0 U	45.0 U	112.0 B
Antimony	3*	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U
Barium	1000	53.3 B	88.0 B	31.0 B	93.6 B	49.8 B	37.2 B	12.1 B	85.3 B	19.2 B
Beryllium	3*	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
Cadmium	10	3.0 U	3.0 U	3.0 U	3.0 U	6.8	3.0 U	4.2 B	3.0 U	3.0 U
Calcium	NS	30,400.0	27,700.0	19,900.0	35,100.0	36,600.0	16,600.0	13,500.0	25,500.0	9,590.0
Chromium	50	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	8.9 B	5.6 B	3.0 U	7.4 B
Cobalt	NS	4.0 B	3.4 B	3.0 U	4.7 B	3.0 U	3.0 U	3.0 U	7.8 B	3.0 U
Copper	200	5.0 U	13.0 B	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Iron	300 (1)	6,700.0	31,500.0	6,330.0	30,200.0	116.0	60.5 B	32.0 U	1,650.0	42.6 B
Magnesium	35000	5,570.0	5,070.0	3,160.0	5,830.0	3,250.0 J	2,390.0 J	2,500.0 J	3120 J	1,810.0 J
Manganese	300 (1)	595.0	1,030.0	357.0	1,020.0	1,680.0	7,440.0	5.8 B	9,920.0	22.8
Nickel	NS	13.0 U	72.9	13.0 U	32.5 B	13.0 U	13.0 U	13.0 U	107.0	13.0 U
Potassium	NS	2,790.0	2,980.0	2,690.0	4,620.0	5,020.0	2,180.0 B	1,700.0 B	2,880.0 B	1,160.0 B
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	12,900.0	11,600.0	13,000.0	12,000.0	15,800.0	10,400.0	3,450.0 B	6,250.0	3,220.0 B
Vanadium	NS	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U
Zinc	300	23.5	21.9	36.6	73.0	110.0	28.2	25.2	23.3	19.4 B

Notes:
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory / Data Validation Qualifiers
U - Analyte result less than instrument detection limit (IDL)
B - Analyte result between IDL and contract required detection limit (CRDL)
J - Compound was detected below method detection limits
NR - Not Required

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-10

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NY'S GROUNDWATER STANDARD 6 NYCRR 703	MW-23D MW23D1	MW-31S MW31S1	MW-32D MW32D1	MW-33D MW33D1	MW-35D MW35D1	MW-36D MW36D1	MW-37D MW37D1	MW-38S MW38S1	MW-39S MW39S1
		07/21/94	07/22/94	07/19/94	07/13/94	07/22/94	07/20/94	07/20/94	07/20/94	07/18/94
Metals, Dissolved (ug/L)										
Arsenic	25	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
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	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
Selenium	10	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
Thallium	4*	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
Aluminum	NS	54.2 B	45.0 U	169.0 B	45.0 U	45.0 U	45.0 U	45.0 U	45.0 U	78.0 B
Antimony	3*	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U
Barium	1000	14.2 B	29.0 B	5.8 B	31.6 B	5.0 U	10.0 B	5.4 B	26.3 B	26.9 B
Beryllium	3*	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
Cadmium	10	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Calcium	NS	2,600.0 B	15,200.0 B	1,180.0 B	4,200.0 B	2,220.0 B	12,300.0 B	2,880.0 B	27,500.0 B	20,200.0 B
Chromium	50	3.0 U	3.0 U	3.0 U	3.4 B	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Cobalt	NS	5.8 B	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Copper	200	5.0 U	19.7 B	5.0 U	7.5 B	19.7 B	5.0 U	5.0 U	5.0 U	5.0 U
Iron	300 (1)	1,080.0	32.0 U	712.0	32.0 U	32.0 U	57.2 B	378.0	32.0 U	880.0
Magnesium	35000	1,270.0 J	2,160.0 B	452.0 J	1,920.0	1,630.0 B	1,610.0 J	976.0 J	2,500.0 J	2,280.0 J
Manganese	300 (1)	62.2	14.7 B	27.8	12.6 B	3.0 U	23.2	40.2	3.0 U	146.0
Nickel	NS	13.0 U	13.0 U	85.8	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U
Potassium	NS	753.0 B	1,860.0 B	894.0 B	1,850.0	4,370.0 B	878.0 B	709.0 B	2,330.0 B	2,680.0 B
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	5,590.0	3,280.0 B	3,820.0 B	8,990.0	219.0 U	22,300.0	7,540.0	7,710.0	7,990.0
Vanadium	NS	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U
Zinc	300	33.4	25.3	33.7	85.7	13.8 B	15.9 B	52.1	26.0	30.5

Notes:
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory / Data Validation Qualifiers
U - Analyte result less than instrument detection limit (IDL)
B - Analyte result between IDL and contract required detection limit (CRDL)
J - Compound was detected below method detection limits
NR - Not Required

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-10

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-40D MW4001	MW-40D MW991 DUP	S-66133 S661331	S-66133 MW2991 DUP	FB3940714 FB	FB4940715 FB	FB1940712 FB	FB2940713 FB	FB5940718 FB
Date Collected	6 NYCRR 703	07/12/94	07/12/94	07/19/94	07/19/94	07/14/94	07/15/94	07/12/94	07/13/94	07/18/94
Metals, Dissolved (ug/L)										
Arsenic	25	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
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	1.0 U	1.0 U	1.2 B	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Selenium	10	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Thallium	4*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Aluminum	NS	45.0 U	45.0 U	45.0 U	45.0 U	45.0 U	62.3 B	45.0 U	45.0 U	45.0 U
Antimony	3*	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U
Barium	1000	22.1 B	22.6 B	6.3 B	5.8 B	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Beryllium	3*	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
Cadmium	10	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Calcium	NS	14,200.0	14,200.0	9,100.0	9,080.0	58.7 B	64.9 B	40.2 B	94.4 B	105.0 B
Chromium	50	3.0 U	4.0 B	7.4 B	5.0 B	3.0 U	3.0 U	3.0 U	3.2 B	3.0 U
Cobalt	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Copper	200	8.4 B	6.0 B	5.0 U	5.0 U	9.5 B	5.0 U	5.0 U	5.0 U	8.7 B
Iron	300 (1)	5,710.0	5,900.0	212.0	252.0	32.0 U	32.0 U	32.0 U	86.1 B	32.0 U
Magnesium	35000	2,060.0	2,080.0	3,510.0 J	3,510.0 J	19.0 U	19.0 U	19.0 U	19.0 U	28.3 J
Manganese	300 (1)	185.0	185.0	15.7	15.7	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Nickel	NS	13.0 U	13.0 U	86.5	78.7	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U
Potassium	NS	2,360.0	3,200.0	1,170.0 B	782.0 B	484.0 U	484.0 U	484.0 U	484.0 U	484.0 U
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	6,620.0	6,640.0	14,800.0	14,900.0	219.0 U	219.0 U	219.0 U	219.0 U	219.0 U
Vanadium	NS	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U
Zinc	300	24.4	19.9 B	22.7	23.1	16.3 B	15.8 B	13.8 B	21.0	21.2

Notes
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory / Data Validation Qualifiers
U - Analyte result less than instrument detection limit (IDL)
B - Analyte result between IDL and contract required detection limit (CRDL)
J - Compound was detected below method detection limits
NR - Not Required

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-10

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	FB6940719 FB	FB940721 FB	FB940722 FB	MW-16D MW16D1 MS	MW-16D MW16D1 MSD	MW-2D MW2D1 MS	MW-2D MW2D1 MSD	MW-36D MW36D1 MS	MW-36D MW36D1 MSD
Date Collected	6 NYCRR 703	07/19/94	07/21/94	07/22/94	07/15/94	07/15/94	07/12/94	07/12/94	07/20/94	07/20/94
Metals, Dissolved (ug/L)										
Arsenic	25	1.0 U	1.0 U	1.0 U	55.8	13.5	47.0	1.0 U	46.4	1.0 U
Mercury	2	0.2 U	0.2 U	0.2 U	1.0	0.2 U	1.0	0.2 U	1.0	0.2 U
Lead	25	1.0 U	1.0 U	1.0 U	23.2	1.0 U	26.7	1.7 B	23.8	1.0 U
Selenium	10	2.0 U	1.0 U	1.0 U	10.1	1.0 U	10.5	1.0 U	9.6	2.0 U
Thallium	4*	1.0 U	1.0 U	1.0 U	46.5	1.0 U	42.3	1.0 U	49.4	1.0 U
Aluminum	NS	45.0 U	45.0 U	45.0 U	1,960.0	130.0 B	2,130.0	45.0 U	1,980.0	47.1 B
Antimony	3*	23.0 U	23.0 U	23.0 U	534.0	23.0 U	584.0	23.0 U	505.0	23.0 U
Barium	1000	5.0 U	5.0 U	43.9 B	2,050.0	89.0 B	2,140.0	48.7 B	1,920.0	10.4 B
Beryllium	3*	1.0 U	1.0 U	1.0 U	45.9	1.0 U	51.9	1.0 U	48.4	1.0 U
Cadmium	10	3.0 U	3.0 U	3.0 U	54.6	3.0 U	56.3	3.0 U	51.3	3.0 U
Calcium	NS	31.4 B	2,460.0 B	54,300.0	203.0	27,800.0	NR	12,300.0	NR	12,400.0
Chromium	50	3.0 U	3.0 U	3.0 U	498.0	3.0 U	218.0	4.3 B	205.0	3.0 U
Cobalt	NS	3.0 U	3.0 U	3.0 U	247.0	3.8 B	532.0	3.0 U	497.0	3.0 U
Copper	200	5.0 U	5.0 U	22.4 B	31,700.0	5.0 U	280.0	16.8 B	249.0	5.0 U
Iron	300 (1)	32.0 U	32.0 U	63.7 B	31,700.0	31,700.0	1,060.0	32.0 U	1,050.0	66.1 B
Magnesium	35000	19.0 UE	1,730.0 J	5,450.0	1,500.0	5,100.0	NR	2,100.0	NR	1,620.0 B
Manganese	300 (1)	3.0 U	3.0 U	24.1	568.0	1,040.0	633.0	99.6	516.0	22.4
Nickel	NS	13.0 U	13.0 U	13.0 U	49.8	84.0	519.0	13.0 U	489.0	13.0 U
Potassium	NS	484.0 U	4,720.0 B	3,470.0 B	49.8	2,670.0	NR	4,360.0	NR	1,200.0 B
Silver	50	2.0 U	2.0 U	2.0 U	500.0	2.0 U	50.9	2.0 U	53.6	2.0 U
Sodium	20000	219.0 U	498.0 B	48,000.0	506.0	11,700.0	NR	7,580.0	NR	22,500.0
Vanadium	NS	9.0 U	9.0 U	9.0 U	506.0	9.0 U	514.0	9.0 U	495.0	9.0 U
Zinc	300	18.5 B	19.0 B	8.0 B	506.0	213	589.0	42.7	498.0	17.6 B

Notes:
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory / Data Validation Qualifiers
U - Analyte result less than instrument detection limit (IDL)
B - Analyte result between IDL and contract required detection limit (CRDL)
J - Compound was detected below method detection limits
NR - Not Required

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-11

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-1D MW1D1	MW-2S MW2S1	MW-2D MW2D1	MW-3S MW3S1	MW-3D MW3D1	MW-6S MW6S1	MW-6D MW6D1	MW-7S MW7S1
Date Collected	6 NYCRR 703	07/12/94	07/12/94	07/12/94	07/13/94	07/13/94	07/19/94	07/19/94	07/14/94
Metals, Total (ug/L)									
Arsenic	25	1.0 U	79.8	2.9 B	11.3	2.0 B	1.0 U	1.0 U	18.4
Cyanide	100	15.3	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	3.9 J	94.0	49.1	9.1 J	64.0	7.8	1.0 U	54.9 U
Selenium	10	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Thallium	4*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3 B
Aluminum	NS	221.0	6,590.0	1,030.0	948.0	1,280.0	2,440.0	129.0 U	32,400.0
Antimony	3*	23.0 U	23.0 U	23.0 U	34.2 U	23.0 U	23.0 U	23.0 U	23.0 U
Barium	1000	8.7 B	88.6 B	52.2 B	94.5 B	103.0 B	31.7 B	34.4 B	187.0 B
Beryllium	3*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.1 B
Cadmium	10	3.0 U	3.0 U	3.0 U	3.0 U	5.0	3.0 U	4.7 B	3.0 U
Calcium	NS	24,600.0	30,700.0	12,600.0	83,400.0	19,700.0	2,080.0 B	12,600.0	7,540.0
Chromium	50	3.0 U	12.5	12.0	3.0 U	10.6	13.4	20.9	35.0
Cobalt	NS	3.0 U	4.1 B	3.0 U	3.0 U	12.5 B	5.0 B	3.0 U	21.6 B
Copper	200	25.7	133.0	45.4	8.0 B	93.9	18.3 B	21.8 B	33.6
Iron	300 (1)	295.0	45,600.0	2,170.0	38,000.0	5,210.0	3,180.0	652.0	34,400.0
Magnesium	35000*	3,560.0	5,920.0	2,370.0	9,160.0	2,610.0	693.0 B	2,120.0 B	5,750.0
Manganese	300 (1)	4,450.0	186.0	162.0	1,290.0	1,670.0	103.0	866.0	2,570.0
Nickel	NS	13.0 U	14.5 B	13.8 B	14.3 B	17.7 B	13.0 U	111.0	37.4 B
Potassium	NS	3,900.0	8,310.0	4,010.0	6,030.0	2,610.0	484.0 U	1,100.0 B	4,090.0
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	8,600.0	14,400.0	7,770.0	15,300.0	8,060.0	3,480.0 B	14,900.0	3,140.0
Vanadium	NS	9.0 U	23.3 B	16.7 B	9.0 U	15.9 B	18.8 B	9.0 U	35.5 B
Zinc	300	69.0	95.7	50.8	38.8	92.0	23.1	14.9 B	98.2

Notes.

ug/L - micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

NR - Not Required

NS - Not specified

* - Guidance value

1 - The sum of these compounds shall not exceed 500 ppb

Laboratory / Data Validation Qualifiers

U - Result less than instrument detection limit (IDL)

B - Result between IDL and contract required detection limit (CRDL)

W - Post digest spike recovery furnace analysis was out of 85-115 percent control limit

while sample absorbance was less than 50 percent of spike absorbance

J - Compound was detected below method detection limits

S - Reported value was determined by the method of standards additions (MSA)

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-11
GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-7D MW7D1	MW-8S MW8S1	MW-8D MW8D1	MW-9S MW9S1	MW-9D MW9D1	MW-9D MW1991 DUP	MW-10S MW10S1	MW-10D MW10D1
		07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/15/94	07/15/94
Metals, Total (ug/L)									
Arsenic	25	1.0 U	3.5 B	1.0 U	1.7 B	1.0 U	1.0 U	1.0 U	1.0 U
Cyanide	100	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	5.0	10.0 J	1.0 UW	5.2 J	1.0 UW	1.0 UW	1.0 U	1.0 U
Selenium	10	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U
Thallium	4*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aluminum	NS	299.0	4,130.0	45.0 U	286.0	617.0	73.8 B	273.0 U	45.0 U
Antimony	3*	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U
Barium	1000	46.2 B	88.0 B	39.1 B	52.2 B	81.5 B	78.2 B	66.0 B	48.9 B
Beryllium	3*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	10	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Calcium	NS	14,000.0	25,800.0	11,200.0	28,400.0	15,300.0	15,400.0	24,000.0	14,000.0
Chromium	50	5.8 B	30.3	13.2	3.0 U	42.2	16.2	21.2	12.2
Cobalt	NS	3.0 U	6.6 B	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Copper	200	12.2 B	11.6 B	5.0 U	10.3 B	5.0 U	5.0 U	7.4 U	10.5 U
Iron	300 (1)	556.0	6,980.0	314.0	5,980.0	1,290.0	501.0	16,100.0	384.0
Magnesium	35000*	2,210.0	3,170.0	1,920.0	5,050.0	2,720.0	2,670.0	3,390.0 B	2,400.0 B
Manganese	300 (1)	3,330.0	592.0	3,340.0	76.7	3,340.0	3,320.0	1,360.0	6,260.0
Nickel	NS	13.0 U	16.8 B	57.8	13.0 U	81.1	75.8	98.3	63.6
Potassium	NS	2,450.0	4,850.0	2,470.0	2,230.0	3,100.0	3,650.0	3,110.0 B	3,060.0 B
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	13,100.0	14,700.0	20,200.0	8,760.0	29,800.0	29,200.0	8,280.0	15,800.0
Vanadium	NS	9.0 U	22.7 B	9.0 U	13.6 B	9.0 U	9.0 U	9.0 U	9.0 U
Zinc	300	45.3	33.5	28.8	12.3 B	11.0 B	10.4 B	43.5	7.3 B

Notes:

ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

NR - Not Required
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory / Data Validation Qualifiers:

U - Result less than instrument detection limit (IDL)
B - Result between IDL and contract required detection limit (CRDL)
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J - Compound was detected below method detection limits
S - Reported value was determined by the method of standards additions (MSA)

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-11

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-11S MW11S1	MW-11D MW11D1	MW-13S MW13S1	MW-13D MW13D1	MW-14S MW14S1	MW-14D MW14D1	MW-15S MW15S1	MW-15D MW15D1
		07/15/94	07/15/94	07/18/94	07/18/94	07/15/94	07/15/94	07/18/94	07/18/94
Metals, Total (ug/L)									
Arsenic	25	5.3 B	5.0 B	9.0 B	1.0 U	1.2 B	5.2 J	20.0	13.3
Cyanide	100	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.4	0.2 U
Lead	25	1.5 B	1.0 U	3.39 S	1.1 B	1.0 U	1.0 U	187.0	1.3 J
Selenium	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	4*	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Aluminum	NS	375.0 U	45.0 U	2,920.0 U	152.0 U	922.0 U	60.1 U	12,000.0	52.2 U
Antimony	3*	23.0 U	37.6 U	23.0 U	27.5 U	31.4 U	26.0 U	30.2 U	23.0 U
Barium	1000	54.2 B	47.0 B	80.3 B	91.2 B	73.6 B	23.3 B	99.8 B	73.2 B
Beryllium	3*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	10	3.0 U	3.0 U	17.2	3.0 U	3.0 U	3.0 U	5.0 B	3.0 U
Calcium	NS	23,800.0	29,600.0	35,400.0	18,900.0	30,800.0	19,200.0	24,700.0	24,000.0
Chromium	50	4.7 B	23.9	35.9	22.1	3.0 U	12.6	118.0	12.9
Cobalt	NS	9.8 B	6.5 B	12.2 B	11.2 B	11.2 B	3.5 B	10.2 B	9.8 B
Copper	200	15.3 U	9.0 U	98.6	14.8 U	5.5 U	6.3 U	63.7	5.0 U
Iron	300 (1)	25,000.0	16,800.0	18,200.0	754.0	13,100.0	12,800.0	52,200.0	43,600.0
Magnesium	35000*	2,910.0 B	3,550.0 B	3,710.0 B	2,620.0 B	3,970.0 B	2,220.0 B	9,640.0	4,340.0 B
Manganese	300 (1)	1,140.0	958.0	2,350.0	7,500.0	1,510.0	609.0	366.0	1,280.0
Nickel	NS	13.0 U	158.0	13.0 U	75.9	13.0 U	58.9	17.0 B	49.6
Potassium	NS	3,520.0 B	3,730.0 B	3,920.0 B	2,460.0 B	3,790.0 B	2,420.0 B	4,030.0 B	2,970.0 B
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	7,720.0	7,550.0	7,920.0	10,700.0	6,210.0	5,180.0	10,300.0	10,500.0
Vanadium	NS	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	50.8	9.0 U
Zinc	300	21.1	15.6 B	44.6	18.9 B	17.2 B	14.4 B	280.0	15.5 B

Notes:
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

NR - Not Required
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory / Data Validation Qualifiers:
U - Result less than instrument detection limit (IDL)
B - Result between IDL and contract required detection limit (CRDL)
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J - Compound was detected below method detection limits
S - Reported value was determined by the method of standards additions (MSA)

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-11

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-16S MW16SD1	MW-16D MW16D1	MW-17S MW17S1	MW-17D MW17D1	MW-18S MW18S1	MW-18D MW18D1	MW-19S MW19S1	MW-19D MW19D1	MW-21S MW21S1
		07/18/94	07/18/94	07/18/94	07/18/94	07/21/94	07/21/94	07/19/94	07/19/94	07/19/94
Metals, Total (ug/L)										
Arsenic	25	99.5	13.9	3.4 B	12.9	13.1	1.0 U	3.5 B	1.0 U	1.0 B
Cyanide	100	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	21.3 S	1.0 U	21.3 S	1.0 U	678.0	12.0	15.9	1.0 U	2.2 B
Selenium	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Thallium	4*	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
Aluminum	NS	1,340.0	45.0 U	1,240.0	45.0 U	19,900.0	175.0 U	8,010.0	45.0 U	3,010.0
Antimony	3*	27.3 U	23.0 U	23.0 U	23.0 U	25.2 B	23.0 U	23.0 U	23.0 U	23.0 U
Barium	1000	91.2 B	95.5 B	38.5 B	97.4 B	214.0	39.9 B	47.7 B	91.8 B	31.2 B
Beryllium	3*	1.0 U	1.0 U	1.0 U	1.0 U	1.2 B	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	10	3.0 U	3.0 U	3.0 B	3.0 U	107.0	3.0 U	14.0	3.0 U	3.0 U
Calcium	NS	31,200.0	28,600.0	19,200.0	36,400.0	58,600.0	17,000.0	14,200.0	25,900.0	9,570.0
Chromium	50	4.7 B	9.7 B	18.9	25.3	386.0	3.2 B	23.2	21.6	11.6
Cobalt	NS	5.3 B	3.0 B	3.7 B	6.8 B	13.6 B	3.0 U	4.3 B	6.4 B	3.0 U
Copper	200	17.7 U	5.0 U	10.8 U	5.0 U	156.0	31.4	26.8	12.5 B	10.1 B
Iron	300 (1)	64,400.0	33,300.0	16,000.0	32,700.0	34,000.0	241.0	9,600.0	2,420.0	3,740.0
Magnesium	35000*	5,920.0	5,220.0	3,240.0 B	5,930.0	14,000.0	2,490.0 B	3,710.0 B	3,240.0 B	2,110.0 B
Manganese	300 (1)	642.0	1,080.0	434.0	1,060.0	2,910.0	7,670.0	327.0	10,500.0	78.6
Nickel	NS	13.0 U	46.5	13.0 U	120.0	47.0	13.0 U	13.0 U	141.0	15.1 B
Potassium	NS	3,550.0 B	3,430.0 B	2,960.0 B	5,230.0	7,470.0	2,320.0 B	1,820.0 B	3,040.0 B	1,030.0 B
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	12,900.0	12,100.0	12,500.0	11,900.0	17,100.0	10,400.0	3,640.0 B	6,460.0	3,300.0 B
Vanadium	NS	9.0 U	9.0 U	9.0 U	9.0 U	103.0	9.0 U	28.5 B	9.0 U	13.5 B
Zinc	300	44.0	9.5 B	53.4	9.8 B	2,300.0	30.6	41.7	8.8 B	38.8

Notes:
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

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* - Guidance value
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-11

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID CA/QC	NYS GROUNDWATER STANDARD	MW-23D MW23D1	MW-31S MW31S1	MW-32D MW32D1	MW-33D MW33D1	MW-35D MW35D1	MW-36D MW36D1	MW-37D MW37D1	MW-38S MW38S1	MW-39S MW39S1
Date Collected	6 NYCRR 703	07/21/94	07/22/94	07/19/94	07/13/94	07/22/94	07/20/94	07/20/94	07/20/94	07/18/94
Metals, Total (ug/L)										
Arsenic	25	1.0 UW	6.0 B	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UW	1.0 U	33.2 U
Cyanide	100	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	1.2 B	18.3 J	1.0 U	5.2	1.0 U	1.0 U	1.0 U	2.5 B	34.8 U
Selenium	10	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U
Thallium	4*	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
Aluminum	NS	132.0 U	13,000.0	348.0 U	228.0 U	181.0 B	51.0 U	84.9 U	1,150.0	19,600.0
Antimony	3*	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U
Barium	1000	15.2 B	131.0 B	6.4 B	35.3 B	53.3 B	9.2 B	5.0 B	35.8 B	143.0 B
Beryllium	3*	1.0 U	1.0 B	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	10	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	4.3 B
Calcium	NS	2,620.0 B	16,200.0	1,160.0 B	4,300.0	65,900.0	12,200.0	3,930.0 B	27,600.0	21,000.0
Chromium	50	3.0 U	13.9	61.2	3.9 B	3.0 U	3.0 U	5.1 B	13.2	183.0
Cobalt	NS	3.7 B	15.0 B	3.0 U	3.0 U	13.5 B	3.0 U	3.0 U	3.0 U	14.5 B
Copper	200	5.0 U	37.3	5.0 U	10.0 B	15.3 B	6.5 B	5.0 U	5.0 U	48.8
Iron	300 (1)	1,200.0	16,100.0	1,000.0	696.0	734.0	45.5 B	648.0	1,460.0	46,000.0
Magnesium	35000*	1,300.0 B	4,510.0 B	461.0 B	2,020.0	5,750.0	1,620.0 B	967.0 B	2,700.0 B	5,370.0
Manganese	300 (1)	62.3	1,000.0 B	31.4	16.6	51.3	22.5	37.1	185.0	552.0
Nickel	NS	13.0 U	20.3 B	91.2	13.0 U	30.0 B	13.0 U	13.0 U	13.0 U	22.9 B
Potassium	NS	517.0 B	3,520.0 B	564.0 B	1,630.0	3,010.0 B	1,060.0 B	861.0 B	2,980.0 B	5,670.0
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	5,530.0	3,460.0 B	3,770.0 B	9,130.0	48,300.0	22,400.0	4,400.0 B	7,800.0	7,850.0
Vanadium	NS	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	19.1 B	47.2 B
Zinc	300	25.5	81.8	20.1	104.0	28.0	11.6 B	20.0 B	20.0	245.0

Notes:
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

NR - Not Required
NS - Not Specified
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-11

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-400 MW4001	MW-400 MW991 DUP	S-66133 S661331	S-66133 MW2991 DUP	FB1940712 FB	FB2940713 FB	FB5940718 FB	FB6940719 FB	FB940721 FB
Date		07/12/94	07/12/94	07/19/94	07/19/94	07/12/94	07/13/94	07/18/94	07/19/94	07/21/94
Metals, Total (ug/L)										
Arsenic	25	6.3 B	2.9 B	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyanide	100	11.9	11.0	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	7.7	4.4	1.9 B	1.8 B	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Selenium	10	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Thallium	4*	1.0 U	1.0 U	1.0 U	1.0 U	1.4 B	1.0 U	1.0 U	1.0 U	1.0 U
Aluminum	NS	1,150.0	548.0	45.0 U	45.0 U	45.0 U	45.0 U	49.0 U	45.0 U	45.0 U
Antimony	3*	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U	23.0 U
Barium	1000	28.8 B	25.5 B	6.9 B	6.0 B	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Beryllium	3*	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
Cadmium	10	5.7	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Calcium	NS	14,500.0	13,800.0	8,990.0	8,990.0	28.0 U	28.0 U	28.0 U	28.0 U	2,450.0 B
Chromium	50	198.0	111.0	24.6	31.3	3.0 U	3.0 U	3.0 U	3.0 U	8.1 B
Cobalt	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Copper	200	22.5 B	13.2 B	10.1 B	9.0 B	5.0 U	5.0 U	18.3 B	5.0 U	5.0 U
Iron	300 (1)	13,500.0	7,880.0	652.0	624.0	32.0 U	32.0 U	32.0 U	32.0 U	32.0 U
Magnesium	35000*	2,230.0	2,150.0	3,560.0 B	3,550.0 B	23.0 U	19.0 U	19.0 U	19.0 U	1,780.0 B
Manganese	300 (1)	204.0	178.0	19.4	17.6	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Nickel	NS	13.0 U	13.0 U	127.0	114.0	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U
Potassium	NS	2,280.0	2,450.0	585.0 B	1,320.0 B	484.0 U	484.0 U	484.0 U	484.0 U	5,100.0
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Sodium	20000	6,800.0	6,670.0	15,000.0	14,800.0	219.0 U	219.0 U	219.0 U	219.0 U	371.0 B
Vanadium	NS	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U
Zinc	300	32.4	24.8	9.8 B	11.2 B	13.4 B	7.6 B	9.5 B	8.9 B	14.7 B

Notes:
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

Laboratory / Data Validation Qualifiers:
U - Result less than instrument detection limit (IDL)
B - Result between IDL and contract required detection limit (CRDL)
W - Post digest spike recovery furnace analysis was out of 85-115 percent control limit while sample absorbance was less than 50 percent of spike absorbance
J - Compound was detected below method detection limits
S - Reported value was determined by the method of standards additions (MSA)

NR - Not Required
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-11

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	FB3940714 FB	FB4940715 FB	FB940722 FB	MW-2D MW2D1 MS	MW-2D MW2D1 MSD	MW-36D MW36D1 MS	MW-36D MW36D1 MSD	MW-16D MW16D1 MS	MW-16D MW16D1 MSD
Date Collected	6 NYCRR 703	07/14/94	07/15/94	07/22/94	07/12/94	07/12/94	07/20/94	07/20/94	07/18/94	07/18/94
Metals, Total (ug/L)										
Arsenic	25	1.0 U	1.0 U	1.0 U	2.9 B	46.2	44.8	1.0 U	13.6	59.0
Cyanide	100	10.0 U	10.0 U	10.0 U	10.0 U	100.0	104.0	10.0 U	10.0 U	102.0
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	1.0	1.0	0.2 U	0.2 U	1.0
Lead	25	1.0 U	1.0 U	1.0 U	47.8	67.5	22.9	1.0 U	1.0 U	19.1
Selenium	10	1.0 U	1.0 U	1.0 U	2.0 U	12.1	9.6	2.0 U	1.0 U	9.6
Thallium	4*	1.0 U	1.0 U	1.0 U	1.0 U	51.1	50.7	1.0 U	1.0 U	40.1
Aluminum	NS	45.0 U	46.3 U	45.0 U	1,050.0	3,070.0	1,940.0	61.8 B	45.0 U	1,860.0
Antimony	3*	23.0 U	23.0 U	23.0 U	23.0 U	547.0	508.0	23.0 B	31.9 B	485.0
Barium	1000	5.0 U	5.0 U	5.0 U	52.2 B	2,080.0	1,890.0	10.1 B	94.1 B	1,940.0
Beryllium	3*	1.0 U	1.0 U	1.0 U	1.0 U	50.6	46.5	1.0 U	1.0 U	47.0
Cadmium	10	3.0 U	3.0 U	3.0 U	3.0 U	54.6	49.2	3.0 U	3.0 U	50.9
Calcium	NS	28.0 U	28.0 U	33.5 B	12,600.0	NR	NR	12,000.0	28,300.0	198.0
Chromium	50	3.0 U	3.0 U	7.4 B	11.1	219.0	194.0	3.0 B	9.0 B	468.0
Cobalt	NS	3.0 U	3.0 U	3.0 U	3.0 U	512.0	469.0	3.0 U	4.6 B	237.0
Copper	200	11.9 U	5.0 U	12.0 B	45.0	304.0	247.0	6.0 B	5.0 U	33,000.0
Iron	300 (1)	32.0 U	32.0 U	32.0 U	2,160.0	3,180.0	993.0	50.2 B	32,900.0	1,510.0
Magnesium	35000*	19.0 U	19.0 U	19.0 U	2,370.0	NR	NR	1,620.0 B	5,190.0	498.0
Manganese	300 (1)	3.0 U	3.0 U	3.0 U	16.1 U	669.0	494.0	23.0 U	1,070.0	45.3
Nickel	NS	13.0 U	13.0 U	13.0 U	13.0 U	511.0	467.0	13.0 U	44.6	498.0
Potassium	NS	484.0 U	484.0 U	484.0 U	4,050.0	NR	NR	1,350.0 B	3,650.0 B	45.3
Silver	50	2.0 U	2.0 U	2.0 U	2.0 U	52.0	47.8	2.0 U	2.0 U	45.3
Sodium	20000	219.0 U	219.0 U	219.0 U	7,780.0	NR	NR	22,000.0	11,900.0	467.0
Vanadium	NS	9.0 U	9.0 U	9.0 U	10.8 B	520.0	473.0	9.0 U	9.0 U	468.0
Zinc	300	11.9 B	11.7 B	6.2 B	49.4	552.0	478.0	14.4 B	10.4 B	468.0

Notes:
ug/L - micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

NR - Not Required
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory / Data Validation Qualifiers:
U - Result less than instrument detection limit (IDL)
B - Result between IDL and contract required detection limit (CRDL)
W - Post digest spike recovery furnace analysis was out of 85-115 percent control limit while sample absorbance was less than 50 percent of spike absorbance
J - Compound was detected below method detection limits
S - Reported value was determined by the method of standards additions (MSA)

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-12

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-1D MW-1D2	MW-2S MW-2S2	MW-2D MW-2D2	MW-3S MW-3S2	MW-3D MW-3D2	MW-6S MW-6S2	MW-6D MW-6S2	MW-7S MW-7S2
		9/19/94	9/23/94	9/23/94	9/19/94	9/19/94	9/22/94	9/22/94	9/21/94
Metals, Dissolved (ug/L)									
Arsenic	25	1 U	6.6 B	1 U	9.3 B	1 U	1 U	1 U	1 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	1.3 B	2.6 J	1 U	1.3 B	1 U	2 U	2 U	1 U
Selenium	10	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Thallium	4*	1 UJ	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 U
Aluminum	NS	47.3 B	228 U	40.4 U	49.6 B	45 U	18.5 U	17.6 U	12 U
Antimony	3*	23 U	38 U	38 U	23 U	23 U	38 U	38 U	38 U
Barium	1000	36.4 U	45.5 B	58.5 B	63.7 U	103 U	13.9 B	37.8 B	8 U
Beryllium	3*	1 U	1 U	1 U	1.3 B	1 U	1 U	1 U	1 U
Cadmium	10	3 U	2 U	2 U	3 U	3 U	2.6 B	6.5	2 U
Calcium	NS	21200	25100	11300	58700	21800	5980 J	11400 J	3380 J
Chromium	50	3 U	2 U	2.3 B	3 U	3.1 B	2.7 B	2 U	2.7 U
Cobalt	NS	3 U	3 U	3 U	3 U	7.9 B	3 U	3 U	3 U
Copper	200	7.4 B	9 U	7.7 U	7.7 B	7.3 B	2 U	2 U	6.7 B
Iron	300 (1)	243	11300	56.6 U	25700	5560	15 U	35.7 U	15 U
Magnesium	35000	2980 B	3420 B	2040 B	5380	3060 B	1620 B	2020 B	675 B
Manganese	300 (1)	4260	121	123	946	1200	2 B	902	2 U
Nickel	NS	13 U	8 UJ	8 UJ	13 U	13 U	8 U	32.9 B	8 U
Potassium	NS	3500 B	9110	4180 B	4390 B	2670 B	517 U	1950 B	517 U
Silver	50	2 U	3 U	3 U	2 U	2 U	3 U	3 U	3 U
Sodium	20000	11800 U	18400	7390	14700 U	15300	4900 B	13400	2520 B
Vanadium	NS	9 U	6 U	6 U	9 U	9 U	6 U	6.1 B	6 U
Zinc	300	10.7 U	25.8 U	18.3 U	14.3 U	13 U	5.1 U	5.9 U	16 U

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate

NS - Not specified

* - Guidance value

1 - The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

U - Element was analyzed for but not detected

B - Analyte result between instrument detection limit and contract required detection limit

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit,
while sample absorbance was less than 50 percent of spike absorbance

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

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-12

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-7D MW-7D2	MW-8S MW-8S2	MW-8D MW-8D2	MW-9S MW-9S2	MW-9D MW-9D2	MW-10S MW-10S2	MW-10D MW-10D2	MW-11S MW-11S2
Date Collected	6 NYCRR 703	9/21/94	9/19/94	9/19/94	9/20/94	9/20/94	9/20/94	9/20/94	9/20/94
Metals, Dissolved (ug/L)									
Arsenic	25	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	1 U	1 U	1.1 B	1 U	2.1 J	2.5 J	2 UJ	2 U
Selenium	10	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Thallium	4*	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aluminum	NS	13.7 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U
Antimony	3*	38 U	23 U	23 U	23 U	23 U	23 U	23 U	23 U
Barium	1000	31 B	92 U	48.6 U	71.3 B	76.9 B	76.9 B	60.7 B	67.8 B
Beryllium	3*	1 U	1 U	1 U	1 U	1 U	1.1 B	1 U	1 U
Cadmium	10	2 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Calcium	NS	12200 J	27700	12800	25700	14500	25800	15300	24100
Chromium	50	2.3 U	28	3 U	3 U	3.6 B	3 U	3 U	3.3 B
Cobalt	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U	8.1 B
Copper	200	5.6 B	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iron	300 (1)	26.3 U	92.7 U	219	352	147 U	17300	136 U	6360
Magnesium	35000	1860 B	2680 B	2060 B	4010 B	2390 B	5060	2520 B	2940 B
Manganese	300 (1)	2430	95.8	3600	37.1	2880	1260	6650	805
Nickel	NS	8 U	13 U	13.2 B	13 U	13 U	15.9 B	13 U	13 U
Potassium	NS	1040 B	5000	2650 B	2850 B	3610 B	3120 B	3130 B	3760 B
Silver	50	3 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Sodium	20000	11100	21500	23700	17400	31900	13300	19200	12000
Vanadium	NS	6 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U
Zinc	300	20.9 U	12.6 U	9 U	5.5 B	12.8 B	6 B	5.3 B	6.3 B

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate

NS - Not specified
* - Guidance value

1 - The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

U - Element was analyzed for but not detected

B - Analyte result between instrument detection limit and contract required detection limit

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-12

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 SECOND SAMPLING ROUND

Well ID	NYS	MW-11D	MW-13S	MW-13D	MW-14S	MW-14D	MW-15S	MW-15D	MW-16S
Sample ID	GROUNDWATER	MW11D2	MW13S2	MW13D2	MW14S2	MW14D2	MW15S2	MW15D2	MW16S2
QA/QC	STANDARD								
Date Collected	6 NYCRR 703	9/20/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94
Metals, Dissolved (ug/L)									
Arsenic	25	3.7 B	1 B	1 U	1 U	6 J	6.1 J	13.3 J	3.5 B
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	2 U	1 U	1 U	1 U	1 U	26.8	1 U	1.4 B
Selenium	10	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Thallium	4*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aluminum	NS	45 U	67.7 U	17 U	21.7 U	17.1 U	1060	28 U	66 U
Antimony	3*	23 U	38 U	38 U	38 U	38 U	38 U	38 U	38 U
Barium	1000	50.1 B	50.4 B	88.2 B	50.4 B	23.8 B	37.3 B	72.9 B	42.3 B
Beryllium	3*	1 U	1 U	1 U	1 U	1 U	1 U	3.2 B	1 U
Cadmium	10	3 U	4.8 B	2.1 B	2.3 B	2 U	2 U	2 U	2 U
Calcium	NS	29300	28200 J	17400 J	31500 J	21800 J	20000 J	23200 J	30900 J
Chromium	50	3 U	2.3 U	2 U	2.5 U	2 U	15.5 U	2 U	2.5 U
Cobalt	NS	6.1 B	8.6 B	11.8 B	7.6 B	3 U	3 U	7.8 B	3 U
Copper	200	5 U	4 B	2.1 B	2 U	2 U	7.5 B	2 U	2 U
Iron	300 (1)	14400	6730	178	4280	13900	11400	45300	6830
Magnesium	35000	3450 B	3320 B	2290 B	3920 B	2630 B	3770 B	4300 B	5920
Manganese	300 (1)	900	2450	7000	1390	700	157	1380	554
Nickel	NS	13 U	8 U	8 U	8 U	13 B	8.4 B	8 U	8 U
Potassium	NS	3660 B	3090 B	1920 B	3340 B	2430 B	2080 B	2200 B	2550 B
Silver	50	2 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Sodium	20000	10300	8260	9110	8010	6040	8120	10900	13200
Vanadium	NS	9 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
Zinc	300	5.9 B	24 U	37.2 U	13.3 U	10.8 U	51.1	13.8 U	8.2 U

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate

NS - Not specified

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Laboratory Qualifiers:

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W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit,

while sample absorbance was less than 50 percent of spike absorbance

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-12

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-16D MW16D2	MW-17S MW17S2	MW-17D MW17D2	MW-18S MW18S2	MW-18D MW18D	MW-19S MW19S2	MW-19D MW19D2	MW-19D MW299D2 DUP
Date Collected	6 NYCRR 703	9/21/94	9/20/94	9/20/94	9/21/94	9/21/94	9/27/94	9/27/94	9/27/94
Metals, Dissolved (ug/L)									
Arsenic	25	13.4 J	1 U	10.7	1 U	1 U	1 U	1 U	1 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	1 U	2 U	2 U	7.4	1 U	1 U	1 U	1 U
Selenium	10	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Thallium	4*	1 U	1.1 B	1 UJ	1 UJ	1 U	1 U	1 U	1 U
Aluminum	NS	12 U	45 U	45 U	229	12 U	77.8 U	12 U	17.5 U
Antimony	3*	38 U	23 U	27.5 B	38 U	38 U	38 U	38 U	38 U
Barium	1000	94 B	41.5 B	105 B	41.4 B	39.6 B	13.4 B	101 B	106 B
Beryllium	3*	2.4 B	1 U	2.5 B	1 U	1 U	1 U	1 U	1 U
Cadmium	10	2 U	3 U	3 U	19.6	2 U	6.4	2 U	2 U
Calcium	NS	27600 J	19400	39400	29500 J	16000 J	14900	31200	32000
Chromium	50	2 U	3.1 B	3 U	27.1	2.1 U	5.6 B	2 U	2 U
Cobalt	NS	4.1 B	3.7 B	4.2 B	3 U	3 U	3 U	10 B	11.5 B
Copper	200	2 U	5 U	5 U	2 U	2 U	2 U	16.7 B	2 U
Iron	300 (1)	33500	8860	31000	441	30.6 U	15 U	3190	2880
Magnesium	35000	5130	3090 B	6240	3000 B	2310 B	2090 B	3750 B	3890 B
Manganese	300 (1)	1060	405	1070	944	7720	11 U	9160	9300
Nickel	NS	8 U	13 U	13 U	8 U	8 U	8 UJ	8 UJ	8 UJ
Potassium	NS	3270 B	3180 B	4930 B	5630	1920 B	1810 B	3290 B	3060 B
Silver	50	3 U	2 U	2 U	3 U	3 U	3 U	3 U	3 U
Sodium	20000	13600	13700	15900	10700	10600	3740 B	6290	6620
Vanadium	NS	6 U	9 U	9 U	6 U	6 U	6 U	6 U	6 U
Zinc	300	6.3 U	8.6 B	5 U	69.7	9.8 U	20.1 U	12.9 U	16.4 U

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate

NS - Not specified

* - Guidance value

1 - The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-12

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-21S MW21S2	MW-23D MW23D2	MW-31S MW31S2	MW-32D MW32D2	MW-32D MW-1992 DUP	MW-33D MW33D2	MW-33D MW992 DUP	MW-35D MW35D2
Date Collected	6 NYCRR 703	9/22/94	9/23/94	9/23/94	9/22/94	9/22/94	9/19/94	9/19/94	9/23/94
Metals, Dissolved (ug/L)									
Arsenic	25	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	2 U	1 U	1 U	2 U	1 U	2.5 J	1 U	1 U
Selenium	10	2 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U
Thallium	4*	1 UJ	1 U	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ
Aluminum	NS	429	55.5 U	47.4 U	181 U	203	45 U	45 U	36.5 U
Antimony	3*	38 U	38 U	38 U	38 U	38 U	23 U	23 U	38 U
Barium	1000	15.7 B	13 B	56.3 B	8 U	8 U	64.7 U	65.2 U	40.3 B
Beryllium	3*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	10	2 U	2 U	2 U	2 U	2 U	3 U	3 U	2 U
Calcium	NS	10100 J	2590 B	22900	1140 J	1140 B	3900 B	3970 B	52500
Chromium	50	2 U	2 U	2 U	2.5 B	2 U	3 U	3 U	2.1 B
Cobalt	NS	3 U	5.1 B	3 U	3 U	3 U	3 U	3 U	3 U
Copper	200	2 U	6.4 U	4.1 U	3.7 U	29.7 U	5 B	6.8 B	4.4 U
Iron	300 (1)	571	974	21.5 U	387	452	99 U	69.2 U	16.6 U
Magnesium	35000	1760 B	1240 B	3640 B	413 B	437 B	1850 B	1880 B	5140
Manganese	300 (1)	17	55.8	14.7 B	24.8	25.4	11.1 U	11.1 U	22.9
Nickel	NS	8 U	8 UJ	8 UJ	8 U	8 UJ	13 U	13 U	10.4 J
Potassium	NS	528 B	1110 B	5140	517 U	517 U	2150 B	2160 B	2630 B
Silver	50	3 U	3 U	3 U	3 U	3 U	2 U	2 U	3 U
Sodium	20000	3120 B	5410	5370	3710 B	3680 B	10800 U	11000 U	46700
Vanadium	NS	6 U	6 U	6 U	6 U	6 U	9 U	9 U	6.7 B
Zinc	300	10.7 U	29.1 U	20.1 U	14.3 U	20.6 U	7.9 U	5 U	10.5 U

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate

NS - Not specified

* - Guidance value

1 - The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

U - Element was analyzed for but not detected

B - Analyte result between instrument detection limit and contract required detection limit

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit,

while sample absorbance was less than 50 percent of spike absorbance

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

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-12

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 SECOND SAMPLING ROUND

Well ID	NYS	MW-36D	MW-37D	MW-38S	MW-39S	MW-40D	S-66133	FB919942	FB920942	FB921942
Sample ID	GROUNDWATER	MW36D2	MW37D2	MW38S2	MW39S2	MW40D2	S661332	FB	FB	FB
Date Collected	6 NYCRR 703	9/22/94	9/22/94	9/19/94	9/20/94	9/19/94	9/22/94	9/19/94	9/20/94	9/21/94
Metals, Dissolved (ug/L)										
Arsenic	25	1 U	1 U	1 U	1 U	1.2 B	1 U	1 U	1 U	1 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	1 U	1 U	1 U	2 U	1.3 J	1 U	1 U	1 U	2 U
Selenium	10	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Thallium	4*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aluminum	NS	28.4 B	23 B	45 U	75.3 B	45 U	12 U	45 U	26.9 U	13.6 U
Antimony	3*	38 U	38 U	23 U	23 U	23 U	38 U	23.5 B	38 U	38 U
Barium	1000	9.1 B	8 U	30.3 U	36.4 B	33.4 U	8 U	25.8 B	8 U	8 U
Beryllium	3*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	10	2 U	2 U	3 U	3 U	3 U	2 U	3 U	2 U	2 U
Calcium	NS	10900	3620 B	25000	21500	16000	8870	431 B	45.2 J	67.1 J
Chromium	50	2.1 B	2 U	6.4 B	5 B	3 U	2 U	3 U	2 U	3.8 B
Cobalt	NS	3.6 B	3 U	4.2 B	3 U	3 U	3 U	3 U	3 U	3 U
Copper	200	64 U	40.5 U	14.2 B	5 U	5 U	8.5 U	5 U	10.4 B	2 U
Iron	300 (1)	38.5 U	504	159 U	135 U	7090	17.2 U	149 U	23.7 U	15 U
Magnesium	35000	1450 B	976 B	2160 B	2150 B	2360 B	3440 B	27.3 B	21 U	31.4 U
Manganese	300 (1)	22.2	37.4	3.2 U	44.6	224	14.3 B	3.2 B	2 U	3.3 B
Nickel	NS	8 U	8 U	18.1 B	13 U	13 U	12.8 J	13 U	8 U	8 U
Potassium	NS	1160 B	694 B	2980 B	2940 B	2740 B	1010 B	484 U	517 U	517 U
Silver	50	3 U	3 U	2 U	2 U	2 U	3 U	2 U	3 U	3 U
Sodium	20000	20700	3820 B	10900 U	11600	10100 U	14400	3000 B	50 U	84.1 B
Vanadium	NS	6 U	6 U	9 U	9 U	9 U	6 U	9 U	6 U	6 U
Zinc	300	17.1 U	18 U	5 U	8.6 B	29.1	13 U	5.8 B	3 U	9.8 B

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:
U - Element was analyzed for but not detected
B - Analyte result between instrument detection limit and contract required detection limit
W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance
E - Reported value is estimated because of the presence of interference

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-12

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	FB922942 FB	FB923942 FB	FB927942 FB	MW-19D MW19D2 MSD	MW-32D MW32D2 MSD	MW-33D MW33D2 MS	MW-33D MW33D2 MSD
Date Collected	6 NYCRR 703	9/22/94	9/23/94	9/27/94	9/27/94	9/22/94	9/19/94	9/19/94
Metals, Dissolved (ug/L)								
Arsenic	25	1 U	1 U	1 U	1 U	1 U	44.3	1 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.1 B	0.2 U
Lead	25	1 U	1 U	1 U	1 U	2 B	23.8	2.6 B
Selenium	10	2 U	2 U	2 U	2 U	2 U	9.8	2 U
Thallium	4*	1 U	1 U	1 U	1 U	1 U	42.5	1 U
Aluminum	NS	12 U	150 B	18.1 B	12 U	187 B	2070	45 U
Antimony	3*	38 U	38 U	38 U	38 U	38 U	537	23 U
Barium	1000	8 U	8 U	8 U	103 B	8 U	2120	65.2 B
Beryllium	3*	1 U	1 U	1 U	1 U	1 U	51.2	1 U
Cadmium	10	2 U	2 U	2 U	2 U	2 U	55.7	1 U
Calcium	NS	42.8 B	121 B	55.1 B	31700	1130 B	56.5	3 U
Chromium	50	2 U	2 U	2 U	2 U	2.5 B	210	3980 B
Cobalt	NS	3 U	3 U	3 U	10.2 B	3 U	515	3 U
Copper	200	21.4 B	2.8 B	2 U	13.1 B	2.7 B	264	5 U
Iron	300 (1)	15.8 U	42.1 U	19.7 U	3190	407	1090	114
Magnesium	35000	21 U	40.7 U	21 U	3840 B	423 B	524	1870 B
Manganese	300 (1)	2 U	2 U	2.5 B	9330	24.8	508	11.1 B
Nickel	NS	8 U	8 U	8 U	8 U	8 U	508	13 U
Potassium	NS	517 U	517 U	517 U	3630 B	517 U	49.3	1880 B
Silver	50	3 U	3 U	3 U	3 U	3 U	11100	2 U
Sodium	20000	83.5 B	71.5 B	66.8 B	6470	3780 B	500	9 U
Vanadium	NS	6 U	6 U	6 U	6 U	6 U	509	6 B
Zinc	300	7.2 B	18.1 B	15.6 B	20.4	12 B		

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike

MSD - Matrix Spike Duplicate
NS - Not specified
* - Guidance value
1 - The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

U - Element was analyzed for but not detected
B - Analyte result between instrument detection limit and contract required detection limit
W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance
E - Reported value is estimated because of the presence of interference

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE R/
EAST FARMINGDALE, NEW YORK

TABLE 4-13

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-1D MW-1D2	MW-2S MW2S2	MW-2D MW2D2	MW-3S MW-3S2	MW-3D MW3D2	MW-6S MW-6S2	MW-6D MW6D2	MW-7S MW-7S2
Date Collected	6 NYCRR 703	9/19/94	9/23/94	9/24/94	9/19/94	9/19/94	9/22/94	9/22/94	9/21/94
Metals, Total (ug/L)									
Arsenic	25	1 U	41.4	1 U	15.1	1 U	3.6 B	1 U	1 U
Cyanide	100	12.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	2.9 U	27.7	2.8 B	7.1 U	3 U	6.9	1 U	3.3
Selenium	10	1 UJ	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U
Thallium	4**	1 U	1 UJ	1 UJ	1 U	1 U	1 UJ	1 UJ	1 UJ
Aluminum	NS	150 U	3810	82.9 U	565 U	108 U	4250	31 U	1700
Antimony	3**	23 U	38 U	38 U	23 U	23 U	38 U	38 U	38 U
Barium	1000	5 U	68.9 B	51.4 B	62.2 B	113 B	40.8 B	38.2 B	23.2 B
Beryllium	3**	1 U	1 U	1 U	2.9 B	1 U	1 U	1 U	1 U
Cadmium	10	3 U	2 U	2 U	3 U	3 U	4.3 B	6	2 U
Calcium	NS	22900	27600	11900	61200	25100	6440 J	11600 J	3580 J
Chromium	50	8.5 U	12.4 U	8.2 U	3 U	4.8 U	15.8	5.6 U	4.3 U
Cobalt	NS	3 U	3.3 B	3 U	3 U	9.7 B	5.1 J	3 UJ	3 UJ
Copper	200	15.4 U	41.4	2.1 B	10.6 U	5.3 U	5.4 B	2 U	4.5 B
Iron	300 (1)	348 UJ	33100	128 U	29000 J	7820 J	7620	119 U	2260
Magnesium	35000**	3330 B	4420 B	2160 B	5610	3630 B	2410 B	2030 B	989 B
Manganese	300 (1)	4500	207	137	990	1260	95.2	969	240
Nickel	NS	20 B	9.3 B	8 U	13 U	13 U	8 UJ	26.5 J	8 UJ
Potassium	NS	4070 B	10800	4810 B	4810 B	2840 B	1070 B	2530 B	1200 B
Silver	50	2 U	3 U	3 U	2 U	2 U	3 U	3 U	3 U
Sodium	20000	13300 U	19200	7570	16100 U	17600 U	5110	13300	2460 B
Vanadium	NS	9 U	6 U	6 U	9 U	9 U	7.9 B	6 U	6 U
Zinc	300	45.2 U	62.1	21 U	33.9 U	43.3 U	27.7 U	3.7 U	7.9 B

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

** - Guidance value

1- The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

U - Element was analyzed for but not detected

B - Analyte result between instrument detection limit and contract required detection limit

W - Post-digest spike recovery furnace analysis was out of 85-1155 percent control limit,

while sample absorbance was less than 50 percent of spike absorbance

N - Spiked sample recovery not within control limits

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

* - Duplicate analysis not within control limit

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-13

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-7D	MW-8S	MW-8D	MW-9S	MW-9D	MW-10S	MW-10D	MW-11S
Date Collected	6 NYCRR 703	9/21/94	9/19/94	9/19/94	9/20/94	9/20/94	9/20/94	9/20/94	9/20/94
Metals, Total (ug/L)									
Arsenic	25	1 U	1.2 B	1 UJ	1 U	1 U	1 J	1 UJ	5.1 B
Cyanide	100	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 B
Lead	25	1 U	17.6 U	4.4 U	2.5 B	1.4 B	1 U	1 U	2.2 B
Selenium	10	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Thallium	4**	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aluminum	NS	256 U	1080	101 U	220	45 U	968	45 U	1220
Antimony	3**	38 U	23 U	23 U	23 U	23 U	23 U	23 U	23 U
Barium	1000	34.7 B	97.1 B	48.6 B	75.9 B	79.9 B	85 B	62.7 B	86.5 B
Beryllium	3**	1 U	1 U	1 U	1 U	1 U	2.2 B	1 U	1.4 B
Cadmium	10	2 U	3 U	3 U	3 U	3 U	3 U	3 U	4.1 B
Calcium	NS	13000 J	30900	13800	26500	15000	26300	15500	24600
Chromium	50	2 U	35.3	3.8 U	3 U	4.5 B	18.5	3 U	18.3
Cobalt	NS	3 UJ	3 U	3 U	3 U	3 U	3 U	3 U	11.1 B
Copper	200	4.2 B	15 U	5 U	5 U	5 U	5 U	5 U	5 U
Iron	300 (1)	30 U	2250 J	262 UJ	1620 J	113 J	17900 J	46.3 J	21400 J
Magnesium	35000**	2010 B	3250 B	2300 U	4130 B	2480 B	5160	2600 B	3160 B
Manganese	300 (1)	2870	223	3850	41.7	2990	1310	6900	889
Nickel	NS	8 UJ	13 U	13 U	13 U	13 U	52.5	13 U	13 U
Potassium	NS	1690 B	5380	2640 B	2850 B	3720 B	3150 B	3090 B	3860 B
Silver	50	3 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Sodium	20000	12000	24300	25900	16200	32300	11900	17900	10500
Vanadium	NS	6 U	9 U	9 U	9 U	9 U	9 U	9 U	9 U
Zinc	300	3 U	77.1 U	17.9 U	7.3 J	38.3 J	8.5 J	5 U	6.2 J

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

** - Guidance value

1-The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

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B - Analyte result between instrument detection limit and contract required detection limit

W - Post-digest spike recovery furnace analysis was out of 85-1155 percent control limit,

while sample absorbance was less than 50 percent of spike absorbance

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* - Duplicate analysis not within control limit

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-13

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-11D MW11D2	MW-13S MW13S2	MW-13D MW13D2	MW-14S MW14S2	MW-14D MW14D2	MW-15S MW15S2	MW-15D MW15D2	MW-16S MW16S2
		9/20/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94
Metals, Total (ug/L)									
Arsenic	25	6.4 B	6 B	1 U	2.5 B	5.1 B	90.4	13.7	23.9
Cyanide	100	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Mercury	2	0.2 U	0.56 B	0.2 U	0.2 U	0.2 U	0.75 B	0.2 U	0.2 U
Lead	25	1 U	8.3	1 B	3.3	1 U	276	1.6 B	7.1
Selenium	10	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Thallium	4**	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aluminum	NS	45 U	5970	64.5 B	2630	21.9 U	15800	49.8 U	1020
Antimony	3**	23 U	38 U	38 U	38 U	38 U	38 U	38 U	38 U
Barium	1000	55.6 B	94.8 B	86.4 B	86 B	26.8 B	164 B	73.7 B	56.6 B
Beryllium	3**	1.4 B	1.4 B	1 U	1.1 B	1 U	16.3	3.5 B	1 U
Cadmium	10	3 U	53.2	2 U	4 B	2 U	14	2 U	2 U
Calcium	NS	30400	29000 J	17900 J	32000 J	22100 J	25300 J	23500 J	30800 J
Chromium	50	3.3 B	69	2.6 U	11.1	5.6 U	191	2.4 U	5.4 U
Cobalt	NS	4.9 B	17.3 J	12.1 J	11.4 J	3.9 J	16.5 J	9.2 J	3.1 J
Copper	200	5 U	59.4	3.4 B	5.8 B	2 U	110	2 U	2.4 B
Iron	300 (1)	15900 J	17900	297	13700	14800	184000	45500	20900
Magnesium	35000**	3570 B	4200 B	2360 B	4400 B	2660 B	12400	4370 B	5940
Manganese	300 (1)	937	2540	7230	1540	737	602	1390	589
Nickel	NS	13 U	9.6 J	8.6 J	8 UJ	28.1 J	24 J	8 UJ	8 UJ
Potassium	NS	3670 B	4090 B	2610 B	4420 B	2340 B	3840 B	2720 B	2860 B
Silver	50	2 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Sodium	20000	8790	8080	9360	7640	6030	8950	10800	13400
Vanadium	NS	9 U	6 U	6 U	6 U	6 U	62.8	6 U	6 U
Zinc	300	5 U	33.9	5.4 B	13.9 B	19.3 B	430	17.1 B	12 B

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

** - Guidance value

1-The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

U - Element was analyzed for but not detected

B - Analyte result between instrument detection limit and contract required detection limit

W - Post-digest spike recovery furnace analysis was out of 85-1155 percent control limit, while sample absorbance was less than 50 percent of spike absorbance

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

* - Duplicate analysis not within control limit

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-13

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-16D MW16D2	MW-17S MW17S2	MW-17D MW17D2	MW-18S MW18S2	MW-18D MW18D2	MW-19S MW19S2	MW-19D MW19D2	MW-19D MW299D2 DUP
Date Collected	6 NYCRR 703	9/21/94	9/20/94	9/20/94	9/21/94	9/21/94	9/27/94	9/27/94	9/27/94
Metals, Total (ug/L)									
Arsenic	25	13.4	7.4 J	14.3 J	2 B	1 U	11.5	1 U	1 U
Cyanide	100	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Mercury	2	0.2 U	0.2 B	0.2 U	0.8 B	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	1 U	51	1 U	113	1 B	28.5	1 U	1 U
Selenium	10	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Thallium	4**	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U
Aluminum	NS	16.7 U	3080	45 U	4530	20.7 U	19200	12 U	19.1 B
Antimony	3**	38 U	23 U	23 U	38 U	38 U	38 U	38 U	38 U
Barium	1000	98.7 B	66.2 B	100 B	76.3 B	39.5 B	107 B	114 B	113 B
Beryllium	3**	2.6 B	3 B	3.4 B	1 U	1 U	1 U	1 U	1 U
Cadmium	10	2 U	5.6	3 U	72	2 U	19.2	2.1 B	2 U
Calcium	NS	28400 J	21900	40900	33500 J	16400 J	17000	33500	33100
Chromium	50	2 U	59	3 U	119	2.1 U	55.8	2 U	2 U
Cobalt	NS	4.8 J	3.8 B	3.3 B	3.4 J	3 UJ	11.3 B	9.1 B	9 B
Copper	200	2 U	17.4 U	5 U	32.2	2 U	29.8	2 U	2 U
Iron	300 (1)	33700	27000 J	33000 J	7850	45 U	23600	3880	3460
Magnesium	35000**	5260	3750 B	6510	5010	2360 B	4850 B	4080 B	4060 B
Manganese	300 (1)	1100	534	1100	1390	7880	850	9620	10000
Nickel	NS	8 UJ	13 U	13 U	10.6 J	8 UJ	17.1 B	8 U	8 U
Potassium	NS	3540 B	3660 B	4910 B	6460	2680 B	4070 B	4030 B	3480 B
Silver	50	3 U	2 U	2 U	3 U	3 U	4430 B	3 U	3 U
Sodium	20000	13600	12800	14600	10500	10600	4430 B	6840	6800
Vanadium	NS	6 U	9 U	9 U	11 B	6 U	36.2 B	6 U	6 U
Zinc	300	5 B	76.7 J	5 U	442	3 U	86.9	11.8 U	7.6 U

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

** - Guidance value

1-The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

U - Element was analyzed for but not detected

B - Analyte result between instrument detection limit and contract required detection limit

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit,

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

* - Duplicate analysis not within control limit

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-13

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-21S MW21S2	MW-23D MW23D2	MW-31S MW31S2	MW-32D MW32D2	MW-32D MW-1992 DUP	MW-33D MW33D2	MW-33D MW992 DUP	MW-35D MW35D2
Metals, Total (ug/L)		9/22/94	9/23/94	9/23/94	9/22/94	9/22/94	9/19/94	9/19/94	9/23/94
Arsenic	25	9.1 B	1 U	58.1	1 U	1 U	1.2 J	1 U	1 U
Cyanide	100	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	13.7	1 U	117	1 U	1 U	6.1 U	3.9 U	1 U
Selenium	10	1 UJ	1 U	1 UJ	1 U	1 U	1 UJ	1 UJ	1 U
Thallium	4**	1 UJ	1 UJ	1.7 B	1 UJ	1 UJ	1 U	1 U	1 UJ
Aluminum	NS	20500	139 U	108000	236	272	127 U	134 U	151 U
Antimony	3**	38 U	38 U	38 U	38 U	38 U	23 U	23 U	38 U
Barium	1000	105 B	14.5 B	824	8 U	8 U	71.3 B	67.3 B	50.9 B
Beryllium	3**	3.7 B	1 U	10.2	1 U	1 U	1 U	1 U	1 U
Cadmium	10	2 U	2 U	2 U	2 U	2 U	3 U	3 U	2 U
Calcium	NS	9670 J	2510 B	26600	1080 J	1180 B	4480 B	4370 B	67800
Chromium	50	25.6	2.8 U	103	2.4 U	4.2 U	4.8 U	4 U	29.2
Cobalt	NS	10.7 J	5.1 B	69.8	3 UJ	3 U	3 U	3 U	15.6 B
Copper	200	26.7	2 U	170	2.4 B	3.6 B	6.8 U	6.5 U	2 U
Iron	300 (1)	26100	1320	128000	469	516	487 J	365 J	1150
Magnesium	35000**	3840 B	1310 B	19800	428 B	474 B	2060 B	2000 B	5710
Manganese	300 (1)	516	61	6440	26.4	28.7	17.2 U	15.3 U	59.5
Nickel	NS	16.5 J	10.4 B	120	8 UJ	8 U	13 U	13 U	93.8
Potassium	NS	3180 B	1020 B	19000	948 B	517 U	2490 B	2300 B	3000 B
Silver	50	3 U	3 U	3 U	3 U	3 U	2 U	2 U	3 U
Sodium	20000	3600 B	5490	6350	3620 B	3980 B	12400 U	12400 U	48600
Vanadium	NS	30.6 B	6 U	155	6 U	6 U	9 U	9 U	6 U
Zinc	300	50.3 U	22.8 U	307	5 U	19.5 U	37.1 U	39.2 U	25.7 U

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

** - Guidance value

1-The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

U - Element was analyzed for but not detected

B - Analyte result between instrument detection limit and contract required detection limit

W - Post-digest spike recovery furnace analysis was out of 85-1155 percent control limit,

while sample absorbance was less than 50 percent of spike absorbance

N - Spiked sample recovery not within control limits

E - Reported value is estimated because of these presence of interference

* - Duplicate analysis not within control limit

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-13

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NY S GROUNDWATER STANDARD	MW-36D MW36D2	MW-37D MW37D2	MW-38S MW38S2	MW-39S MW39S2	MW-40D MW40D2	S-66133 S661332	FB919942 FB	FB920942 FB	FB921942 FB
Date Collected	6 NYCRR 703	9/22/94	9/22/94	9/19/94	9/20/94	9/19/94	9/22/94	9/19/94	9/20/94	9/21/94
Metals, Total (ug/L)										
Arsenic	25	1 U	1 U	1 UJ	104 J	18.7	1 U	1 UJ	1 U	1 U
Cyanide	100	10 U	10 U	10 U	10 U	43.5	10 U	10 U	10 U	10 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.43 B	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Lead	25	1.8 B	1 U	1.2 U	146	53.3	2.2 B	3.7	1 U	1 U
Selenium	10	1 U	1 U	1 U	34 UJ	1 UJ	1 U	1 UJ	1 U	1 U
Thallium	4**	1 UJ	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U
Aluminum	NS	35.3 U	54.2 U	93.9 U	75400	6780	12 U	128 B	29.3 B	12.3 B
Antimony	3**	38 U	38 U	38.5 B	33.7 B	27.2 B	38 U	23 U	38 U	38 U
Barium	1000	10.5 B	8 U	27.3 B	532	72.8 B	8 U	5 U	8 U	8 U
Beryllium	3**	1 U	1 U	1 U	24.6	2.6 B	1 U	1 U	1 U	1 U
Cadmium	10	2 U	2 U	3 U	9.8	37	2 U	3 U	2 U	2 U
Calcium	NS	11700	3910 B	25900	35600	19500	9560	902 B	45.4 J	57 J
Chromium	50	2 U	2.8 U	11.4 U	614	1370	3 U	4.8 B	2 U	2.1 B
Cobalt	NS	3 U	3 U	3 U	43.4 B	3.1 B	3 U	3 U	3 UJ	3 UJ
Copper	200	10.3 B	5.1 B	5.6 U	157	180	2 U	13.6 B	5.3 B	2 U
Iron	300 (1)	88.8 U	756	200 UJ	146000 J	23400 J	183 U	209 J	30 U	18.5 U
Magnesium	35000**	1560 B	1050 B	2320 B	12800	3460 B	3700 B	183 B	30 U	21 U
Manganese	300 (1)	25	40.2	3.7 U	1560	328	15.2	5.6 B	2 U	2.1 B
Nickel	NS	8 U	8 U	18.3 B	67.2	18.7 B	28.6 B	13 U	8 UJ	8 UJ
Potassium	NS	1250 B	692 B	2860 B	14700	3530 B	1250 B	484 U	517 U	517 U
Silver	50	3 U	3 U	2 U	2 U	2 U	3 U	2 U	3 U	3 U
Sodium	20000	22300	4130 B	12000 U	15600	11900 U	15200	4400 B	50 U	50 U
Vanadium	NS	6 U	6 U	9 U	179	9 U	6 U	9 U	6 U	6 U
Zinc	300	11.6 U	18.6 U	12 U	763 J	229 J	9.7 U	33.6 J	3 U	3 U

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

** - Guidance value

1-The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

U - Element was analyzed for but not detected

B - Analyte result between instrument detection limit and contract required detection limit

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit,

while sample absorbance was less than 50 percent of spike absorbance

N - Spiked sample recovery not within control limits

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

* - Duplicate analysis not within control limit

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-13

GROUNDWATER ANALYTICAL RESULTS FOR TOTAL METALS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	GROUNDWATER STANDARD	NYS 6 NYCRR 703	FB922942 FB	FB923942 FB	FB927942 FB	MW19D2 MS	MW19D MSD	MW-32D MW32D2 MSD	MW-33D MW33D2 MSD
Date Collected	9/22/94	9/23/94	9/27/94	9/27/94	9/27/94	9/27/94	9/27/94	9/22/94	9/19/94
Metals, Total (ug/L)									
Arsenic	25	1 U	1 U	1 U	1 U	45.8	1 U	44.8	1 U
Cyanide	100	10 U	10 U	10 U	10 U	89.7	10 U	95.9	10 U
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	1.1 B	0.2 U	1.1 B	0.2 U
Lead	25	1 U	1 U	1 U	1 U	22	1 U	21	1.9 B
Selenium	10	1 U	1 U	1 U	1 U	10.4	1 U	11.2	1 U
Thallium	4**	1 U	1 U	1 U	1 U	49.1	1 U	43.6	1 U
Aluminum	NS	14.8 B	14.8 B	12 U	12.6 B	2110	12.6 B	2100	107 B
Antimony	3**	38 U	38 U	38 U	38 U	528	38 U	463	529
Barium	1000	8 U	8 U	8 U	117 B	2210	117 B	1880	23 U
Beryllium	3**	1 U	1 U	1 U	1 U	53.1	1 U	48.2	63.2 B
Cadmium	10	2 U	2 U	2 U	2 U	55.7	2 U	49.1	1 U
Calcium	NS	41.8 B	33.8 B	16 U	33700				3 U
Chromium	50	2.8 B	2.8 B	2 U	2 U	214	2 U	195	4720 B
Cobalt	NS	3 U	3 U	3 U	10.8 B	535	10.8 B	473	4.8 B
Copper	200	2 U	2 U	2 U	2 U	258	2 U	241	3 U
Iron	300 (1)	36.4 U	59.3 U	15 U	3900	4740	3900	1370	5 U
Magnesium	35000**	24.1 U	24.2 U	21 U	4090 B		4090 B		634 *
Manganese	300 (1)	2 U	2.3 B	2 U	9680	9740	9680	493	1990 B
Nickel	NS	8 U	8 U	8 U	8 U	495	8 U	462	16.7
Potassium	NS	517 U	517 U	517 U	3220 B		3220 B		13 U
Silver	50	3 U	3 U	3 U	6840	49.3	3 U	47.6	2250 B
Sodium	20000	50 U	50 U	50 U					2 U
Vanadium	NS	6 U	6 U	6 U		535	6 U	465	12100
Zinc	300	13.5 B	8.9 B	10.8 B	10.4 B	518	10.4 B	470	72.8 *

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

** - Guidance value

1-The sum of these elements shall not exceed 500 ppb

Laboratory Qualifiers:

U - Element was analyzed for but not detected

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while sample absorbance was less than 50 percent of spike absorbance

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-14

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	MW-1D MW1D1	MW-2S MW2S1	MW-2D MW2D1	MW-3S MW3S1	MW-3D MW3D1	MW-6S MW6S1	MW-6D MW6D1	MW-7S MW7S1
Date Collected	07/12/94	07/12/94	07/12/94	07/14/94	07/13/94	07/19/94	07/19/94	07/14/94
Pesticides and PCBs (ug/L)								
alpha-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
beta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
delta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
gamma-BHC (Lindane)	0.05 UJ	0.39 UJ	0.05 UJ	0.05 R	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor	0.05 UJ	0.39 UJ	0.05 UJ	0.05 R	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Aldrin	0.05 UJ	0.38 UJ	0.05 UJ	0.05 R	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor Epoxide	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Endosulfan I	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Dieldrin	0.1 UJ	0.008 J	0.1 UJ	0.1 R	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDE	0.1 UJ	0.008 J	0.01 NJ	0.1 R	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan II	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDD	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan Sulfate	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDT	0.1 UJ	0.01 NJ	0.02 J	0.1 R	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Methoxychlor	0.5 UJ	0.5 UJ	0.5 UJ	0.5 R	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Endrin Ketone	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin Aldehyde	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
alpha-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.02 J	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
gamma-Chlordane	0.05 UJ	0.008 J	0.04 J	0.05 R	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Toxaphene	5 UJ	5 UJ	5 UJ	5 R	5 UJ	5 UJ	5 UJ	5 UJ
Aroclor-1016	1 UJ	1 UJ	1 UJ	1 R	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1221	2 UJ	2 UJ	2 UJ	2 R	2 UJ	2 UJ	2 UJ	2 UJ
Aroclor-1232	1 UJ	1 UJ	1 UJ	1 R	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1242	1 UJ	1 UJ	1 UJ	1 R	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1248	1 UJ	1 UJ	1 UJ	0.44 J	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1254	1 UJ	1 UJ	0.21 J	0.23 J	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1260	1 UJ	0.58 NJ	1 UJ	1 R	1 UJ	1 UJ	1 UJ	1 UJ

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

Laboratory / Data Validation qualifiers:

U - Compound was analyzed for but not detected

B - Compound was found in method blank

J - Compound was detected below method detection limits

NJ - Presumptive evidence for the presence of the compound at an estimated concentration

R - Result is rejected and unusable

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-14

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	MW-7D MW7D1	MW-8S MW8S1	MW-8D MW8D1	MW-9S MW9S1	MW-9D MW9D1	MW-9D MW1991 DUP	MW-10S MW10S1	MW-10D MW10D1
Date Collected	07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/15/94	07/15/94
Pesticides and PCBs (ug/L)								
alpha-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
beta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
delta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
gamma-BHC (Lindane)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Aldrin	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor Epoxide	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Endosulfan I	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Endosulfan	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Dieldrin	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.008 J	0.1 UJ	0.01 J
4,4'-DDE	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan II	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDD	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan Sulfate	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDT	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Methoxychlor	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Endrin Ketone	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin Aldehyde	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
alpha-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
gamma-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Toxaphene	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Aroclor-1016	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1221	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ
Aroclor-1232	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1242	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1248	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1254	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1260	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

Notes:
ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

Laboratory / Data Validation Qualifiers:
U - Compound was analyzed for but not detected
B - Compound was found in method blank
J - Compound was detected below method detection limits
NJ - Presumptive evidence for the presence of the compound at an estimated concentration
R - Result is rejected and unusable

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-14

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	MW-11S MW11S1	MW-11D MW11D1	MW-13S MW13S1	MW-13D MW13D1	MW-14S MW14S1	MW-14D MW14D1	MW-15S MW15S1	MW-15D MW15D1
Date Collected	07/15/94	07/15/94	07/18/94	07/18/94	07/15/94	07/15/94	07/18/94	07/18/94
Pesticides and PCBs (ug/L)								
alpha-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
beta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
delta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
gamma-BHC (Lindane)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Heptachlor	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Aldrin	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Heptachlor Epoxide	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Endosulfan I	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Endosulfan II	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Dieldrin	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
4,4'-DDE	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endrin	0.1 UJ	0.1 UJ	0.01 J	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endosulfan II	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
4,4'-DDD	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endosulfan Sulfate	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
4,4'-DDT	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Methoxychlor	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
Endrin Ketone	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endrin Aldehyde	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
alpha-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.2 J	0.05 UJ
gamma-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.08 J	0.05 UJ
Toxaphene	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 UJ
Aroclor-1016	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1221	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 U	2 UJ
Aroclor-1232	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1.5 J	1 U	1 UJ
Aroclor-1242	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1248	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1254	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	4.3 J	1 UJ
Aroclor-1260	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	3.6	1 UJ

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

Laboratory / Data Validation Qualifiers:

U - Compound was analyzed for but not detected
B - Compound was found in method blank
J - Compound was detected below method detection limits
NJ - Presumptive evidence for the presence of the compound at an estimated concentration
R - Result is rejected and unusable

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-14

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1984 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	MW-16S MW16S1	MW-16D MW16D1	MW-17S MW17S1	MW-17D MW17D1	MW-18S MW18S1	MW-18D MW18D1	MW-19S MW19S1	MW-19D MW19D1	MW-21S MW21S1
Date Collected	07/18/94	07/18/94	07/18/94	07/18/94	07/21/94	07/21/94	07/19/94	07/19/94	07/19/94
Pesticides and PCBs (ug/L)									
alpha-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
beta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
delta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
gamma-BHC (Lindane)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Aldrin	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor Epoxide	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Endosulfan I	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Endosulfan II	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Dieldrin	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.01 J	0.1 UJ	0.01 J	0.1 UJ
4,4'-DDE	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan II	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDD	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan Sulfate	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDT	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Methoxychlor	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Endrin Ketone	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin Aldehyde	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
alpha-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.07 J	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
gamma-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.03 J	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Toxaphene	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Aroclor-1016	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1221	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ
Aroclor-1232	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1242	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1248	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1254	1 UJ	1 UJ	1 UJ	1 UJ	2.4 J	0.14 J	1 UJ	1 UJ	1 UJ
Aroclor-1260	1 UJ	1 UJ	1 UJ	1 UJ	1.1 J	1 UJ	1 UJ	1 UJ	1 UJ

Notes:

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FB - Field Blank
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MS - Matrix Spike
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-14

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	MW-23D MW23D1	MW-31S MW31S1	MW-32D MW32D1	MW-33D MW33D1	MW-35D MW35D1	MW-36D MW36D1	MW-37D MW37D1	MW-38S MW38S1	MW-39S MW39S1
Date Collected	07/21/94	07/22/94	07/19/94	07/13/94	07/22/94	07/20/94	07/20/94	07/20/94	07/18/94
Pesticides and PCBs (ug/L)									
alpha-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
beta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
delta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
gamma-BHC (Lindane)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Aldrin	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor Epoxide	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Endosulfan I	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Dieldrin	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.01 J	0.05 UJ
4,4'-DDE	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan II	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDD	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan Sulfate	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDT	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Methoxychlor	0.5 UJ	0.51 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Endrin Ketone	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin Aldehyde	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
alpha-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
gamma-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Toxaphene	5 UJ	5.1 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5.3 UJ
Aroclor-1016	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1221	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2.1 UJ
Aroclor-1232	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1242	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1248	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1254	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1260	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

Laboratory / Data Validation Qualifiers:

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-14

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	MW-40D MW991 DUP	S-66133 S661331	S-66133 MW2991 DUP	FB5940718 FB 07/18/94	FB6940719 FB 07/19/94	FB940721 FB 07/21/94	FB2940713 FB 07/13/94	FB1940712 FB 07/12/94
Date Collected	07/12/94	07/19/94	07/19/94	07/18/94	07/19/94	07/21/94	07/13/94	07/12/94
Pesticides and PCBs (ug/L)								
alpha-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ
beta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ
delta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ
gamma-BHC (Lindane)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ
Heptachlor	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ
Aldrin	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ
Heptachlor Epoxide	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ
Endosulfan I	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ
Endosulfan II	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ
Dieldrin	0.006 J	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.05 UJ
4,4'-DDE	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.05 UJ
Endrin	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ
Endosulfan II	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ
4,4'-DDD	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ
Endosulfan Sulfate	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ
4,4'-DDT	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ
Methoxychlor	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.51 UJ	0.5 UJ	0.5 R	0.5 UJ
Endrin Ketone	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ
Endrin Aldehyde	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 R	0.1 UJ
alpha-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ
gamma-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 R	0.05 UJ
Toxaphene	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 R	5 UJ
Aroclor-1016	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 R	1 UJ
Aroclor-1221	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 R	2 UJ
Aroclor-1232	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	5.1 J	1 UJ
Aroclor-1242	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 R	1 UJ
Aroclor-1248	0.73 J	0.63 J	1 UJ	1 UJ	1 UJ	1 UJ	1 R	1 UJ
Aroclor-1254	0.14 J	0.15 J	1 UJ	1 UJ	1 UJ	1 UJ	1 R	1 UJ
Aroclor-1260	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 R	1 UJ

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate

Laboratory / Data Validation Qualifiers:

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J - Compound was detected below method detection limits
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-14

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	FB3940714 FB	FB4940715 FB	FB940722 FB	MW-36D MW36D1 MS	MW-2D MW2D1 MS	MW-2D MW2D1 MSD	MW-16D MW16D1 MS	MW-16D MW16D1 MSD
Date Collected	07/14/94	07/15/94	07/22/94	07/20/94	07/12/94	07/12/94	07/18/94	07/18/94
Pesticides and PCBs (ug/L)								
alpha-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
beta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
delta-BHC	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
gamma-BHC (Lindane)	0.05 UJ	0.05 UJ	0.05 UJ	0.41 J	0.4 J	0.39 J	0.4 J	0.37 J
Heptachlor	0.05 UJ	0.05 UJ	0.05 UJ	0.42 J	0.37 J	0.39 J	0.4 J	0.37 J
Aldrin	0.05 UJ	0.05 UJ	0.05 UJ	0.42 J	0.38 J	0.38 J	0.42 J	0.38 J
Heptachlor Epoxide	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Endosulfan I	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Dieldrin	0.1 UJ	0.1 UJ	0.1 UJ	0.97 J	0.88 J	0.86 J	0.93 J	0.87 J
4,4'-DDE	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin	0.1 UJ	0.1 UJ	0.1 UJ	1.2 J	1 J	0.97 J	1 J	0.94 J
Endosulfan II	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDD	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.03 J	0.04 J	0.03 J	0.04 J
Endosulfan Sulfate	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDT	0.1 UJ	0.1 UJ	0.1 UJ	1.2 J	0.9 J	0.82 J	0.88 J	0.86 J
Methoxychlor	0.53 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Endrin Ketone	0.1 UJ	0.1 UJ	0.1 UJ	0.02 NJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin Aldehyde	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
alpha-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.04 J	0.04 UJ	0.05 UJ	0.05 UJ
gamma-Chlordane	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.02 J	0.06 J	0.05 UJ	0.05 UJ
Toxaphene	5.3 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Aroclor-1016	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1221	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ
Aroclor-1232	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1242	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1248	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1254	1 UJ	1 UJ	1 UJ	1 UJ	0.21 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1260	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ

Notes:

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R - Result is rejected and unusable

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-15

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARDS	MW-1D MW-1D2	MW-2S MW2S2	MW-2D MW2D2	MW-3S MW-3S2	MW-3D MW3D2	MW-6S MW-6S2	MW-6D MW6S2	MW-7S MW-7S2
Date Collected	6 NYCRR 703	9/19/94	9/23/94	9/24/94	9/19/94	9/19/94	9/22/94	9/22/94	9/21/94
Pesticides and PCBs (ug/L)									
alpha-BHC	ND (4)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
beta-BHC	ND (4)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
delta-BHC	ND (4)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
gamma-BHC (Lindane)	ND (4)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Heptachlor	ND (1)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Aldrin	ND	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Heptachlor Epoxide	ND (1)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Endosulfan I	N/A	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Dieldrin	ND	0.007 J	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
4,4'-DDE	ND (2)	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endrin	ND	0.1 UJ	0.1 UJ	0.1 UJ	0.009 J	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endosulfan II	N/A	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
4,4'-DDD	ND (2)	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endosulfan Sulfate	N/A	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
4,4'-DDT	ND (2)	0.1 UJ	0.1 UJ	0.1 UJ	0.04 J	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Methoxychlor	35	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
Endrin Ketone	5	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin Aldehyde	5	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
alpha-Chlordane	0.1	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.01 J	0.05 UJ
gamma-Chlordane	0.1	0.05 UJ	0.05 UJ	0.01 J	0.05 UJ	0.05 UJ	0.05 UJ	0.009 NJ	0.05 UJ
Toxaphene	ND	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 UJ
Aroclor-1016	0.1 (3)	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1221	0.1 (3)	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 U	2 UJ
Aroclor-1232	0.1 (3)	1 UJ	1 UJ	1 UJ	1 UJ	6.5 J	1 UJ	1 U	1 UJ
Aroclor-1242	0.1 (3)	1 UJ	1 UJ	1 UJ	0.84 J	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1248	0.1 (3)	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1254	0.1 (3)	1 UJ	1 UJ	1 UJ	0.58 J	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1260	0.1 (3)	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 UJ

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
NS - Not specified

ND - Not detected
N/A - Not applicable
1 - Standard applies to the sum of these compounds
2 - Standard applies to the sum of these compounds
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Laboratory Qualifiers:

U - Compound was analyzed for but not detected
B - Compound was found in method blank
J - Compound was detected below method detection limits
P - Compound was detected at differences of 25% between two GC columns
X - Matrix spike compound
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-15

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARDS	MW-7D MW-7D2	MW-8S MW8S2	MW-8D MW8D2	MW-9S MW9S2	MW-9D MW9D2	MW-10S MW10S2	MW-10D MW-10D2	MW-11S MW11S2
Date Collected	6 NYCRR 703	9/21/94	9/19/94	9/19/94	9/20/94	9/20/94	9/20/94	9/20/94	9/20/94
Pesticides and PCBs (ug/L)									
alpha-BHC	ND (4)	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
beta-BHC	ND (4)	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
delta-BHC	ND (4)	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
gamma-BHC (Lindane)	ND (4)	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Heptachlor	ND (1)	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Aldrin	ND	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Heptachlor Epoxide	ND (1)	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Endosulfan I	N/A	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Dieldrin	ND	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.01 J	0.1 UJ
4,4'-DDE	ND (2)	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endrin	ND	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endosulfan II	N/A	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
4,4'-DDD	ND (2)	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endosulfan Sulfate	N/A	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
4,4'-DDT	ND (2)	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Methoxychlor	35	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
Endrin Ketone	5	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin Aldehyde	5	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
alpha-Chlordane	0.1	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
gamma-Chlordane	0.1	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Toxaphene	ND	5 UJ	5 UJ	5 U	5 UJ	5 UJ	5 UJ	5 U	5 UJ
Aroclor-1016	0.1 (3)	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1221	0.1 (3)	2 UJ	2 UJ	2 U	2 UJ	2 UJ	2 UJ	2 U	2 UJ
Aroclor-1232	0.1 (3)	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1242	0.1 (3)	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1248	0.1 (3)	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1254	0.1 (3)	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ
Aroclor-1260	0.1 (3)	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
NS - Not specified

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MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-15

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARDS	MW-11D MW11D2	MW-13S MW13S2	MW-13D MW13D2	MW-14S MW14S2	MW-14D MW14D2	MW-15S MW15S2	MW-15D MW15D2	MW-16S MW16S2
Date Collected	6 NYCRR 703	9/20/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94	9/21/94
Pesticides and PCBs (ug/L)									
alpha-BHC	ND (4)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
beta-BHC	ND (4)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
delta-BHC	ND (4)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
gamma-BHC (Lindane)	ND (4)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor	ND (1)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Aldrin	ND	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor Epoxide	ND (1)	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Endosulfan I	N/A	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Dieldrin	ND	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDE	ND (2)	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin	ND	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan II	N/A	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDD	ND (2)	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan Sulfate	N/A	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDT	ND (2)	0.1 UJ	0.009 NJ	0.1 UJ	0.1 UJ	0.1 UJ	0.02 NJ	0.1 UJ	0.1 UJ
Methoxychlor	35	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Endrin Ketone	5	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin Aldehyde	5	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
alpha-Chlordane	0.1	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
gamma-Chlordane	0.1	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.006 NJ	0.05 UJ	0.05 UJ
Toxaphene	ND	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Aroclor-1016	0.1 (3)	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1221	0.1 (3)	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ
Aroclor-1232	0.1 (3)	1 UJ	1 UJ	1 UJ	1 UJ	2.4 J	1 UJ	1 UJ	1 UJ
Aroclor-1242	0.1 (3)	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1248	0.1 (3)	1 UJ	1 UJ	1 UJ	0.2 J	1 UJ	1 UJ	1 UJ	1 UJ
Aroclor-1254	0.1 (3)	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1.2 J	1 UJ	1 UJ
Aroclor-1260	0.1 (3)	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	0.5 J	1 UJ	1 UJ

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
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MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-15

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARDS 6 NYCRR 703	MW-16D MW16D2 9/21/94	MW-17S MW17S2 9/20/94	MW-17D MW17D2 9/20/94	MW-18S MW18S2 9/21/94	MW-18D MW18D 9/21/94	MW-19S MW19S2 9/27/94	MW-19D MW19D2 9/27/94	MW-19D MW299D2 DUP 9/27/94
Pesticides and PCBs (ug/L)									
alpha-BHC	ND (4)	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ
beta-BHC	ND (4)	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ
delta-BHC	ND (4)	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ
gamma-BHC (Lindane)	ND (4)	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor	ND (1)	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ
Aldrin	ND	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor Epoxide	ND (1)	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ
Endosulfan I	N/A	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ
Dieldrin	ND	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.007 J	0.1 UJ	0.01 J	0.01 J
4,4'-DDE	ND (2)	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ
Endrin	ND	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan II	N/A	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDD	ND (2)	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan Sulfate	N/A	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ
4,4'-DDT	ND (2)	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ
Methoxychlor	35	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ
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alpha-Chlordane	0.1	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ
gamma-Chlordane	0.1	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ
Toxaphene	ND	5 U	5 UJ	5 UJ	5 UJ	5 U	5 UJ	5 UJ	5 UJ
Aroclor-1016	0.1 (3)	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ
Aroclor-1221	0.1 (3)	2 U	2 UJ	2 UJ	2 UJ	2 U	2 UJ	2 UJ	2 UJ
Aroclor-1232	0.1 (3)	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ
Aroclor-1242	0.1 (3)	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ
Aroclor-1248	0.1 (3)	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ
Aroclor-1254	0.1 (3)	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ
Aroclor-1260	0.1 (3)	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ

Notes:

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MSD - Matrix Spike Duplicate

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TABLE 4-15

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARDS	MW-21S MW21S2	MW-23D MW23D2	MW-31S MW31S2	MW-32D MW32D2	MW-32D MW-1992 DUP	MW-33D MW33D2	MW-33D MW992 DUP	MW-35D MW35D2
Date Collected	6 NYCRR 703	9/22/94	9/23/94	9/23/94	9/22/94	9/22/94	9/19/94	9/19/94	9/23/94
Pesticides and PCBs (ug/L)									
alpha-BHC	ND (4)	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 U
beta-BHC	ND (4)	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 U
delta-BHC	ND (4)	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 U
gamma-BHC (Lindane)	ND (4)	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 U
Heptachlor	ND (1)	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 U
Aldrin	ND	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 U
Heptachlor Epoxide	ND (1)	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 U
Endosulfan I	N/A	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 U
Dieldrin	ND	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 U
4,4'-DDE	ND (2)	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 U
Endrin	ND	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 U
Endosulfan II	N/A	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 U
4,4'-DDD	ND (2)	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 U
Endosulfan Sulfate	N/A	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 U
4,4'-DDT	ND (2)	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 U
Methoxychlor	35	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U
Endrin Ketone	5	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin Aldehyde	5	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
alpha-Chlordane	0.1	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 U
gamma-Chlordane	0.1	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 U
Toxaphene	ND	5 UJ	5 U	5 UJ	5 UJ	5 UJ	5 U	5 UJ	5 U
Aroclor-1016	0.1 (3)	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 U
Aroclor-1221	0.1 (3)	2 UJ	2 U	2 UJ	2 UJ	2 UJ	2 U	2 UJ	2 U
Aroclor-1232	0.1 (3)	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 U
Aroclor-1242	0.1 (3)	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 U
Aroclor-1248	0.1 (3)	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 U
Aroclor-1254	0.1 (3)	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 U
Aroclor-1260	0.1 (3)	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 U

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

NS - Not specified

ND - Not detected

N/A - Not applicable

1 - Standard applies to the sum of these compounds

2 - Standard applies to the sum of these compounds

3 - Standard applies to the sum of these compounds

4 - Standard applies to the sum of these compounds

Laboratory Qualifiers:

U - Compound was analyzed for but not detected

B - Compound was found in method blank

J - Compound was detected below method detection limits

P - Compound was detected at differences of 25% between two GC columns

X - Matrix spike compound

NJ - Presumptive evidence for the presence of the material at an estimated value.

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-15

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARDS 6 NYCRR 703	MW-36D MW36D2	9/22/94	MW-37D MW37D2	9/22/94	MW-38S MW38S2	9/19/94	MW-39S MW39S2	9/20/94	MW-40D MW40D2	9/19/94	S-66133 S661332	FB919942 FB	9/19/94	FB920942 FB	9/20/94	FB921942 FB	9/21/94
Pesticides and PCBs (ug/L)																		
alpha-BHC	ND (4)	0.05 U		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ	0.05 U		0.05 UJ		0.05 U	
beta-BHC	ND (4)	0.05 U		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ	0.05 U		0.05 UJ		0.05 U	
delta-BHC	ND (4)	0.05 U		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ	0.05 U		0.05 UJ		0.05 U	
gamma-BHC (Lindane)	ND (4)	0.05 U		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ	0.05 U		0.05 UJ		0.05 U	
Heptachlor	ND (1)	0.05 U		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ	0.05 U		0.05 UJ		0.05 U	
Aldrin	ND	0.05 U		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ	0.05 U		0.05 UJ		0.05 U	
Heptachlor Epoxide	ND (1)	0.05 U		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ	0.05 U		0.05 UJ		0.05 U	
Endosulfan I	N/A	0.05 U		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ	0.05 U		0.05 UJ		0.05 U	
Dieldrin	ND	0.1 U		0.1 UJ		0.005 NJ		0.1 UJ		0.1 UJ		0.1 UJ	0.1 U		0.1 UJ		0.1 U	
4,4'-DDE	ND (2)	0.1 U		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ	0.1 U		0.1 UJ		0.1 U	
Endrin	ND (2)	0.1 U		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ	0.1 U		0.1 UJ		0.1 U	
Endosulfan II	N/A	0.1 U		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ	0.1 U		0.1 UJ		0.1 U	
4,4'-DDD	ND (2)	0.1 U		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ	0.1 U		0.1 UJ		0.1 U	
Endosulfan Sulfate	N/A	0.1 U		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ	0.1 U		0.1 UJ		0.1 U	
4,4'-DDT	ND (2)	0.1 U		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ	0.1 U		0.1 UJ		0.1 U	
Methoxychlor	35	0.5 U		0.5 UJ		0.5 UJ		0.5 UJ		0.5 UJ		0.5 UJ	0.5 U		0.5 UJ		0.5 U	
Endrin Ketone	5	0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ	0.1 UJ		0.1 UJ		0.1 UJ	
Endrin Aldehyde	5	0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ		0.1 UJ	0.1 UJ		0.1 UJ		0.1 UJ	
alpha-Chlordane	0.1	0.05 U		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ	0.05 U		0.05 UJ		0.05 U	
gamma-Chlordane	0.1	0.05 U		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ		0.05 UJ	0.05 U		0.05 UJ		0.05 U	
Toxaphene	ND	5 U		5 UJ		5 UJ		5 UJ		5 UJ		5 UJ	5 U		5 UJ		5 U	
Aroclor-1016	0.1 (3)	1 U		1 UJ		1 UJ		1 UJ		1 UJ		1 UJ	1 U		1 UJ		1 U	
Aroclor-1221	0.1 (3)	2 U		2 UJ		2 UJ		2 UJ		2 UJ		2 UJ	2 U		2 UJ		2 U	
Aroclor-1232	0.1 (3)	1 U		1 UJ		1 UJ		1 UJ		1 UJ		1 UJ	1 U		1 UJ		1 U	
Aroclor-1242	0.1 (3)	1 U		1 UJ		1 UJ		1 UJ		1 UJ		1 UJ	1 U		1 UJ		1 U	
Aroclor-1248	0.1 (3)	1 U		1 UJ		1 UJ		1 UJ		1.5 J		1 UJ	1 U		1 UJ		1 U	
Aroclor-1254	0.1 (3)	1 U		1 UJ		1 UJ		1 UJ		1 UJ		1 UJ	1 U		1 UJ		1 U	
Aroclor-1260	0.1 (3)	1 U		1 UJ		1 UJ		1 UJ		1 UJ		1 UJ	1 U		1 UJ		1 U	

Notes:

ug/L - Micrograms per liter
FB - Field Blank
TB - Trip Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
NS - Not specified

ND - Not detected
N/A - Not applicable
1 - Standard applies to the sum of these compounds
2 - Standard applies to the sum of these compounds
3 - Standard applies to the sum of these compounds
4 - Standard applies to the sum of these compounds

Laboratory Qualifiers:

U - Compound was analyzed for but not detected
B - Compound was found in method blank
J - Compound was detected below method detection limits
P - Compound was detected at differences of 25% between two GC columns
X - Matrix spike compound
NJ - Presumptive evidence for the presence of the material at an estimated value.

eder associates

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-15

GROUNDWATER ANALYTICAL RESULTS FOR PESTICIDES AND PCBs
1994 SECOND SAMPLING ROUND

Well ID	GROUNDWATER STANDARDS	NYS	FB922942 FB	FB923942 FB	FB927942 FB	MW-19D MS	MW-19D MSD	MW-32D MS	MW-32D MSD	MW-33D MS	MW-33D MSD
Sample ID QA/QC	6 NYCRR 703		9/22/94	9/23/94	9/27/94	9/27/94	9/27/94	9/22/94	9/22/94	9/19/94	9/19/94
Date Collected											
Pesticides and PCBs (ug/L)											
alpha-BHC	ND (4)		0.05 U	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
beta-BHC	ND (4)		0.05 U	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U
delta-BHC	ND (4)		0.05 U	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-BHC (Lindane)	ND (4)		0.05 U	0.05 UJ	0.05 UJ	0.24 X	0.24 X	0.24 X	0.26 X	0.26 X	0.3 X
Heptachlor	ND (1)		0.05 U	0.05 UJ	0.05 UJ	0.33 X	0.34 X	0.3 X	0.31 X	0.33 X	0.39 X
Aldrin	ND		0.05 U	0.05 UJ	0.05 UJ	0.38 X	0.39 X	0.32 X	0.34 X	0.33 X	0.38 X
Heptachlor Epoxide	ND (1)		0.05 U	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	N/A		0.05 U	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ND		0.1 U	0.1 UJ	0.1 UJ	0.75 X	0.72 X	0.79 X	0.75 X	0.81 X	0.92 X
4,4'-DDE	ND (2)		0.1 U	0.1 UJ	0.1 UJ	0.07 JP	0.09 J	0.06 JP	0.06 JP	0.73 X	0.79 X
Endrin	ND		0.1 U	0.1 UJ	0.1 UJ	0.78 PX	0.79 X	0.83 X	0.79 X	0.73 X	0.79 X
Endosulfan II	N/A		0.1 U	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDD	ND (2)		0.1 U	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	N/A		0.1 U	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ND (2)		0.1 U	0.1 UJ	0.1 UJ	0.73 PB	0.75 PB	0.8 X	0.75 X	0.72 X	0.78 X
Methoxychlor	35		0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Endrin Ketone	5		0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Aldehyde	5		0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
alpha-Chlordane	0.1		0.05 U	0.05 UJ	0.05 UJ	0.009 J	0.01 JP	0.05 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.1		0.05 U	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	ND		5 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Aroclor-1016	0.1 (3)		1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1221	0.1 (3)		2 U	2 UJ	2 UJ	2 U	2 U	2 U	2 U	2 U	2 U
Aroclor-1232	0.1 (3)		1 U	1 UJ	1 UJ	2.3	2.4	1 U	1 U	1 U	1 U
Aroclor-1242	0.1 (3)		1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1248	0.1 (3)		1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1254	0.1 (3)		1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1260	0.1 (3)		1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U

Notes:

ug/L - Micrograms per liter

FB - Field Blank

TB - Trip Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

NS - Not specified

ND - Not detected

N/A - Not applicable

1 - Standard applies to the sum of these compounds

2 - Standard applies to the sum of these compounds

3 - Standard applies to the sum of these compounds

4 - Standard applies to the sum of these compounds

Laboratory Qualifiers:

U - Compound was analyzed for but not detected

B - Compound was found in method blank

J - Compound was detected below method detection limits

P - Compound was detected at differences of 25% between two GC columns

X - Matrix spike compound

NJ - Presumptive evidence for the presence of the material at an estimated value.

TABLE 4-16

GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-1D MW1D1 07/12/94	MW-2S MW2S1 07/12/94	MW-2D MW2D1 07/12/94	MW-3S MW3S1 07/14/94	MW-3D MW3D1 07/13/94	MW-6S MW6S1 07/19/94	MW-6D MW6D1 07/19/94	MW-7S MW7S1 07/14/94
Wet Chemistry (mg/L)									
Alkalinity, as CaCO ₃	NS	85.2	100	15.2	291	67.4	4	36	5.2
Ammonia-Nitrogen	2 (1)	1.06	< 0.04	0.08	2.14	0.1	0.05	0.2	< 0.04
Biochemical Oxygen Demand (5 day)	NS	5	9	5	16	7	< 2	< 2	2
Chloride	250	15.5	27.5	13.4	32.2	13.6	< 3	20.2	6
Chemical Oxygen Demand	NS	27.6	< 10	< 10	39.2	11.3	< 10	< 10	34.6
Hardness, as CaCO ₃	NS	93.6	98.4	46.2	280	66.4	15	47	13
Nitrate-Nitrogen	10 (2)	0.52	0.12	3.92	< 0.1	0.17	1.04	< 0.1	0.58
Nitrite-Nitrogen	10 (2)	< 0.005	< 0.005	0.006	0.038	0.009	< 0.005	< 0.005	0.043
Ortho-Phosphate	NS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Sulfate	250	< 10	23.5	28.8	12.8	10.3	< 10	21.8	13.6
Sulfide	0.05*	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Dissolved Solids	NS	141	163	105	384	131	28	114	54
Total Organic Carbon	NS	22.9	8.65	2.72	67.7	17.3	1.48	12.3	3.31

Notes:

mg/L - Milligrams per liter

< - Less than

FB - Field Blank

TB - Trip Blank

NS - Not specified

* - Guidance value

1 - Standard applies to the sum of ammonia and ammonium

2 - Standard applies to the sum of both compounds

TABLE 4-16

GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-7D MW7D1	MW-8S MW8S1	MW-8D MW8D1	MW-9S MW9S1	MW-9D MW9D1	MW-9D MW1991 DUP	MW-10S MW10S1	MW-10D MW10D1
Date Collected	6 NYCRR 703	07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/14/94	07/15/94	07/15/94
Wet Chemistry (mg/L)									
Alkalinity, as CaCO ₃	NS	34.8	65.8	42.4	64.4	41.6	40.4	106	54.8
Ammonia-Nitrogen	2 (1)	0.71	0.05	1.84	0.04	1.76	1.88	0.663	1.63
Biochemical Oxygen Demand (5 day)	NS	10	4	2	2	3	3	6	< 2
Chloride	250	22.2	12.7	29.5	11.4	58.5	57.2	12.9	27
Chemical Oxygen Demand	NS	32.2	32.2	41.5	53.2	48.5	39.2	50.8	64.8
Hardness, as CaCO ₃	NS	54.4	84	47.2	104	62.2	62.4	81.8	70.8
Nitrate-Nitrogen	10 (2)	1.55	4.61	0.46	0.44	1.74	1.76	< 0.1	0.56
Nitrite-Nitrogen	10 (2)	0.042	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005
Ortho-Phosphate	NS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Sulfate	250	22.2	29.2	23.9	50.6	20.2	26.3	10.7	18.9
Sulfide	0.05*	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Dissolved Solids	NS	136	181	141	185	202	205	162	125
Total Organic Carbon	NS	3.2	2.61	2.76	2.62	5.1	16.4	14.5	7.64

Notes:

mg/L - Milligrams per liter

< - Less than

FB - Field Blank

TB - Trip Blank

NS - Not specified

* - Guidance value

1 - Standard applies to the sum of ammonia and ammonium

2 - Standard applies to the sum of both compounds

TABLE 4-16

GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-11S MW11S1	MW-11D MW11D1	MW-13S MW13S1	MW-13D MW13D1	MW-14S MW14S1	MW-14D MW14D1	MW-15S MW15S1	MW-15D MW15D1
Date Collected		07/15/94	07/15/94	07/18/94	07/18/94	07/15/94	07/15/94	07/18/94	07/18/94
Wet Chemistry (mg/L)									
Alkalinity, as CaCO ₃	NS	67	113	118	77	110	69.6	53	109
Ammonia-Nitrogen	2 (1)	0.22	1.36	1.1	0.86	0.604	0.694	0.085	1.18
Biochemical Oxygen Demand (5 day)	NS	< 2	3	< 2	2	< 2	< 2	< 2	4
Chloride	250	10.9	12.6	12.4	16.6	14.3	10.9	14.4	21.6
Chemical Oxygen Demand	NS	48.5	39.2	13.6	10	78.7	43.9	< 10	18.3
Hardness, as CaCO ₃	NS	85.2	102	134	79.6	112	68.2	104	91.8
Nitrate-Nitrogen	10 (2)	0.3	< 0.1	< 0.1	< 0.1	0.18	< 0.1	1.35	< 0.1
Nitrite-Nitrogen	10 (2)	0.008	0.005	0.022	< 0.005	0.005	0.021	< 0.005	0.084
Ortho-Phosphate	NS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Sulfate	250	28.4	< 10	11.5	13.2	11.9	< 10	23.5	< 10
Sulfide	0.05*	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Dissolved Solids	NS	141	143	171	132	160	110	152	212
Total Organic Carbon	NS	3.97	12.2	18.6	1.64	2.66	1.74	3.28	2.6

Notes:

mg/L - Milligrams per liter

< - Less than

FB - Field Blank

TB - Trip Blank

NS - Not specified

* - Guidance value

1 - Standard applies to the sum of ammonia and ammonium

2 - Standard applies to the sum of both compounds

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-16
GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-16S MW16S1 07/18/94	MW-16D MW16D1 07/18/94	MW-17S MW17S1 07/18/94	MW-17D MW17D1 07/18/94	MW-18S MW18S1 07/21/94	MW-18D MW18D1 07/21/94	MW-19S MW19S1 07/19/94	MW-19D MW19D1 07/19/94
Wet Chemistry (mg/L)									
Alkalinity, as CaCO ₃	NS	110	126	47.8	146	90.4	66	39	114
Ammonia-Nitrogen	2 (1)	1.9	2.86	0.08	2.79	0.67	1.21	0.08	0.82
Biochemical Oxygen Demand (5 day)	NS	5	4	2	11	4	< 2	< 2	4
Chloride	250	20	24.4	16.3	24.9	18.8	17.9	5.7	11.1
Chemical Oxygen Demand	NS	<10	16	<10	<10	25.3	18.3	< 10	< 10
Hardness, as CaCO ₃	NS	118	109	78.2	143	225	74	54	111
Nitrate-Nitrogen	10 (2)	1.38	< 0.1	1.51	< 0.1	8.88	< 0.1	1.28	< 0.1
Nitrite-Nitrogen	10 (2)	0.023	0.005	0.024	0.083	0.016	< 0.005	0.008	0.011
Ortho-Phosphate	NS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Sulfate	250	16.9	< 10	37.5	< 10	40.8	18.9	11.9	< 10
Sulfide	0.05*	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Dissolved Solids	NS	194	228	156	232	232	122	85	147
Total Organic Carbon	NS	3.12	23.4	3.06	3.38	8.02	14.5	2.08	11.7

Notes:
mg/L - Milligrams per liter
< - Less than
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TB - Trip Blank

NS - Not specified
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1 - Standard applies to the sum of ammonia and ammonium
2 - Standard applies to the sum of both compounds

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-16

GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-21S MW21S1	MW-23D MW23D1	MW-31S MW31S1	MW-32D MW32D1	MW-33D MW33D1	MW-35D MW35D1	MW-36D MW36D1	MW-37D MW37D1
		07/19/94	07/21/94	07/22/94	07/19/94	07/13/94	07/22/94	07/20/94	07/20/94
Wet Chemistry (mg/L)									
Alkalinity, as CaCO ₃	NS	10	3.6	10	1	11	112	31	8
Ammonia-Nitrogen	2 (1)	< 0.04	0.06	0.06	< 0.04	0.09	0.13	< 0.04	< 0.04
Biochemical Oxygen Demand (5 day)	NS	< 2	< 2	< 2	< 2	3	< 2	15	< 2
Chloride	250	6.3	10.6	11.4	9.1	10.3	108	19	7.4
Chemical Oxygen Demand	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Hardness, as CaCO ₃	NS	35.6	13	59.2	5.8	19.4	215	41.4	14
Nitrate-Nitrogen	10 (2)	0.37	< 0.1	4.69	< 0.1	1.42	< 0.1	< 0.1	< 0.1
Nitrite-Nitrogen	10 (2)	< 0.005	< 0.005	< 0.005	< 0.005	0.008	< 0.005	< 0.005	< 0.005
Ortho-Phosphate	NS	< 0.1	< 0.1	< 0.1	< 0.1	0.3	< 0.1	< 0.1	< 0.1
Sulfate	250	26.8	13.2	20.6	< 10	16.9	61.3	44.4	11.1
Sulfide	0.05*	< 1	< 1	< 1	< 10	< 1	< 1	< 1	< 1
Total Dissolved Solids	NS	65	42	123	37	88	342	137	47
Total Organic Carbon	NS	3.12	< 0.5	2.41	0.76	14.6	13.2	3.54	0.91

Notes:

mg/L - Milligrams per liter

< - Less than

FB - Field Blank

TB - Trip Blank

NS - Not specified

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TABLE 4-16
GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 FIRST SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-38S MW38S1	MW-39S MW39S1	MW-40D MW40D1	MW-40D MW991 DUP	S-66133 S661331	S-66133 MW2991 DUP	FB5940718 FB	FB2940713 FB
Date Collected	6 NYCRR 703	07/21/94	07/18/94	07/12/94	07/12/94	07/19/94	07/19/94	07/18/94	07/13/94
Wet Chemistry (mg/L)									
Alkalinity, as CaCO ₃	NS	76	60	45	43.2	19	20	2	2
Ammonia-Nitrogen	2 (1)	0.04	0.04	0.06	< 0.04	0.08	0.1	< 0.04	< 0.04
Biochemical Oxygen Demand (5 day)	NS	< 2	5	6	5	< 2	< 2	< 2	4
Chloride	250	10.8	12.7	13	13.1	21.7	21.6	< 3	< 3
Chemical Oxygen Demand	NS	< 10	< 10	< 10	< 10	< 10	< 10	< 10	36.9
Hardness, as CaCO ₃	NS	90	84	48.8	51	41.8	41.2	< 1	< 1
Nitrate-Nitrogen	10 (2)	1.31	1.02	0.29	4.43	1.33	1.33	< 0.1	< 0.1
Nitrite-Nitrogen	10 (2)	< 0.005	0.008	< 0.005	< 0.005	0.01	< 0.005	< 0.005	0.021
Ortho-Phosphate	NS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Sulfate	250	17.3	13.6	16.9	15.6	28.8	28.4	< 10	< 10
Sulfide	0.05*	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total Dissolved Solids	NS	138	125	82	92	114	120	< 5	18
Total Organic Carbon	NS	3.06	4.5	19	18.2	1.23	7.89	< 0.5	0.92

Notes:
mg/L - Milligrams per liter
< - Less than
FB - Field Blank
TB - Trip Blank

NS - Not specified
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2 - Standard applies to the sum of both compounds

TABLE 4-16

GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 FIRST SAMPLING ROUND

Well ID	NYS	GROUNDWATER	FB1940712	FB9940719	FB940721	FB9940714	FB940715	FB940722
Sample ID		STANDARD	FB	FB	FB	FB	FB	FB
Date Collected		6 NYCRR 703	07/12/94	07/19/94	07/21/94	07/14/94	07/15/94	07/22/94
Wet Chemistry (mg/L)								
Alkalinity, as CaCO ₃	NS		2	2	2	1.6	2	< 2
Ammonia-Nitrogen	2 (1)		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	0.08
Biochemical Oxygen Demand (5 day)	NS		< 2	< 2	< 2	< 2	< 2	< 2
Chloride	250		< 3	< 3	< 3	< 3	< 3	< 3
Chemical Oxygen Demand	NS		< 10	< 10	< 10	22.9	18.3	< 10
Hardness, as CaCO ₃	NS		< 1	< 1	13.6	< 1	< 1	< 1
Nitrate-Nitrogen	10 (2)		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nitrite-Nitrogen	10 (2)		< 0.005	< 0.005	< 0.005	0.015	0.005	< 0.005
Ortho-Phosphate	NS		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Sulfate	250		< 10	< 10	< 10	< 10	< 10	< 10
Sulfide	0.05*		< 1	< 1	< 1	< 1	< 1	< 1
Total Dissolved Solids	NS		< 5	10	< 5	9	< 5	< 5
Total Organic Carbon	NS		< 0.5	1.17	< 0.5	< 0.5	< 0.5	0.71

Notes:

mg/L - Milligrams per liter

< - Less than

FB - Field Blank

TB - Trip Blank

NS - Not specified

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1 - Standard applies to the sum of ammonia and ammonium

2 - Standard applies to the sum of both compounds

TABLE 4-17

GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	GROUNDWATER STANDARD 6 NYCRR 703	NYS	MW-1D MW-1D2	MW-2S MW-2S2	MW-2D MW-2D2	MW-3S MW-3S2	MW-3D MW-3D2	MW-6S MW-6S2	MW-6D MW-6S2	MW-7S MW-7S2
Date Collected	9/19/94	9/23/94	9/24/94	9/19/94	9/22/94	9/21/94	9/22/94	9/21/94	9/22/94	9/21/94
Wet Chemistry Parameter (mg/L)										
Alkalinity, as CaCO ₃	NS	NS	64	96	12.6	179	61.2	9 U	34.4	6.4 U
Ammonia-Nitrogen	2 (1)	2 (1)	1.06	<0.04	0.37	3.26	0.1	<0.04	0.35	<0.04
Biochemical Oxygen Demand (5 day)	NS	NS	4	2	2	9	5	<2	3	<2
Chloride	250	250	13.7	22 U	26.1 U	40.4	26.6	<3	21	3.3
Chemical Oxygen Demand	NS	NS	11.3	<10	<10	43.9	22.9	<10	11.3	<10
Hardness, as CaCO ₃	NS	NS	69.2	90.6	39	191	85.4	28.6	42	14.4
Nitrate-Nitrogen	10 (2)	10 (2)	1.43	<0.1	3.2	<0.1	0.1	2.8	<0.1	1.31
Nitrite-Nitrogen	10 (2)	10 (2)	0.009	0.015	0.009	0.019	0.009	<0.005	<0.005	0.008
Orthophosphate	NS	NS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	250	250	14.4	20.2	24.3	<10	<10	16.1	17.3	<10
Sulfide	0.05*	0.05*	<1	<1	<1	<1	<1	<1	<1	<1
Total Dissolved Solids	NS	NS	146	178	92	293	145	64	110	27
Total Organic Carbon	NS	NS	1.71	13.6	0.83	14.4	7.61	1.68	2.91	4.89 U

Notes:

mg/L - Milligrams per liter

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Laboratory Qualifiers:

U - Compound analyzed for but not detected

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-17

GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-7D MW-7D2	MW-8S MW8S2	MW-8D MW8D2	MW-9S MW9S2	MW-9D MW9D2	MW-10S MW10S2	MW-10D MW-10D2	MW-11S MW11S2
		9/21/94	9/19/94	9/19/94	9/20/94	9/20/94	9/20/94	9/20/94	9/20/94
Wet Chemistry Parameter (mg/L)									
Alkalinity, as CaCO ₃	NS	31.8	63.2	43.2	62	44	81.8	56.2	57.6
Ammonia-Nitrogen	2 (1)	0.21	<0.04	1.69	<0.04	1.96	0.53	1.52	0.2
Biochemical Oxygen Demand (5 day)	NS	2	2	<2	<2	<2	3	<2	<2
Chloride	250	23.6	12	31.4	21	49.9	13.2	27.8	10.3
Chemical Oxygen Demand	NS	<10	<10	<10	13.6	<10	48.5	29.9	<10
Hardness, as CaCO ₃	NS	53.2	95	51.6	90.2	45.6	102	63.2	82.6
Nitrate-Nitrogen	10 (2)	1.08	6.15	0.72	0.8	2.25	0.11	0.46	0.76
Nitrite-Nitrogen	10 (2)	0.01	<0.005	<0.005	<0.005	<0.005	0.035	<0.005	0.1
Orthophosphate	NS	<0.1	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	250	23	35.4	20.2	21.4	24.3	40.7	18.9	37.5
Sulfide	0.05*	<1	<1	<1	2.7	<1	<1	<1	<1
Total Dissolved Solids	NS	98	194	139	167	169	186	134	145
Total Organic Carbon	NS	2.72	2.49	2.84	2.37	1.07	32.8	2.64	14.6

Notes:

mg/L - Milligrams per liter
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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-17

GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-11D MW11D2 9/20/94	MW-13S MW13S2 9/21/94	MW-13D MW13D2 9/21/94	MW-14S MW14S2 9/21/94	MW-14D MW14D2 9/21/94	MW-15S MW15S2 9/21/94	MW-15D MW15D2 9/21/94	MW-16S MW16S2 9/21/94	MW-16D MW16D2 9/21/94
Wet Chemistry Parameter (mg/L)										
Alkalinity, as CaCO ₃	NS	111	101	75.2	101	79.4	56.8	101	91.8	125
Ammonia-Nitrogen	2 (1)	1.12	0.9	0.77	0.67	0.55	0.16	0.87	1.11	2.89
Biochemical Oxygen Demand (5 day)	NS	4	2	3	<2	4	<2	5	<2	4
Chloride	250	12.3	12	16.2	15.2	14.2	12	20.6	18.4	26.1
Chemical Oxygen Demand	NS	151	43.9	69.4	20.6	11.3	18.3	18.3	13.6	16
Hardness, as CaCO ₃	NS	98.4	104	77.8	118	84.6	110	17.8	118	106
Nitrate-Nitrogen	10 (2)	<0.1	<0.1	<0.1	0.8	<0.1	1.3	<0.1	2.68	<0.1
Nitrite-Nitrogen	10 (2)	0.009	0.009	<0.005	0.006	0.009	0.007	0.081	0.02	0.064
Orthophosphate	NS	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	250	<10	18.1	12.3	19.3	<10	25.9	10.3	30	<10
Sulfide	0.05*	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Dissolved Solids	NS	153	141	117	147	99	104	174	175	184
Total Organic Carbon	NS	28.6	12.9	19.5	4.62	1.13	1.49	2.01	2.17	14

Notes:
mg/L - Milligrams per liter
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FB - Field Blank
TB - Trip Blank

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2 - Standard applies to the total of both compounds

Laboratory Qualifiers:
U - Compound analyzed for but not detected

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-17

GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-17S MW17S2	MW-17D MW17D2	MW-18S MW18S2	MW-18D MW18D	MW-19S MW19S2	MW-19D MW19D2	MW-19D MW299D2 DUP	MW-21S MW21S2	MW-23D MW23D2
Date Collected	6 NYCRR 703	9/20/94	9/20/94	9/21/94	9/21/94	9/27/94	9/27/94	9/27/94	9/22/94	9/23/94
Wet Chemistry Parameter (mg/L)										
Alkalinity, as CaCO ₃	NS	49.2	147	89	72	41.2	134	135	12.6	4.6 U
Ammonia-Nitrogen	2 (1)	0.11	2.56	0.2	1.15	<0.04	0.94	0.82	<0.04	<0.04
Biochemical Oxygen Demand (5 day)	NS	<2	4	4	<2	<2	3	6	<2	3
Chloride	250	13.8	24.5	12.1	18.6	<10	6.6	12.9	6.3	12 U
Chemical Oxygen Demand	NS	<10	16	16	16	<10	20.6	20.6	16	<10
Hardness, as CaCO ₃	NS	77.6	134	121	70.8	93	125	127	51.8	12.4
Nitrate-Nitrogen	10 (2)	1.35	<0.1	3.98	<0.1	0.91	<0.1	<0.1	0.46	<0.1
Nitrite-Nitrogen	10 (2)	0.014	0.031	0.009	<0.005	0.006	0.007	<0.005	<0.005	<0.005
Orthophosphate	NS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	250	31.7	<10	24.3	18.5	16.5	<10	<10	23	10.3
Sulfide	0.05*	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Dissolved Solids	NS	147	231	163	110	87	167	170	79	46
Total Organic Carbon	NS	13.4	6.84	4.11	9.65	2.27	11.5	2.78	3.28	1.14

Notes:

mg/L - Milligrams per liter

< - Less than

FB - Field Blank

TB - Trip Blank

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Laboratory Qualifiers:

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FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-17
GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC	NYS GROUNDWATER STANDARD	MW-31S MW31S2	MW-32D MW32D2	MW-32D MW-1992 DUP	MW-33D MW33D2	MW-33D MW992 DUP	MW-35D MW35D2	MW-36D MW36D2	MW-37D MW37D2	MW-38S MW38S2
Date Collected	6 NYCRR 703	9/23/94	9/22/94	9/22/94	9/19/94	9/19/94	9/23/94	9/22/94	9/22/94	9/19/94
Wet Chemistry Parameter (mg/L)										
Alkalinity, as CaCO ₃	NS	18.8	2.6 U	3.2 U	8.6 U	9.2 U	134	28.4 U	10 U	64.2
Ammonia-Nitrogen	2 (1)	<0.04	<0.04	<0.04	1.21	1.26	<0.04	<0.04	<0.04	<0.04
Biochemical Oxygen Demand (5 day)	NS	<2	<2	<2	4	<2	4	2	<2	<2
Chloride	250	12.7 U	9.8	7.4 U	11	11	17.2 U	9.4 U	18.8 U	13.8
Chemical Oxygen Demand	NS	<10	<10	<10	<10	<10	<10	11.3	<10	<10
Hardness, as CaCO ₃	NS	89.8	5.8	4.2	16.4	17.6	206	36	15.8	77.6
Nitrate-Nitrogen	10 (2)	7.58	<0.1	<0.1	1.58	1.51	<0.1	0.11	<0.1	1.45
Nitrite-Nitrogen	10 (2)	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005
Orthophosphate	NS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	250	44.6	<10	<10	11.1	15.2	57.2	40.7	<10	11.9
Sulfide	0.05*	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Dissolved Solids	NS	170	41	35	83	86	369	133	48	139
Total Organic Carbon	NS	323	0.68	3.66	6.42	0.96	0.81	1.81 U	0.74 U	7.22

Notes:
mg/L - Milligrams per liter
< - Less than
FB - Field Blank
TB - Trip Blank

NS - Not specified
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2 - Standard applies to the total of both compounds

Laboratory Qualifiers:
U - Compound analyzed for but not detected

FAIRCHILD INDUSTRIES INC.
MAIN PLANT SITE RI
EAST FARMINGDALE, NEW YORK

TABLE 4-17

GROUNDWATER ANALYTICAL RESULTS FOR WET CHEMISTRY PARAMETERS
1994 SECOND SAMPLING ROUND

Well ID Sample ID QA/QC Date Collected	NYS GROUNDWATER STANDARD 6 NYCRR 703	MW-39S MW39S2	MW-40D MW40D2	S-66133 S661332	FB919942 FB	FB920942 FB	FB921942 FB	FB922942 FB	FB923942 FB	FB927942 FB
		9/20/94	9/19/94	9/22/94	9/19/94	9/20/94	9/21/94	9/22/94	9/23/94	9/27/94
Wet Chemistry Parameter (mg/L)										
Alkalinity, as CaCO ₃	NS	57.8	48	21.2 U	<2	7.4 U	5 U	14.4	3.4 U	2.6 U
Ammonia-Nitrogen	2 (1)	<0.04	0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Biochemical Oxygen Demand (5 day)	NS	<2	<2	<2	<2	<2	<2	<2	<2	<2
Chloride	250	18.8	13.9	<3	<3	<3	<3	9.8	109	<3
Chemical Oxygen Demand	NS	<10	16	<10	<10	<10	<10	<10	<10	<10
Hardness, as CaCO ₃	NS	90.2	60.4	37.8	<1	<1	<1	<1	<1	<1
Nitrate-Nitrogen	10 (2)	1.9	0.28	1.41	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite-Nitrogen	10 (2)	<0.005	0.029	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Orthophosphate	NS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	250	21	<10	25.9	<10	<10	<10	<10	<10	<10
Sulfide	0.05*	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Dissolved Solids	NS	135	114	112	15	8	<5	<5	<5	<5
Total Organic Carbon	NS	14.6	6.8	2.5 U	<0.5	<0.5	<0.5	0.5	<0.5	<0.5

Notes:

mg/L - Milligrams per liter
< - Less than
FB - Field Blank
TB - Trip Blank

NS - Not specified

* - Guidance value

1 - Standard applies to the sum of ammonia and ammonium

2 - Standard applies to the total of both compounds

Laboratory Qualifiers:

U - Compound analyzed for but not detected

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-18

SOIL ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS-PCE TANK AREA

Sample Location: Sample Designation: Sample Date:	B1 FRC-B1-(2-4) 09/15/92	B1 FRC-B1-(28-30) 09/15/92	B1 FRC-B1-(30-32) 09/15/92	B2 FRC-B2-(22-24) 09/16/92	B2 FRC-B2-(28-30) 09/16/92	B2 FRC-B2-(30-32) 09/16/92	B3 FRC-B3-(24-26) 09/16/92	B3 FRC-B3-(28-30) 09/16/92	B3 FRC-B3-(30-32) 09/16/92
Chloromethane	10U	10U	11U	10U	10U	11U	10U	10U	12U
Bromomethane	10U	10U	11U	10U	10U	11U	10U	10U	12U
Vinyl Chloride	10U	10U	11U	10U	10U	11U	10U	10U	12U
Chloroethane	10U	10U	11U	10U	10U	11U	10U	10U	12U
Methylene Chloride	2JBC	2JBC	2JBC	2JBC	2JBC	1JBC	2JBC	1JBC	2JBC
Acetone	6JBC	9JBC	12JBC	14JBC	18JBC	8JBC	7JBC	6JBC	7JBC
Carbon Disulfide	10U	10U	11U	10U	10U	11U	10U	10U	12U
1,1-Dichloroethene	10U	10U	11U	10U	10U	11U	10U	10U	12U
1,1-Dichloroethane	10U	10U	11U	10U	10U	11U	10U	10U	12U
1,2-Dichloroethene	10U	10U	11U	10U	10U	11U	10U	10U	12U
Chloroform	0.8J	10U	11U	10U	10U	11U	10U	10U	12U
1,2-Dichloroethane	10U	10U	11U	10U	10U	11U	10U	10U	12U
2-Butanone	2JBC	10U	4JBC	4JBC	5JBC	11U	2JBC	10U	12U
1,1,1-Trichloroethane	10U	10U	11U	10U	10U	11U	10U	10U	12U
Carbon Tetrachloride	10U	10U	11U	10U	10U	11U	10U	10U	12U
Bromodichloromethane	10U	10U	11U	10U	10U	11U	10U	10U	12U
1,2-Dichloropropane	10U	10U	11U	10U	10U	11U	10U	10U	12U
cis-1,3-Dichloropropene	10U	10U	11U	10U	10U	11U	10U	10U	12U
Trichloroethene	10U	10U	11U	10U	10U	11U	10U	10U	12U
Dibromochloromethane	10U	10U	11U	10U	10U	11U	10U	10U	12U
1,1,2-Trichloroethane	10U	10U	11U	10U	10U	11U	10U	10U	12U
Benzene	10U	10U	11U	10U	10U	11U	10U	10U	12U
trans-1,3-Dichloropropene	10U	10U	11U	10U	10U	11U	10U	10U	12U
Bromoform	10U	10U	11U	10U	10U	11U	10U	10U	12U
4-Methyl-2-pentanone	10U	10U	11U	10U	10U	11U	10U	10U	12U
2-Hexanone	10UC	10UC	11UC	10UC	10UC	11UC	10UC	10UC	12UC
Tetrachloroethene	10U	10U	11U	10U	10U	11U	10U	10U	12U
1,1,2,2-Tetrachloroethane	10U	10U	11U	10U	10U	11U	10U	10U	12U
Toluene	0.5JBC	10U	0.5JB	0.4JBC	0.4JBC	11U	10U	0.3JBC	12U
Chlorobenzene	10U	10U	11U	10U	10U	11U	10U	10U	12U
Ethylbenzene	10U	10U	11U	10U	10U	11U	10U	10U	12U
Styrene	10U	10U	11U	10U	10U	11U	10U	10U	12U
Xylenes (total)	10U	10U	11U	10U	10U	11U	10U	10U	12U
TICs (total)	10U	10U	9J	10U	10U	11U	10U	10U	12U

Units in ug/kg.

U-Compound was analyzed for but not detected.

J-Compound was analyzed for and determined to be present. The concentration listed is an estimated value.

B-Compound was found in the blanks as well as the sample.

C-Laboratory calibration requirements were not met.

TABLE 4-19

SOIL ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS-BUILDING 42

Sample Location: Sample Designation: Sample Date:	B42-2 FRC-SS B42-2 02/02/94	B42-3 FRC-SS B42-3 02/02/94	B42-3 FRC-SS B42-3MS 02/02/94	B42-3 FRC-SS B42-3MSD 02/02/94	B42-3 FB 02/02/94	TB
Chloromethane	10UJ	10UJ	10U	10U	10UJ	10UJ
Bromomethane	10UJ	10UJ	10U	10U	10U	10U
Vinyl Chloride	10UJ	10UJ	10U	10U	10U	10U
Chloroethane	10UJ	10UJ	10U	10U	10U	10U
Methylene Chloride	10U	2J	3J	1J	10U	10U
Acetone	17U	54J	100B	64B	10U	10U
Carbon Disulfide	10U	10U	10U	10U	10U	10U
1,1-Dichloroethene	10U	10U	45	45	10U	10U
1,1-Dichloroethane	10U	10U	10U	10U	10U	10U
1,2-Dichloroethene	10U	10U	10U	10U	10U	10U
Chloroform	10U	10U	10U	10U	10U	10U
1,2-Dichloroethane	10U	10U	10U	10U	10U	10U
2-Butanone	10U	4J	10U	10U	10U	10U
1,1,1-Trichloroethane	10U	10U	10U	10U	2J	10U
Carbon Tetrachloride	10U	10U	10U	10U	10U	10U
Bromodichloromethane	10U	10U	10U	10U	10U	10U
1,2-Dichloropropane	10U	10U	10U	10U	10U	10U
cis-1,3-Dichloropropene	10U	10U	10U	10U	10U	10U
Trichloroethene	10U	10U	49	47	3J	10U
Dibromochloromethane	10U	10U	10U	10U	10U	10U
1,1,2-Trichloroethane	10U	10U	10U	10U	10U	10U
Benzene	10U	1J	55	51	10U	10U
trans-1,3-Dichloropropene	10U	10U	10U	10U	10U	10U
Bromoform	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U
Tetrachloroethene	10U	10U	1J	1J	10U	10U
1,1,2,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U
Toluene	10U	10U	48	46	10U	10U
Chlorobenzene	10U	10U	49	48	10U	10U
Ethylbenzene	10U	10U	10U	10U	10U	10U
Styrene	10U	10U	10U	10U	10U	10U
Xylenes (total)	1J	10U	1J	10U	10U	10U
TICs (total)	90J	112J	N/A	N/A	10U	10U

Units in ug/kg.

U-Compound was analyzed for but not detected.

J-Compound was analyzed for and determined to be present. The concentration listed is an estimated value.

B-Compound was found in the blanks as well as the sample.

R-Rejected, the laboratory failed to meet calibration requirements.

N/A-Parameter was not analyzed for.

UJ - quantitation limit may be biased.

Field Blank (FB) and Trip Blank (TB) concentrations are in ug/l

MAIN PLANT SITE RI
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-20

SOIL ANALYTICAL RESULTS FOR POLYCHLORINATED BIPHENYLS - BUILDING 42

Sample Location: Sample Designation: Sample Date:	B42-2 FRC-SS B42-2 02/02/94	B42-3 FRC-SS B42-3 02/02/94	B42-3 FRC-SS B42-3MS 02/02/94	B42-3 FRC-SS B42-3MSD 02/02/94	B42-3 FB 02/02/94
Aroclor-1016	33U	33U	33U	33U	1UJ
Aroclor-1221	67U	67U	67U	67U	2UJ
Aroclor-1232	33U	33U	33U	33U	1UJ
Aroclor-1242	33U	33U	33U	33U	1UJ
Aroclor-1248	33U	33U	33U	33U	1UJ
Aroclor-1254	33U	33U	33U	33U	1UJ
Aroclor-1260	33U	33U	270P	350	1UJ

NOTES:

Units in ug/kg.

U - Compound was analyzed for but not detected.

P - Compound was detected but there was a greater than 25% difference between the two GC columns.

UJ - Quantitation limit may be biased

Field Blank (FB) concentrations are in ug/l

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-21

SOIL VAPOR PGC DATA SUMMARY - FORMER VAPOR DEGREASER

SAMPLE I.D.	SAMPLING		ANALYSIS			CONTAMINANT CONCENTRATION, PPM					
	DATE	TIME	DATE	TIME	RUN #	PCE	TCE	1,1,1-TCA	CIS-1,2-DCE	TRANS-1,2-DCE	VINYL CHLORIDE
FAI-17-SV-A13-1	03/14	1650	03/15	0045,0104	105,109	0.049	3.5 D	ND	1.2 E	ND	NA
FAI-17-SV-A15-1	03/14	1535	03/14	2238,2243	81,82	1.8 EC	42 D	ND	12 D	ND	NA
FAI-17-SV-A16-1	03/17	1045	03/17	1549	33	150 DC	1300 D	ND	690 D	ND	ND
FAI-17-SV-A17-1	03/14	1215	03/14	1548,1600	33,35	0.17 BDC	16 D	ND	4 D	ND	NA
FAI-17-SV-B13-1	03/14	1630	03/15	0031,0035	102,103	0.69 C	11 D	ND	2 E	ND	NA
FAI-17-SV-B15-1	03/14	1500	03/14	2154,2159	72,73	0.84 C	40 D	ND	4.8 D	ND	NA
FAI-17-SV-B17-1	03/14	1140	03/14	1528	31	0.002 EC	0.13	ND	0.023	ND	NA
FAI-17-SV-BA18-1	03/15	1250	03/15	2023,2028	24,25	0.045 C	4.4 D	ND	1.1 D	ND	NA
FAI-17-DSV-BA18-1	03/15	1253	03/15	2038	27	0.28 DC	4.3 D	ND	1.1 D	ND	NA
FAI-17-AA-BA18-1	03/15	1255	03/15	2203	35	0.001 EC	0.021	ND	0.026	ND	NA
FAI-17-SV-BB18-1	03/15	1235	03/15	1935,1944	18,19	0.008 EC	2.2 D	40 D	ND	ND	NA
FAI-17-DSV-BB18-1	03/15	1240	03/15	2007,2012	21,22	0.018 C	3.4 D	61 D	ND	ND	NA
FAI-17-SV-BC18-1	03/15	1220	03/15	1922	15	0.003 EC	0.051	3.9	0.011	ND	NA
FAI-17-SV-BD1-18-1	03/15	1205	03/15	1905	13	0.008 EC	0.080	ND	ND	ND	NA
FAI-17-SV-BD2-18-1	03/15	1150	03/15	1850	11	0.005 EC	0.040	ND	ND	ND	NA
FAI-17-SV-BE18-1	03/15	1125	03/15	1515	37	0.009 EC	0.018	ND	ND	ND	NA
FAI-17-AA-BE18-1	03/15	1135	03/15	1524	39	0.001 EC	0.002 E	ND	ND	0.006	NA
FAI-17-SV-BF18-1	03/15	1120	03/15	1446,1451	33,34	0.008 EC	0.13	ND	ND	ND	NA
FAI-17-SV-BG18-1	03/15	1100	03/15	1435	31	0.009 EC	0.051	ND	ND	ND	NA
FAI-17-SV-BH18-1	03/15	1045	03/15	1425	29	0.006 EC	0.015	ND	ND	ND	NA
FAI-17-SV-D13-1	03/14	1615	03/15	0005,0009,0014	97,98,99	0.062	3.9 D	0.40	0.91	ND	NA
FAI-17-SV-D15-1	03/14	1430	03/14	2056,2106	61,63	0.071 C	12 D	ND	0.12	0.004 C	NA
FAI-17-DSV-D15-1	03/14	1433	03/14	2134,2139	68,69	0.059 C	13 D	ND	0.3 D	0.004 C	NA
FAI-17-SV-D17-1	03/14	1110	03/14	1517	29	0.069 C	2.3 E	ND	0.081	ND	NA
FAI-17-SV-E13-1	03/14	1600	03/14	2304,2309	86,87	0.049	1.1 E	ND	0.67	ND	NA
FAI-17-AA-E13-1	03/14	1605	03/14	2356	95	0.001 BC	0.039	ND	0.004 E	ND	NA
FAI-17-SV-E15-1	03/14	1405	03/14	2041,2046	58,59	0.015 C	0.98	ND	0.008 E	ND	NA
FAI-17-SV-E17-1	03/14	1520	03/14	2223	78	0.018 C	0.18	ND	0.011	ND	NA
FAI-17-SV-G13-1	03/15	0930	03/15	1359,1411	25,27	0.011 C	0.55	0.16 E	0.39	ND	NA
FAI-17-SV-G15-1	03/14	1345	03/14	2030	56	0.009 EC	0.062	ND	0.007 E	ND	NA
FAI-17-SV-G17-1	03/14	1025	03/14	1446	27	0.005 EC	0.019	ND	ND	ND	NA
FAI-17-SV-H13-1	03/17	1125	03/17	1452,1459	25,26	0.045 C	0.89	ND	0.8	ND	ND
FAI-17-SV-H15-1	03/14	1325	03/14	1638,1652	38,40	0.005 EC	0.054	ND	0.005 E	ND	NA
FAI-17-AA-H15-1	03/14	1330	03/14	1702	42	0.001 EC	0.002 E	0.39 *	ND	ND	NA
FAI-17-SV-H17-1	03/14	0940	03/14	1411	21	ND	ND	ND	ND	ND	NA
FAI-17-AA-H17-1	03/14	0945	03/14	1431	24	ND	ND	0.2 *	ND	0.01 C	NA
FAI-17-SV-VD-1	03/17	1153	03/17	1619	37	24 DC	200 D	ND	82 D	ND	ND
FAI-17-DSV-VD-1	03/17	1154	03/17	1638	40	27 DC	230 D	ND	98 D	ND	ND
FAI-17-AA-VD-1	03/17	1157	03/17	1522,1527	30,31	0.021 C	0.19	ND	0.042	ND	0.016 *
FAI-17-SV-BKG-1	03/15	0850	03/15	1329	20	0.057 C	0.33	ND	ND	0.014	NA
FAI-17-AA-BKG-1	03/15	0900	03/15	1347	23	0.032 C	0.16	ND	ND	ND	NA
FAI-17-BKG2-1	03/15	1410	03/15	2048	29	0.003 EC	0.036	ND	ND	ND	NA
FAI-17-FB-031494	---	---	03/15	0113	111	ND	ND	ND	ND	ND	NA
FAI-17-FB-031594	---	---	03/16	0205	72	ND	ND	ND	ND	ND	NA

NOTES:

ND - Not Detected
NA - Not Analyzed
--- - Not Applicable
* - Inferred Data

DATA ANNOTATION:

B - The concentration of the analyte found in the sample is less than or equal to the concentration of the analyte found in the associated blank multiplied by 5
D - The sample extract was diluted due to high sample concentration levels
E - The concentration of the compound is outside the portable gas chromatograph calibration range
C - The Linear Correlation Coefficient of the associated calibration is less than 0.99

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-22

SOIL VAPOR PGC AND LABORATORY DATA SUMMARY - FORMER PCE TANK

PGC ANALYTICAL DATA

SAMPLE I.D.	SAMPLING		ANALYSIS			CONTAMINANT CONCENTRATION, PPM					
	DATE	TIME	DATE	TIME	RUN #	PCE	TCE	1,1,1-TCA*	CIS-1,2-DCE	TRANS-1,2-DCE	VINYL CHLORIDE
FAI-14-SV-1-1	03/15	1535	03/16	0021	57	16000 DC	ND	ND	ND	ND	NA
FAI-14-SV-2-1	03/15	1525	03/16	0021	54	1700 DC	ND	ND	ND	ND	NA
FAI-14-SV-3-1	03/15	1515	03/15	2359	51	1800 D	ND	ND	ND	ND	NA
FAI-14-SV-4-1	03/16	0832	03/16	1340,1345	14,15	23 D	0.047	ND	ND	ND	ND
FAI-14-SV-5-1	03/16	0851	03/16	1652	42	110 DC	2.2 E	ND	ND	ND	ND
FAI-14-AA-5-1	03/16	0855	03/16	1527	33	0.076	0.003 E	ND	0.003 E	ND	ND
FAI-14-SV-6-1	03/16	0905	03/16	1354,1359	17,18	17 D	0.17	ND	ND	ND	ND
FAI-14-SV-7-1	03/16	0945	03/16	1434	26	2.3 E	0.34	ND	ND	ND	ND
FAI-14-SV-8-1	03/16	0931	03/16	1420,1425	23,24	24 D	0.34	ND	0.026 E	ND	ND
FAI-14-SV-9-1	03/16	1031	03/16	1443	28	2.1 E	0.033	ND	ND	ND	ND
FAI-14-SV-10-1	03/15	1545	03/16	0138	67	12000 DC	ND	ND	ND	ND	NA
FAI-14-DSV-10-1	03/15	1550	03/16	0112	61	23000 DC	ND	ND	ND	ND	NA
FAI-14-SV-11-1	03/15	1500	03/15	2225,2237	38,39	58 DC	0.17 D	ND	ND	ND	NA
FAI-14-AA-11-1	03/15	1505	03/15	2301	44	0.051 C	0.002 E	ND	ND	ND	NA
FAI-14-SV-12-1	03/16	0918	03/16	1407,1412	20,21	22 D	0.097	ND	ND	ND	ND
FAI-14-SV-13-1	03/16	1044	03/16	1453,1501	30,31	110 DC	1 D	ND	ND	ND	ND
FAI-14-SV-14-1	03/18	1109	03/18	1516	37	2.3 EC	0.075	ND	ND	ND	ND
FAI-14-SV-15-1	03/18	1054	03/18	1847	61	13000 DC	ND	ND	ND	ND	ND
FAI-14-AA-15-1	03/18	1056	03/18	1315,1320	25,26	0.86 C	0.001 E	ND	ND	ND	ND
FAI-14-SV-16-1	03/18	1157	03/18	1805	57	940 DC	ND	ND	ND	ND	ND
FAI-14-FB-031694	---	---	03/16	1948	75	ND	ND	ND	ND	ND	ND
1-SV-BKG-1-1	03/18	1130	03/18	1341	29	0.074 C	0.006 E	ND	ND	ND	ND
-SV-BKG-2-1	03/18	1142	03/18	1422	33	0.061 C	0.005 E	ND	ND	ND	ND

ECOTEST LABORATORY DATA

SAMPLE I.D.	SAMPLING		ANALYSIS			CONTAMINANT CONCENTRATION, PPM					
	DATE	TIME	DATE	TIME	RUN #	PCE	TCE	1,1,1-TCA	CIS-1,2-DCE	TRANS-1,2-DCE	VINYL CHLORIDE
FAI-14-SV-17-1	03/29	1455	03/29	---	---	4.575	0.027	0.234	<0.006	<0.006	<0.020
FAI-14-SV-18-1	03/29	1345	03/29	---	---	0.222	0.0216	0.288	0.015	<0.003	0.0078
FAI-14-DSV-18-1	03/29	1345	03/29	---	---	0.015	0.011	0.295	0.005	<0.003	0.0156
FAI-14-AA-18-1	03/29	1354	03/29	---	---	0.024	<0.004	0.007	<0.003	<0.003	<0.008
FAI-14-SV-19-1	03/29	1439	03/29	---	---	2.4	0.009	0.234	<0.006	<0.006	0.0195
FAI-14-FB-032994	---	---	03/29	---	---	0.104	0.005	<0.002	0.05	<0.003	0.0156

NOTES:

ND - Not Detected
NA - Not Analyzed
--- - Not Applicable

DATA ANNOTATION:

B - The concentration of the analyte found in the sample is less than or equal to the concentration of the analyte found in the associated blank multiplied by 5
D - The sample extract was diluted due to high sample concentration levels
E - The concentration of the compound is outside the portable gas chromatograph calibration range
C - The Linear Correlation Coefficient of the associated calibration is less than 0.99

* - All samples collected in the Former PCE Tank area were analyzed at a gain of 20 because of the high concentration of PCE in the samples. This gain increased the practical 1,1,1-TCA quantification limit from 0.2 ppm to 1.5-1.7 ppm.

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-23

SOIL VAPOR PGC DATA SUMMARY - NYSDOT PROPERTY

SAMPLE I.D.	SAMPLING		ANALYSIS			CONTAMINANT CONCENTRATION, PPM					
	DATE	TIME	DATE	TIME	RUN #	PCE	TCE	1,1,1-TCA	CIS-1,2-DCE	TRANS-1,2-DCE	VINYL CHLORIDE
FAI-DOT-SV-1-1	03/16	1300	03/16	1648	45	0.026	0.010	ND	0.004 E	ND	ND
FAI-DOT-AA-1-1	03/16	1301	03/16	1620	39	0.07	0.065	ND	ND	ND	ND
FAI-DOT-SV-2-1	03/16	1318	03/16	1658	46	0.062	0.019	ND	ND	ND	ND
FAI-DOT-DSV-2-1	03/16	1319	03/16	1714	49	0.046	0.030	ND	0.010	ND	ND
FAI-DOT-SV-3-1	03/16	1325	03/16	1733	53	0.07	0.054	ND	ND	ND	ND
FAI-DOT-SV-4-1	03/16	1352	03/16	1748	56	1.1 E	1.7 E	ND	0.28	ND	ND
FAI-DOT-SV-5-1	03/16	1420	03/16	1815	59	0.088	4 E	ND	0.084	ND	ND
FAI-DOT-SV-6-1*	03/16	1543	03/16	1912	68	0.048	0.083	ND	ND	ND	ND
FAI-DOT-SV-7-1	03/16	1435	03/16	1855	65	0.32	1.7 E	ND	0.14	ND	ND
FAI-DOT-AA-7-1	03/16	1438	03/16	1637	42	0.011	0.012	ND	ND	ND	ND
FAI-DOT-SV-8-1	03/16	1600	03/16	1931,1938	72,73	0.027	0.53	ND	0.010	ND	ND
FAI-DOT-SV-9-1	03/16	1616	03/16	1920	70	0.038	0.031	ND	0.004 E	ND	ND
FAI-DOT-SV-10-1	03/17	1314	03/17	1726	45	0.044 C	0.033	ND	0.010	ND	0.010 B
FAI-DOT-SV-11-1	03/17	1638	03/17	1936	66	0.027 C	0.022	ND	0.006	ND	ND
FAI-DOT-AA-11-1	03/17	1640	03/17	2040	74	0.002 EC	0.001 E	ND	ND	ND	ND
FAI-DOT-SV-12-1	03/17	1339	03/17	1737	47	0.027 C	0.037	ND	0.012	ND	0.011
FAI-DOT-SV-13-1	03/17	1357	03/17	1818	51	0.057 C	0.035	ND	0.007 E	ND	0.019
FAI-DOT-SV-14-1	03/17	1413	03/17	1823	52	0.026 C	0.022	ND	ND	ND	0.018
FAI-DOT-SV-15-1	03/17	1720	03/17	1931	65	0.018 C	0.006 E	ND	ND	ND	ND
FAI-DOT-SV-16-1	03/17	1426	03/17	1828	53	0.013 C	0.009 E	ND	ND	ND	0.012 *
FAI-DOT-AA-16-1	03/17	1428	03/17	1833	54	0.007 EC	0.007 E	ND	ND	ND	0.006 B *
FAI-DOT-SV-17-1	03/17	1708	03/17	1941,1951	67,68	0.023 C	0.57	ND *	0.084	ND	ND
FAI-DOT-SV-18-1	03/17	1446	03/17	1838	55	0.014 C	0.013	ND	ND	ND	0.012
FAI-DOT-SV-19-1	03/17	1505	03/17	1842	56	0.043 C	0.035	ND	0.008 E	ND	0.016
FAI-DOT-SV-20-1	03/17	1526	03/17	1848	57	0.019 C	0.017	ND	ND	ND	0.009 B
FAI-DOT-SV-21-1	03/17	1545	03/17	1852	58	0.024 C	0.014	ND	ND	ND	0.012 *
FAI-DOT-SV-22-1	03/17	1736	03/17	1926	64	0.07 C	0.005 E	ND	ND	ND	ND
FAI-DOT-SV-23-1	03/17	1800	03/17	1921	63	0.021 C	0.039	ND	0.015	ND	ND
FAI-DOT-AA-23-1	03/17	1803	03/17	2045	75	0.004 EC	0.001 E	ND	ND	ND	ND
FAI-DOT-SV-24-1	03/18	0900	03/18	1231	16	0.052 C	0.023 B	ND	ND	ND	ND
FAI-DOT-SV-25-1	03/18	0930	03/18	1247	19	0.024 C	0.035 B	ND	0.043 E	ND	ND
FAI-DOT-SV-26-1	03/18	0913	03/18	1236	17	0.024 C	0.01 B	ND	ND	ND	ND
FAI-DOT-DSV-26-1	03/18	0915	03/18	1242	18	0.002 EC	0.007 BE	ND	ND	ND	ND
FAI-DOT-SV-27-1	03/17	1655	03/17	1916	62	0.013 C	0.006	ND	0.005 BE	0.014	ND
FAI-DOT-SV-28-1	03/18	0945	03/18	1252	20	0.016 C	0.005 BE	ND	ND	ND	ND
FAI-DOT-SV-29-1	03/18	1305	03/18	1650	48	15 DC	74 D	ND	6.9 D	ND	ND
FAI-DOT-DSV-29-1	03/18	1306	03/18	1718	52	12 DC	74 D	ND	6.8 D	ND	ND
FAI-DOT-SV-30-1	03/18	1250	03/18	1621,1628	44,46	0.8 C	3.2 D	ND	0.63	ND	ND
FAI-DOT-AA-30-1	03/18	1252	03/18	1428	34	0.03 C	0.004 BE	ND	ND	ND	ND
FAI-DOT-SV-31-1	03/18	1315	03/18	1435	35	0.067 C	0.055 B	ND	0.023 B	ND	ND
FAI-DOT-FB-031794	---	---	03/17	2050	76	ND	ND	ND	ND	ND	0.002 E
FAI-DOT-FB-031894	---	---	03/18	1441	36	ND	0.029	ND	0.018	ND	ND
FAI-DOT-SV-BKG1-	03/17	1555	03/17	1910	61	0.013 C	0.009 BE	ND	ND	ND	ND
FAI-DOT-SV-BKG2-	03/18	1000	03/18	1308	24	0.016 C	0.001 BE	ND	ND	ND	ND

NOTES:

ND - Not Detected
--- - Not Applicable
* - Inferred Data

DATA ANNOTATION:

B - The concentration of the analyte found in the sample is less than or equal to the concentration of the analyte found in the associated blank multiplied by 5
D - The sample extract was diluted due to high sample concentration levels
E - The concentration of the compound is outside the portable gas chromatograph calibration range
C - The Linear Correlation Coefficient of the associated calibration is less than 0.99

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-24

TOTAL VOC HEADSPACE CONCENTRATIONS

Soil Boring Designation	Sample Depth (feet)	Total VOC Headspace Concentration (parts per million)
FORMER VAPOR DEGREASER		
17-B-1C	1-3	18.7 ¹
17-B-1C	5-7	8.7
17-B-1C	10-12	3.6
17-B-1C	15-17	12.0 ¹
17-B-1C	20-22	6.9
17-B-1C	25-27	3.8 ¹
17-B-1C	31-32	723
17-B-2	0-2	23.7
17-B-2	5-7	38.0
17-B-2	10-12	127 ¹
17-B-2	15-17	102 ¹
17-B-2	20-22	No Recovery
17-B-2	25-27	23.2 ¹
17-B-2	30-32	12.2
17-B-2A	0-2	91
17-B-3	1-3	7.9 ¹
17-B-3	5-7	11.4
17-B-3	10-12	1.8
17-B-3	15-17	3.5
17-B-3	20-22	3.7 ¹
17-B-3	25-27	2.9
17-B-3	30-32	57.0

Table 4-24 Continued . . .

Soil Boring Designation	Sample Depth (feet)	Total VOC Headspace Concentration (parts per million)
17-B-4	1-2	2.4
17-B-4	7-9	6.8 ¹
17-B-4	10-12	4.2 ¹
17-B-4	15-17	2.6
17-B-4	20-22	4.1
17-B-4	26-27	3.5 ¹
17-B-4	31-32	59.0
17-B-5	0-2	4.8
17-B-5	5-7	8.3 ¹
17-B-5	10-12	6.5 ¹
17-B-5	15-17	0.4 ¹
17-B-5	21-22	0.9
17-B-5	26-27	0.9
17-B-5	31-32	4.9
17-SS-A15.5	0.5-2.5	3.0 ¹
17-SS-A15.5	5-7	1.8 ¹
17-SS-A15.5	10-12	1.0
17-SS-A15.5	15-17	0.7
17-SS-A15.5	20-22	0.8
17-SS-A15.5	25-27	1.4 ¹
17-SS-A15.5	30-32	2.7
17-SS-A15.5	32-34	1.2
17-SS-A16	0.5-2.5	35.6 ¹
17-SS-A16	5-7	23.9 ¹
17-SS-A16	10-12	7.9
17-SS-A16	15-17	12.5
17-SS-A16	25-27	8.5 ¹

Table 4-24 Continued . . .

Soil Boring Designation	Sample Depth (feet)	Total VOC Headspace Concentration (parts per million)
17-SS-A16	30-32	4.7
17-SS-BB-18	0-2	0.0 ¹
17-SS-BB-18	7-8	0.2
17-SS-BB-18	9-11	0.5
17-SS-BB-18	11-13	1.5
17-SS-BB-18	13-15	0.3
17-SS-VD1	0.5-2.5	9.4 ¹
17-SS-VD1	5-7	42.0 ¹
17-SS-VD1	10-12	1.2
17-SS-VD1	20-22	0.8
17-SS-VD1	25-27	1.5 ¹
17-SS-VD1	30-32	3.8
17-SS-VD2	1-3	0.6
17-SS-VD2	5-7	1.3 ¹
17-SS-VD2	10-12	0.3
17-SS-VD2	20-22	0.8 ¹
17-SS-VD2	25-27	3.2 ¹
17-SS-VD2	31-32	27.0
MW-38S	1-3	2.8
MW-38S	10-12	0.7
MW-38S	20-22	1.0
MW-38S	30-32	1.1
FORMER PCE TANK		
14 SS-1	2-4	5.0 ¹
14-SS-1	4-6	3.8
14-SS-1	6-8	5.3 ¹
14-SS-1	8-10	3.5 ¹

Table 4-24 Continued . . .

Soil Boring Designation	Sample Depth (feet)	Total VOC Headspace Concentration (parts per million)
14-SS-1	16-17	2.9
14-SS-1	21-22	1.8
14-SS-1	25-27	2.5
14-SS-1	31-32	7.3
14-SS-4	5-7	4.3 ¹
14-SS-4	10-12	1.0
14-SS-4	12-14	2.2 ¹
14-SS-4	14-16	1.7
14-SS-4	18-20	1.4
14-SS-4	20-22	2.0
14-SS-4	25-27	3.5 ¹
14-SS-4	30-32	3.4
14-SS-5	0-2	15.2 ¹
14-SS-5	2-4	2.1
14-SS-5	4-6	9.6 ¹
14-SS-5	6-8	1.1
14-SS-5	8-10	1.1
14-SS-5	15-17	0.9
14-SS-5	20-22	1.5
14-SS-5	25-27	3.3 ¹
14-SS-5	30-32	62.0
14-SS-6	0-2	1.7 ¹
14-SS-6	2-4	2.5
14-SS-6	4-6	3. ¹
14-SS-6	6-8	2.1
14-SS-6	8-10	2.1
14-SS-6	15-17	3.1

Table 4-24 Continued . . .

Soil Boring Designation	Sample Depth (feet)	Total VOC Headspace Concentration (parts per million)
14-SS-6	20-22	3.1 ¹
14-SS-6	25-27	2.5
14-SS-6	31-32	9.4
14-SS-10	0.5-2.5	15.0 ¹
14-SS-10	2-4	13.0
14-SS-10	4-6	6.0
14-SS-10	6-8	14.0 ¹
14-SS-10	8-10	7.8 ¹
14-SS-10	15-17	4.3
14-SS-10	20-22	5.6
14-SS-10	26-27	4.8
14-SS-10	30-32	3.4
14-SS-10	32-34	9.2
14-SS-17	1-3	11.1 ¹
14-SS-17	3-5	16.2 ¹
14-SS-17	5-7	6.0
14-SS-17	7-9	7.1 ¹
14-SS-17	9-11	3.9
14-SS-17	15-17	1.4
14-SS-17	20-22	1.8
14-SS-17	25-27	1.5
14-SS-17	31-32	1.7
NYSDOT PROPERTY		
DOT-SS-5	1-3	45.6 ¹
DOT-SS-5	5-7	1.1
DOT-SS-5	10-12	1.9 ¹
DOT-SS-5	15-17	1.7

Table 4-24 Continued . . .

Soil Boring Designation	Sample Depth (feet)	Total VOC Headspace Concentration (parts per million)
DOT-SS-5	22-24	1.2
DOT-SS-5	25-27	1.4
DOT-SS-5	25-27	1.7
DOT-SS-5	30-32	8.5
DOT-SS-5	35-37	17.1
DOT-SS-5	40-42	230
DOT-SS-5	45-47	370
DOT-SS-5	50-52	52.0
DOT-SS-29	1-3	8.0 ¹
DOT-SS-29	5.5-7.5	0.0
DOT-SS-29	10-12	0.6
DOT-SS-29	15-17	0.9
DOT-SS-29	20-22	0.9
DOT-SS-29	25-27	1.1 ¹
DOT-SS-29	31-32	19.1 ¹

NOTE:

1. The sample was analyzed for volatile organic compounds by NYSDEC-ASP Method 91-1, CLP deliverables.

TABLE 4-25

FORMER VAPOR DEGREASER
VOC ANALYTICAL RESULTS FOR SOIL SAMPLES

Site ID	Recommen	FAI-17- SS-A15.5- 0.5-2.5-1 033094	FAI-17- SS-A15.5- 5-7-1 033094	FAI-17- SS-A15.5- 25-27-1 033094	FAI-17- SS-A16- 5-7-1 032294	FAI-17- SS-A16- 25-27-1 032294	FAI-17- SS-B1C- 1-3-1 032394	FAI-17- SS-B1C- 15-17-1 032394	FAI-17- SS-B1C- 25-27-1 032394	FAI-17- SS-B2 10-12-1 031694	FAI-17- SS-B2- 15-17-1 031694	FAI-17- SS-B2- 25-27-1 031694
Sample Location	Soil Clean	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Depth	Objectives	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Date Collected	(4)	033094	033094	033094	032294	032294	032394	032394	032394	031694	031694	031694
Chloromethane	--	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Bromomethane	--	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Vinyl Chloride	26	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Chloroethane	247	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Methylene Chloride	13	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	920 U	11 U	11 U
Acetone	26	25 U	32 U	11 U	87 U	26 U	13 U	11 U	11 U	1,800 U	11 U	22 U
Carbon Disulfide	351	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
1,1-Dichloroethene	52	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
1,1-Dichloroethane	26	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
1,2-Dichloroethene (total)	--	11 U	11 U	11 U	140	11 U	7 J	2 J	11 U	1320 U	4 J	1 J
Chloroform	39	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
1,2-Dichloroethane	13	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
2-Butanone	39	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
1,1,1-Trichloroethane	104	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Carbon Tetrachloride	78	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	370 J	18	12
Bromodichloromethane	--	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
1,2-Dichloropropane	--	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
cis-1,3-Dichloropropene	--	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Trichloroethene	91	11 U	11 U	11 U	590	1 J	38	10 J	11 U	1320 U	44	4 J
Dibromochloromethane	--	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
1,1,2-Trichloroethane	--	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Benzene	7.8	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
trans-1,3-Dichloropropene	--	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Bromoform	--	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
4-Methyl-2-Pentanone	130	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
2-Hexanone	--	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Tetrachloroethene	182	11 U	11 U	11 U	67	11 U	5 J	8 J	11 U	1320 U	68	5 J
1,1,2,2-Tetrachloroethane	78	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Toluene	195	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Chlorobenzene	221	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Ethylbenzene	715	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Styrene	--	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
Xylene (total)	156	11 U	11 U	11 U	56 U	11 U	11 U	11 U	11 U	1320 U	11 U	11 U
TICs:	--	ND	ND	ND	ND	ND	ND	8 J	ND	ND	ND	ND
Ethanol, 2-butoxy	--	ND	ND	ND	ND	ND	ND	12 J	6 J	ND	ND	ND
Cyclotrisiloxane	--	11 J	36 J	24 J	ND	30 J	48 J	74 J	25 J	ND	49 J	58 J
Unknown siloxane	--	11 J	36 J	24 J	ND	30 J	48 J	74 J	25 J	ND	49 J	58 J

NOTES:

1) Units in ug/kg except Field Blank is in ug/L.

2) Legend:

FB - Field Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

3) Indicates soil sample split with NYSDEC.

4) Recommended soil cleanup objectives are based on groundwater protection, described in the November 16, 1992 New York State Department of Environmental Conservation TAGM.

5) TICs (total) - Volatile Tentatively Identified Compounds

Laboratory Qualifiers:

U - Analyzed but not detected.

J - Estimated value less than the quantitation limit.

D - Diluted

B - Found in the blank sample.

ND - Not Detected

TABLE 4-25

FORMER VAPOR DEGREASER
VOC ANALYTICAL RESULTS FOR SOIL SAMPLES

Site ID	Recommended Soil Cleanup Objectives (4)	FAI-17 -SS-B3 1'-3'-1 031794	FAI-17 -SS-B3 10'-12'-1 031794	FAI-17 -SS-B3 20'-22'-1 031794	FAI-17 -SS-B4 7'-9'-1 031794	FAI-17 -SS-B4 10'-12'-1 031794	FAI-17 -SS-B4 26'-27'-1 031794	FAI-17 -SS-B5 5'-7'-1 031794	FAI-17 -SS-B5 10'-12'-1 031794	FAI-17 -SS-B5 16'-17'-1 031794	FAI-17 -SS- BB-18 031894	FAI-17 -SS-VD1- 0.5'-2.5'-1 032894	FAI-17 -SS-VD1- 5'-7'-1 032894	FAI-17 -SS-VD1- 25'-27'-1 032894	FAI-17 -SS-VD1- 30'-32'-1 032894
Chloromethane	--	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Bromomethane	--	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Vinyl Chloride	26	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Chloroethane	247	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Methylene Chloride	13	12 U	11 U	11 U	11 U	11 U	11 U	11 U	7 J	11 U	11 U	11 U	11 U	11 U	11 U
Acetone	26	43 U	16 U	15 U	11 U	11 U	11 U	29 U	13 B	18 U	11 U	52 U	29 U	38 U	44 U
Carbon Disulfide	351	0.7 J	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1-Dichloroethane	52	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloroethane (total)	26	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Chloroform	39	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloroethane	13	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
2-Butanone	39	6 J	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1,1-Trichloroethane	104	27	2 J	11 U	11 U	11 U	11 U	13 J	27	11 U	11 U	11 U	11 U	11 U	11 U
Carbon Tetrachloride	78	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Bromodichloromethane	--	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
1,2-Dichloropropane	--	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
cis-1,3-Dichloropropene	--	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Trichloroethane	91	72	11 U	11 U	4 J	2 J	11 U	300	170	2 J	2 J	11 U	16	11 U	11 U
Dibromochloromethane	--	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
1,1,2-Trichloroethane	--	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Benzene	7.8	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
trans-1,3-Dichloropropene	--	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Bromoforn	--	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
4-Methyl-2-Pentanone	130	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
2-Hexanone	--	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Tetrachloroethane	182	120	1 J	11 U	5 J	2 J	8 J	27	14	11 U	10 J	11 U	4 J	11 U	11 U
1,1,2,2-Tetrachloroethane	78	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Toluene	195	12 U	11 U	11 U	11 U	0.7 J	11 U	1 J	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Chlorobenzene	221	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Ethylbenzene	715	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Styrene	--	12 U	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
Xylene (total)	156	2 J	11 U	11 U	11 U	11 U	11 U	27 U	13 U	11 U	2 J	11 U	11 U	11 U	11 U
1-Butanol, 3-Methyl, aceta	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6 J	ND	ND	ND
TICs:	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethanol, 2-butoxy	--	ND	ND	ND	ND	ND	ND	ND	12 J	ND	6 J	ND	ND	ND	ND
Cyclotetrasiloxane	--	ND	7 J	ND	6 J	6 J	ND	ND	ND	ND	9 J	ND	ND	ND	ND
Unknown siloxane	--	39 J	130 J	12 J	54 J	54 J	70 J	70 J	29 J	43 J	54 J	25 J	19 J	31 J	36 J

NOTES:

1) Units in ug/kg except Field Blank is in ug/L.

2) Legend:

FB - Field Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

3) Indicates soil sample split with NYSDEC.

4) Recommended soil cleanup objectives are based on groundwater protection, described in the November 16, 1992 New York State Department of Environmental Conservation TAGM.

5) TICs (total) - Volatile Tentatively Identified Compounds

Laboratory Qualifiers:

U - Analyzed but not detected.

J - Estimated value less than the quantitation limit.

D - Diluted

B - Found in the blank sample.

ND - Not Detected

TABLE 4-25

FORMER VAPOR DEGREASER
VOC ANALYTICAL RESULTS FOR SOIL SAMPLES

Site ID Sample Location Depth Date Collected	Recommended Soil Cleanup Objectives (4)	FAI-17- SS-VD2- 5-7-1 032994	FAI-17- SS-VD2- 20-22-1 032994	FAI-17- SS-VD2- 25-27-1 032994	FAI-17- -FB- 032194	FAI-17- -FB- 032294	FAI-17- -FB- 033094	FAI-17- -TB- 033094	FAI-17- -FB- 032894	FAI-17- SS-A16- 5-7-1 MS 032294	FAI-17- SS-A16- MS 032294	FAI-17- B5-1 -RB- 031794	FAI-17- SS-VD1- 30'-32'-1 MS 032894	FAI-17- SS-VD1- 30'-32'-1 MSD 032894
Chloromethane	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Bromomethane	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Vinyl Chloride	26	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Chloroethane	247	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Methylene Chloride	13	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Acetone	26	45 U	30 U	31 U	10 U	10 U	10 U	10 U	10 U	35 U	38 U	10 U	45 U	52 U
Carbon Disulfide	351	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
1,1-Dichloroethene	52	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	50	54	10 U	50	53
1,1-Dichloroethane	26	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
1,2-Dichloroethene (total)	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Chloroform	39	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
1,2-Dichloroethane	13	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
2-Butanone	39	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
1,1,1-Trichloroethane	104	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Carbon Tetrachloride	78	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Bromodichloromethane	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
1,2-Dichloropropane	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
cis-1,3-Dichloropropene	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Trichloroethene	91	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	51	54	10 U	45	52
Dibromochloromethane	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
1,1,2-Trichloroethane	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	52	54	10 U	45	52
Benzene	7.8	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
trans-1,3-Dichloropropene	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Bromoform	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
4-Methyl-2-Pentanone	130	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
2-Hexanone	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Tetrachloroethene	182	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
1,1,2,2-Tetrachloroethane	78	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Toluene	195	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	51	52	10 U	44	50
Chlorobenzene	221	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	49	54	10 U	47	52
Ethylbenzene	715	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Styrene	-	11 U	11 U	11 U	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
Xylene (total)	156	11 U	11 U	2 J	10 U	10 U	10 U	10 U	10 U	11 U	11 U	10 U	11 U	11 U
TICs:	-	ND	ND	ND	ND	ND	ND	ND	ND	--	--	ND	--	--
Ethanol, 2-butoxy	-	ND	ND	ND	ND	ND	ND	ND	ND	--	--	ND	--	--
Cyclotetrasiloxane	-	ND	ND	ND	ND	ND	ND	ND	ND	--	--	ND	--	--
Unknown siloxane	-	35 J	19 J	49 J	ND	ND	ND	ND	ND	--	--	ND	--	--

NOTES:

1) Units in ug/kg except Field Blank is in ug/L.

2) Legend:

FB - Field Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

3) Indicates soil sample split with NYSDEC.

4) Recommended soil cleanup objectives are based on groundwater protection, described in the November 16, 1992 New York State Department of Environmental Conservation TAGM.

5) TICs (total) - Volatile Tentatively Identified Compounds

Laboratory Qualifiers:

U - Analyzed but not detected.

J - Estimated value less than the quantitation limit.

D - Diluted

B - Found in the blank sample.

ND - Not Detected

TABLE 4-26

FORMER POE TANK AREA
VOC ANALYTICAL RESULTS FOR SOIL SAMPLES

Site ID Sample Location Depth Date Collected	Recommended Soil Cleanup Objectives (4)	FAI-14- SS-1- 2'-4'-1 031894	FAI-14- SS-1- 6'-8'-1 (3) 031894	FAI-14- SS-1- 8'-10'-1 031894	FAI-14- SS-4- 5'-7'-1 032494	FAI-14- SS-4- 12'-14'-1 032494	FAI-14- SS-4- 18'-20'-1 032494	FAI-14- SS-4- 25'-27'-1 031894	FAI-14- SS-5- 0'-2'-1 031894	FAI-14- SS-5- 4'-6'-1 031894	FAI-14- SS-5- 25'-27'-1 031894	FAI-14- SS-6- 0'-2'-1 032594
Chloromethane	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Bromomethane	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Vinyl Chloride	26	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Chloroethane	247	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Methylene Chloride	13	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Acetone	26	26 U	16 U	12 U	12 U	13 U	20 U	19 U	12 U	14 U	11 U	26 U
Carbon Disulfide	351	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
1,1-Dichloroethene	52	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
1,1-Dichloroethane	26	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
1,2-Dichloroethene (total)	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Chloroform	39	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
1,2-Dichloroethane	13	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
2-Butanone	39	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
1,1,1-Trichloroethane	104	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Carbon Tetrachloride	78	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Bromodichloromethane	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
1,2-Dichloropropane	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
cis-1,3-Dichloropropene	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Trichloroethene	91	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Dibromochloromethane	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
1,1,2-Trichloroethane	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Benzene	7.8	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
trans-1,3-Dichloropropene	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Bromoform	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
4-Methyl-2-Pentanone	130	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
2-Hexanone	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Tetrachloroethene	182	11 U	11 U	6 J	66	11 U	11 U	11 U	2 J	47	2 J	6 J
1,1,2,2-Tetrachloroethane	78	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Toluene	195	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Chlorobenzene	221	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Ethylbenzene	715	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Styrene	-	11 U	11 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
Xylene (total)	156	11 U	11 U	1 J	12 U	11 U	11 U	11 U	11 U	11 U	11 U	12 U
TICs:												
Unknown siloxane	-	100 J	87 J	70 J	ND	11 J	26 J	35 J	42 J	110 J	72 J	21 J
Cyclotetrasiloxane	-	17 J	17 J	8 J	ND	ND	ND	ND	6 J	7 J	ND	ND

Notes:

- 1) Units in ug/kg except Field Blank is in ug/L
- 2) Legend:
FB - Field Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
3) Indicates soil sample split with NYSDEC.
- 4) Recommended soil cleanup objectives, are based on groundwater protection, described in the November 16, 1992 New York State Department of Environmental Conservation TAGM.
- 5) TICs (total) - Volatile Tentatively Identified Compounds

Laboratory Qualifiers:

- U - Analyzed but not detected.
- J - Estimated value less than the quantitation limit.
- D - Diluted
- B - Found in the blank sample.
- ND - Not Detected

TABLE 4-26

FORMER PCE TANK AREA
VOC ANALYTICAL RESULTS FOR SOIL SAMPLES

Site ID Sample Location Depth Date Collected	Recommended Soil Cleanup Objectives (4)	FAI-14- SS-6- 4-6-1 032594	FAI-14- SS-10- 0.5-2.5' 031894	FAI-14- SS-10- 6-8-1' 031894	FAI-14- SS-10- 9-10-1' 031894	FAI-14- SS-17- 1'-3-1' 032594	FAI-14- SS-17- 3'-5-1' 032594	FAI-14- SS-17- 7'-9-1' 032594	FAI-14- -FB- 10-1 031894	FAI-14- SS-4- 18'-20'-1 MS 032494	FAI-14- SS-4- 18'-20'-1 MSD 032494
Chloromethane	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Bromomethane	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Vinyl Chloride	26	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Chloroethane	247	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Methylene Chloride	13	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Acetone	26	18 U	13 U	18 U	42 U	24 U	24 U	14 U	10 U	20 U	20 U
Carbon Disulfide	351	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
1,1-Dichloroethane	52	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	62	49
1,1-Dichloroethane (total)	26	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Chloroform	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
1,2-Dichloroethane	39	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
2-Butanone	13	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
1,1,1-Trichloroethane	39	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Carbon Tetrachloride	104	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Bromodichloromethane	78	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
1,2-Dichloropropane	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
cis-1,3-Dichloropropene	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Trichloroethene	91	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	52	54
Dibromochloromethane	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
1,1,2-Trichloroethane	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Benzene	7.8	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	53	55
trans-1,3-Dichloropropene	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Bromoform	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
4-Methyl-2-Pentanone	130	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
2-Hexanone	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Tetrachloroethene	182	11 U	13	16	1 J	6 J	6 J	4 J	10 U	11 U	11 U
1,1,2,2-Tetrachloroethane	78	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Toluene	195	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	50	52
Chlorobenzene	221	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	52	54
Ethylbenzene	715	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Styrene	--	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
Xylene (total)	156	11 U	11 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U
TICs:											
Unknown siloxane	--	84 J	12 J	110 J	75 J	34 J	36 J	20 J	ND	ND	ND
Cyclotrisiloxane	--	ND	ND	16 J	7 J	ND	ND	ND	ND	ND	ND
Ethanol, 2-butoxy	--	9 J	ND	ND	20 J	ND	6 J	ND	ND	ND	ND

Notes:

- Units in ug/kg except Field Blank is in ug/L
- Legend:
FB - Field Blank
MS - Matrix Spike
MSD - Matrix Spike Duplicate
- Indicates soil sample split with NYSDEC.
- Recommended soil cleanup objectives, are based on groundwater protection, described in the November 16, 1992 New York State Department of Environmental Conservation TAGM.
- TICs (total) - Volatile Tentatively Identified Compounds

Laboratory Qualifiers:

- U - Analyzed but not detected.
- J - Estimated value less than the quantitation limit.
- D - Diluted
- B - Found in the blank sample.
- ND - Not Detected

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TABLE 4-27

NYS DOT PROPERTY
VOC ANALYTICAL RESULTS FOR SOIL SAMPLES

Site ID Sample Location Depth Date Collected	Recommended Soil Cleanup Objectives (4)	FAI-DOT -SS-5- 1'-3'-1 032494	FAI-DOT -SS-5- 10'-12'-1 032494	FAI-DOT- SS-5- 36'-38'-1 032494	FAI-DOT -SS-29- 1'-3'-1 032194	FAI-DOT -SS-29- 25'-27'-1 032194	FAI-DOT -SS-29- 31'-32'-1 032194	FAI-DOT -FB- 032494	FAI-DOT- SS-5- 10'-12'-1 MS 032494	FAI-DOT- SS-5- 10'-12'-1 MSD 032494
Chloromethane	—	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Bromomethane	—	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Vinyl Chloride	26	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Chloroethane	247	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Methylene Chloride	13	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Acetone	26	57 U	18 U	3000 U	12 U	20 U	36 U	10 U	19 U	11 U
Carbon Disulfide	351	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
1,1-Dichloroethene	52	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	57	52
1,1-Dichloroethane	26	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
1,2-Dichloroethene (total)	—	11 U	11 U	1440 U	23	11 U	12 U	10 U	11 U	11 U
Chloroform	39	11 U	11 U	7800	12 U	11 U	12 U	10 U	11 U	11 U
1,2-Dichloroethane	13	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
2-Butanone	39	9 J	11 U	1440 U	12 U	11 U	4 J	10 U	11 U	11 U
1,1,1-Trichloroethane	104	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Carbon Tetrachloride	78	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Bromodichloromethane	—	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
1,2-Dichloropropane	—	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
cis-1,3-Dichloropropene	—	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Trichloroethene	91	160	11 U	1440 U	32	11 U	12 U	10 U	51	49
Dibromochloromethane	—	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
1,1,2-Trichloroethane	—	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Benzene	7.8	1 J	11 U	1440 U	12 U	11 U	12 U	10 U	55	55
trans-1,3-Dichloropropene	—	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Chloroform	—	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
4-Methyl-2-Pentanone	130	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
2-Hexanone	—	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Tetrachloroethene	182	15	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
1,1,2,2-Tetrachloroethane	78	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	11 U	11 U
Toluene	195	1 J	11 U	610 J	12 U	11 U	12 U	10 U	50	49
Chlorobenzene	221	11 U	11 U	1440 U	12 U	11 U	12 U	10 U	50	47
Ethylbenzene	715	11 U	11 U	190 J	12 U	11 U	12 U	10 U	1 J	11 U
Styrene	—	11 U	11 U	240 U	12 U	11 U	12 U	10 U	11 U	11 U
Xylene (total)	156	11 U	11 U	1900 U	12 U	11 U	12 U	10 U	4 JB	11 U
TICs:										
Unknown siloxane	—	42 J	71 J	ND	7 J	25 J	13 J	ND	—	—
Heptane	—	ND	ND	7200 J	ND	ND	ND	ND	—	—
Cyclohexane, methyl	—	ND	ND	7800 J	ND	ND	ND	ND	—	—
Hexane, 3-methyl	—	ND	ND	8800 J	ND	ND	ND	ND	—	—
Unknown alkene	—	ND	ND	21000 J	ND	ND	ND	ND	—	—
Pentane, 3-methyl	—	ND	ND	31000 J	ND	ND	ND	ND	—	—
Pentane, 2-methyl	—	ND	ND	9600 J	ND	ND	ND	ND	—	—
Cyclopentane, methyl	—	ND	ND	13000 J	ND	ND	ND	ND	—	—
Hexane, 2-methyl	—	ND	ND	12000 J	ND	ND	ND	ND	—	—
Unknown	—	ND	7 J	9500 J	ND	ND	ND	ND	—	—
Cyclotetrasiloxane	—	ND	ND	ND	ND	6 J	ND	ND	—	—

Notes:

1) Units in ug/kg except Field Blank is in ug/L

2) Legend:

FB - Field Blank

MS - Matrix Spike

MSD - Matrix Spike Duplicate

3) Indicates soil sample split with NYSDEC.

Recommended soil cleanup objectives are based on groundwater protection, described in the November 16, 1992 New York State Department of Environmental Conservation (NYSDEC) guidance.

TICs (total) - Volatile Tentatively Identified Compounds

Laboratory Qualifiers:

U - Analyzed but not detected.

J - Estimated value less than the quantitation limit.

D - Diluted

B - Found in the blank sample.

ND - Not Detected

TABLE 4-28

GEOTECHNICAL ANALYSIS AND TOC SUMMARY

Sample ID No.	Description of Sample	Coefficient of Permeability (cm/sec) ¹	Specific Gravity	Moisture (%) ²	TOC (ppm)	Grain Size Distribution (% Less Than) ³										
						#200	#100	#50	#40	#16	#10	#4	3/8"	1/2"	3/4"	1"
FAI-14-SS-4 18' - 20'	Light brown medium to fine sand, with little medium to fine gravel	1.0 x 10 ⁻³	2.631	4.7	1,100	1.2	3	9	21	52	60	72	81	86	100	100
FAI-14-SS-4 40' - 42'	Light to dark Brown medium to fine sand with little medium to fine gravel, traces of silt and clay at top	5.07 x 10 ⁻⁴	2.649	12.9	3,540	1.9	4	9	20	50	59	72	82	16	89	100
FAI-14-SS-17 17' - 19'	Yellowish medium to fine sand, with little medium to fine gravel	3.1 x 10 ⁻³	2.632	2.7	696	1.3	3	8	16	44	51	61	74	79	85	100
FAI-17-SS-17 38' - 40'	Light Brown medium to fine sand with little medium to fine gravel	3.3 x 10 ⁻³	2.640	12.5	936	1.4	3	11	19	52	63	75	95	100	100	100
FAI-17-SS-VD1 15' - 17'	Light Brown medium to fine sand, with little medium to fine gravel	7.5 x 10 ⁻³	2.623	1.9	794	1.8	3	7	15	50	60	77	91	98	100	100
FAI-17-SS-VD1 40'-42'	Light Brown medium to fine sand, with little medium to fine gravel, traces of silt and clay at top	1.0 x 10 ⁻³	2.667	11.4	805	1.4	5	18	31	68	77	89	93	97	100	100

NOTES:

1. Permeability test by ASTM D2434
2. Moisture content by ASTM D2216.
3. Grain size distribution by ASTM D1140 and ASTM D442. The percent shown under each sieve number represents the percent of material passing through the sieve.



FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-29

SOIL SAMPLING RESULTS - VOLATILE ORGANIC COMPOUNDS

Sample ID	SS-1 3 - 5 11/20/96	SS-1 DL 3 - 5 11/20/96	BD-3 (SS-1) 3 - 5 11/20/96	BD-3 (SS-1) DL 3 - 5 11/20/96	SS-1 8 - 10 11/20/96	SS-1 18 - 20 11/20/96	SS-1 26 - 28 11/20/96	BD-2 (SS-1) 26 - 28 11/20/96	SS-2 3 - 5 11/20/96
PARAMETER (ug/kg)									
Chloromethane	11	57	12	59	10	10	10	10	11
Bromomethane	11	57	12	59	10	10	10	10	11
Vinyl Chloride	11	57	12	59	10	10	10	10	11
Chloroethane	11	57	12	59	10	10	10	10	11
Methylene Chloride	11	57	12	59	10	10	10	10	11
Acetone	2 J	57	12	59	2 J	2 J	10	10	4 J
Carbon Disulfide	11	57	12	59	10	10	10	10	11
1,1-Dichloroethane	11	57	12	59	10	10	10	10	11
1,1-Dichloroethane	11	57	12	59	10	10	10	10	11
1,2-Dichloroethane (total)	10 J	57	12	59	10	10	10	10	11
Chloroform	11	57	12	59	10	10	10	10	11
1,2-Dichloroethane	11	57	12	59	10	10	10	10	11
2-Butanone	11	57	12	59	10	10	10	10	11
1,1,1-Trichloroethane	11	57	12	59	10	10	10	10	11
Carbon Tetrachloride	11	57	12	59	10	10	10	10	11
Vinyl Acetate	11	57	12	59	10	10	10	10	11
Bromodichloromethane	11	57	12	59	10	10	10	10	11
1,2-Dichloropropane	11	57	12	59	10	10	10	10	11
cis-1,3-Dichloropropene	11	57	12	59	10	10	10	10	11
Trichloroethene	250 R	170 D	12	330 R	10	10	10	10	11
Benzene	11	57	12	59	10	10	10	10	11
Dibromochloromethane	11	57	12	59	10	10	10	10	11
trans-1,3-Dichloropropene	11	57	12	59	10	10	10	10	11
1,1,2-Trichloroethane	11	57	12	59	10	10	10	10	11
Bromoform	11	57	12	59	10	10	10	10	11
4-Methyl-2-Pentanone	11	57	12	59	10	10	10	10	1 J
2-Hexanone	11	57	12	59	10	10	10	10	11
1,1,2,2-Tetrachloroethane	11	57	12	59	10	10	10	10	11
Tetrachloroethene	460 R	570 D	12	610 R	10	10	10	10	11
Toluene	11	57	12	59	10	10	10	10	11
Chlorobenzene	11	57	12	59	10	10	10	10	11
Ethylbenzene	11	57	12	59	10	10	10	10	11
Styrene	11	57	12	59	10	10	10	10	11
Xylenes (total)	11	57	12	59	10	10	10	10	11
2-Chloroethylvinylether	11	57	12	59	10	10	10	10	11
1,2-Dichlorobenzene	11	57	12	59	10	10	10	10	11
1,3-Dichlorobenzene	11	57	12	59	10	10	10	10	11
1,4-Dichlorobenzene	11	57	12	59	10	10	10	10	11
Tentatively Identified Compounds (**)	6-1	57	8-1	36-1	8-1	7-1	5-1	52-6	19-1
Tentatively Unidentified Compounds (**)	21-1	J	J	J	20-1	23-2	26-2	21-3	69-2

Notes:

(*) Results reported in ug/l.

(**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.

U Compound not detected at a concentration greater than the contract required detection limit.

J Estimated concentration.

E Reported concentration exceeds the instrument calibration range.

DL Dilution factor

D Represents concentration at applied dilution factor.

R Data rejected by data validator.

NJ Presumptive evidence that the compound is present at a concentration estimated by the laboratory.



FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-29

SOIL SAMPLING RESULTS - VOI AT THE ORGANIC COMPOUNDS

Sample ID	SS-2 10 - 12 11/20/96	SS-2 18 - 20 11/20/96	SS-2 26 - 28 11/20/96	SS-3 3 - 5 11/21/96	SS-3 10 - 12 11/21/96	SS-4 3 - 5 11/18/96	SS-4 10 - 12 11/18/96	SS-5 3 - 5 11/21/96	SS-5 10 - 12 11/21/96
Chloromethane	11	U	10	11	10	11	10	11	10
Bromomethane	11	U	10	11	10	11	10	11	10
Vinyl Chloride	11	U	10	11	10	11	10	11	10
Chloroethane	11	U	10	11	10	11	10	11	10
Methylene Chloride	11	U	10	11	10	11	10	11	10
Acetone	3 J	5 J	2 J	10 U	10 U	10 U	10	11	10
Carbon Disulfide	11	U	10	11	10	11	10	11	10
1,1-Dichloroethene	11	U	10	11	10	11	10	11	10
1,1-Dichloroethane	11	U	10	11	10	11	10	11	10
1,2-Dichloroethene (total)	11	U	10	11	10	11	10	11	10
Chloroform	11	U	10	11	10	11	10	11	10
1,2-Dichloroethane	11	U	10	11	10	11	10	11	10
2-Butanone	11	U	10	11	10	11	10	11	10
1,1,1-Trichloroethane	11	U	10	11	10	11	10	11	10
Carbon Tetrachloride	11	U	10	11	10	11	10	11	10
Vinyl Acetate	11	U	10	11	10	11	10	11	10
Bromodichloromethane	11	U	10	11	10	11	10	11	10
1,2-Dichloropropane	11	U	10	11	10	11	10	11	10
cis-1,3-Dichloropropene	11	U	10	11	10	11	10	11	10
Trichloroethene	11	U	10	11	10	11	10	11	10
Benzene	11	U	10	11	10	11	10	11	10
Dibromochloromethane	11	U	10	11	10	11	10	11	10
trans-1,3-Dichloropropene	11	U	10	11	10	11	10	11	10
1,1,1,2-Trichloroethane	11	U	10	11	10	11	10	11	10
Bromoform	11	U	10	11	10	11	10	11	10
4-Methyl-2-Pentanone	11	U	10	11	10	11	10	11	10
2-Hexanone	11	U	10	11	10	11	10	11	10
1,1,2,2-Tetrachloroethane	11	U	10	11	10	11	10	11	10
Tetrachloroethene	11	U	10	11	10	11	10	11	10
Toluene	11	U	10	11	10	11	10	11	10
Chlorobenzene	11	U	10	11	10	11	10	11	10
Ethylbenzene	11	U	10	11	10	11	10	11	10
Styrene	11	U	10	11	10	11	10	11	10
Xylenes (total)	11	U	10	11	10	11	10	11	10
2-Chloroethylvinylether	11	U	10	11	10	11	10	11	10
1,2-Dichlorobenzene	11	U	10	11	10	11	10	11	10
1,3-Dichlorobenzene	11	U	10	11	10	11	10	11	10
1,4-Dichlorobenzene	11	U	10	11	10	11	10	11	10
Tentatively Identified Compounds (**)	12-1	NJ	9-1	15-1	9-1	6-1	5-1	91-2	6-1
Tentatively Unidentified Compounds (**)	44-2	J	49-1	63-1	72-1	NJ	NJ	J	116-2

Notes:

(*) Results reported in $\mu\text{g/l}$.

(**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.

U Compound not detected at a concentration greater than the contract required detection limit.

J Estimated concentration.

E Reported concentration exceeds the instrument calibration range.

DL Dilution factor

R Data rejected by data validator

NJ Presumptive evidence that the compound is present at a concentration estimated by the laboratory.

FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-29

SOIL SAMPLING RESULTS - VOLATILE ORGANIC COMPOUNDS

Sample ID	BD-4 (SS-5) 10 - 12 11/21/96	SS-5 18 - 20 11/21/96	SS-5 26 - 28 11/21/96	SS-6 3 - 5 11/18/96	SS-6 10 - 12 11/18/96	SS-7 3 - 5 11/18/96	SS-7 10 - 12 11/18/96	SS-7 18 - 20 11/20/96	SS-7 26 - 28 11/20/96
Chloromethane	10	10	10	11	10	12	10	10	10
Bromomethane	10	10	10	11	10	12	10	10	10
Vinyl Chloride	10	10	10	11	10	12	10	10	10
Chloroethane	10	10	10	11	10	12	10	10	10
Methylene Chloride	10	10	10	11	10	12	10	10	10
Acetone	10	10	10	11	10	12	10	10	10
Carbon Disulfide	10	10	10	11	10	12	10	10	10
1,1-Dichloroethane	10	10	10	11	10	12	10	10	10
1,1-Dichloroethane	10	10	10	11	10	12	10	10	10
1,2-Dichloroethane (total)	10	10	10	11	10	12	10	10	10
Chloroform	10	10	10	11	10	12	10	10	10
1,2-Dichloroethane	10	10	10	11	10	12	10	10	10
2-Butanone	10	10	10	11	10	12	10	10	10
1,1,1-Trichloroethane	10	10	10	11	10	12	10	10	10
Carbon Tetrachloride	10	10	10	11	10	12	10	10	10
Vinyl Acetate	10	10	10	11	10	12	10	10	10
Bromodichloromethane	10	10	10	11	10	12	10	10	10
1,2-Dichloropropane	10	10	10	11	10	12	10	10	10
cis-1,3-Dichloropropene	10	10	10	11	10	12	10	10	10
Trichloroethene	10	10	10	11	10	12	10	10	10
Benzene	10	10	10	11	10	12	10	10	10
Dibromochloromethane	10	10	10	11	10	12	10	10	10
trans-1,3-Dichloropropene	10	10	10	11	10	12	10	10	10
1,1,2-Trichloroethane	10	10	10	11	10	12	10	10	10
Bromoform	10	10	10	11	10	12	10	10	10
4-Methyl-2-Pentanone	10	10	10	11	10	12	10	10	10
2-Hexanone	10	10	10	11	10	12	10	10	10
1,1,2,2-Tetrachloroethane	10	10	10	11	10	12	10	10	10
Tetrahydroethene	10	10	10	11	10	12	10	10	10
Toluene	10	10	10	11	10	12	10	10	10
Chlorobenzene	10	10	10	11	10	12	10	10	10
Ethylbenzene	10	10	10	11	10	12	10	10	10
Styrene	10	10	10	11	10	12	10	10	10
Xylenes (total)	10	10	10	11	10	12	10	10	10
2-Chloroethylvinylether	10	10	10	11	10	12	10	10	10
1,2-Dichlorobenzene	10	10	10	11	10	12	10	10	10
1,3-Dichlorobenzene	10	10	10	11	10	12	10	10	10
1,4-Dichlorobenzene	10	10	10	11	10	12	10	10	10
Tentatively Identified Compounds (**)	6-1	11-1	11-1	16-2	7-1	10-1	172-2	14-1	95-7
Tentatively Unidentified Compounds (**)	220-1	140-1	140-1		36-6			53-3	27-3

Notes:

- (*) Results reported in ug/l.
(**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.
U Compound not detected at a concentration greater than the contract required detection limit.
J Estimated concentration.
E Reported concentration exceeds the instrument calibration range.
DL Dilution factor
D Represents concentration at applied dilution factor.
R Data rejected by data validator.
NJ Presumptive evidence that the compound is present at a concentration estimated by the laboratory.

FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-29

SOIL SAMPLING RESULTS - VOLATILE ORGANIC COMPOUNDS

Sample ID	SS-11 Sample Date 3 - 5 12/02/96	SS-11 10 - 12 12/02/96	SS-12 3 - 5 12/02/96	BD-6 (SS-12) 3 - 5 12/02/96 Blind Duplicate	SS-12 10 - 12 12/02/96	SS-12 16 - 18 12/02/96	SS-12 26 - 28 12/02/96	SS-14 3 - 5 11/19/96	SS-14 10 - 12 11/19/96
PARAMETER (ug/l)									
Chloromethane	11	10	10	11	10	10	10	10	10
Bromomethane	11	10	10	11	10	10	10	10	10
Vinyl Chloride	11	10	10	11	10	10	10	10	10
Chloroethane	11	10	10	11	10	10	10	10	10
Methylene Chloride	11	10	10	11	10	10	10	10	10
Acetone	9 J	10	10	5 J	2 J	3 J	4 J	4 J	3 J
Carbon Disulfide	11	10	10	11	10	10	10	10	10
1,1-Dichloroethane	11	10	10	11	10	10	10	10	10
1,1-Dichloroethane	11	10	10	11	10	10	10	10	10
1,2-Dichloroethane (total)	11	10	10	11	10	10	10	10	10
Chloroform	11	10	10	11	10	10	10	10	10
1,2-Dichloroethane	11	10	10	11	10	10	10	10	10
2-Butanone	11	10	10	11	10	10	10	10	10
1,1,1-Trichloroethane	11	10	10	11	10	10	10	10	10
Carbon Tetrachloride	11	10	10	11	10	10	10	10	10
Vinyl Acetate	11	10	10	11	10	10	10	10	10
Bromodichloromethane	11	10	10	11	10	10	10	10	10
1,2-Dichloropropane	11	10	10	11	10	10	10	10	10
cis-1,3-Dichloropropene	11	10	10	11	10	10	10	10	10
Trichloroethene	11	10	10	11	10	10	10	10	10
Benzene	11	10	10	11	10	10	10	10	10
Dibromochloromethane	11	10	10	11	10	10	10	10	10
trans-1,3-Dichloropropene	11	10	10	11	10	10	10	10	10
1,1,2-Trichloroethane	11	10	10	11	10	10	10	10	10
Bromoform	11	10	10	11	10	10	10	10	10
4-Methyl-2-Pentanone	11	10	10	11	10	10	10	10	10
2-Hexanone	11	10	10	11	10	10	10	10	10
1,1,2,2-Tetrachloroethane	11	10	10	11	10	10	10	10	10
Tetrachloroethene	11	10	10	11	10	10	10	10	10
Toluene	11	10	10	11	10	10	10	10	10
Chlorobenzene	11	10	10	11	10	10	10	10	10
Ethylbenzene	11	10	10	11	10	10	10	10	10
Styrene	11	10	10	11	10	10	10	10	10
Xylenes (total)	11	10	10	11	10	10	10	10	10
2-Chloroethylvinylether	11	10	10	11	10	10	10	10	10
1,2-Dichlorobenzene	11	10	10	11	10	10	10	10	10
1,3-Dichlorobenzene	11	10	10	11	10	10	10	10	10
1,4-Dichlorobenzene	11	10	10	11	10	10	10	10	10
Tentatively Identified Compounds (**)	19-1	18-1	23-1	13-1	13-1	12-1	14-1	0-1	52-2
Tentatively Unidentified Compounds (**)	6-1	J	J	J	J	J	J	NJ	6-1

Notes:

(*) Results reported in ug/l.

(**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.

U Compound not detected at a concentration greater than the contract required detection limit.

J Estimated concentration.

E Reported concentration exceeds the instrument calibration range.

DL Dilution factor

D Represents concentration at applied dilution factor.

R Data rejected by data validator.

NJ Presumptive evidence that the compound is present at a concentration estimated by the laboratory.

TABLE 4-29

SOIL SAMPLING RESULTS - VOLATILE ORGANIC COMPOUNDS

[illegible]

Notes:

(*) Results reported in $\mu\text{g/L}$.

(**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.

Compound not detected at a concentration greater than the contract required detection limit.



MAC
ULTANTS, INC.

FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-29

SOIL SAMPLING RESULTS - VOLATILE ORGANIC COMPOUNDS

Sample ID	SS-19 3 - 5 11/19/96	SS-19 10 - 12 11/19/96	SS-20 3 - 5 11/21/96	SS-20 10 - 12 11/21/96	SS-21 3 - 5 11/18/96	SS-21 10 - 12 11/18/96	BD-1 (SS-21) 10 - 12 11/18/96	SS-22 3 - 5 02/04/97	SS-23 3 - 5 02/04/97
PARAMETER (ug/kg)							Blind Duplicate		
Chloromethane	10	10	10	10	10	10	10	12	13
Bromomethane	10	10	10	10	10	10	10	12	13
Vinyl Chloride	10	10	10	10	10	10	10	12	13
Chloroethane	10	10	10	10	10	10	10	12	13
Methylene Chloride	10	10	10	10	10	10	10	12	13
Acetone	10	10	10	10	10	10	10	12	13
Carbon Disulfide	10	10	10	10	10	10	10	12	13
1,1-Dichloroethane	10	10	10	10	10	10	10	12	13
1,1,1-Trichloroethane	10	10	10	10	10	10	10	12	13
1,2-Dichloroethane	10	10	10	10	10	10	10	12	13
1,2-Dichloroethane (total)	10	10	10	10	10	10	10	12	13
Chloroform	10	10	10	10	10	10	10	12	13
1,2-Dichloroethane	10	10	10	10	10	10	10	12	13
2-Butanone	10	10	10	10	10	10	10	12	13
1,1,1-Trichloroethane	10	10	10	10	10	10	10	12	13
Carbon Tetrachloride	10	10	10	10	10	10	10	12	13
Vinyl Acetate	10	10	10	10	10	10	10	12	13
Bromodichloromethane	10	10	10	10	10	10	10	12	13
1,2-Dichloropropane	10	10	10	10	10	10	10	12	13
cis-1,3-Dichloropropene	10	10	10	10	10	10	10	12	13
Trichloroethene	10	10	10	10	10	10	10	12	13
Benzene	10	10	10	10	10	10	10	12	13
Dibromochloromethane	10	10	10	10	10	10	10	12	13
trans-1,3-Dichloropropene	10	10	10	10	10	10	10	12	13
1,1,2-Trichloroethane	10	10	10	10	10	10	10	12	13
Bromoform	10	10	10	10	10	10	10	12	13
4-Methyl-2-Pentanone	10	10	10	10	10	10	10	12	13
2-Hexanone	10	10	10	10	10	10	10	12	13
1,1,2,2-Tetrachloroethane	10	10	10	10	10	10	10	12	13
Tetrachloroethene	10	10	10	10	10	10	10	12	13
Toluene	10	10	10	10	10	10	10	12	13
Chlorobenzene	10	10	10	10	10	10	10	12	13
Ethylbenzene	10	10	10	10	10	10	10	12	13
Styrene	10	10	10	10	10	10	10	12	13
Xylenes (total)	10	10	10	10	10	10	10	12	13
2-Chloroethylvinylether	10	10	10	10	10	10	10	12	13
1,2-Dichlorobenzene	10	10	10	10	10	10	10	12	13
1,3-Dichlorobenzene	10	10	10	10	10	10	10	12	13
1,4-Dichlorobenzene	10	10	10	10	10	10	10	12	13
Tentatively Identified Compounds (**)	27-1	5-1	30-1	7-1	40	7-1	11-1	13-1	13
Tentatively Unidentified Compounds (**)									

Notes:

(*) Results reported in ug/l.

(**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.

U Compound not detected at a concentration greater than the contract required detection limit.

J Estimated concentration.

E Reported concentration exceeds the instrument calibration range.

DL Dilution factor

D Represents concentration at applied dilution factor.

R Data rejected by data validator.

NJ Presumptive evidence that the compound is present at a concentration estimated by the laboratory.

FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

Table 4-29

SOIL SAMPLING RESULTS - QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

Sample ID	FB-1 (*)	TB-1 (*)	FB-2 (*)	TB-2 (*)	FB-3 (*)	FB-4 (*)	TB-3 (*)
Sample Depth (feet)							
Sample Date							
PARAMETER (ug/l)	11/18/96	11/18/96	11/19/96	11/19/96	11/20/96	11/21/96	11/21/96
Chloromethane	10	10	10	10	10	10	10
Bromomethane	10	10	10	10	10	10	10
Vinyl Chloride	10	10	10	10	10	10	10
Chloroethane	10	10	10	10	10	10	10
Methylene Chloride	10	10	10	10	10	10	10
Acetone	10	10	10	10	10	10	10
Carbon Disulfide	10	10	10	10	10	10	10
1,1-Dichloroethene	10	10	10	10	10	10	10
1,1-Dichloroethane	10	10	10	10	10	10	10
1,2-Dichloroethene (total)	10	10	10	10	10	10	10
Chloroform	10	10	10	10	10	10	10
1,2-Dichloroethane	10	10	10	10	10	10	10
2-Butanone	10	10	10	10	10	10	10
1,1,1-Trichloroethane	10	10	10	10	10	10	10
Carbon Tetrachloride	10	10	10	10	10	10	10
Vinyl Acetate	10	10	10	10	10	10	10
Bromodichloromethane	10	10	10	10	10	10	10
1,2-Dichloropropane	10	10	10	10	10	10	10
cis-1,3-Dichloropropene	10	10	10	10	10	10	10
Trichloroethene	10	10	10	10	10	10	10
Benzene	10	10	10	10	10	10	10
Dibromochloromethane	10	10	10	10	10	10	10
trans-1,3-Dichloropropene	10	10	10	10	10	10	10
1,1,2-Trichloroethane	10	10	10	10	10	10	10
Bromodform	10	10	10	10	10	10	10
4-Methyl-2-Pentanone	10	10	10	10	10	10	10
2-Hexanone	10	10	10	10	10	10	10
1,1,2,2-Tetrachloroethane	10	10	10	10	10	10	10
Tetrachloroethene	10	10	10	10	10	10	10
Toluene	10	10	10	10	10	10	10
Chlorobenzene	10	10	10	10	10	10	10
Ethylbenzene	10	10	10	10	10	10	10
Styrene	10	10	10	10	10	10	10
Xylenes (total)	10	10	10	10	10	10	10
2-Chloroethylvinylether	10	10	10	10	10	10	10
1,2-Dichlorobenzene	10	10	10	10	10	10	10
1,3-Dichlorobenzene	10	10	10	10	10	10	10
1,4-Dichlorobenzene	10	10	10	10	10	10	10
Chromium	NA	NA	9.4	NA	NA	NA	NA
Tentatively Identified Compounds (**)			6-1	108-2	45-2	29-1	9-1
Tentatively Unidentified Compounds (**)			108-2	47-1	153-3	29-1	28-1

Notes:

(*) Results reported in ug/l.

(**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.

U Compound not detected at a concentration greater than the contract required detection limit.

J Estimated concentration.

E Reported concentration exceeds the instrument calibration range.

DL Dilution factor

D Represents concentration at applied dilution factor.

R Data rejected by data validator.

NJ Presumptive evidence that the compound is present at a concentration estimated by the laboratory.

FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-29

SOIL SAMPLING RESULTS - VOLATILE ORGANIC COMPOUNDS

Sample ID	SS-23 3 - 5DL 02/04/97	SS-23 35 - 37 02/04/97	BD-2 (SS-23) 35 - 37 02/04/97	SS-24 3 - 5 02/04/97	SS-24 35 - 37 02/04/97
Sample Depth (feet)					
Sample Date					
PARAMETER (ug/kg)					
Chloromethane	R	11	11	11	11
Bromomethane	R	11	11	11	11
Vinyl Chloride	R	11	11	11	11
Chloroethane	R	11	11	11	11
Methylene Chloride	R	11	11	11	11
Acetone	R	6 J	4 J	2 J	11 J
Carbon Disulfide	R	11	11	11	11
1,1-Dichloroethene	R	11	11	11	11
1,1-Dichloroethane	R	11	11	11	11
1,2-Dichloroethene (total)	R	11	16	11	11
Chloroform	R	11	11	11	11
1,2-Dichloroethane	R	11	11	11	11
2-Butanone	R	11	11	11	11
1,1,1-Trichloroethane	R	11	11	11	11
Carbon Tetrachloride	R	11	11	11	11
Vinyl Acetate	R	11	11	11	11
Bromodichloromethane	R	11	11	11	11
1,2-Dichloropropane	R	11	11	11	11
cis-1,3-Dichloropropene	R	11	11	11	11
Trichloroethene	150 D	3 J	4 J	1 J	11
Benzene	R	11	11	11	11
Dibromochloromethane	R	11	11	11	11
trans-1,3-Dichloropropene	R	11	11	11	11
1,1,2-Trichloroethane	R	11	11	11	11
Bromoform	R	11	11	11	11
4-Methyl-2-Pentanone	R	11	11	11	11
2-Hexanone	R	11	11	11	11
1,1,2,2-Tetrachloroethane	R	11	11	11	11
Tetrachloroethene	300 D	4 J	5 J	5 J	11
Toluene	R	11	11	11	11
Chlorobenzene	R	11	11	11	11
Ethylbenzene	R	11	11	11	11
Styrene	R	11	11	11	11
Xylenes (total)	R	11	11	11	11
2-Chloroethylvinylether	R	11	11	11	11
1,2-Dichlorobenzene	R	11	11	11	11
1,3-Dichlorobenzene	R	11	11	11	11
1,4-Dichlorobenzene	R	11	11	11	11
Tentatively Identified Compounds (**)		7-1		9-1	43-2
Tentatively Unidentified Compounds (**)				6-1	10-1

Notes:

- (*) Results reported in ug/l.
- (**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.
- U Compound not detected at a concentration greater than the contract required detection limit.
- J Estimated concentration.
- E Reported concentration exceeds the instrument calibration range.
- DL Dilution factor
- D Represents concentration at applied dilution factor.
- R Data rejected by data validator.
- NJ Presumptive evidence that the compound is present at a concentration estimated by the laboratory.

FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-29

SOIL SAMPLING RESULTS - QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

Sample ID Sample Depth (feet) Sample Date PARAMETER (ug/l)	FIELD BLANK 12/02/96	TRIP BLANK 12/02/96	FIELD BLANK 02/03/97	FIELD BLANK 02/04/97	TRIP BLANK 02/04/96	TRIP BLANK 02/06/97
Chloromethane	10	U	NA	10	U	10
Bromomethane	10	U	NA	10	U	10
Vinyl Chloride	10	U	NA	10	U	10
Chloroethane	10	U	NA	10	U	10
Methylene Chloride	10	U	NA	10	U	10
Acetone	10	U	NA	10	U	10
Carbon Disulfide	10	U	NA	10	U	10
1,1-Dichloroethane	10	U	NA	10	U	10
1,1-Dichloroethane	10	U	NA	10	U	10
1,2-Dichloroethane (total)	10	U	NA	10	U	10
Chloroform	10	U	NA	10	U	10
1,2-Dichloroethane	10	U	NA	10	U	10
2-Butanone	10	U	NA	10	U	10
1,1,1-Trichloroethane	10	U	NA	10	U	10
Carbon Tetrachloride	10	U	NA	10	U	10
Vinyl Acetate	10	U	NA	10	U	10
Bromodichloromethane	10	U	NA	10	U	10
1,2-Dichloropropane	10	U	NA	10	U	10
cis-1,3-Dichloropropene	10	U	NA	10	U	10
Trichloroethene	10	U	NA	10	U	10
Benzene	10	U	NA	10	U	10
Dibromochloromethane	10	U	NA	10	U	10
trans-1,3-Dichloropropene	10	U	NA	10	U	10
1,1,2-Trichloroethane	10	U	NA	10	U	10
Bromoform	10	U	NA	10	U	10
4-Methyl-2-Pentanone	10	U	NA	10	U	10
2-Hexanone	10	U	NA	10	U	10
1,1,2,2-Tetrachloroethane	10	U	NA	10	U	10
Tetrachloroethene	10	U	NA	10	U	10
Toluene	10	U	NA	10	U	10
Chlorobenzene	10	U	NA	10	U	10
Ethylbenzene	10	U	NA	10	U	10
Styrene	10	U	NA	10	U	10
Xylenes (total)	10	U	NA	10	U	10
2-Chloroethylvinylether	10	U	NA	10	U	10
1,2-Dichlorobenzene	10	U	NA	10	U	10
1,3-Dichlorobenzene	10	U	NA	10	U	10
1,4-Dichlorobenzene	10	U	NA	10	U	10
Chromium	23.3	NA	8.8 B	11-1	NA	NA
Tentatively Identified Compounds (**)					10-1	5-1
Tentatively Unidentified Compounds (***)						

Notes:

- (*) Results reported in ug/l.
- (**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.
- U Compound not detected at a concentration greater than the contract required detection limit.
- J Estimated concentration.
- E Reported concentration exceeds the instrument calibration range.
- DL Dilution factor.
- D Represents concentration at applied dilution factor.
- R Data rejected by data validator.
- NJ Presumptive evidence that the compound is present at a concentration estimated by the laboratory.



FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-30

SOIL SAMPLING RESULTS - TCLP VOLATILE ORGANIC COMPOUNDS

Sample ID	SS-1 3 - 5 02/04/97	SS-5 3 - 5 02/04/97	SS-22 3 - 5 02/04/97	SS-23 3 - 5 02/04/97	SS-24 3 - 5 02/04/97
Sample Depth (feet)					
Sample Date					
PARAMETER (ug/l)					
Benzene	10	10	10	10	10
2-Butanone	10	10	10	10	10
Carbon Tetrachloride	10	10	10	10	10
Chlorobenzene	10	10	10	10	10
Chloroform	10	10	10	10	10
1,2-Dichloroethane	10	10	10	10	10
1,1-Dichloroethene	10	10	10	10	10
Tetrachloroethene	39	1 J	10	9 J	10
Trichloroethene	19	10	10	11	10
Vinyl Chloride	10	10	10	10	10

U - Not detected

J - Estimated concentration

FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-31

SOIL SAMPLING RESULTS - TOTAL AND TCLP CHROMIUM

Sample ID Sample Depth (feet) Sample Date PARAMETER	SS-13 7 - 9 12/02/96	SS-13 10 - 12 12/02/96	SS-14 3 - 5 11/19/96	SS-14 10 - 12 11/19/96	SS-15 3 - 5 11/19/96	SS-15 5 - 9 11/19/96	SS-15 10 - 12 11/19/96	SS-16 3 - 5 11/19/96	SS-16 10 - 12 11/19/96
Total Chromium (mg/kg)	791	106	293 J	592 J	230 J	143 J	242	27.8 J	20.8 J
TCLP Chromium (mg/l)	0.0835	0.244	0.419	NA	0.223	0.288	NA	0.393	NA

Sample ID Sample Depth (feet) Sample Date PARAMETER	SS-25 3 - 5 02/03/97	SS-25 10 - 12 02/03/97	SS-26 3 - 5 02/03/97	SS-26 10 - 12 02/03/97	SS-27 3 - 5 02/03/97	SS-27 10 - 12 02/03/97	SS-28 3 - 5 02/03/97	SS-28 10 - 12 02/03/97	SS-29 3 - 5 02/03/97
Total Chromium (mg/kg)	5.1	12.3	5.4	5.2	10.2	14	4.6	3.3	13.5
TCLP Chromium (mg/l)	0.0092 U	NA	0.0186	NA	0.0109 B	NA	0.0092 U	NA	0.0747

Sample ID Sample Depth (feet) Sample Date PARAMETER	SS-29 10 - 12 02/03/97	SS-30 3 - 5 02/03/97	BD-1 (SS-30) 3 - 5 02/03/97	SS-30 10 - 12 02/03/97	SS-31 3 - 5 02/03/97	SS-31 10 - 12 02/03/97	SS-32 3 - 5 02/03/97	SS-32 10 - 12 02/03/97
Total Chromium (mg/kg)	6.6	459	529	69.2	17.3	38	62.6	58.5
TCLP Chromium (mg/l)	NA	1.1	0.652	NA	0.0369 U	NA	0.319	NA

Notes:

NA Analysis not required.

J Estimated concentration.

FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-32

CONCRETE CORE SAMPLING RESULTS - VOLATILE ORGANIC COMPOUNDS AND CHROMIUM

Sample ID	Sample Depth (feet)	SS-1	SS-5	SS-5	SS-5	SS-14	SS-14	SS-15	SS-15	SS-16	SS-16
Sample Date	11/22/96	11/22/96	11/22/96	11/22/96	11/22/96	11/22/96	11/22/96	11/22/96	11/22/96	11/22/96	11/22/96
PARAMETER	TCLP (ug/l)	TCLP (ug/l)	TCLP (ug/l)	TCLP (ug/l)	TCLP (ug/l)	TCLP (ug/l)	TCLP (ug/l)	TCLP (ug/l)	TCLP (ug/l)	TCLP (ug/l)	TCLP (ug/l)
Volatile Organic Compounds (ug/kg)											
Chloromethane	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
Bromomethane	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Chloroethane	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
Acetone	3.2 J		4.6 J		NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
Chloroform	10	U	10	U	10	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	10	U	10	U	10	NA	NA	NA	NA	NA	NA
2-Butanone	10	U	10	U	10	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Vinyl Acetate	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Bromodichloromethane	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Benzene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Dibromochloromethane	10	U	10	U	10	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
1,1,1,2-Trichloroethane	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
Bromoform	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	10	U	10	U	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Tetrachloroethene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Toluene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Chlorobenzene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Ethylbenzene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Styrene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Xylenes (total)	10	U	10	U	10	NA	NA	NA	NA	NA	NA
2-Chloroethylvinylether	10	U	10	U	10	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	10	U	10	U	10	NA	NA	NA	NA	NA	NA
Tentatively Identified Compounds (**)	8-1	NJ	35-2	NJ	NA	NA	NA	NA	NA	NA	NA
Tentatively Unidentified Compounds (**)	16-1	J									
Metals											
Chromium (mg/kg)	NA	NA	NA	NA	NA	50.6 J	0.056	10.5 J	0.0786	480 J	1.14

Notes:

(*) Results reported in ug/l.

(**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.

U Compound not detected at a concentration greater than the contract required detection limit.

J Estimated concentration.

E Reported concentration exceeds the instrument calibration range.

DL Dilution factor

D Represents concentration at applied dilution factor.

R Data rejected by data validator.

NJ Presumptive evidence that the compound is present at a concentration estimated by the laboratory.

FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-7A

COMPARISON OF THE 1994 AND 1997 GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS

Sample ID Sample Date Analytical Method PARAMETER (ug/l)	MW-3S		MW-3D		MW-5S		MW-9D		MW-10D		MW-11S	
	09/19/94	02/06/97	09/19/94	02/06/97	09/20/94	02/04/97	09/20/94	02/04/97	09/20/94	02/04/97	09/20/94	02/04/97
Chloromethane	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	15 J	2 J	10 U	10 U	10 U	7 J	1 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	100 U	10 U	10 U	10 U	10 U	10 U	2 U	10 U	10 U	10 U	10 U	10 U
Acetone	100 U	10 U	10 U	6 J	10 U	10 U	5 R	5 J	10 U	5 J	10 U	10 U
Carbon Disulfide	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	100 U	10 U	10 U	10 U	10 U	10 U	0.5 J	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	1 J	7 J	10 U	10 U	10 U	10 U	0.6 J	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	50 J	1 J	10 U	10 U	10 U	18	2 U	10 U	10 U	10 U	10 U	10 U
Chloroform	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	100 U	10 U	10 U	10 U	10 U	10 U	5 R	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	100 U	10 U	10 U	10 U	10 U	10 U	2	10 U	10 U	10 U	7 J	2 J
Vinyl Acetate	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	100 U	10 U	10 U	10 U	10 U	17	1 U	10 U	10 U	10 U	10 U	10 U
Benzene	25 J	2 J	10 U	10 U	10 U	9 J	1 U	10 U	10 U	10 U	6 J	3 J
Dibromochloromethane	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
Bromoform	100 U	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	100 U	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	100 U	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	100 U	10 U	10 U	10 U	10 U	2 J	1 U	10 U	10 U	10 U	80	11
Toluene	450	2 J	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	300	2 J	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	1200	26	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
Styrene	100 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U	10 U	10 U	10 U
Xylenes (total)	3900	10	10 U	10 U	10 U	10 U	2 U	10 U	10 U	10 U	10 U	10 U
2-Chloroethylvinylether	NA	10 U	10 U	10 U	10 U	10 U	NA	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	NA	2 J	10 U	10 U	10 U	10 U	NA	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	NA	10 U	10 U	10 U	10 U	10 U	NA	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	NA	10 U	10 U	10 U	10 U	10 U	NA	10 U	10 U	10 U	10 U	10 U
Tentatively Identified Compounds (**)	148-10	NJ	7-1	NJ	22-3	NJ	30-1	NJ	24-2	NJ	NA	10 U
Tentatively Unidentified Compounds (**)	25-2	NJ	8-1	NJ								

Notes:

- U Compound not detected.
- J Estimated concentration.
- E Reported concentration exceeds the instrument calibration range.
- R Data rejected by data validator.
- NA Not analyzed.

(**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.

FAIRCHILD REPUBLIC PLANT SITE
FARMINGDALE, NEW YORK

TABLE 4-7A

COMPARISON OF THE 1994 AND 1997 GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS

Sample ID Sample Date Analytical Method PARAMETER (ug/l)	MW-11D		MW-14S		MW-BD(14S)		MW-14D		MW-19S		MW-19SDL		MW-19D	
	09/20/94 91-1	02/04/97 8240	09/21/94 91-1	02/04/97 8240	09/21/94 91-1	02/04/97 8240	09/21/94 91-1	02/04/97 8240	09/27/94 91-1	02/04/97 8240	02/04/97 8240 Diluted 10X	09/27/94 91-1	02/04/97 8240	
Chloromethane Bromomethane Vinyl Chloride Chloroethane Methylene Chloride Acetone Carbon Disulfide 1,1-Dichloroethene 1,1-Dichloroethane 1,2-Dichloroethene (total) Chloroform 1,2-Dichloroethane 2-Butanone 1,1,1-Trichloroethane Carbon Tetrachloride Vinyl Acetate Bromodichloromethane 1,2-Dichloropropane cis-1,3-Dichloropropene Trichloroethene Benzene Dibromochloromethane trans-1,3-Dichloropropene 1,1,2-Trichloroethane Bromoform 4-Methyl-2-Pentanone 2-Hexanone 1,1,2,2-Tetrachloroethane Tetrachloroethene Toluene Chlorobenzene Ethylbenzene Styrene Xylenes (total) 2-Chloroethylvinylether 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 UJ	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	11		10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	22	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	1 J		10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	8 J	
	10 U	10 U	10 U	1 J	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	47	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U	
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
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10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	100R	250 U	10 U		
10 U	10 U													

Notes:

- U Compound not detected.
 J Estimated concentration.
 E Reported concentration exceeds the instrument calibration range.
 R Data rejected by data validator.
 NA Not analyzed.

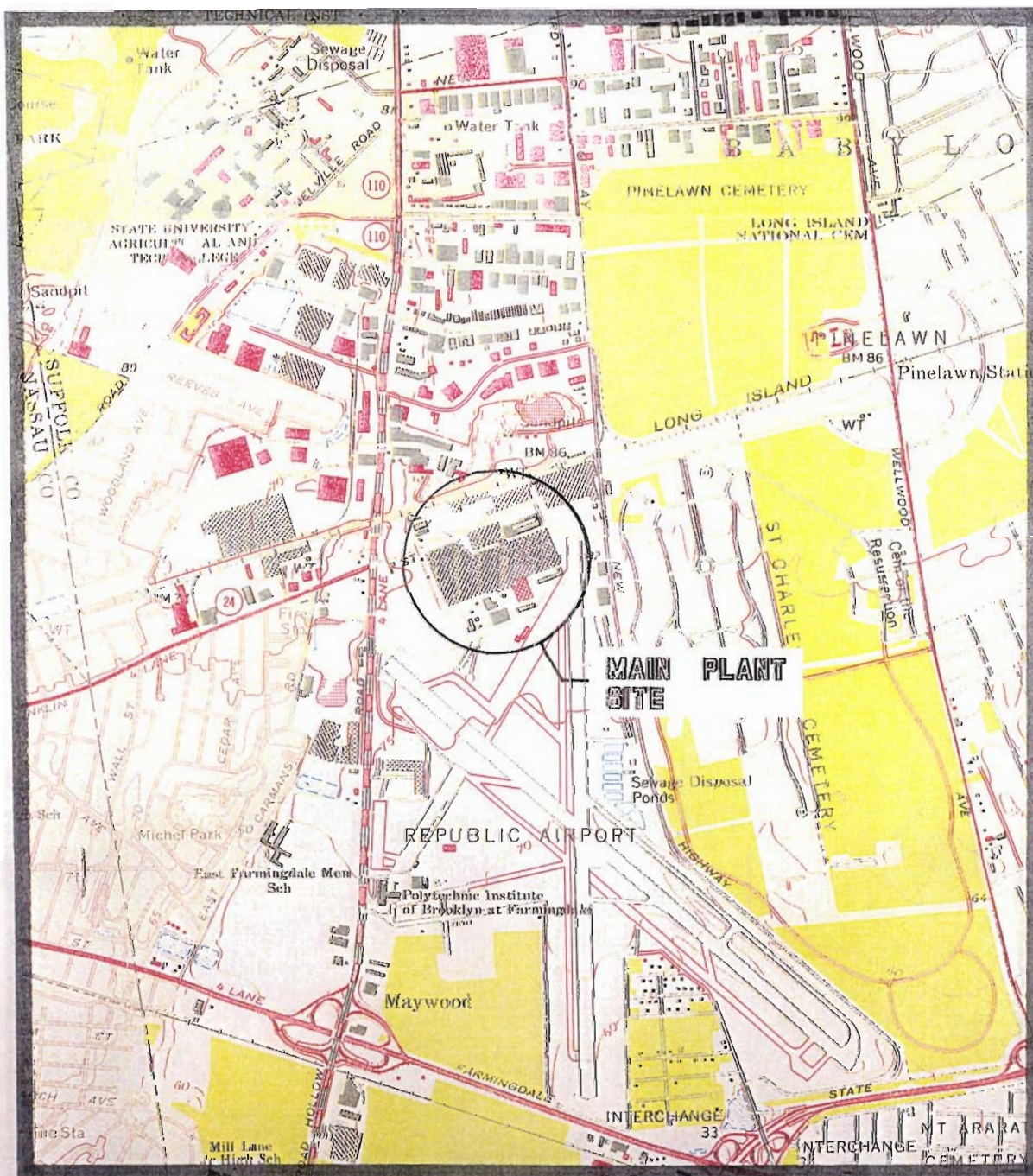
(**) First number denotes sum of the compounds detected and the second number indicates the number of compounds found.

TABLE 5-1

PHYSICO-CHEMICAL PROPERTIES
GROUNDWATER CONTAMINANTS

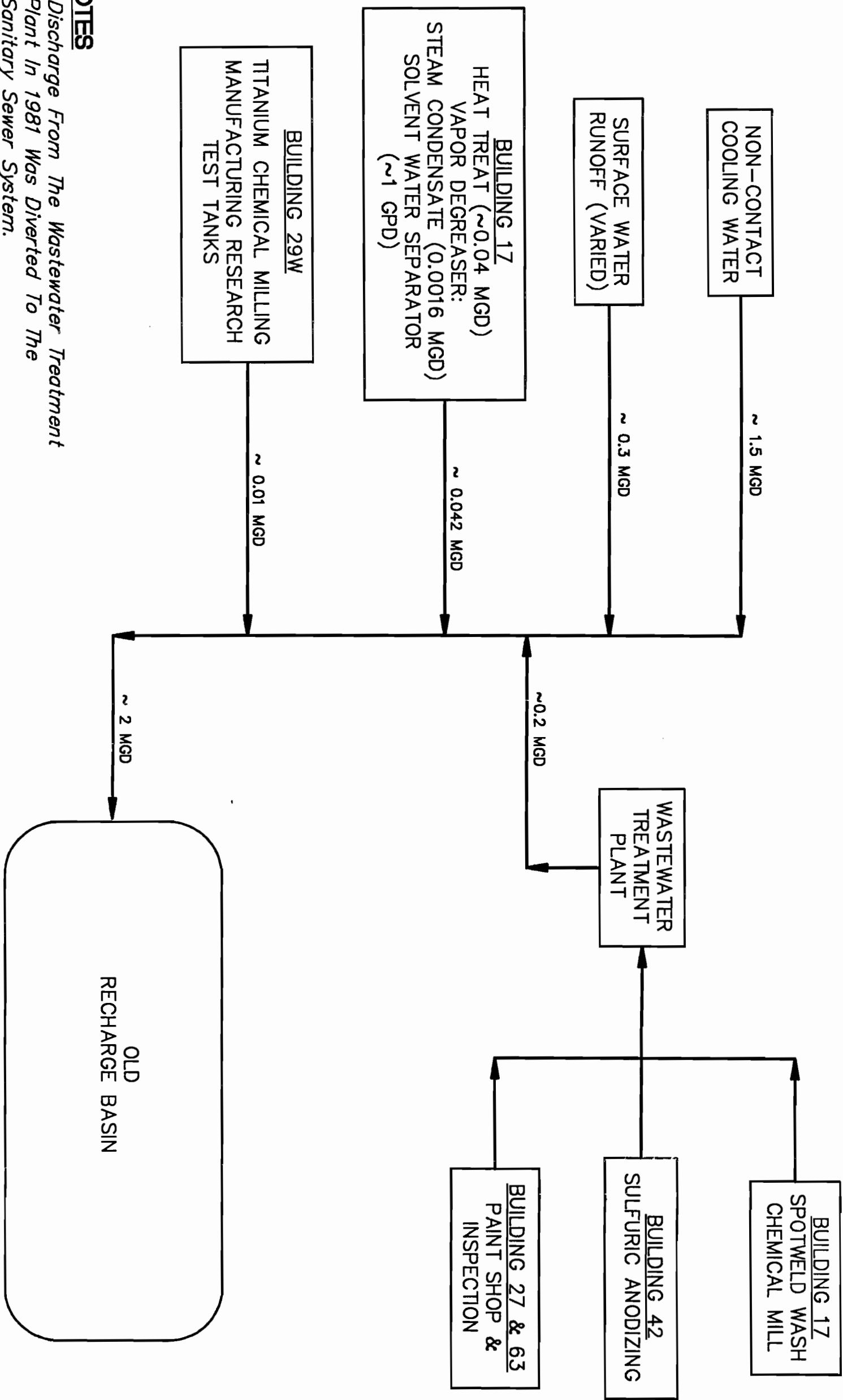
Compound	Molecular Weight	Melting Point °C	Boiling Point °C	Water Solubility (mg/L @25 °C)	Specific Gravity/Density	Log K_{ow}	Log K_{oc}	Vapor Pressure (mm Hg @ 25 °C)	Henry's Law Constant (atm-m ³ /mole @ 25 °C)	Aqueous Aerobic Biodegradation Rate (Days)	Aqueous Anaerobic Biodegradation Rate (Days)	Reference
Vinyl Chloride	62.5	-153.8	-13.4	2763	0.969 g/cm ³	1.36	1.7	2660	0.0107		112-730	ATSDR, 1988d; Howard, 1989
1,1-DCA	98.97	-96.7	57.3	5060	1.1747 g/cm ³	1.79	1.76	230	0.00587	56-154	128-616	Schwille, 1988; ATSDR, 1988b; Howard, 1990
1,1-DCE	96.95	-122.5	31.7	0.25% by weight	1.2129 g/cm ³	2.13	1.81	591	0.19		81-173	ATSDR, 1988a; USEPA, 1979
cis-1,2-DCE	96.94	-80.5	60.3	3.50	1.2837	1.86	1.51-1.69	200	0.00337		112-730	Schwille, 1988; ATSDR, 1989; Howard, 1990
trans-1,2-DCE	96.94	-50	48-48.5	6.260	1.2565	2.06	1.51-1.69	336	0.00672	120-720	112-730	Schwille, 1988; ATSDR, 1989; Howard, 1990; USEPA, 1979
1,1,1-TCA	133.42	-30.4	74.1	347	1.3376	2.49	2.26	123.7	0.008	140-6084	560-1092	BCI, 1994b; Howard, 1990; Schwille, 1988; USEPA, 1979
TCE	131.4	-87.1	86.7	1100	1.465	2.29	2.2	74	0.02 @ 20 °C	180-365	98-1643	ATSDR, 1988d; Schwille, 1988; Howard, 1990; BCI, 1994c; USEPA, 1979
PCE	165.83	-22.4	121.2	1503	1.62260	3.40	2.3	18.47	0.82	180-365	98-1643	USEPA, 1979; ATSDR, 1987; Schwille, 1988; Howard, 1990; BCI, 1994a;
1,2-DCA	98.96	-35.3	83-84	0.869 @ 20°C	1.25 @ 20°C	1.48	1.14	61 @ 20°C	0.045		400-730	ATSDR, 1988c

FAIRCHILD INDUSTRIES, INC. EAST FARMINGDALE, NEW YORK



SCALE 1"=2000'

LOCATION MAP



NOTES

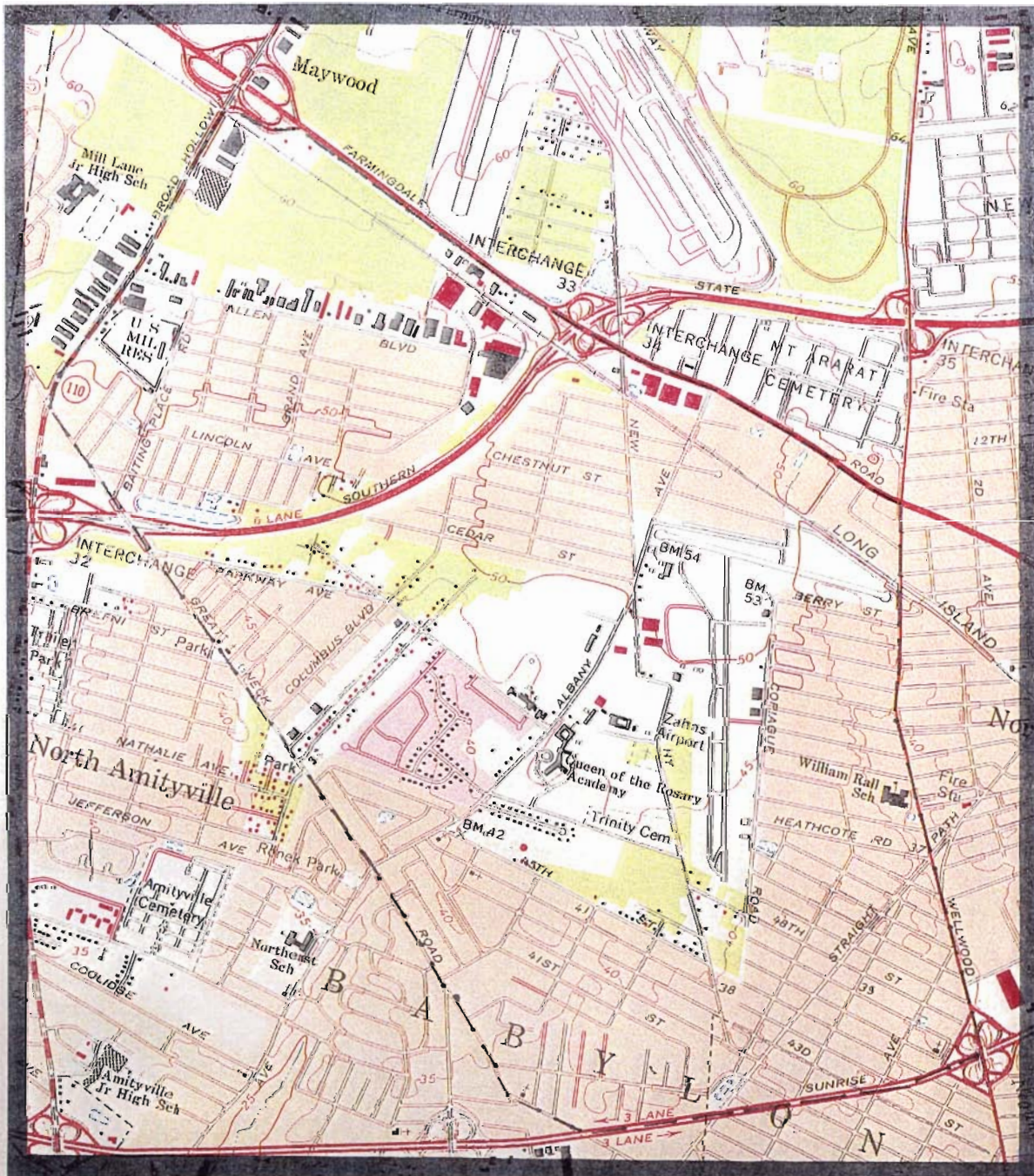
1. Discharge From The Wastewater Treatment Plant In 1981 Was Diverted To The Sanitary Sewer System.
2. Stormwater Run Off Was Conservatively Estimated As Average Annual Precipitation Over A 100 Acre Area.

**SOURCES OF WASTEWATER DISCHARGE
TO THE OLD RECHARGE BASIN**

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

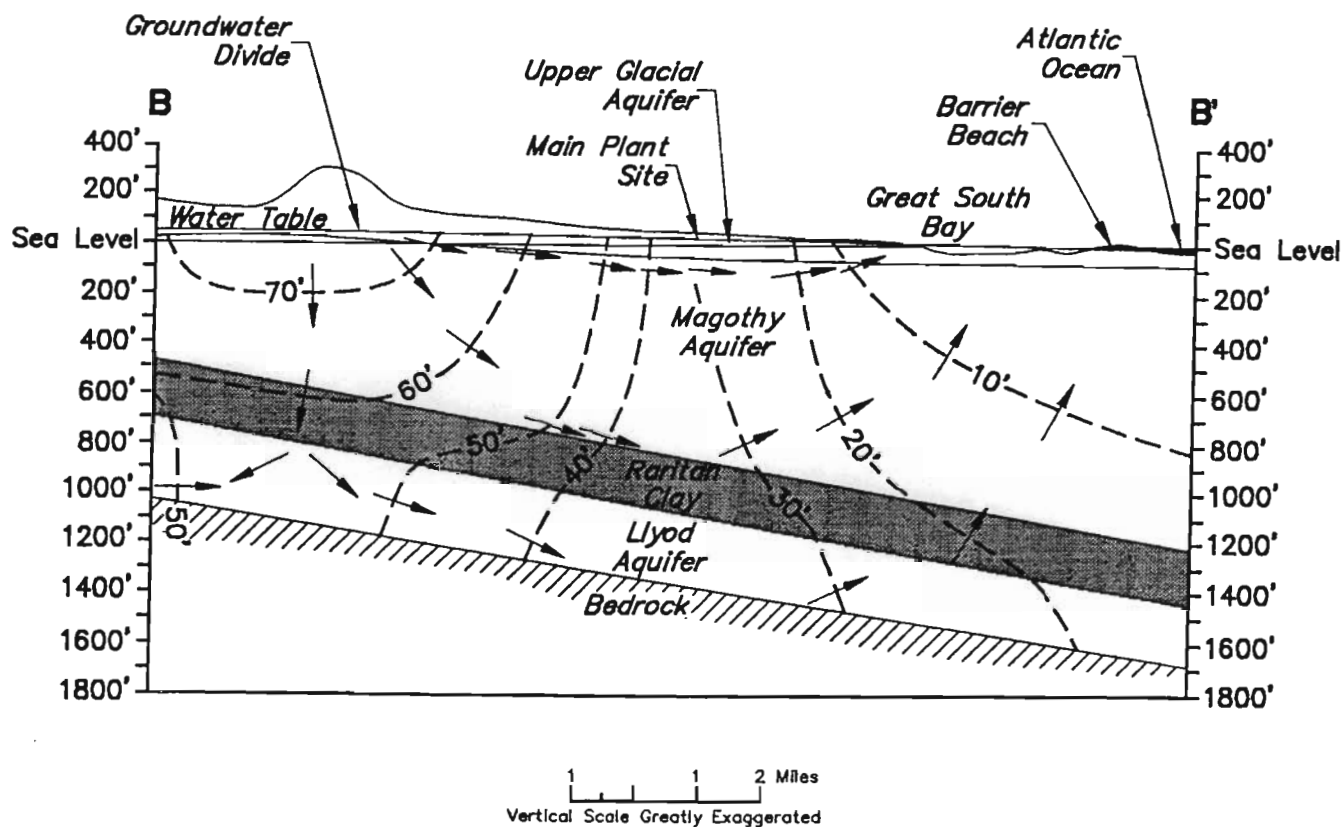
FAIRCHILD INDUSTRIES, INC.

EAST FARMINGDALE, NEW YORK



SCALE 1"=2000'

PRIVATE WELL SURVEY AREA



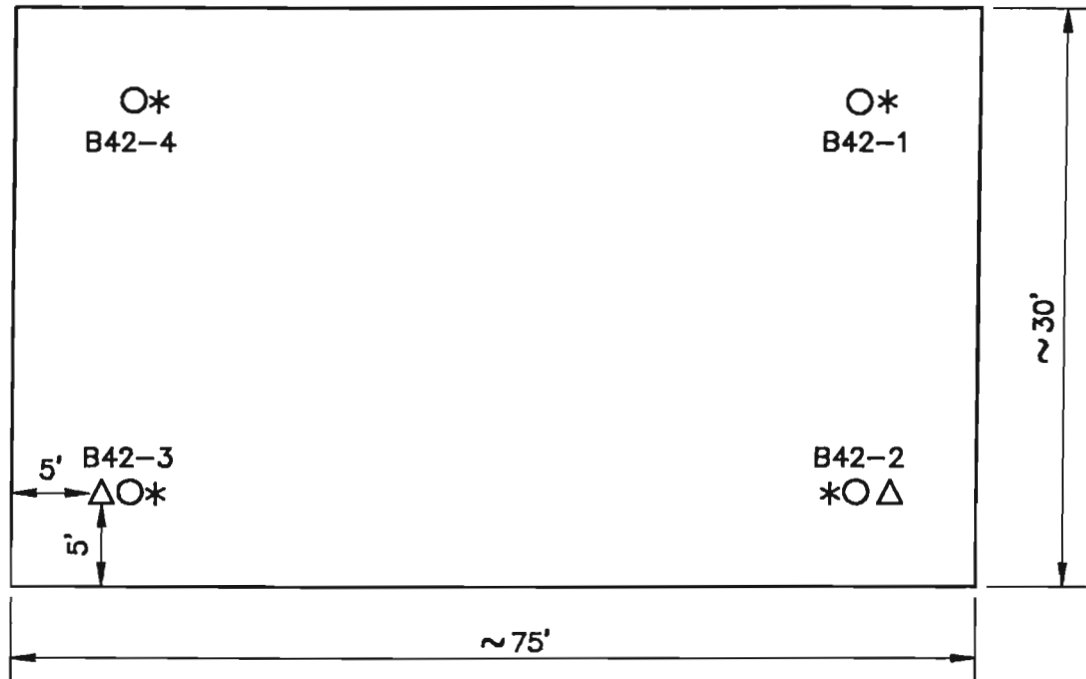
LEGEND

- 40'--- Line Of Equipotential Surface
- Direction Of Groundwater Flow
- Hydrogeologic Boundary

GEOHYDROLOGIC SECTION OF SOUTHWESTERN SUFFOLK COUNTY

(ADAPTED FROM O.L. FRANKE AND
N.E. McClymonds, 1972, FIGURE 21)

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK



LEGEND

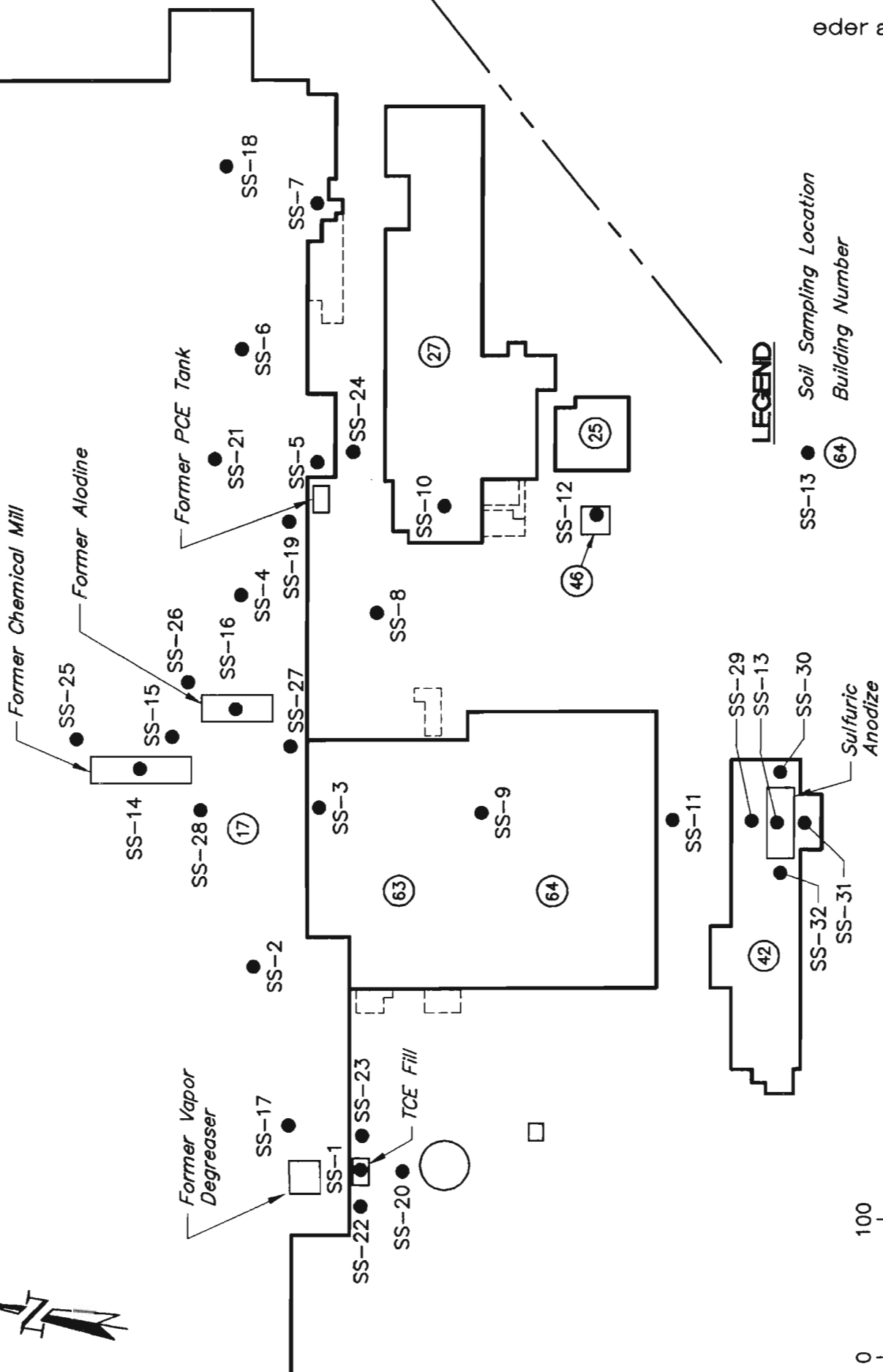
- Boring Through Concrete Floor, 1987
- * Soil Sample, 1988
- △ Soil Sample Collected By Eder February 2, 1994

NOTE

1. Drawing Is Not To Scale.
2. The Locations Of The Samples Collected On February 2, 1992 Correspond To The Previous Sample Locations.

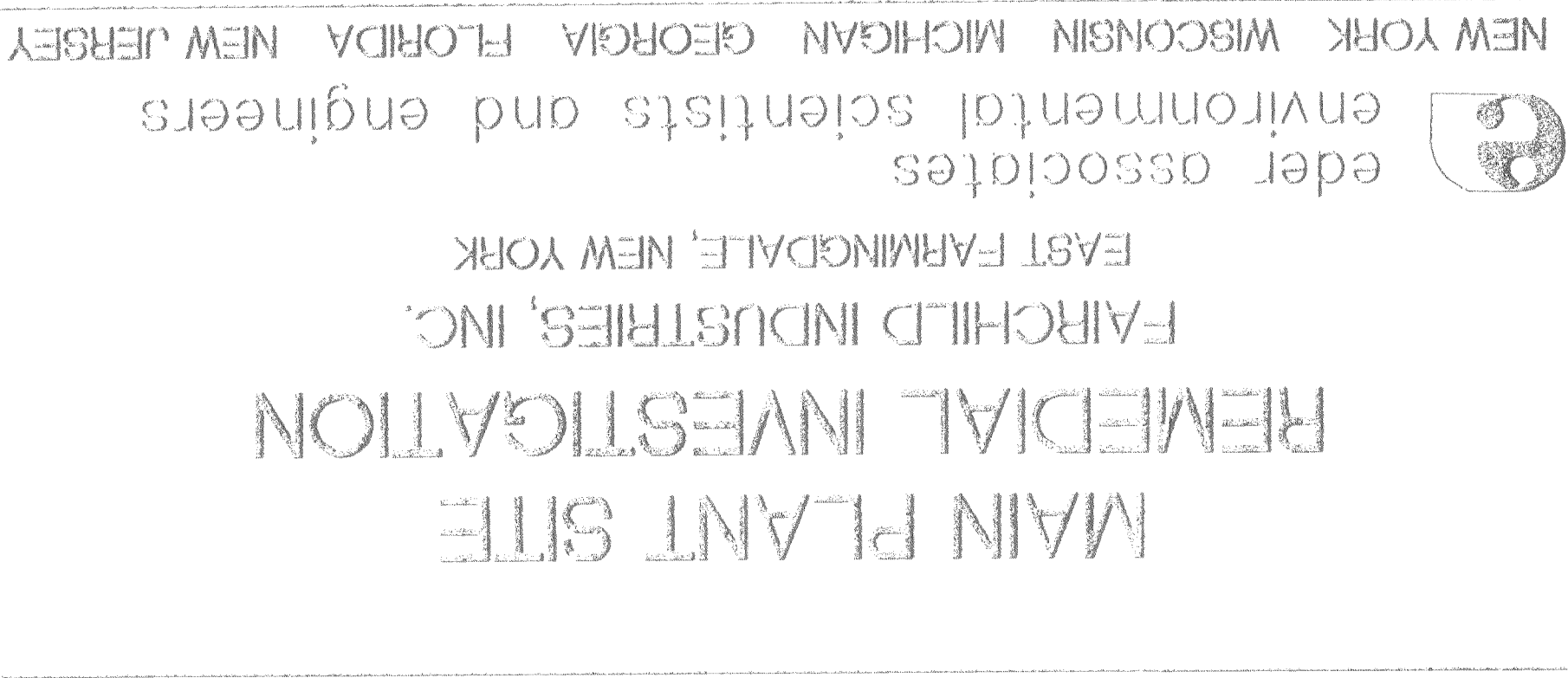
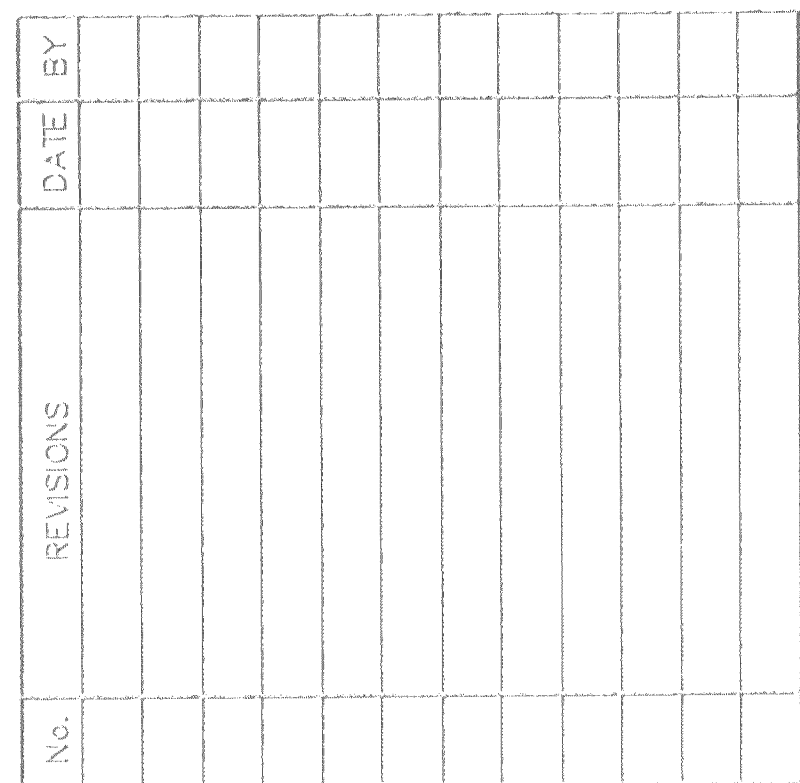
SAMPLE LOCATIONS IN THE EXCAVATION PIT IN BUILDING 42

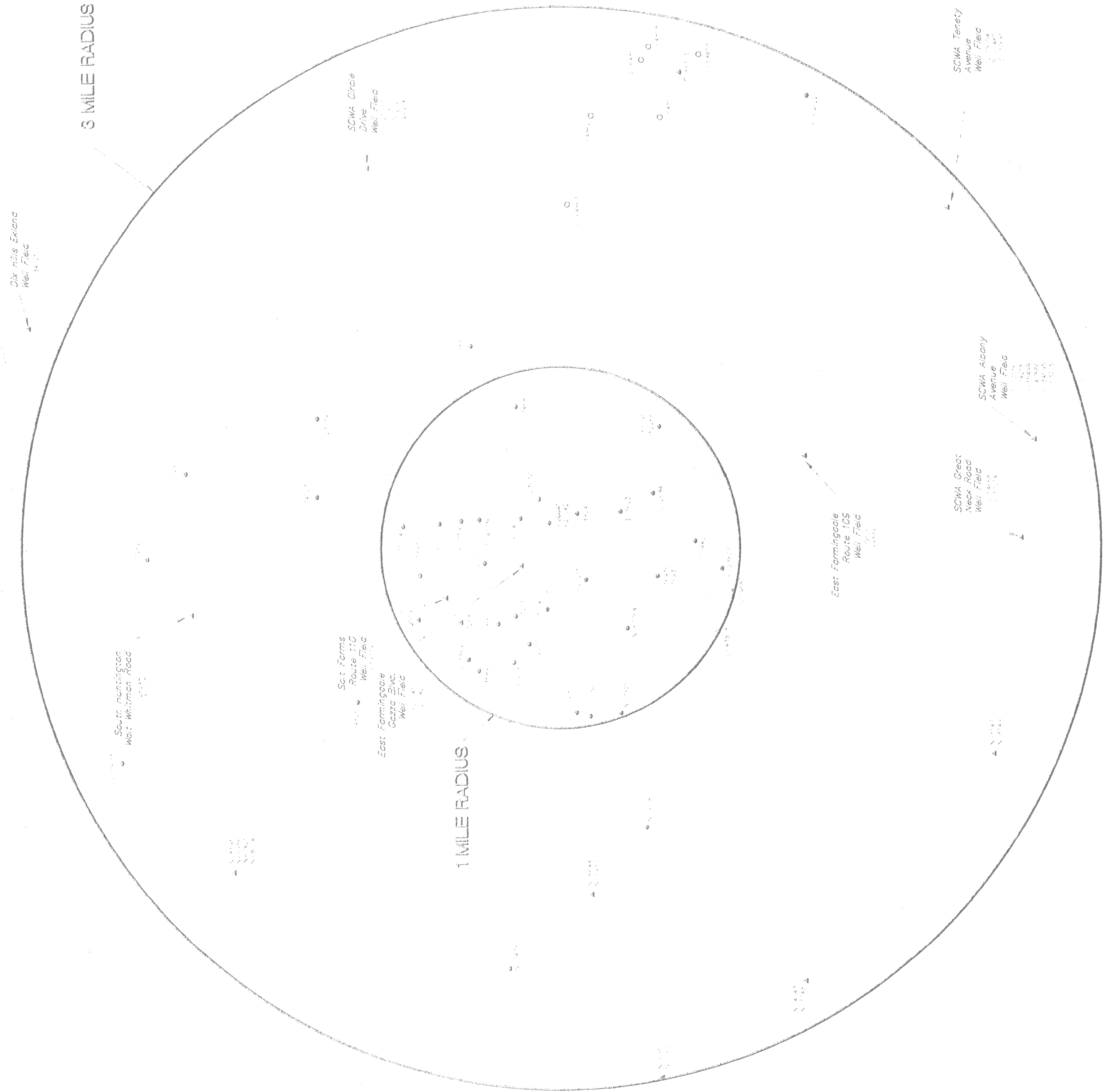
FAIRCHILD MAIN PLANT SITE
FARMINGDALE, NEW YORK



SOIL SAMPLE LOCATIONS

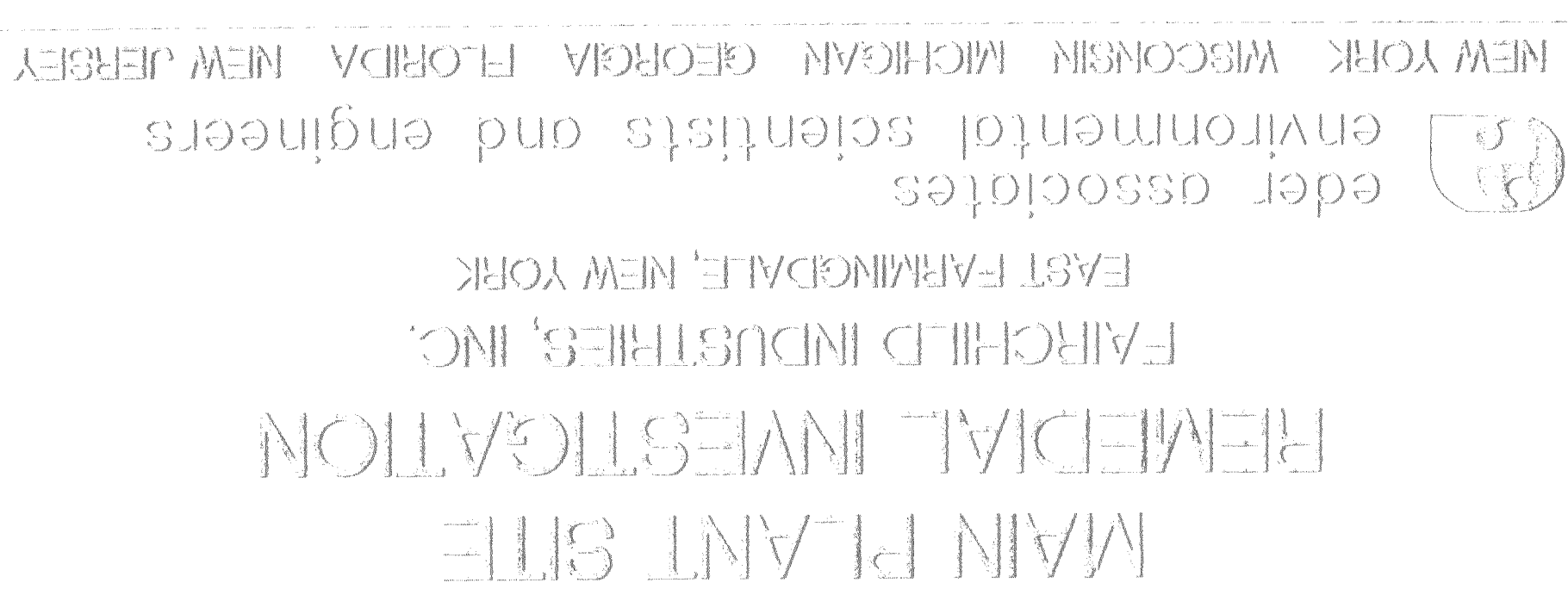
FAIRCHILD INDUSTRIES, INC.
FARMINGDALE, NEW YORK





Location And Designation Of Public Supply Well
Location And Designation Of Industrial Well
Location And Designation Of Fire Well

96152E
040695[illegible]

[illegible]

LEGEND

S-423-8 @ Groundwater Sample Location

☐ Phase I And/OR Remedial Investigation Site Location

Sampling Date:

- *Debris In Feet*
- *Date Refers To The Sampling Period*

☐	Not Detected
☐	Not Reported
☐	Tetrachloroethylene, $\mu\text{g/l}$
☐	Trichloroethylene, $\mu\text{g/l}$
☐	1,1,1-Trichloroethane, $\mu\text{g/l}$

NOTE

VOC Concentrations Are The Highest Concentrations Found During The Site Investigations, $\mu\text{g/l}$.

NOTE

VOC Concentrations Are The Highest Concentrations Found During The Site Investigations, $\mu\text{g/l}$.

DRAWN BY	ED	SCALE	1" = 2000'
DESIGNED BY	MR	PROJECT NO.	981-31
APPROVED BY	CSG	ENG. NO.	4
DATE	MARCH, 1988		

10
 11
 12
 13
 14

No.	REVISIONS	DATE	BY

NEW YORK WISCONSIN MICHIGAN GEORGIA FLORIDA NEW JERSEY

eder associates
environmental scientists and engineers

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

REMEDIAL INVESTIGATION

MAIN PLANT SITE

PROJECT

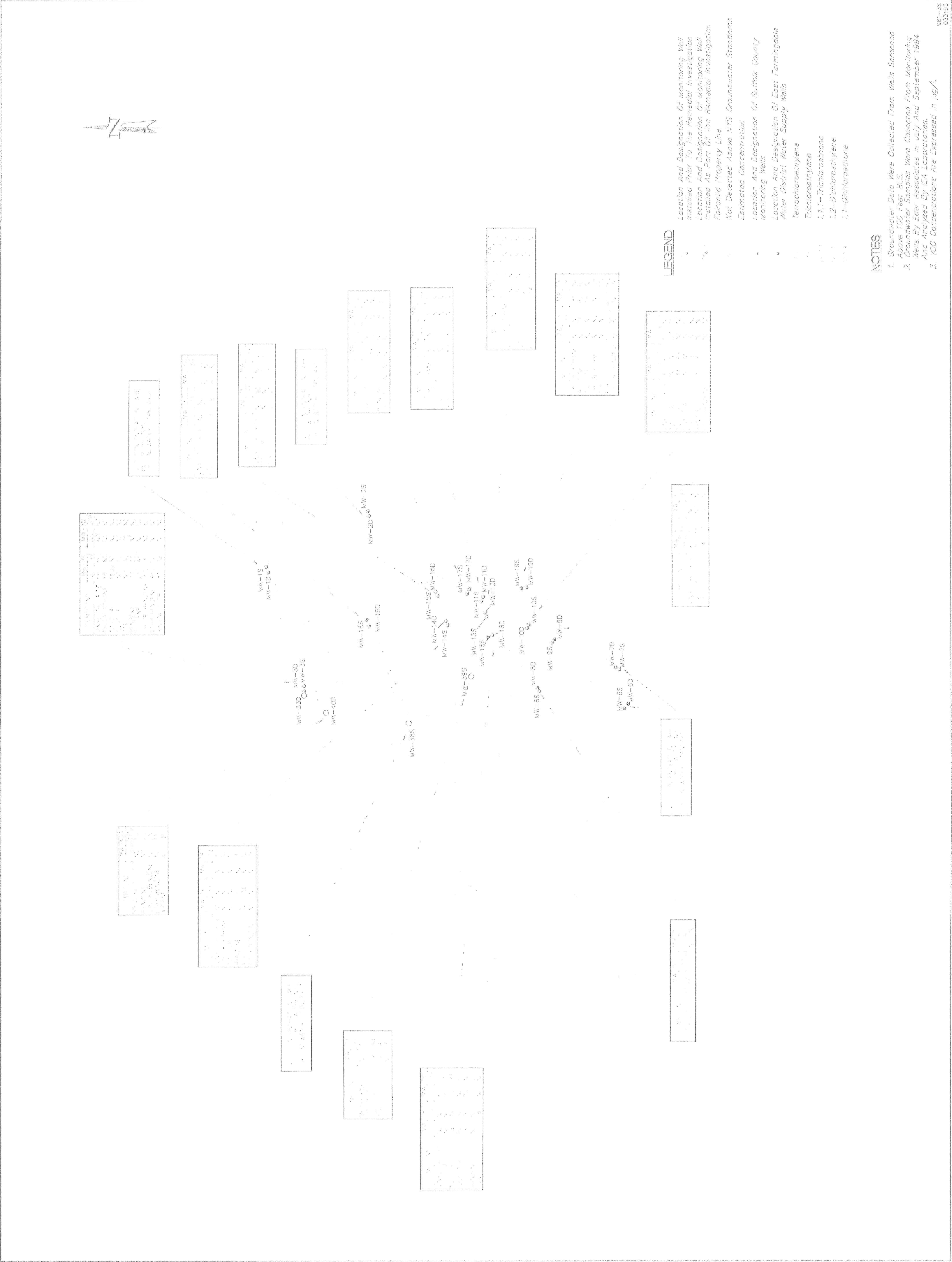
MAIN PLANT SITE
REMEDIAL INVESTIGATION
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

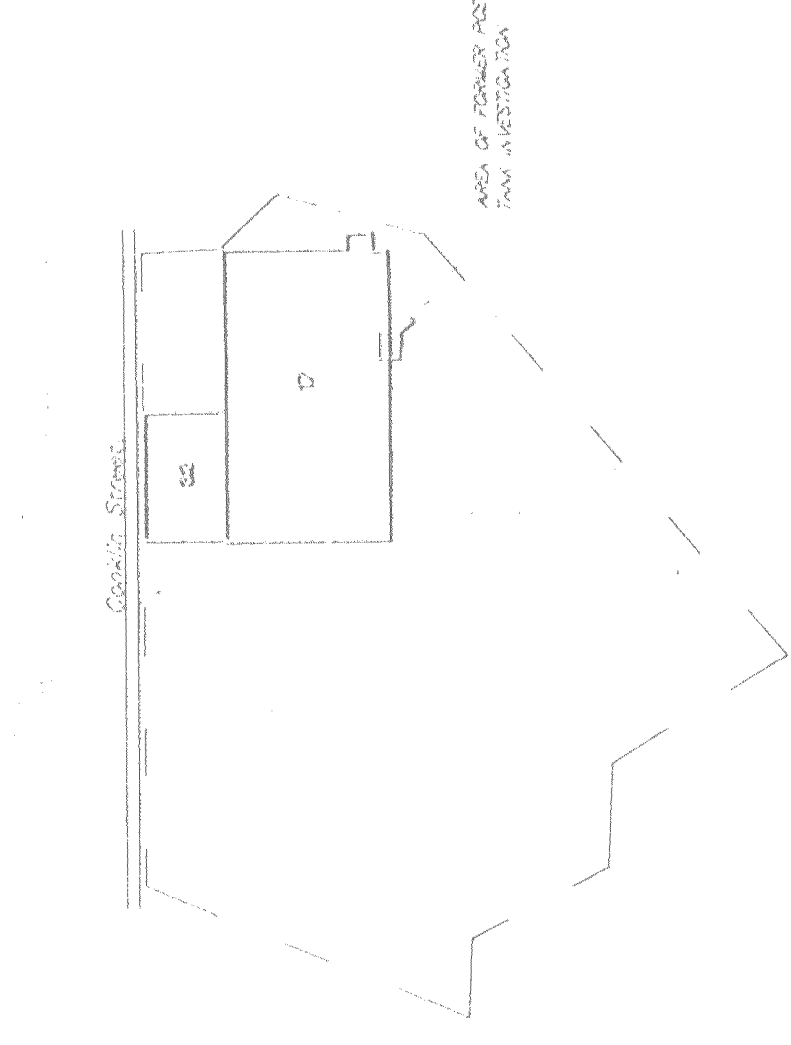
TITLE

VOCs IN GROUNDWATER
EXCEEDING NYS STANDARDS
(SHALLOW ZONE)

eder associates
environmental scientists and engineers
NEW YORK • WISCONSIN • MICHIGAN
GEORGIA • FLORIDA • NEW JERSEY

DRAWN BY	MSA	SCALE	1"=300'
DESIGNED BY	MR	PROJECT No.	S61-3.1
APPROVED BY	CSC	DWG. No.	
DATE	MARCH, 1995		14





020311

Previous Vertical Groundwater Profiling Location
Monitoring Well Installed Prior To 1994
Previous Soil Boring Location
Soil Vapor Sampling Location
Soil Boring Location
Roof Support Column
Geologic Cross Section
Utilities
PCE Pipe (A = Aboveground, B = Belowground)
Water Line
Storm Drain
Sanitary Sewer

Soil Sample Analytical Results in $\mu\text{g/kg}$.
Compounds Reported Above The
Detection Limit Are Shown.

terracloethylene
trichloroethylene
1,2-dichloroethene

SECTION

1. Soil Borings 14-B-1, 14-B-2, And 14-B-3 Were Drilled In 1992 As Part Of The Initial Remedial Investigation.
2. Gas, Sanitary Sewer, Water And Storm Drain Line Locations Are Based On Republic Aviation Corp., Foundation Plan, Sheet 2M.

961-215
053195[illegible]



LEGEND

Sand, Fine To Coarse With Gravel

Sand, Fine To Coarse With Or Without Silt And/Or Clay

Clay, With Or Without Silt And Sand

Test Boring Sampling Locations

Monitoring Well With Screen Interval

Trichloroethylene ($\mu\text{g/l}$)/Tetrachloroethylene ($\mu\text{g/l}$)

Laboratory Data, July 1994

Water Table Profile

Generalized Trichloroethylene Isoconcentration Contour Line

Groundwater Flow Direction

NOTES

1. Vertical Groundwater Profiling Data Were Collected in 1992 And 1993 And Analyzed By Eder Associates Using A Photovac 10550 Flat Porable Gas Chromatograph.
2. Monitoring Well Groundwater Samples Were Collected By Eder Associates in July And September 1994 And Analyzed By IEA Laboratories.
3. Hydrogeologic Cross Section Is Based On Boring Logs From Wells Shown On The Drawing No.
4. Water Table Profile Is Based On Water Level Data From Shallow Monitoring Wells in The Area.

561-3X
C40555

No.	REVISIONS	DATE

MAIN PLANT SITE REMEDIAL INVESTIGATION

FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK



eder associates
environmental scientists and engineers
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PROJECT

MAIN PLANT SITE
REMEDIATION INVESTIGATION
FAIRCHILD INDUSTRIES, INC.
EAST FARMINGDALE, NEW YORK

TITLE

VERTICAL PROFILE OF TCE
IN GROUNDWATER



eder associates
environmental scientists and engineers
NEW YORK • WISCONSIN • MICHIGAN
GEORGIA • FLORIDA • NEW JERSEY

DRAWN BY

ED

DESIGNED BY

MR

APPROVED BY

CSG

DATE

MARCH, 1995

SCALE VERT. 1" = 50'

HORIZ. 1" = 500'

PROJECT NO.

961-3.1

DWG. No.

21



