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REPORT

SOILS REMEDIAL INVESTIGATION REPORT/ FEASIBILITY STUDY WORK PLAN (VOLUME I)

American Cyanamid Company

Bound Brook, New Jersey

October 1990
Amended May 1992

BLASLAND & BOUCK ENGINEERS, P.C.
BLASLAND, BOUCK & LEE
ENGINEERS & GEOSCIENTISTS

DOCUMENTS IN THIS FILE HAVE BEEN SCANNED UP TO THIS POINT.

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Initials SAC

Date 6/6/94

(RBSALs). These changes have not been carried over to certain figures in Appendix B, because modifying these figures would be extremely time-consuming. To remedy this deficiency, a new figure (Figure 11) has been added to the Soils RI/FS Work Plan and is referenced in Section 7. This figure shows all sampling locations where RBSALs and/or PCB action levels were exceeded.

If you have any questions, please contact me at your convenience.

Sincerely,

AMERICAN CYANAMID COMPANY

Joel Jerome by James Schnitzer

Joel Jerome
Manager, Site Remediation

JJ/MPK/plb

Attachments

cc: Mr. R. Grassi, United States Environmental Protection Agency (1 copy)
Ms. A. Nadai, United States Environmental Protection Agency (1 copy)
Mr. P.S. Brzozowski, P.E., Blasland, Bouck & Lee
Mr. J.A. Schnitzer, Blasland, Bouck & Lee

CYANAMID

American Cyanamid Company
Bound Brook, NJ 08805
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May 26, 1992

Mr. Haiyesh Shah
Case Manager
New Jersey Department of Environmental
Protection and Energy
Bureau of Federal Case Management
Division of Responsible Party Site Remediation
401 East State Street
5th Floor CN 028
Trenton, NJ 08625-0028

RE: Soils Remedial Investigation Report/
Feasibility Study Work Plan Amended May 1992
American Cyanamid Company, Bound Brook, New Jersey

Dear Mr. Shah:

American Cyanamid Company (Cyanamid) herein submits to you for approval three copies of the amended Soils Remedial Investigation Report/Feasibility Study Work Plan (RI Report/FS Work Plan) prepared by Blasland, Bouck & Lee for the Cyanamid Bound Brook, New Jersey facility. As discussed, once the report is approved we will send you two additional copies for the public repository.

The Soils RI/FS Work Plan has been amended to incorporate all relevant comments received from the New Jersey Department of Environmental Protection and Energy (NJDEPE) and the United States Environmental Protection Agency (USEPA). The amended sections specifically address correspondence from the agencies to Cyanamid dated July 19, 1991 and September 30, 1991. The report is being submitted within 30 days of approval of the Baseline Site-Wide Endangerment Assessment as required by the NJDEPE in its December 3, 1991 correspondence.

Note that since no changes needed to be made to Appendices A and B of this report, they have not been reproduced or included with the amended report. Please take your original Appendices A and B and affix the enclosed adhesive labels ("Volume III", "Volume IV", "1 of 2", "2 of 2", and "Amended May 1992") to each appendix cover.

Also note that changes have been made to the text and tables of the Baseline Site-Wide Endangerment Assessment, in response to agency comments, regarding the modified list of chemicals of interest and risk-based soil action levels

SOILS REMEDIAL INVESTIGATION REPORT/FEASIBILITY STUDY WORK PLAN
VOLUME I

AMERICAN CYANAMID COMPANY
BOUND BROOK, NEW JERSEY

OCTOBER 1990
(Amended May 1992)

BLASLAND, BOUCK & LEE
RARITAN PLAZA III
FIELDCREST AVENUE
EDISON, NEW JERSEY 08837

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Section 1 - Introduction

SECTION 1 - INTRODUCTION

1.1 Background

American Cyanamid Company (Cyanamid) and the New Jersey Department of Environmental Protection and Energy (NJDEPE) entered into an Administrative Consent Order (ACO) in May of 1988 for the remediation of Cyanamid's Bound Brook facility. One specific mandate of the 1988 ACO, Section II.E Soil Investigation and Remedial Actions, requires Cyanamid to implement a Soils Investigation and Remedial Action Program to characterize and fully address the site-wide soils. The major work efforts associated with this Program as defined in the ACO are as follows:

1. Preparation and implementation of a Soils Remedial Investigation (RI) Work Plan;
2. Preparation of a Soils RI Report;
3. Preparation and implementation of a Soils Feasibility Study (FS) Work Plan;
4. Preparation of a Soils FS Report; and
5. Preparation and implementation of a Soils Remedial Action Plan.

In order to achieve the goals of the ACO (Section VI.13), the objectives for the Soils Investigation and Remedial Action Program, outlined in Paragraph VI.14.d of the ACO, were identified as follows:

1. Short-Term - the discovery and cleanup of soil conditions that pose a threat to worker health or safety, as defined in United States Environmental Protection Agency (USEPA) CERCLA/SARA guidance documents, and/or as defined under OSHA standards and guidance, and/or other appropriate guidance. Short-term action is also contemplated based on the ground-water contamination potential of

contaminated soils as compared to the contamination potential of solid waste management units at the facility.

2. Long-Term - the discovery and cleanup of all contaminated soils to NJDEPE standards applicable at the time of remedial action.

In addition, with respect to the long-term action, Cyanamid will ensure that the cleanup of all contaminated soils will be completed in accordance with CERCLA/SARA guidance and regulations and RCRA Corrective Action guidance and regulations applicable and appropriate at the time of remedial action.

To meet the goals, objectives, and requirements of the ACO, Cyanamid prepared a Soils RI Work Plan which defined a site-wide soils investigative program which was consistent with USEPA's Draft Guidance for the Preparation of Remedial Investigations and Feasibility Studies (March 1988). The Soils RI Work Plan was submitted to the NJDEPE in January 1989 and revised in June 1989 in conformance with requirements of NJDEPE's conditional approval letter of May 17, 1989. The Soils RI Work Plan was prepared to define the nature and extent of the soils contamination through the use of both a detailed site history review and, as necessary, coordinated field sampling activities. No field activities were performed in areas with no potential for soil contamination as identified by the site history review. Alternatively, when the site history review, historical aerial photograph review, and site reconnaissance identified areas of potential soil contamination, field sampling activities were performed to characterize and delineate this contamination.

The work efforts associated with the Soils RI Work Plan were conducted from July through October of 1989. Field activities consisted of surface soils sampling, subsurface soils sampling, and hydrogeologic characterization. Surface soils sampling and analysis were performed to evaluate the impact

of contaminated surface soils on worker health and safety. Subsurface soils sampling and analysis were performed to physically characterize the type and extent of the contamination, as well as to chemically characterize the nature of the contamination. Hydrogeologic characterization work efforts were conducted to define both the ground water conditions from a chemical perspective and the movement of the ground water at the Cyanamid facility. Additionally, work efforts not originally defined in the Soils RI Work Plan were completed during the summer of 1990 to further characterize the nature and extent of the contamination at Cyanamid's Bound Brook site. These work efforts were discussed at the May 1990 Status Meeting and outlined in a June 11, 1990 letter to the NJDEPE. Specifically, these work efforts included installation of piezometer clusters across the Main Plant area, installation of a still well within Cuckolds Brook, completion of two magnetometer surveys, and additional surface and subsurface sampling.

The implementation of the Soils RI Work Plan has resulted in the development of an extensive database which contains the physical and chemical characteristics of the facility's soils and ground water. In fulfillment of the requirements of the ACO, this physical and chemical characterization data has been compiled, evaluated, and presented herein except as noted below.

The work efforts associated with the Soils RI Work Plan included sampling and analysis of an area of the Cyanamid plant known as the Hill Property. Following the completion of the investigation work efforts, it was determined to be appropriate to address the Hill Property as an independent area due to the use history of this area, the distinct physical separation of this area from the Main Plant, and the results of the remedial investigation. Therefore, after discussions with the NJDEPE and USEPA, it was decided that

the Hill Property and the area north of the Central Railroad of New Jersey (CRNJ) would be treated independently from the Main Plant and a separate RI/FS Report would be submitted.

1.2 Objective and Approach

The objective of this report is to present and discuss the results of the investigative work efforts completed in 1989 and 1990 pertaining to physical and chemical characteristics of the facility's soils and ground water. Additionally, as presented within the Soils RI Work Plan, this report will present the Feasibility Study work efforts to be completed as part of the next step in the Soils Investigation and Remedial Action Program. Therefore, this report entitled Soils RI Report/FS Work Plan is submitted in fulfillment of the requirements set forth in Paragraph II.E.27.c and II.E.28.a of the 1988 ACO.

The concurrent completion of the Soils RI Report and FS Work Plan presented herein, will result in the efficient and timely development of a soils remedial action plan which meets the objectives stated in the ACO and, at the same time, is consistent with USEPA's Draft Guidance and the requirements outlined in the National Contingency Plan (NCP).

The joint Soils RI Report/FS Work Plan was incorporated into the approach of the Soils Investigation and Remedial Action program in consideration of the following:

1. Based on the extensive knowledge of the facility's past operations, types of contamination most likely present (as developed through historical reviews, previous site investigations, site reconnaissance work efforts, and aerial photographic history reviews), and the results of the Soils RI work efforts, sufficient data is available to complete

an initial screening of alternatives for the Soils FS Work Plan. Any subsequent investigations deemed necessary will be conducted concurrently with the investigative work efforts required for the completion of the Soils FS Report.

2. Data collected in the RI influences the development of the remedial alternatives in the FS, which in turn, affects the data needs and scope of treatability studies and additional field investigations.

3. Phased sampling conducted as part of the concurrent RI/FS program encourages identification of key data needs as early in the process as possible to ensure that data collection is always directed towards providing information relevant to selection of remedial actions. In this way, the overall site characterization effort can be continually scoped and focused to minimize the collection of unnecessary data and maximize data quality.

Paragraphs II.E.27 and II.E.28 of the ACO require that a multi-phased RI be completed and approved by the agencies prior to the submittal of the FS Work Plan. However, through discussions with the agencies and approval of the Soils RI Work Plan, the sequencing of the report submittals has been modified to be consistent with the more practical approach presented above. The submittal of the Soils RI portion of this report satisfies the requirement of Paragraph II.E.27.c by presenting the results of the initial investigations proposed in the Soils Investigation Plan as well as presenting the additional work efforts which were completed although not originally proposed. The submittal of the FS portion of this report, although not in sequence within the ACO, satisfies the requirement of Paragraph II.E.28.a by presenting the FS work efforts to be completed in consideration of the results of the investigative work efforts. The Soils FS Work Plan also defines what

additional field investigations need to be conducted to complete a more detailed evaluation of remedial action alternatives. Upon the NJDEPE's and USEPA's review and approval of the FS Work Plan, Cyanamid will conduct the activities defined within the Work Plan. All subsequent field investigations and engineering evaluation work efforts will then be conducted in accordance with the requirements of Paragraph II.E.28.

1.3 Scope

The Soils RI Report/FS Work Plan is presented in the following sections:

1. Section 2 - Site Background

   This section presents an overview of the physical location of Cyanamid's Bound Brook facility and a discussion of the area's geologic and hydrogeologic conditions. A site history is also included.

2. Section 3 - Review of RI Work Efforts

   Presented within this section is a review of the approach of the Soils RI Program and a summary of the field and laboratory work efforts conducted.

3. Section 4 - Results of RI: South of Port Reading Railroad

   The use history of the area south of the Port Reading Railroad tracks is presented along with a summary of the sampling and field activities conducted within this area, and the results of all laboratory analyses.

4. Section 5 - Results of RI: Main Plant

   The use history of the Main Plant area is presented along with a summary of the sampling and field activities conducted within the area, and the results of all laboratory analysis.

5. Section 6 - Development of Remedial Objectives and Approach

Based on the results of the RI work efforts, an Endangerment Assessment (EA) was prepared to define the impact of on-site contamination on human health and the environment. Additionally within the EA, Risk-Based Soil Action Levels (RBSALs) are defined based on the results of the EA which are used to focus the subsequent work efforts of this Soils Investigation and Remedial Action Program on specific short-term and long-term remediation objectives. Since the EA is being submitted to the NJDEPE as a separate document, a summary of the EA and the RBSALs are presented in this section.

Section 6 also provides a discussion of applicable, relevant, and appropriate requirements (ARARs) as they relate to potential remediation activities. In addition to the chemical, location, and action-specific ARARs identified, potential ARARs To Be Considered (TBCs) are also presented. These TBCs include the NJDEPE Soil Action Levels as well as the recently proposed Cleanup Standards For Contaminated Sites (N.J.A.C. 7:26D, February 1992).

Since the draft version of the Soils RI/FS Work Plan preceded N.J.A.C. 7:26D, the NJDEPE Soil Action Levels were utilized as an initial screening mechanism to identify soil areas where additional investigation might be necessary based on comparison of existing soil conditions and contaminant concentrations with the action levels. In future submissions these (N.J.A.C. 7:26D) will be compared to existing soil conditions if and when the numeric soil cleanup criteria are finalized.

Based on the results of the EA and the RBSALs defined within the EA, an evaluation of the results of the Soils RI is also presented in this section with respect to defining the focus and approach for the subsequent activities required by the ACO for the Soils Investigation and Remedial Action Program (Feasibility Study and Remedial Action Plan).

6. Section 7 - Feasibility Study Work Plan

The Feasibility Study Work Plan approach, scope, and schedule for the short-term surface soils remedial program are defined in this section based on information obtained from the soils investigation and the conclusions presented in Section 6. The long-term site-wide soils program is also discussed.

Section 2 - Site Background

SECTION 2 - SITE BACKGROUND

2.1 General

During the past 10 years, Cyanamid has completed numerous investigative programs to define the environmental quality of the Bound Brook facility for the purpose of working towards the ultimate objective of future site-wide remediation. The major programs completed by Cyanamid have included the characterization of waste storage impoundments, on-site overburden and bedrock ground water, and on-site soils; and a study of water quality in the Raritan River. Studies undertaken to characterize the impoundments were conducted from 1982 through 1989. The most recent of these studies was the Impoundment Characterization Program. The Impoundment Characterization Program Work Plan (Blasland, Bouck & Lee, 1988a) was submitted in November 1988 and approved in April 1989 by the NJDEP/USEPA. The results of this investigation are presented in the Impoundment Characterization Program Final Report (Blasland, Bouck & Lee, 1990a), submitted in January 1990, revised in conformance with NJDEP/USEPA comments in August 1990, and approved in October 1990. Past ground-water characterization work efforts date back to 1978, with current efforts directed by the ongoing NJPDES/DGW Permit Monitoring Program for which quarterly reports are prepared. A history of these studies is presented in Section 2.5 (Site Hydrogeology) of this document. The investigation of the on-site soils was conducted during the Soils RI Program, the results of which are presented in this Soils RI Report/FS Work Plan (Blasland, Bouck & Lee, 1989). The Soils RI Work Plan was submitted to the NJDEPE and USEPA in January of 1989, and revised in conformance with requirements of NJDEPE's conditional

approval letter of May 17, 1989. The Raritan River Study (Lawler, Matusky and Skelly [LMS], 1983) focuses on Cyanamid's impact upon the river upstream of the Calco Dispersion Dam. These investigations were driven by state and federal permits, three Administrative Consent Orders (including the most recent ACO executed in 1988), and Cyanamid's desire to gain a better understanding of the effectiveness of the on-site ground-water control system. These investigations have yielded an extensive environmental data base for the Bound Brook site, allowing for the preparation of the Baseline Site-Wide Endangerment Assessment (Blasland, Bouck & Lee, 1990/1992).

The following sections present detailed discussions of the facility setting (Section 2.2), facility description (Section 2.3), site geology (Section 2.4), and site hydrogeology (Section 2.5). A majority of the information contained within these sections was obtained during the investigative work efforts summarized above.

2.2 Facility Setting

This section describes the specific location, land-use trends, and commercial and residential aspects of the area surrounding the Bound Brook facility.

2.2.1 Site Location and Surrounding Land Use

Cyanamid's Bound Brook facility is a large complex located in the north-central portion of New Jersey in the Raritan Valley and in the southeastern section of the Township of Bridgewater, Somerset County (Figure 1). The plant is bound by Route 28 to the north, the Raritan River to the south, Interstate 287 and the Somerset Tire Service to the east, and by Foothill Road and the Raritan River to the west (Figure 2).

The southern boundaries of the property border for nearly 1-1/2 miles on the north bank of the Raritan River, approximately 20 miles upstream from the river's discharge into the Atlantic Ocean.

The Township of Bridgewater encompasses an area of approximately 33-square miles and has a population of approximately 30,000. The Boroughs of Bound Brook, South Bound Brook, Manville, and Somerville are in close proximity. The Township of Bridgewater is a well-developed area zoned for residential, commercial business, and manufacturing uses. The northern three-quarters of the township are primarily zoned for low density, single family use (R-40 and R-50). The southern quarter of the township, in which the Cyanamid plant is located, is zoned for commercial business, manufacturing, office and rental, high density residential use (R-10 and R-20), and multi-family residential use. (Figure 3 is the Township of Bridgewater Zoning Map which also identifies surrounding boroughs and townships.)

The area in the southern section of the Township of Bridgewater which adjoins the Raritan River, and the areas adjoining the Raritan River in the surrounding townships and boroughs, are zoned primarily for industrial and manufacturing uses. The major industrial/manufacturing facilities located in the area include:

a. Union Carbide Corporation (Bound Brook);

b. National Starch and Chemical Corporation (Bridgewater);

c. Somerset Tire Service (Bridgewater);

d. Ortho Pharmaceutical (Raritan);

e. American Hoechst Corporation (Somerville);

f. Research-Cottrell, Inc. (Somerville); and

g. Johns-Manville (Manville - plant has been closed).

Existing utilities/services located in the vicinity of the site include the Somerset Raritan Valley Sewerage Authority (SRVSA), Public Service Electric & Gas (PSE&G), Elizabethtown Water Company, and the Bridgewater Resources Incorporated Trash Transfer Station (Figure 2).

The northern residential extension of the Township of Bridgewater is separated from the manufacturing area of the plant by a buffer zone of offices and open lands on Cyanamid's Hill Property, north of Main Street. Although this area is zoned for manufacturing, it presently consists of open fields, mature woodlands, and administration buildings. Directly to the east of this area is Interstate 287, Middlebrook Park, and beyond that a residentially-zoned area. The north end of this property is bound by a light manufacturing area consisting of the UPS Distribution Center and the Central New Jersey Industrial Park. To the west are commercial and manufacturing facilities (i.e., Arbonite, Schultz Metal Service, Gibson Tube, Inc., Polyfiber Technology, Inc., and Braddock Heat Treating Company), residences, and St. Joseph's Cemetery.

There are 14 educational facilities located within approximately one mile of the manufacturing areas of the Bound Brook facility (Figure 2). Those facilities within one mile include: Bound Brook High School, the Lafayette School (pre-kindergarten to third grade), La Monte School (fourth to sixth grade and special education), Smalley School (kindergarten to sixth grade and special education), Green Brook Academy (special education), St. Joseph School (kindergarten to eighth grade), St. Mary's School (pre-kindergarten to eighth grade), Temple Christian Day

School (kindergarten to sixth grade), and Wee People School (pre-school to kindergarten) in Bound Brook; Adamsville School (kindergarten to fifth grade and special education) and Somerset Day Care (newborn to kindergarten) in the Bridgewater-Raritan-Somerville area; N.K. Brampton School (fifth to eighth grade) and Robert Morris/W.G. Vorhees School (pre-kindergarten to fourth grade) in South Bound Brook; and the Alma Prepatory School (seventh to twelfth grade) in Zarephath.

2.2.2 River Use

The Raritan River retains limited recreational value along its course through Somerset County. The dominant recreational activities along the river are fishing and boating. The river supports a resident bass fishery and in the past few years has had a spring run of American shad which extends to the Calco Dispersion Dam. In addition, the state of New Jersey has actively pursued a program to introduce chinook salmon into the river. At the river's terminus, approximately 20 miles from the Bound Brook facility, the Raritan Bay supports a broader range of recreational boating and angling activity.

The Raritan River is also used as a primary supply of residential water by the Elizabethtown Water Company, which maintains its raw water intake facilities at a point on the river's north bank directly upstream of most of the plant area, south of the western boundary of the Bound Brook facility (Figure 2). Studies (LMS, 1983) have concluded that past on-site activities have not degraded river water quality upstream of these intakes. Analytical results from the work efforts conducted on the ground water during the Soils RI Program can be found in Section 5.4 of this report. Downstream of the Cyanamid facility, there are no municipal uses

of Raritan River water for residential consumption.

2.2.3 Climate

Somerset County's climate is generally referred to as a modified continental type. Its proximity to the Atlantic Ocean somewhat modifies humidity and temperature. The area does experience a continental range of temperatures, with summer highs occasionally reaching 100°F and winter lows dipping to almost 0°F. The average date of the last killing frost is May 20th, and the first killing frost in the fall usually occurs between September 25th and October 10th.

Precipitation is evenly dispersed throughout the year with no particularly dry or wet season; although flood-causing precipitation events seem to occur between the months of June and September. The area is prone to flooding and has experienced at least two large floods within the last 20 years. Monthly precipitation records for the period 1936 through 1976 show that total precipitation has ranged from 0.08 inches/month to 14.51 inches/month. Likewise, yearly totals ranged from 29.71 inches to 66.92 inches, with the average annual precipitation for Somerset County being in the vicinity of 45 inches.

2.3 Facility Description

The following portions of this section present the history of the facility (Section 2.3.1), a description of the site (Section 2.3.2), and a description of the site security and public access to the facility (Section 2.3.3).

2.3.1 Facility History

Cyanamid's Bound Brook facility encompasses approximately 575 acres and has been used for a myriad of chemical and pharmaceutical manufacturing operations over the past 75 years. At the beginning of its operation in 1915, Calco Chemical Company (purchased in 1929 by Cyanamid) manufactured aniline, methylene blue, and betanaphthol. Over the next 40 years, the plant expanded to become a large diversified manufacturer of dyes and organic chemicals, producing thousands of chemical products. The majority of the expansion at the plant occurred after Cyanamid purchased the facility, driven by the large increase in demand for chemicals in the United States, particularly during and immediately after World War II. The manufacture of pharmaceutical intermediates was initiated at the Bound Brook facility in the 1930s and continues there today. With the general collapse of the basic organic chemicals and dye markets, and the move to foreign production of these products, the Bound Brook facility experienced a significant down-sizing in the late 1970s and early 1980s to the point where all organic chemicals and dyes production were phased out by the early 1980s. Today, the plant manufactures bulk pharmaceuticals, elastomers (rubber-like products), and pre-polymers.

The large increase in manufacturing capacity from 1930 through 1970 required more buildings, support services, and disposal capabilities, all of which were provided in a manner consistent with the accepted practices of the time. Hence, the present day facility, while not as large an operation as during the plant's zenith, is a sprawling complex with numerous remnants of past activities. As a result of the past

activities at the facility, there are a number of areas of waste storage and disposal, as well as areas of soils and ground-water contamination. Wastes generated from the past manufacturing operations, primarily wastewater treatment plant sludge, were stored in 21 of 27 on-site impoundments. In addition to the storage of these wastes in the impoundments, general plant wastes, debris and cinders from the on-site, coal-fired boilers, and ash from an on-site trash incinerator were disposed of in a number of areas across the facility. This waste storage and disposal, when coupled with the expected spills, leaks and other releases of chemicals and wastes from a chemical manufacturing facility with such a long and diverse history, illustrates the potential magnitude of the on-site soil and ground-water contamination.

2.3.2 Site Description

Through the use of aerial photographs, interviews with plant personnel, a review of site documents, and site reconnaissances, a profile of the site history was compiled to better define the areas where waste disposal may have occurred or where potential soil contamination may exist. Based on the results of the site history review and the physical layout of the Bound Brook facility, the facility was divided into four distinct areas. These four major areas, which were first presented in the Soils RI Work Plan to assist in focusing and organizing the investigative work efforts, are identified below and highlighted on Figure 4:

1. the Hill Property, which is north of Main Street;
2. the area north of the Central Railroad of New Jersey (CRNJ) tracks;

3. the area south of the Port Reading Railroad (PRRR) tracks; and

4. the Main Plant (Production Area and West Yard).

For the purposes of this RI/FS Report, the impoundments, which are also subject to investigations and corrective actions pursuant to the 1988 ACO, are collectively defined as a fifth major portion of the Bound Brook facility (Figure 4). Other than the brief description presented below, the impoundments are not discussed within this Soils RI Report/FS Work Plan. A detailed discussion of the results of the investigative programs conducted for the impoundments is presented in the August 1990 Impoundment Characterization Program Final Report.

Presented below is a brief description of each of these five areas with respect to location and use history.

Hill Property

The Hill Property includes all Cyanamid property north of Main Street. It is approximately 140 acres in area and contains non-manufacturing buildings, open land and recreation fields, and mature woodlands. To the east of this area lies Route 287, Meadowbrook Park and the borough of Bound Brook; to the west, residential development begins almost immediately adjacent to the property line. Cyanamid's production wells are also located on this tract of land. This area serves as a buffer zone between the Main Plant and the residentially-zoned areas of southern Bridgewater Township.

Historical records, aerial photographs, and a recent site reconnaissance show no indications of past manufacturing or disposal activities (Blasland, Bouck & Lee, 1990/1991). Until the 1940s, the area was used for farming. In the late 1940s, Cyanamid began

constructing the research and administration buildings which continue to occupy the southeast corner of this segment. The other major use of this property was for recreation. At one time, the property included tennis courts, softball fields, and picnic grounds. At present, only Building No. 4 is in use, providing laboratory and support facilities.

A detailed discussion of the site history review conducted for the Hill Property is presented in the Soils RI Work Plan (Blasland, Bouck & Lee, 1990/1991). In approving this work plan, the NJDEP and USEPA acknowledged that the past use of the Hill Property did not suggest a need for extensive widespread investigations. The areas which were investigated during the Soils RI Program were limited to those areas which exhibited the potential of being contaminated. Specifically, an underground fuel oil storage tank area, a former boiler house, and a laboratory drum storage pad area were investigated during this program. The investigation and analytical work efforts, and the results of these work efforts, are presented in detail in The Hill Property Soils Remedial Investigation Report (Blasland, Bouck & Lee, 1990/1991). Based on a regulatory agency request, the Hill Property was evaluated independently in Appendix VII of the Baseline Site-Wide EA.

North of CRNJ

This segment consists of a parcel of land with an area of approximately 30 acres which is situated between Main Street to the north and the CRNJ Tracks to the south. The eastern part of this segment (approximately 60 percent) has been and is presently used

as a plant parking lot. Historical records show that this parking lot has been in use since the mid to late 1930s. A historical aerial photograph review is presented in Appendix A of the Soils RI Work Plan. The area of the segment between the parking lot and Impoundment 23 is covered with gravelly fill, which supports a growth of weeds and scrub conifers. The area west of Impoundment 23 is covered with a finer fill. Impoundment 23 is approximately 3 acres in size and was used from the late 1940s through the early 1980s as a dewatering basin for river sediments dredged from Impoundments 21 and 22. In 1988, the NJDEPE approved a Closure Plan for Impoundment 23 requiring no further action. Historical records and a recently completed site reconnaissance show no indication of past disposal practices in either of the open areas to the east and west of Impoundment 23.

Based on the site history review, there is no evidence to suggest that the North of the CRNJ Tracks property contains any releases or contamination from past manufacturing or disposal activities or that it might constitute a potential threat to human health and the environment. In consideration of the above, as presented in the Soils RI Work Plan (Blasland, Bouck & Lee, 1989), which was approved by the NJDEPE and USEPA in July 1989, no investigative work efforts in the area north of the CRNJ tracks were conducted as part of the Soils RI Program.

South of the PRRR Tracks

This section of the property includes all Cyanamid property (approximately 95 acres) south of the PRRR tracks in the Raritan

River floodplain. It is bisected by Cuckolds Brook and bound by the Raritan River to the south. The majority of this area supports extensive vegetative growth. As discussed in the Soils RI Work Plan, Lagoon 6 and Lagoon 7, and Impoundments 11, 13, 19, and 24 are within an area of the plant which is outside of the flood control dike and north of PRRR tracks. Because this area has more similarity to the area south of PRRR tracks than to the Main Plant area (due to usage and accessibility), it was included as part of the area south of PRRR for the Soils RI Report/FS Work Plan. A detailed discussion of the area south of PRRR is included in the Soils RI Work Plan and a summary discussion is presented in Section 4.1 of this report. The results of work efforts conducted in this area are presented in Sections 4.2 and 4.3 of this report.

The Main Plant

The Main Plant area of the Cyanamid Bound Brook facility encompasses approximately 190 acres. It is bound on the north by the CRNJ tracks and on the south by the PRRR tracks. The western area of the Main Plant is bound by Cuckolds Brook. The eastern boundary is the Somerset Tire Service property line. Based on the history and usage of this area, the Main Plant area has been subdivided into two areas: the Production Area and the West Yard.

The Production Area of the Main Plant is approximately 110 acres in size and is located in the eastern section of the Main Plant. It is bound on the north by the CRNJ tracks and on the south by the PRRR tracks. The eastern boundary of the Production

Area is the Somerset Tire Service property line, and the western boundary is defined by the extent of the present or former manufacturing buildings.

The West Yard area of the Main Plant is located immediately west of the Production Area and within the flood control dike of the Main Plant. It encompasses an area of 80 acres and has been used for various activities over the years, including equipment storage; disposal of general plant wastes, debris and cinders from the on-site, coal-fired boilers; ash from an on-site trash incinerator; and the disposal of process waste material in six impoundments (Impoundments 3, 4, 5, 14, 20, and 26).

A detailed discussion of each of these areas is included in the Soils RI Work Plan and summary discussions of these areas are presented in Sections 5.2.1 and 5.3.1 of this report. The results of work efforts conducted in these areas are presented in Sections 5.2.3 and 5.3.3.

Impoundments

Of the 27 on-site impoundments, 16 are subject to a CMS/FS Program as mandated by the 1988 ACO (Impoundments 1, 2, 3, 4, 5, 11, 13, 14, 15, 16, 17, 18, 19, 20, 24, and 26). Over the last eight years, the majority of these impoundments have been subject to investigations to define the physical and chemical characteristics of their contents. The most recent of these investigations was completed from April through July 1989 as part of the Impoundment Characterization Program. The results from this investigation are presented in detail in the Impoundment Characterization Final Report

submitted to the NJDEP and USEPA in August 1990 and approved in October 1990.

2.3.3 Site Security and Public Access

Although the Bound Brook facility is large and traversed by various transportation routes, the present site security system combined with the physical layout of the facility is effective in isolating the areas of contamination from direct public access. A discussion highlighting public accessibility of the Hill Property, area north of CRNJ, the area south of the PRRR tracks, and the Main Plant is presented below. Accessibility to the impoundments is discussed within the respective area of the facility (Main Plant, etc.) in which they are situated. All areas are regularly patrolled by plant personnel for security purposes.

Hill Property

Vehicular access to the Hill Property is restricted by barbed wire fencing, a guard rail, and a gate across the access road which is the only road by which vehicles can enter or exit the Hill Property. Security personnel routinely patrol this area.

North of CRNJ

The area north of the CRNJ tracks is not a completely secure portion of the Bound Brook facility. Main Street and Polhemus Lane provide vehicular access to or into the area which is not entirely restricted by fencing. A fence does surround the west parking lot which is currently out of use. Additionally, security personnel regularly patrol the area. Closed circuit television cameras are also used to monitor the parking lot.

South of PRRR

The area south of the PRRR tracks is not contained within the diked and fenced area of the Main Plant; therefore, access to this area is possible. Actual access to this area by the general public, however, is very limited due primarily to two factors: 1) the area is set back a minimum of approximately 2,000 feet from a major public road (Main Street), and 2) vehicular access to the area is limited to a small private road which is unmarked (Buffle Head Road) and used only for access by employees of the Elizabethtown Water Company.

Pedestrian and vehicular access to Impoundment 24 is restricted by the use of security fencing. Vehicular access to Impoundments 11, 13, and 19 is restricted through the use of guard rails. Pedestrian access to these impoundments is discouraged by trees and shrubbery which surround the area. Additionally, each of these impoundments is set back from Buffle Head Road.

There is no direct vehicular access to the undeveloped portions south of the PRRR tracks other than an unpaved trail which extends east from Buffle Head Road to the area north of Impoundments 15, 16, 17, and 18. Pedestrian access to the undeveloped area is provided by the same trail, the banks of the Raritan River, and the PRRR tracks. Impoundments 1 and 2, which area also located in the undeveloped area, are fenced to restrict vehicular and pedestrian access.

Main Plant

The Main Plant has an intensive security system to restrict vehicular and pedestrian access. Access is restricted to employees who may enter only through one guarded entrance. The remainder of the area is surrounded by the flood control dike and is entirely fenced. Closed circuit television is utilized in this area, and a security force periodically patrols this property as well. For these reasons, the potential for trespassing is minimal.

2.4 Geology

2.4.1 General

The site is situated in the New Jersey Piedmont geomorphologic province which is an area of rolling, low lying terrain interrupted only by the Watchung Mountains. These mountains are located approximately 1-1/2 miles to the north of the site. The Bound Brook site exhibits low relief with elevations ranging from 70 feet above mean sea level in the northern portion of the site near Route 28, to 20 feet above mean sea level in the southern portion along the PRRR tracks (Bound Brook, New Jersey 7-1/2 minutes USGS quadrangle topographic map). Within the manufacturing area of the plant, the local relief does not exceed 20 feet. Overall, the site is relatively flat with a natural slope and direction of approximately two percent to the south-southeast towards the Raritan River.

The site is underlain by the Passaic Formation of the Newark Supergroup (Olsen, 1980). This formation corresponds to the pre-Watchung equivalent of what is commonly referred to as the "Brunswick

Shale". The Passaic Formation is a series of predominantly red siltstones, sandstones, and conglomerates, with occasional layers of non-red detrital material interspersed along the section. It is estimated that the maximum thickness of the Passaic Formation reaches 6,000 meters (approximately 4 miles).

In the vicinity of the site, the Passaic Formation is involved in the Watchung syncline and may be affected by folding associated with the fault splay system connecting the Ramapo and Hopewell faults (Olsen, 1980). Because of limited outcrop information, the strike of the bedding of these units is presumed to parallel the trend of the Watchung Mountains. The dip of these beds is 5 to 15 degrees to the north.

2.4.2 Surface Soils

The following description of the surface soils presents the general agricultural characteristics of the surface soils. The geologic/engineering characteristics of the surface soils are presented in Section 2.4.3 (Unconsolidated Deposits).

The natural soils of the site belong to the Dunellen-Rowland-Birdsboro Association. These are well-drained to somewhat poorly drained loamy soils formed in glacial outwash or alluvial deposits and occupy flood plains and terraces. Dunellen soils are deep, well-drained sandy loams formed in glacial outwash and are found on high terraces. The moderately well-drained variant is found on terraces above the normal flood plain. Rowland soils are deep, moderately well-drained to somewhat poorly drained silt loams formed in recent alluvial deposits along the major streams. They are subject to flooding several times a year. Birdsboro soils do not occur at the site. Other (minor) soils

encountered at the site include the Lansdowne silt loam, the Raritan silt loam, and the Parsippany silt loam. All of these soils are acidic with a pH ranging from 4.5 to 6.0. Their typical permeabilities range from less than 0.2 to 6.0 inches per hour and their typical available water capacity ranges from 0.05 to 0.28 inches per inch of soil, depending on the composition of the soil. Erosion hazard for these soils is generally moderate.

2.4.3 Unconsolidated Deposits

The general area of and around the Bound Brook facility is covered by naturally occurring unconsolidated sediments ranging in thickness from 5 to 30 feet. (Within the areas of the Main Plant, materials such as man-made fill/debris and disturbed soil/gravel exist at ground surface. These materials are not discussed herein as this section presents a discussion restricted to the naturally occurring unconsolidated deposits.) In general, the unconsolidated sediments are either the weathering product (residual soils) of the underlying bedrock or fluvial deposits related to the adjacent Raritan River. The weathering products of the bedrock consist of a mixture of silt, clay, and shale fragments. The fluvial deposits consist of interfingering and/or interbedded gravels, sands, silts, and clays. In the southern portion of the site the fluvial deposits overlie the weathered bedrock zone and thin out to the north, until only residual soils are encountered. A more detailed description of the various sequences of materials encountered in the naturally occurring unconsolidated deposits is presented below, while a generalized site stratigraphy is illustrated on Figure 5. The naturally occurring

unconsolidated deposits are discussed in descending order from ground surface down to the top of bedrock.

1. **Silt and Clay Sequence**

   Sand and gravel deposits (discussed below) grade upward into or are truncated by silt and clay deposits that are the result of flood plain deposits. In places, the silt and clay has been removed in the course of site operations. Over these deposits a layer of unnaturally occurring sand and gravel or other man-made fill can often be identified. When present, the silt and clay deposits act as a hydraulic barrier due to their low permeability as compared to the sand and gravel below and the man-made fill above.

2. **Sand and Gravel Sequence**

   Underlying the silt and clay sequence is a layer of sand and gravel mixtures which generally tend to fine upwards. These sands and gravels occupy bedrock valleys and are thickest near the valley axes, becoming thinner and finer grained away from the valley axes. The sand and gravel deposits are thinnest over bedrock ridges and are occasionally absent entirely. On occasion, cycles of upward fining sands and gravels can be recognized.

3. **Weathered Shale (Residual Soil)**

   The information collected from the on-site borings and wells indicates that a thin veneer (2 to 3 feet thick) of silt, clay, and shale fragments generally overlies the bedrock. This residual soil is the product of the weathering of the bedrock.

Previous studies indicate that the vertical permeability of the unconsolidated deposits, estimated from Shelby tube samples, ranges from 1E-5 cm/sec for sandy materials to 1E-8 cm/sec for clayey materials. Anticipated horizontal permeabilities range from approximately equal to almost an order of magnitude higher than the vertical permeabilities. Slug testing of the Main Plant piezometers (discussed in Section 3.3.2) produced an average estimated permeability value for the sand and gravel deposits of 7.05 E-3 ft/min.

A discussion of the unconsolidated deposits focusing specifically on each area of the Cyanamid facility is highlighted below:

1. The entire sequence of overburden deposits (silt and clay; sand and gravel; and residual soil) tends to be present in the Production Area except for the west central portion of the area where construction operations have removed the silt and clay. The thickness of these layers tends to decrease to the north.
2. The overburden deposits in the West Yard have been disturbed by waste disposal activities. Where the natural soils have not been disturbed, the entire sequence of overburden deposits tend to be present. The overall northward thinning trend as seen in the Production Area is also present in the West Yard.
3. In the area south of PRRR, the overburden deposits tend to be alluvial materials which represent the entire sequence of unconsolidated deposits.

When viewing the overburden deposits from a site-wide perspective, it can be seen that the deposits are deepest and the best defined in the

southern portion of the site nearest to the Raritan River. The deposits tend to thin out toward the northern portion of the site until only small amounts of unconsolidated deposits overlie the bedrock.

2.4.4 Bedrock Geology

As was discussed in Section 2.4.1, the site is underlain by the Passaic Formation of the Newark Supergroup. The strike of the bedding of the Passaic Formation in the vicinity of the site trends east-west and the beds dip 5 to 15 degrees to the north, which parallels the trend of the Watchung Mountains.

Although there are no published outcrop studies in the area concerning the orientation of bedrock fractures (particularly joints and faults), based on our understanding of the regional geology, a set of northeast-southwest and northwest-southeast trending conjugate joints will exist. This is corroborated by information obtained from a single oriented core recovered from the vicinity of Impoundment 8. It appears that the northeast-southwest lineament is the most developed one, since site specific information indicates that wells aligned along certain northeast-southwest trending zones can sustain significant yields.

The underlying bedrock surface has been modified by erosion. Boring data indicate the presence of a complex ancestral drainage system. The western part of the site subsurface (in the vicinity of Impoundments 8, 9, 9a, and 10) is occupied by a bedrock high, the sides of which are incised by deep, rapidly descending, V-shaped valleys. These valleys are oriented in a general north-south trend. The area underlying the Lagoon 7 complex is a low-lying bedrock flood plain. The bedrock underlying the manufacturing area converges into a sinuous

valley. These bedrock features control the composition and distribution of the water bearing units and the ground water flow regime in the overburden aquifer system.

2.5 Site Hydrogeology

2.5.1 General

Over the past 10 years, Cyanamid has conducted numerous studies to assess the site hydrogeology, placing particular emphasis on evaluating the effectiveness of the ground-water pumping system at the Bound Brook plant. These studies have been conducted in accordance with the requirements of state and federal permits and ACOs. Additionally, Cyanamid independently elected to conduct an extensive site-wide investigative program which resulted in the development of a mathematical model of site-wide ground-water flow. These studies have included ground-water studies by Geraghty & Miller in 1978, 1980, and 1983; the quarterly monitoring program conducted by Geraghty & Miller from 1982 to 1987; the quarterly monitoring program conducted by Blasland, Bouck & Lee for 1988 in accordance with the facility's NJPDES/DGW permit; the Raritan River Monitoring program completed by Lawler, Matusky & Skelly (LMS) in 1983; the ground-water investigation and development of a site-wide ground-water model completed by Camp, Dresser & McKee (CDM) in 1985; CDM's continuous assessment program of Impoundments 6 and 7; and Blasland, Bouck & Lee's 1987 Impound 8 Ground-Water Detection Monitoring Program. In addition, Cyanamid continues to comply with the NJPDES/DGW Permit, and additional data continues to be developed under this program.

2.5.2 Surface Water Hydrology

Surface water features in the vicinity of the Bound Brook facility include the Raritan River and the tributary known as Cuckolds Brook. These surface water bodies are discussed below:

1. **Raritan River**

The Cyanamid facility is approximately 20 miles upstream from the river mouth at the Atlantic Ocean. The north bank of the river is tangent to the southern and southwestern portions of the Cyanamid site for approximately 1-1/2 miles. Flow data from the USGS gage station at Calco Dam indicate a range of monthly average flows of 415 to 1,415 mgd for the section of the river adjacent to the Cyanamid property.

Within the section of the river upstream of the Calco Dam, the river is used as a water supply source for the Elizabethtown Water Company which serves a population of approximately 500,000 people. Flow data from the USGS gage station at Manville (upstream of the Elizabethtown Water Company intake) indicate a range of monthly average flows of 279 to 876 mgd for this section of the river. Previous studies (LMS, 1983) have shown that the Bound Brook facility is not having a measurable impact on water quality in the Raritan River upstream of the Calco Dam and above the Cuckolds Brook discharge to the river. No other municipal use of river water for residential consumption occurs downstream of the Bound Brook facility. Tidal influences do not occur in the vicinity of the site. The upstream sections of the river support

a resident bass fishery, and recreational activities occur in the Raritan Bay area at the mouth of the river.

2. **Cuckolds Brook**

Cuckolds Brook is a tributary to the Raritan River on the premises of the Cyanamid site. Historic information indicates that the course of Cuckolds Brook has been modified at least twice to accommodate the needs of the expanding manufacturing facilities. The initial course of the brook was approximately northwest-southeast, but has since been relocated to a predominantly westerly direction where it now circumvents the Main Plant area for a length of nearly two miles. The confluence of the brook with the river is at the Calco Dispersion Dam, south of Impoundments 15 and 16.

Although Cuckolds Brook is classified by the state as an F-1 trout stream, it is presently subject to approximately 12 to 14 mgd (dry weather flow) discharge of secondary effluent from SRVSA, which is located immediately to the west of the Cyanamid facility. The SRVSA effluent enters the brook immediately west of Impoundments 4 and 26. Because of potential analytical interferences associated with the SRVSA secondary effluent, the water quality of Cuckolds Brook downstream of the SRVSA has not been subject to any water quality studies associated with the Cyanamid site. However, as part of the investigations being completed in accordance with the 1988 ACO, the quality of the ground water discharging from the site into the river downstream of the Calco Dam has been

defined and is discussed within the draft Baseline Endangerment Assessment.

The potential for the run-off of contaminated soils or impoundment contents to enter Cuckolds Brook or the Raritan River is low because of the physical characteristics of the site, as well as the consistency of the impoundments' contents. All runoff from the Main Plant area, which contains the majority of the contaminated soils on-site, is effectively contained by a berm designed for control of a 100-year flood. In addition, a stormwater collection system serves the Main Plant area including the West Yard and Production Area. Stormwaters from the Main Plant area are directed to Impoundment 7, located outside of the Main Plant area, and are subsequently treated at the SRVSA.

A majority of the contamination on-site is associated with the contents of the impoundments. However, impoundment construction, as well as the consistency of the contents, does not allow for the migration of contaminants with stormwater run-off. Stormwaters are collected and stored within these impoundments. Impoundments are inspected on a regular basis to assure berm stability.

2.5.3 Ground-Water Hydrology

Based on information collected from on-site investigations, two aquifer systems were found to underlie the site: a shallow overburden aquifer system and a deeper semi-confined bedrock aquifer system. Where the silt and clay unit is not present, the sand and gravel unit behaves as an unconfined aquifer. The two aquifer systems are separated by a zone of weathered bedrock.

1. Overburden Aquifer System

The overburden aquifer system is comprised of two water producing/water transmitting units: a surficial man-made fill and an underlying sand and gravel. The two units are separated by a silt and clay unit as described in Section 2.4.3. Where the silt and clay were removed, the fill is in contact with the sand and gravel, and the two units are in hydraulic continuity.

The surficial fill and disturbed soil unit (man-made deposits) contains a water table aquifer which occupies the uppermost two to four feet of soils predominantly in the Main Plant area of the site. Ground water in the fill occurs 6 to 18 inches below ground surface. The horizontal ground-water flow within this unit is generally north to south towards the Raritan River through the area between Impoundments 1 and 15. This flow pattern can be attributed to the fact that the fill unit is in contact with the sand and gravel unit in the discharge area, creating a zone of elevated transmissivity due to its thickness and permeability. The flow pattern is also influenced by the fact that the man-made banks of Cuckolds Brook appear not to be water transmitting.

The sand and gravel unit is a confined aquifer with a 10 to 20 foot saturated thickness, and is the volumetrically significant member of the overburden aquifer system. Where the silt and clay unit is not present, the sand and gravel unit behaves as an unconfined aquifer. The horizontal ground-water flow direction exhibits a divergent pattern. Generally, a ground-

water divide is defined by a line from the Impoundment 5 complex to the northeastern corner of the Main Plant area. Three factors contribute to the existence of this divide. The first factor is the absence of the confining silt and clay unit along the central and northern portion of the Production Area which creates a low pressure discharge area north of the divide. The second factor is a bedrock high area in the northern portion of the site on which the sand and gravel on-laps. This on-lap coincides with the transmissive zones of the bedrock aquifer and is influenced by the pumping of the on-site production wells, also contributing to the northerly flow of ground water. Pumping of the on-site well promotes discharge from the sand and gravel unit through the transmissive units. The third factor is the thickness and composition of the sand and gravel unit to the south of the divide. The area of elevated transmissivity between the Impoundments 1 and 2 complex and the Impoundments 15 and 16 complex contribute to the southerly flow of ground water. The site-wide generalized overburden ground-water flow is illustrated in Figure 6.

The vertical head relation between the surficial fill and the sand and gravel units suggests that the potential for vertical flow is downward from the fill into the sand and gravel. This potential is based upon measurements obtained from the on-site piezometers.

The overburden ground-water system in the vicinity of Cyanamid is not used for public or private water supplies.

2. **Bedrock Aquifer**

The water bearing unit for the bedrock aquifer is the Passaic Formation which is regionally classified as a Class II aquifer. Throughout central New Jersey, the Passaic Formation is an important source of potable water. Within a one-quarter mile radius around Cyanamid's facility, there are no known ground water users except for the Mensing Cement Plant and Michael James Cleaners. In the general vicinity of Bound Brook, there are many private and public water supply wells which draw from this formation upgradient of the site. It is reported that almost 100 mgd are withdrawn from the Passaic Formation in wellfields 12 to 13 miles northeast of the site (Geraghty & Miller, 1978). Based on a March 1990 report prepared by Camp, Dresser & McKee regarding an inventory of wells around the Cyanamid facility, there are, within a one mile radius of Cyanamid, 90 domestic wells, 12 commercial or industrial wells, 2 Elizabethtown Water Company overburden wells (existing records indicate no permanent pumping equipment within the wells), 8 Borough of Manville public supply wells, and 3 Cyanamid production wells. The status/usage of the domestic wells is not known.

The Passaic Formation is a semi-confined aquifer, separated from the overlying sediment sequence by a low permeability unit of silt and clay (residual soil and fluvial fines) that is estimated

to be 5 to 10 feet thick. Observations made during drilling indicate that the uppermost 5 to 10 feet of the bedrock are unsaturated.

The primary porosity of the rock is low. However, faulting, bedding, parallel parting, and jointing give rise to secondary porosity that is significant. Wells that intersect zones that are highly fractured can sustain yields of hundreds of gallons per minute (Geraghty & Miller, 1978). At least three zones of highly fractured bedrock have been previously identified at the site and are referred as "the SS transmissive zone," "the highly transmissive zone," and the "the moderately transmissive zone." These zones trend northeast-southwest and dip to the northwest at approximately 9 degrees. This coincides with the orientation of the bedding of the Passaic Formation. They were interpreted to represent either zones of well developed bedding, parallel parting, or layers of intensely jointed rock.

Previous investigations estimated that the horizontal permeability of the bedrock ranges from 1E-4 to 1E-6 ft/min. The average permeability of the transmissive units is 1E-4 ft/min, while the low transmissivity zones range from 1E-5 to 1E-6 ft/min.

For the past 60 years, Cyanamid has drawn water from production wells which extend into this formation for use as non-contact cooling water in production operations. Presently, Cyanamid withdraws a minimum of 650,000 gallons per day from the Passaic Formation for the purpose of controlling ground-

water contamination at the site. Due to this pumpage, ground water flows from the perimeter of the site inward towards the pumping wells. All of this water is used in production operations as non-contact cooling water and is then discharged to the SRVSA for treatment. Over 10 years of ground-water monitoring at the site has confirmed that the ground-water control system is effectively containing the majority of the ground-water contamination on the site (CDM, 1990: 2nd Quarter of 1990 NJPDES/DGW Permit Ground-Water Monitoring Program). Any ground water not captured by the pumping system is being discharged to the Raritan River.

Based on water level data collected from multiple level bedrock wells during previous investigations, it appears that within the bedrock aquifer, vertical downward gradients range from 0.094 to 0.001. These gradients were estimated using information from the uppermost 150 feet of the bedrock aquifer. The gradients are steeper in the northern part of the site, due to the influence of the pumping wells.

A review of the bedrock ground-water data reveals that ground-water flow in the northern two-thirds of the facility, encompassing the area north of Main Street, as well as a majority of the Production Area and the West Yard, is dominated by the influence produced by the withdrawal of ground water from the Passaic Formation by the Cyanamid production wells. In the southern portion of the site, encompassing primarily the area south of the PRRR, the major

controlling feature is the Raritan River which acts as a regional ground-water discharge zone. Figure 7 illustrates the site-wide generalized bedrock ground-water flow. The areas influenced by Cyanamid's production well pumping are characterized by vertically downward hydraulic gradients. It is within the area of vertically downward hydraulic gradients that the extent of the production wells' influence can be determined. The areas indicative of discharge to the Raritan River are characterized by a natural upward hydraulic gradient. CDM, as part of the NJPDES/DGW Permit Ground-Water Monitoring Program, monitors on a quarterly basis the influence of Cyanamid's production wells and presents such findings in quarterly reports submitted to the NJDEP. The results of CDM's most recent quarterly monitoring of the production wells' cone of influence is presented in Attachment 1 ("Figure 1: Bedrock Ground Water Elevation Map" which was originally presented in CDM's 2nd quarter 1990 Report).

Section 3 - Review of RI Work Efforts

SECTION 3 - REVIEW OF RI WORK EFFORTS

3.1 General

As presented in Section 1, the Soils RI Work Plan was prepared, and subsequently approved by the NJDEP and USEPA, to define an investigative program designed to characterize the site-wide soils and ground-water conditions in fulfillment of the requirements of the ACO. The general approach of the Work Plan included defining the nature and extent of the soils contamination through the use of both a detailed site history review and, as necessary, coordinated focused field sampling activities. Where the detailed site history review identified areas where no potential exists for soil contamination, no field activities were performed. Alternatively, where the site history review, historical aerial review, and site reconnaissance identified areas of potential soil contamination, field sampling activities were performed to characterize and delineate this contamination.

A greater density of sampling was completed in areas which exhibited a higher potential of contamination than those areas which showed a lesser potential of contamination based on the site history and aerial review and site reconnaissance. This biased sampling approach was incorporated to ensure that those areas with a high potential for contamination were properly and sufficiently characterized from both a physical and chemical perspective, while those areas with a lesser potential for contamination were sufficiently characterized to confirm that no contamination is present. In order to focus and organize the investigative work efforts associated with the Soils RI Program, the Bound Brook facility, excluding the impoundments, was divided into four main segments in consideration of historical usage and physical location. These four main segments include the following:

1. the Hill Property (north of Main Street);
2. the area north of the Central Railroad of New Jersey (CRNJ) tracks and south of Main Street;
3. the area south of the Port Reading Railroad (PRRR) tracks; and
4. the Main Plant.

The Main Plant area was further divided into the Production Area and the West Yard area because usage of each subdivision varied significantly enough and because the size of the Main Plant area was large enough to warrant further subdivisions to better focus the Soils RI Work Plan in addressing potentially contaminated areas.

The sampling and analytical work efforts associated with the Work Plan were conducted during the summer of 1989. Additionally, during the summer of 1990, supplemental field investigations were completed. For the purposes of documentation and assisting the reader in better understanding and interpreting the results of the field investigations and analytical results discussed in Sections 4 and 5 of this report, the following section highlights the work efforts completed as part of the Soils RI Program. (For more detailed information regarding the logic behind the Soils RI Program work efforts and the protocols and procedures utilized for implementation of these work efforts, the July 1989 Soils RI Work Plan should be referenced). Excluded from the following section, however, is a discussion of work efforts conducted at the Hill Property and the area north of the CRNJ. As discussed in Section 1, upon completion of the remedial investigation work efforts, it was determined to be appropriate to address the Hill Property as an independent area due to the use history of this area, the distinct physical separation of this area from the Main Plant, and the results of the remedial investigation. Therefore, after discussions with the NJDEP and USEPA, it was

decided that the Hill Property and the area north of the Central Railroad of New Jersey (CRNJ) would be treated independently from the Main Plant with the submittal of a separate RI report.

3.2 Summary of Work Efforts

The work efforts associated with the Soils RI Program consisted of two major activities - soil sampling and analysis and hydrogeologic characterization. Both of these work efforts were conducted in two phases, with the first phase being completed during the period of July through October 1989. Based on the results of this initial round of investigative work efforts, a second phase of investigative work efforts was defined and implemented during the period of May through September 1990.

A discussion of the soils and hydrogeologic characterization work efforts is presented below.

3.2.1 Soils Characterization

The soils characterization activities consisted of sampling and analytical work efforts necessary to characterize surface and subsurface soils from both a physical and chemical perspective.

For the physical characterization of subsurface soil conditions, 29 trenches, 47 soil borings, and 28 monitoring well borings (borings which were completed for the installation of monitoring wells) were completed during the initial phase of the investigative work efforts. During the second phase of the sampling program, an additional 19 trenches were completed.

For the analytical characterization of the soils, 168 surface samples, 114 samples from the 29 trenches, 99 samples from the 47 soil borings, and 41 samples from the 28 monitoring well borings were analyzed to

chemically characterize the surface and subsurface soils during the initial phase of the sampling work efforts. In accordance with the Soils RI Work Plan, the priorities established for the selection of samples for analysis were as follows:

1. collect samples believed to contain chemical waste;
2. collect samples with the highest HNU reading;
3. collect samples which contained stained soils; and
4. collect samples containing general debris.

All samples, except for the 27 surface samples collected around eight transformer pads, were analyzed for the USEPA Target Compound List (TCL) including volatile organic compounds; semi-volatile organic compounds; inorganic constituents; and PCBs; and Tentatively Identified Compounds (TICs). In accordance with the approved Work Plan, the TCL analysis excluded dioxin and pesticides/herbicides. (The scope of the analysis which was completed is hereafter referred to as the "modified TCL".) The 27 surface samples collected directly around the transformer pads were analyzed for PCBs only as specified in the approved Work Plan.

During the second round of sampling work efforts, an additional 47 surface samples and 6 samples from 6 of the 29 trenches were analyzed to further characterize the soils. The six samples from the trenches were analyzed for the modified TCL, while the 47 surface samples were analyzed for specific contaminants (PCBs, arsenic, nickel, and nitrobenzene) to delineate areas where these specific chemicals were detected in elevated levels during the initial phase of sampling. Of the 47 supplemental surface soil samples, 11 were collected around transformer pad number 3 and were analyzed only for PCBs.

All of the analytical results from the soils sampling were reported on a dry-weight basis and in accordance with the Tier CLP-I deliverable requirements. As presented in the QAPP of the Soils RI Work Plan, all analytical data validation will be performed by the NJDEP in accordance with and in fulfillment of Tier CLP-1 deliverable requirements.

Surface sample locations were selected to correspond to areas of identified surficial waste disposal, stained soils, or potentially contaminated soils around transformer pads. Where no areas of surficial waste disposal or stained soil exist, surface sample locations were selected to coincide with boring locations, to encompass storage pads or areas of surface disturbance, or to achieve complete areal coverage. All subsurface investigations, which entailed the completion of trenches and borings, were biased based on the results of the detailed site history review. Specifically, trenches, which were completed primarily in the West Yard area, were used to characterize the physical composition, extent, and volume of contamination in areas of known or presumed subsurface contamination and/or waste disposal. Soil borings, completed primarily in the Production Area, were used in areas where soil contamination was expected from process spills, leaks, and other releases associated with manufacturing operations. A description of the materials encountered during the excavation of the trenches is provided in the trench logs which are included in Appendix A-1. A description of the materials encountered during the completion of soil borings is provided in the soil boring logs which are included in Appendix A-2. Soil boring logs associated with monitoring well borings are included in Appendix A-4. All surface sampling locations, borings, monitoring well borings and trenches were surveyed and are identified on Figures 8 and 9 - Surface

Sampling Locations; and Subsurface Sampling and Monitoring Well Locations, respectively. Additionally, the surface sampling locations associated specifically with Transformer Pad 3 are presented on Figure 10. For every sample that was collected for laboratory analysis, information pertaining to that sample was documented on sample summary sheets. These sample summaries indicate the date and time each sample was collected, the depth at which the sample was collected, the general physical characteristics of the sample, the parameters for which the sample was analyzed, and the HNU screen reading of the sample. These sample summaries are included in Appendix A-3. The results of all laboratory analysis associated with surface and subsurface soil samples are presented in Tables 1, 3, 4, 5, 6, 7, and 8, all of which are discussed in the following sections of this Report.

Of the work efforts which were originally proposed in the Soils RI Work Plan, the following soil characterization work efforts were not completed. A summary of the deviations from the proposed work efforts is also provided in Table 2.

1. trenches 22 and 24 were not completed due to the proximity of utility and sewer lines;
2. no soil samples from monitoring well borings 11 and 14 were collected because shale/bedrock was encountered within two feet below the surface;
3. surface sample WS-29 was not collected due to a field oversight, however, samples WS-25, WS-28, and WS-176 were collected in the immediate vicinity of the proposed location of WS-29, and therefore, sufficient data for this area exists; and

4. no soil sample from monitoring well boring 3 was collected because insufficient recovery was obtained during the drilling of the boring.

3.2.2 Hydrogeologic Characterization

The hydrogeologic related activities consisted of work efforts to characterize the geologic and hydrologic conditions at the site.

Geologic conditions were defined through the completion of soil borings and test trenches, and analytically through sieve analysis of the coarser fractions (sand and gravel) and hydrometer analysis of the finer fractions (silt and clay). The hydrologic conditions were defined through the sampling of the 28 overburden ground-water monitoring wells during the initial phase of the sampling work efforts. A description of the materials encountered during the installation of the monitoring wells and of the construction of the wells is provided in the monitoring well boring logs which are included in Appendix A-4. During the second phase of the program, additional information was gathered on the hydrologic conditions through the use of 11 multi-level piezometer clusters (piezometer boring logs included in Appendix A-5), a still well in Cuckolds Brook, supplemental sampling of eight of the 28 monitoring wells, and examination of a well for the presence of free product.

During the first phase of the sampling program, all water samples from the monitoring wells were analyzed for the modified TCL, as well as for TICs. During the second phase of the sampling program, five rounds of water elevations were collected from the piezometer clusters; Cuckolds Brook water elevations were collected from the still well; and the additional samples from the monitoring wells were analyzed for the TCL volatiles, base neutral compounds, and/or inorganics. The results

of all laboratory analysis associated with ground-water samples are presented on Tables 9 and 10.

As presented in the QAPP of the Soils RI Work Plan, all analytical data validation will be performed by the NJDEP in accordance with and in fulfillment of the Tier CLP-1 deliverable requirements.

Of the work efforts which were originally proposed in the Soils RI Work Plan, the following hydrogeological characterization work efforts were not completed. A summary of the deviations from the proposed work efforts is also provided in Table 2.

1. no water samples were collected from monitoring wells 11 and 14 which were not installed because shale/bedrock was encountered at two feet below the surface; and
2. monitoring well 4 was not installed because overburden ground water was not encountered during the completion of the monitoring well boring. As a result, no ground-water sample was able to be collected.

3.3 Sampling Methodology

The field activities associated with the soils sampling and hydrogeologic sampling activities are discussed below.

3.3.1 Soils Sampling and Characterization

1. Surface Samples

As discussed in Section 3.2.1 of this report, surface samples were collected in areas of stained soils, identified surficial waste disposal, and other designated areas to achieve complete areal coverage.

In the West Yard, the surface samples were collected with a stainless steel trowel/shovel wherever possible. When necessary, a pick was used to initiate the sample location prior to collection of the sample with the trowel/shovel. In the Production Area, all of the surface samples are in locations which correspond to subsurface boring locations. Therefore, these surface samples were collected with a standard split spoon sampling device.

All surface soil samples, excluding those around PCB transformers, were collected at each location from 0 to 6 inches in the soil for laboratory analysis of the modified TCL, excluding volatile organic compounds. A sample was then collected from 6 to 12 inches in the soil at each location for laboratory analysis of the TCL volatile organic compounds. At the eight transformer locations, three to four surface soil samples were collected from 0 to 6 inches in the soil for laboratory analyses of PCBs only. The location of all surface soil samples is shown on Figure 8. As previously mentioned, Figure 10 identifies the surface sampling locations associated with Transformer Pad 3.

A complete description of the sampling procedures, including decontamination and quality assurance/quality control (QA/QC) measures, can be found in the Soils RI Work Plan, Appendix B - Field Sampling Plan.

2. Test Trenches

As discussed in Section 3.2.1 of this report, trenches were excavated in areas of known subsurface waste disposal as

determined from a review of the historical information. Each trench was comprised of one or more individual test pits. Test pits were utilized to prevent one contiguous trench from presenting a hazard to on-site workers. The test pits were excavated through waste material and/or debris until undisturbed soil was encountered. Excavation proceeded to this depth to evaluate the composition and delineate the vertical and horizontal extent of buried materials.

All equipment was decontaminated in the field prior to use and between trenches. The protocols utilized for the decontamination of the sampling equipment and the QA/QC procedures followed can be found in the Soils RI Work Plan, Appendix B - Field Sampling Plan. During the course of the field investigations, field audits were conducted by NJDEP and USEPA personnel. Based on the field audit reports, all field work efforts were completed in accordance with approved protocols.

A record of the field activities/observations, including samples collected, lithologies encountered, ground-water elevations, drilling characteristics, and other miscellaneous data was maintained in a series of bound field logs. The decontamination of sampling equipment, the collection of samples, and the maintenance of the daily activity logs, sample summary logs, and lithologic logs were conducted by Blasland, Bouck & Lee personnel.

The test trench locations are shown on Figure 9. The test trench logs, developed for each test pit, are included in Appendix A-1.

3. Soil Borings

As discussed in Section 3.2.1 of this report, soil borings were collected in areas where contamination was expected from process spills, leaks, or other releases. Soil borings were collected for chemical and geotechnical analysis, and for stratigraphic and lithologic description. Borings were also collected during the installation of monitoring wells.

The soil borings were advanced by driving a 2-inch OD split spoon sampler ahead of a 4.25 inch hollow stem auger, using either a 140 or 300 pound hammer, depending upon conditions. Following the completion of the boring, the borehole was tremie-grouted with cement/bentonite grout to above the water table and then back filled with cuttings.

All equipment was decontaminated in the field prior to use and between borings. The protocols utilized for the decontamination of the sampling equipment, as well as the QA/QC procedures implemented, are presented in the Soils RI Work Plan, Appendix B - Field Sampling Plan. During the course of the field investigations, field audits were conducted by NJDEP and USEPA personnel. Based on the field audit reports, all field work efforts were completed in accordance with approved protocols.

A record of the field activities/observations, including samples collected, lithologies encountered, ground-water

elevations, drilling characteristics, and other miscellaneous data was maintained in a series of bound field logs. The decontamination of sampling equipment; the collection of samples; and the maintenance of the daily activity logs, sample summary logs, and lithologic logs were conducted by Blasland, Bouck & Lee personnel. The drilling and borehole abandonment was performed by Empire Soils Investigations, Edison, New Jersey.

One to three samples from each boring were submitted for chemical analysis. Samples were selected using the following criteria:

a. one sample was selected from the 2-foot interval in which the water table was encountered;

b. one sample was selected from the interval showing the highest HNU headspace screening reading;

c. a sample was collected of any grossly contaminated layers which were visually encountered; and

d. an intermediate sample was collected if a thick section of overburden existed between the surface sample and the water table.

Thirty-eight of the referenced samples collected from the soil borings and well borings were sent to Haller Testing Laboratories, Inc., in Plainfield, New Jersey, for particle size analysis to confirm field classifications and to better define the grain-size distribution of the site soils. The samples were tested by either a sieve analysis for the coarser (sand and gravel) fractions and by a hydrometer analysis for the finer

(clay and silt) fractions. The samples were tested in accordance with ASTM Test Method D-422 for sieve analyses and, where applicable, hydrometer analysis.

Soil boring and monitoring well locations are shown on Figure 9. The soil boring logs are included in Appendix A-2. The ground-water monitoring well boring logs are included in Appendix A-4. The grain size distribution curves are included in Appendix A-6.

4. Magnetometer Survey

A magnetometer survey of the West Yard was conducted to assist in evaluating the subsurface conditions of the West Yard and to locate areas containing subsurface debris through the correlation of magnetic anomalies and information collected from the test trenches.

Prior to initiating the activity, a 100 foot by 100 foot control grid was established over the areas of the survey. At the same time, a line was established on the Hill Property to serve as the reference location for the magnetic flux measurements.

The actual magnetometer survey was conducted on a 50 foot by 50 foot grid within the control grid. Following completion of the survey, a dot density map was developed to identify large areas of subsurface metallic objects. The actual plant coordinates were then extracted from the dot density map and physically located in the field for identifying additional trenches to be completed to further characterize the West Yard area through physical observations.

5. Supplemental Trenching

Following the completion of the magnetometer survey across the West Yard and evaluation of the initial phase of trenches, a second phase of test trenches were excavated to confirm the results of the magnetometer survey and to further delineate the boundaries of areas in which the initial investigations identified subsurface debris and waste.

The sampling and decontamination protocols were the same as those of the initial round of test trenches, except that soil samples were collected from the presumed clean material, to analytically define the boundary of the waste/debris material.

The location of these trenches are shown on Figure 9. The supplemental trench logs, prepared for each test pit, are included in Appendix A-1.

3.3.2 Hydrogeologic Sampling and Characterization

1. Overburden Monitoring Well Network

In general, the overburden ground-water monitoring system was designed and installed to collect water samples representative of the entire overburden unit and to supplement the analytical results of the soil boring portion of the investigation.

The ground-water monitoring well network, installed within the Production Area of the Main Plant, was designed and installed to evaluate the overall impact of manufacturing activities on the overburden ground-water system.

The monitoring well network installed in the West Yard was designed to evaluate the impact of past disposal practices on the overburden ground-water system. Ground-water monitoring wells were

placed in the presumed downgradient direction of areas of concern to evaluate the impact of these areas. However, upgradient wells could not always be installed due to the small thickness of overburden, lack of a significant saturated zone, and the presence of extensive waste areas.

The installation and development of the 28 monitoring wells which comprise the system was initiated on August 14 and completed on October 23, 1989. These wells were permitted pursuant to N.J.A.C. 58:4A-14 et seq, installed, and subsequently developed by Empire Soils Investigations, a State of New Jersey licensed well driller. The initial round of ground-water sampling was conducted between October 23, 1989 and October 25, 1989.

All ground-water monitoring wells installed as part of this project were constructed in accordance with the NJDEP Monitoring Well Specifications for Unconfined Unconsolidated Aquifers. The construction included 4-inch OD schedule 40 PVC, flush joint, well screen and riser installed in an 8-inch borehole which was advanced to bedrock. The wells were screened from the top of the bedrock to 2 feet above the point where water was initially encountered. The annulus between the screen and the borehole was gravel-packed with filter sand. A one-foot thick bentonite pellet seal was installed immediately above the gravel pack. The remainder of the annular space was backfilled by tremie-grouting to ground surface with a cement/bentonite grout. Locking steel protective casings and concrete pads were installed above ground surface.

The wells were developed approximately one week after installation. The wells were developed by surging with a surge

block and pumping until the low turbidity water was obtained. The time spent on well development, the physical appearance of the well water, the well's yield, and the amount of water removed during development were recorded in the field log book.

The locations of the overburden ground-water monitoring wells are shown on Figure 9. The monitoring well boring logs and construction details are included in Appendix A-4.

The sampling of the overburden ground-water monitoring well network was initiated on October 23, 1989. Due to the number of wells involved in the project, the sampling required three days. The wells were sampled using Teflon bailers that were decontaminated at York Laboratories. Field quality assurance/quality control protocols were maintained as outlined in the Soils RI Work Plan. Field blanks were collected every other day of sampling. A trip blank was included with each shipment of bottles. Blind Field Duplicates and Matrix Spike/Matrix Spike Duplicate samples were submitted at a rate of one duplicate per twenty samples. During the course of the field investigations, field audits were conducted by NJDEP and USEPA personnel. Based on the field audits, all field work efforts were completed in accordance with approved protocols.

The sampling was performed in accordance with the procedures outlined in Appendix B of the Soils RI Work Plan. At each well, a 10-foot by 10-foot piece of polyethylene sheeting with a hole cut in the center was placed over the well. All purging, monitoring, and sampling equipment was then placed on the sheeting. As the protective casing cap on the well was being removed, an HNU Photoionization meter was used to check the headspace of the well.

Depth to the water table and to the bottom of the well was measured with a decontaminated slope water level probe from the surveyed datum point stamped on each well. These numbers were then used to calculate the volume of water to be purged from the well prior to sampling. This volume of water, three to five times the standing volume, was then purged from the well at a rate of 2 gpm (below the critical flow velocity) using a peristaltic pump and a section of well-dedicated Teflon tubing. All field measurements were recorded on ground-water sampling field logs at the beginning of the purge cycle, prior to and after sampling.

After the well was allowed to recover, the laboratory decontaminated Teflon bailer and Teflon-coated stainless steel leader were used to sample the well. The samples were collected and placed in the laboratory supplied, pre-preserved sample bottles according to the order in which the samples were to be analyzed.

Immediately after collection, the bottle labels were completed; the samples were placed on ice; and the sample data was entered on the chain-of-custody form and the ground-water sampling field log.

2. Piezometers

To further evaluate the relationship between the overburden water bearing units and bedrock aquifer, and to refine the understanding of the ground-water flow conditions in each unit, a network of 11 multi-level piezometer clusters (totalling 34 piezometers) was installed. The piezometers were screened at select intervals within the overburden and/or upper fractured zone of the bedrock to measure the flow components between and within the

different units. The clusters were distributed throughout the Main Plant to afford a site-wide coverage and to evaluate the effects of the silt and clay layer. Piezometer clusters were located both in areas where the silt and clay unit is present and in areas where the unit has been removed.

The installation and development of the 34 piezometers which comprise the system was initiated on July 16 and completed on August 3, 1990. This system of piezometers was permitted pursuant to N.J.A.C. 58:4A-14 et seq, installed, and subsequently developed by Empire Soils Investigations, a State of New Jersey licensed well driller.

Five rounds of ground-water elevations were collected between August 4 and August 21, 1990. Ground-water elevation contours are presented in Attachment 3.

The overburden components of the piezometer clusters were constructed in accordance with the NJDEP Monitoring Well Specifications for Unconfined Unconsolidated Aquifers, with a 2-inch OD schedule 40 PVC, flush joint, well screen, and riser installed in a 6-inch borehole. The piezometers were screened across specific pre-determined intervals, with 3-foot long, 0.010 inch slotted PVC screen section. The annulus between the screen and the borehole was sand-packed with Jesse Morie Number 1 filter sand. A one-foot thick bentonite pellet seal was installed immediately above the sand pack. The remainder of the annular space was tremie-grouted to ground surface with a cement/bentonite grout. The grout was allowed to set for 24 hours and then topped off to surface, and a locking steel protective casing and concrete pad were installed.

The bedrock components of the piezometer clusters were constructed in accordance with the NJDEP Monitoring Well Specifications For Bedrock Formations, by tremie grouting a 4-inch ID steel casing into an 8-inch I.D. borehole which was augured 5 feet into bedrock. Additional grout was added to the borehole as the grout settled. The casings were allowed to set for a minimum of 72 hours before the well was extended further into the rock by using a 3 7/8-inch OD roller bit and an air rotary method of drilling. After the completion of the well, a cement collar, pad, and locking steel protective casing were installed.

The piezometers were developed approximately one week after installation. The development was accomplished by utilizing one of three methods:

a. surging and pumping with a centrifical pump;

b. hand bailing the slow recovering piezometers; or

c. using an oilless air compressor and a double pipe airlift for the bedrock piezometers.

The time spent on development, the physical appearance of the purged water, the yield, and the amount of water removed during development was recorded in the field log book.

Locations of the piezometer clusters are shown on Figure 9. The piezometer boring logs and construction details are included in Appendix A-5.

3. Still Well

On August 20, 1990, a still well was installed in Cuckolds Brook to measure stream water surface elevation. The well was located in the stream adjacent to the Conrail bridge which crosses

the brook south of the Main Plant. The still well was constructed by setting a section of 4-inch ID PVC well screen into Cuckolds Brook such that it was seated in the stream bed and extended to above the water surface. A length of 1-inch open-ended PVC pipe was then secured within the well screen for use in monitoring the brook's water surface elevation. Following the installation of the still well, the elevation of the top of the PVC pipe was surveyed to provide a measuring datum. The location of the still well is shown on Figure 9.

4. Supplemental Monitoring Well Sampling

Following review of the ground-water analytical data, monitoring wells MW-6, MW-7, MW-17, MW-22, MW-23, MW-27, MW-28, and MW-31 were resampled to confirm the data from the first round of sampling and analysis. Monitoring wells MW-6, MW-22, MW-28, and MW-31 were analyzed for TCL Metals, which were the only analytes detected in the first round of sampling and analysis. Monitoring Well MW-23 was resampled and analyzed for volatile organics to confirm the elevated concentrations of these compounds detected in the first round of sampling. Ground-water monitoring wells MW-7, MW-17, and MW-27 were resampled and analyzed for volatile organics and base-neutral compounds to confirm the elevated concentrations of these parameters detected in the first round of samples.

Resampling was conducted under the same protocol as the initial round of sampling. All analytical data validation for these analyses will be performed by NJDEP in accordance with and in

fulfillment of Tier CLP-1 deliverable requirements. The results of this analysis are shown in Table 10.

5. Investigation for Free Product

As a result of the high concentrations of organic compounds reported in a number of the monitoring wells in the initial round of ground-water sampling, four of the ground-water monitoring wells were tested for the presence of free phase product. This testing was performed by inspecting each well with both a bi-phase probe and an acrylic bailer. The bi-phase probe was used to detect any immiscible layers within the well water column, estimate the thickness of the layer(s), and record the surface elevation of any detected layer. The acrylic bailer was used for the visual inspection of any product. Immiscible phase product was encountered in ground-water monitoring well MW-23. The product in this well was a thin oily sheen on the surface of the ground water inspected. However, a definitive determination as to whether any recoverable free product exists could not be made.

Subsequent soil and ground-water investigative efforts conducted in August of 1990, demonstrated that there are insufficient quantities of free product to make free product recovery practicable.

The information gathered from all of the work efforts described above is presented in Section 4 (Results of RI: South of Port Reading Railroad) and Section 5 (Results of RI: Main Plant) of this report. A complete description of the hydrogeologic investigations and the results of the investigation are presented in Attachment 3 of this report.

Section 4 - Results of RI: South of Port Reading RR

SECTION 4 - RESULTS OF RI: SOUTH OF PORT READING RAILROAD

4.1 Use History Overview

The area south of the Port Reading Railroad (PRRR) tracks is approximately 95 acres in size and includes all of the Cyanamid property south of the Main Plant within the Raritan River flood plain. The Raritan River forms the southern border of this area and Cuckolds Brook bisects the segment and empties into the river.

The segment south of the PRRR tracks is a stretch of essentially undeveloped property approximately 1,500 feet wide. Impoundments 1, 2, 15, 16, 17, and 18 are situated within this segment. The majority of the areas not covered by impoundments support extensive vegetative growth typical of a river flood plain area.

The historical aerial photographic review indicated that this segment was totally undeveloped until the mid 1940s. Impoundments 1, 2, 15, 16, 17, and 18 were constructed in the 1940s and 1950s, and were operational from 1943 until 1969. Throughout this period of operation, swales were maintained around these impoundments to promote drainage. Swales are presently cut into the berms of Impoundments 15 and 16 allowing precipitation to drain from these impoundments.

The historical aerial photographs and the site reconnaissance indicate that there was one area of waste disposal and two areas used as borrow areas. An area east of Impoundments 15 and 16 was used as a drying area for the iron oxide which was stored within Impoundments 15 and 16 prior to off-site shipment. Presently, iron oxide covers this area. Of the two borrow areas, the one south of Impoundments 15 and 16 resulted from the construction of Impoundments 17 and 18, while the one east of Impoundments

1 and 2 resulted from the construction of Route 287. Presently, these areas hold standing water and do not appear to have been subject to any filling operations.

Upon review of the aerial photographs, the area immediately north of the tracks adjacent to Impoundments 6 and 13 was identified as a potential area of activity. Further investigation of the area indicated that an overflow structure associated with Impoundment 6 had been constructed. This structure ties into a drainage swale located between Impoundment 13 and the railroad tracks. No further information is known about the potential use of this area.

A detailed discussion of the use history of this area and the historical aerial photographic review is included within the Soils RI Work Plan submitted to the NJDEPE in January 1989 and revised in June, 1989 in conformance with the requirements of NJDEPE's conditional approval letter of May 17, 1989.

4.2 Sampling/Field Activities

The physical and chemical characterization of the soils south of Port Reading Railroad tracks were developed through the work efforts completed from July through November of 1989. These work efforts are summarized in Section 3.1 of this report and are shown on Figures 8 (surface samples) and 9 (subsurface samples). Specifically, 10 surface samples and nine discrete samples collected from two trenches were analyzed for the modified TCL and for Tentatively Identified Compounds (TICs). These samples were collected from the two areas south of PRRR and the one area north of the PRRR where potential contamination may have occurred - the swale associated with Impoundments 6 and 13, the swales associated with Impoundments 15 and 16, and the iron oxide drying area.

Samples were not analyzed for dioxin because the NJDEPE's sampling and analysis program conducted in June 1983 indicated that dioxin (TCDD) was not present in a detectable concentration at the site. The NJDEPE's sampling and analysis program confirmed Cyanamid's historical records which indicated that no dioxins were ever produced or disposed of at the site.

Historical records of Cyanamid's Bound Brook facility also indicate that no pesticides/herbicides were produced or disposed at the site. Additionally, Cyanamid provided the NJDEPE with letters certifying that pesticides/herbicides were not produced at Cyanamid's Bound Brook plant (Attachment 2). Therefore, soil samples were not analyzed for pesticides/herbicides either.

The results of the TCL analysis are presented in the subsequent portions of this section. The data presented herein is comprised of those constituents which were detected most frequently or in the highest concentrations. Within each sub-area (Impoundments 6 and 13 Drainage Swale area, Impoundments 15 and 16 Drainage Swale, and Iron Oxide area), the results of the TCL analysis are presented first for surface samples and then for subsurface samples. For both the surface and the subsurface samples, data is provided for volatile, semi-volatile, inorganic, and PCB analyses. The data for these analyses is also presented as ranges, means, and medians of constituents detected in the area of interest. The mean is the average of only those samples for which the constituent was detected. The median is the concentration at which one-half of the samples have a greater concentration and one-half of the samples have a lesser concentration. The median is calculated using the results of the analyses for all of the samples (detected as well as undetected results).

A draft Endangerment Assessment (EA) was completed for the Bound Brook site based on existing information and information developed from the soils investigation program. This draft EA was submitted to the NJDEPE and USEPA as a separate document to this report. During the development of this draft EA, certain chemicals of interest were identified based on the observed concentrations of the chemicals, the chemicals' toxicity, and potential exposure pathways. (An overview of the draft EA, which presents the development of the chemicals of interest, is included in Section 6 of this report. In presenting the results of the analytical work efforts in Section 4.3 below, particular emphasis is placed on presenting the analytical results for the chemicals of interest because the overall site remediation will be driven by the concentrations of the chemicals of interest and how they compare to the site-specific, risk-based Soil Action Levels presented in the draft EA and highlighted in Section 6 of this report.

4.3 Results

The physical and analytical characterizations of each of the three sub-areas are presented below. Because of the large volume of data generated during this program, it would be impractical to discuss the data in its entirety. Therefore, the data is presented herein in a summarized fashion based upon samples which exceed the NJDEPE Soil Action Levels.

As described in Section 6 of this report, consideration has also be given to comparison of existing soil conditions to the NJDEPE's recently proposed Cleanup Standards for Contaminated Sites (N.J.A.C. 7:76D). Since the Cleanup Standards were not in existence at the time of initial preparation of this report, preliminary screening of soil areas to be considered for potential further study was performed only with respect to the NJDEPE Soil Action

levels. It should be noted that the Soil Action Levels as well as the proposed Cleanup Standards are not promulgated regulatory standards, but rather are concentrations which, when exceeded, suggest a need for further study. For this reason, the Action Levels are being used solely for comparative purposes.

Data for all samples can be found in the complete Tier CLP-1 data packages (submitted under separate cover to the NJDEPE) as well as in the database tables included as Tables 3 and 4 which present a summary of only those constituents which were detected. The database tables (Tables 3 and 4) include only one set of concentrations for each sample instead of including all analytical runs performed on a sample as presented in the Tier CLP-1 package. Therefore, matrix spike and matrix spike duplicate (MS and MSD) runs were not included on this table. Additionally, when dilution runs (DL) (runs conducted when the concentration of a constituent exceeded the instrumentation range on the initial run) and replicate runs (RE) (runs conducted when internal laboratory standards were exceeded) were performed on a particular sample, only the values which constitute the most accurate concentrations for each constituent in the sample are shown on Tables 3 and 4. Table 3 presents the analytical results for the surface samples north and south of PRRR and Table 4 presents the analytical results for the subsurface samples north and south of Port Reading Railroad. The data has also been summarized with respect to the NJDEPE Soil Action Levels on the following six figures included in Appendix B:

1. surface volatiles (Figure B-1);
2. surface semi-volatiles (Figure B-2);
3. surface inorganics (Figure B-3);
4. subsurface volatiles (Figure B-4);

5. subsurface semi-volatiles (Figure B-5); and

6. subsurface inorganics (Figure B-6).

On each of these figures, each sampling location has been designated as to whether or not the analytical results exceed the NJDEPE Action Level for soils or MCLs for ground water. For each sample which exceeded the NJDEPE Soil Action Level, concentrations are listed for the chemicals of interest (developed in the overview of the EA and presented in Section 6 of this report). A discussion of the concentrations of the chemicals of interest and how these concentrations compare to the site-specific, risk-based Soil Action Levels is also presented in Section 6.

The subsurface figures include all ground-water data, as well as data for the impoundments on-site which was gathered during the Impoundment Characterization Program.

The sampling work efforts north and south of PRRR tracks concentrated on the distinct areas in which activity was identified during the site history review. Two surface samples were taken at the drainage swale adjacent to Impoundments 6 and 13, four surface samples were taken along the drainage swales east and south of Impoundments 15 and 16, and four surface samples and nine discrete samples from two trenches were taken from the iron oxide drying area east of Impoundments 15 and 16 and west of Impoundments 1 and 2.

Impoundments 6 and 13 Drainage Swale

The two surface samples (LS-13 and LS-14) taken from the drainage swale in the vicinity of Impoundments 6 and 13 were analyzed for the modified TCL and for TICs. The following is a summary of the results from

the analytical testing of the two samples. The chemicals of interest are noted with an asterisk (*).

Volatiles

The analysis of both samples indicates that no volatile contamination, including TICs, is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound[1]	LS-13 (ppm)	LS-14(ppm)
Nitrobenzene*	1.00	24
Naphthalene*	6.60	89
Fluoranthene*	1.50	68
1,2,4-Trichlorobenzene*	0.05	15
1,2-Dichlorobenzene*	0.17	12
Phenanthrene	3.50	14
Anthracene*	2.50	11
Pyrene*	3.10	16
Acenaphthene*	3.20	12

Inorganics

The following compounds were detected at the indicated concentrations:

Compound[1]	NJDEPE Soil Action Level (ppm)	LS-13 (ppm)	LS-14 (ppm)
Antimony	10	12.3	21.6
Arsenic*	20	74.1	37.4
Chromium*	100	336	23,200
Copper	170	1,360	3,820
Mercury*	1	109	28.8
Nickel*	100	15.7	107
Zinc*	350	48.8	387

1 List of constituents is not all inclusive. Refer to detailed analytical tables.

PCBs

The analysis of both samples indicate that no PCB contamination, is present at a concentration above the minimum detection limits for these samples.

Impoundments 15 and 16 Drainage Swale

The four surface samples (LS-9, 10, 11, and 12) taken from the drainage swales east and south of Impoundments 15 and 16 were analyzed for the modified TCL and TICs. The following is a summary of the results from the analytical testing of the four surface samples. The chemicals of interest are noted with an asterisk (*).

Volatiles

The analysis of the four samples indicates that no volatile contamination, including TICs, is present at a concentration greater than the NJDEPE Soil Action Level of 1 ppm.

Semi-volatiles

The analysis of the four samples indicates that no semi-volatile contamination, including TICs, is present at concentrations greater than the NJDEPE Soil Action Level of 10 ppm.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	LS-9 (ppm)	LS-10 (ppm)	LS-11 (ppm)	LS-12 (ppm)
Arsenic*	20	39.3	26.7	5.4	11.3
Chromium*	100	388	259	32.8	39.5
Copper	170	866	1,720	32.6	99.4
Mercury*	1	1.1	5.2	0.36	0.71
Nickel*	100	256	384	27.4	47.6

Note: Two of four samples exceeded NJDEPE Soil Action Levels

PCBs

The analysis of all samples indicate that Sample LS-9 has PCB-1254 at a concentration of 0.36 ppm and Sample LS-10 has PCB-1248 at a concentration of 0.13 ppm. The remaining two samples have no PCB contamination above the minimum detection limit.

Iron Oxide Drying Area

The work efforts performed in the iron oxide drying area during the first phase of sampling consisted of four surface samples (LS - 5, 6, 7, and 8) and nine discrete samples taken from two trenches (LT - 28 and LT - 29). During the second phase of sampling, seven additional trenches and 12 additional surface samples were performed. As was expected in the iron oxide drying area, the trenches revealed portions of black iron oxide. Other fill-type materials were also found in these trenches, such as gravel and cinders, stained soil, and shale. A complete descriptive account of these work efforts is found in the trench logs (Appendix A-1) and in the sample summaries (Appendix A-3).

1. **Surface Samples**

The following is a summary of the results from the analytical testing of the four surface samples. Chemicals of interest are noted

below with an asterisk (*).

Volatiles

The analysis of the four samples indicates that no volatile contamination is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm.

Semi-volatiles

The analysis of the four samples indicates that no semi-volatile contamination is present at concentrations greater than the NJDEPE Soil Action Level of 10 ppm. However, when considering contamination found during the TIC search, two of the four samples contain semi-volatile contamination greater than 10 ppm. The sum of the TCL and TIC contamination for these samples is as follows:

	LS-5	LS-8
Sum of TCL BNAs (ppm)	0.53	1.89
Sum of TIC BNAs (ppm)	13.19	8.47
Total TCL & TIC BNAs (ppm)	13.73	10.36

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Action Level (ppm)	LS-5 (ppm)	LS-6 (ppm)	LS-7 (ppm)	LS-8 (ppm)
Arsenic*	20	71.5	69.9	70.4	57.2
Chromium*	100	951	1,060	1,130	795
Copper	170	2,050	1,940	2,840	819
Nickel*	100	1,270	883	1,050	849

PCBs

PCBs were detected at the indicated concentrations:

Compound	LS-5	LS-6	LS-7	LS-8
PCB-1254	1.1 ppm	1.2 ppm	1.3 ppm	0.64 ppm

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the nine subsurface samples taken from the two trenches in the Iron Oxide Drying area. Chemicals of interest are indicated below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Methylene Chloride*	8	0.012 - 230	29.36	0.460
Benzene*	9	0.010 - 13,000	1,448	0.260
Toluene*	9	0.006 - 4,000	446	0.210
Xylenes*	4	0.240 - 1,000	252	U
Chlorobenzene*	3	0.110 - 2.7	1.00	U
Ethylbenzene*	2	0.260 - 63	31.6	U

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
1,2-Dichlorobenzene*	5	2.8 - 830	179	2.8
Naphthalene*	7	0.08 - 5,900	848	0.22
2-Methylnaphthalene*	4	0.054 - 220	55.56	U
Isophorone	1	530	---	---

Note: A "U" indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	3.2 - 125	41.8	32.8
Chromium*	100	30.4 - 127,000	14,586	612
Copper*	170	17.1 - 3,970	1,358	500
Nickel*	100	32.3 - 904	364	233
Zinc*	350	41.9 - 1,250	300	115

PCBs

The analysis of all samples indicated that five of the nine samples have PCB contamination in the following concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1254	5	0.14 - 1.4	0.55	0.14

Section 5 - Results of RI: Main Plant

SECTION 5 - RESULTS OF RI: MAIN PLANT

5.1 General

The Main Plant, approximately 190 acres in size, is bounded by the Central Railroad of New Jersey to the north, Port Reading Railroad to the south, Cuckold's Brook to the west, and the Somerset Tire Service (STS) property line to the east. The entire Main Plant is surrounded by a flood control dike (Figure 2).

The Main Plant is comprised of the Production Area and the West Yard. The Production Area has been predominately dedicated to the manufacturing of products while the West Yard has been primarily utilized for storage and disposal activities. Because of the varied usage that took place in each of these areas, sampling efforts unique to each area were developed. A summary of these work efforts and the analytical results associated with these efforts are presented in the following portions of this section.

5.2 Production Area

5.2.1 Use History Overview

The Production Area of the Main Plant (Refer to Figure 2), approximately 110 acres in size, is the portion of the facility within which the production processes have occurred over the past 75 years. From the historical records review it was determined that approximately 30 manufacturing buildings and an additional 20 manufacturing support services buildings were in existence at some point during the history of the facility. It was also determined that approximately 9 miles of

process sewers and 370 storage tanks and vessels were utilized during the plant's history.

The site history review revealed that sections of the Production Area had been dedicated to the production of a group of chemicals or pharmaceuticals throughout the plant's history. As discussed in the Soils RI Work Plan, these similar sections were grouped into eleven distinct sub-areas of the Production Area based on their individual production history (Figure 2). It was anticipated that any soil contamination within an individual sub-area would be similar because the major raw materials, products, and by-products within the area remained consistent throughout the plant's history. A detailed discussion of the use history of the Production Area and the historical aerial photographic review is included within the Soils RI Work Plan submitted to the NJDEPE in January 1989 and revised in July 1989.

5.2.2 Sampling and Analysis

The physical and chemical characterizations of the Production Area soils were developed through the work efforts completed from July through November of 1989. These work efforts are summarized in Section 3.1 of this report and in the table below. Sampling locations are shown on Figures 8 (Surface Sampling Locations) and 9 (Subsurface Sampling and Monitoring Well Locations).

Area	No. of Surface Soil Samples	No. of Subsurface Samples	No. of Soil Borings	No. Of Trenches	No. Of Monitoring Wells
P-1	3	9	3	0	2
P-2	4	11	4	1	0
P-3	6	21	6	1	0
P-4	4	11	4	0	0
P-5	4	14	4	2	0
P-6	3	10	3	1	0
P-7	2	5	2	0	0
P-8	1	2	1	0	0
P-9	6	24	6	2	4
P-10	4	9	4	0	1
P-11	8	31	8	2	5

Note. Trench logs (Appendix A-1), boring logs (Appendix A-2), sample summaries (Appendix A-3), and monitoring well boring logs (Appendix A-4) provide a description of the materials encountered during these work efforts.

Specifically, 45 surface samples, 95 discrete samples taken from 45 borings, 28 discrete samples taken from 9 trenches, and 26 discrete samples taken from 17 borings during the installation of monitoring wells were analyzed for the modified TCL and for Tentatively Identified Compounds (TICs). Additionally, 27 surface samples collected around transformer pads were analyzed solely for PCBs.

Samples were not analyzed for dioxin because the NJDEPE's sampling and analysis program conducted in June 1983 indicated that dioxin (TCDD) was not present at the site. The NJDEPE's sampling and analysis program confirmed Cyanamid's historical records which indicated that no dioxins were ever produced or disposed of at the site.

Historical records of Cyanamid's Bound Brook facility also indicate that no pesticides/herbicides were produced or disposed at the site. Additionally, Cyanamid provided the NJDEPE with letters certifying that pesticides/herbicides were not produced at Cyanamid's Bound Brook plant (Attachment 1). Therefore, soil samples were not analyzed for pesticides/herbicides either.

The results of the TCL analysis are presented in the subsequent portions of this section. The data presented herein is comprised of those constituents which were detected most frequently or in the highest concentrations. Within each of the 11 sub-areas, the results of the TCL analysis are presented first for surface samples and then for subsurface samples. For both the surface and the subsurface samples, data is provided for volatile, semi-volatile, inorganic, and PCB analyses. The data for these analyses is also presented as ranges, means, and medians of constituents detected in the area of interest. The range represents the minimum and maximum detected concentrations of a constituent within the area of interest. The mean is the average of only those samples for which the constituent was detected. The median is the concentration at which half of the samples have a greater concentration and half of the samples have a lesser concentration. The median is calculated using the results of the analyses for all of the samples (detected as well as undetected results).

A draft Endangerment Assessment (EA) was completed for the Bound Brook site based on existing information and information developed from the soils investigation program. This draft EA was submitted to the NJDEPE and USEPA as a separate document to this report. During the development of this (EA), certain chemicals of interest were identified based on the observed concentrations of the chemicals, the chemicals' toxicity, and potential exposure pathways. (An overview of the draft EA, which presents the development of the chemicals of interest, is included in Section 6 of this report.) In presenting the results of the analytical work efforts in Section 5.2.3 below, particular emphasis is placed on

presenting the analytical results for the chemicals of interest because the overall site remediation will be driven by the concentrations of the chemicals of interest and how they compare to the site-specific, risk-based Soil Action Levels presented in the draft EA and highlighted in Section 6 of this report.

5.2.3 Results

The physical and analytical characterizations of each of the 11 sub-areas, as identified in the Soils RI Work Plan, are presented below. Because of the large volume of data generated during this program, it would be impractical to discuss the data in its entirety. Therefore, the data is presented herein in a summarized fashion, based upon samples which exceed the NJDEPE Soil Action Levels. It should be noted that the Action Levels are not promulgated regulatory standards, but rather are concentrations which, when exceeded, suggest a need for further study. For this reason, the Action Levels are being used solely for comparative purposes. Data for all samples can be found in the complete Tier CLP-1 data packages (submitted under separate cover to the NJDEPE) as well as in the database tables included as Tables 5 and 6 which present a summary of only those constituents which were detected. The database tables (Tables 5 and 6) include only one set of concentrations for each sample instead of including all analytical runs performed on a sample as presented in the Tier CLP-1 package. Therefore, matrix spike and matrix spike duplicate (MS and MSD) runs were not included on this table. Additionally, when dilution runs (DL) (runs conducted when the concentration of a constituent exceeded the instrumentation range on the initial run) and replicate runs (RE) (runs conducted when internal

laboratory standards were exceeded) were performed on a particular sample, only the values which constitute the most accurate concentrations for each constituent in the sample are shown on Tables 5 and 6. Table 5 presents the analytical results for the surface samples in the Production Area and Table 6 presents the analytical results for the subsurface samples in the Production Area. The data has also been summarized with respect to the NJDEPE Soil Action Levels on the following six figures included in Appendix B:

1. surface volatiles (Figure B-1);
2. surface semi-volatiles (Figure B-2);
3. surface inorganics (Figure B-3);
4. subsurface volatiles (Figure B-4);
5. subsurface semi-volatiles (Figure B-5); and
6. subsurface inorganics (Figure B-6).

On each of these figures, each sampling location has been designated as to whether or not the analytical results exceed the NJDEPE Action Level for soils or ground water. Specifically, for each sample which exceeded the NJDEPE Soil Action Level, concentrations are listed for the chemicals of interest (developed in the overview of the EA and presented in Section 6 of this report). A discussion of the concentrations of the chemicals of interest and how these concentrations compare to the site-specific, risk-based Soil Action Levels is also presented in Section 6.

The subsurface figures include all ground-water data, whether the sample exceeds the Action Level or not, as well as data for the

impoundments on-site which was gathered during the Impoundment Characterization Program.

Production Area P-1

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the three surface samples in Area P-1. Chemicals of interest (as defined in the EA and presented in Section 6 of this report) are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	PS-153 (ppm)
Acetone*	5.80
Benzene*	3.80
Tetrachloroethylene*	2.40
Methylene Chloride	0.92

Note: Only one of three samples exceeded NJDEPE Soil Action Levels.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	PS-152 (ppm)	PS-153 (ppm)
Nitrobenzene*	0.26	600
Naphthalene*	5.1	1.0
Fluoranthene*	8.7	1.3
Phenanthrene*	8.5	1.4
Pyrene*	5.2	0.93

Note: Two of three samples exceeded NJDEPE Soil Action Levels.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	PS-152 (ppm)	PS-153 (ppm)	PS-154 (ppm)
Arsenic*	20	23.4	23.3	48.9
Chromium*	100	125	24.4	81.8
Copper	170	335	66.4	167
Zinc*	350	97.1	373	113
Mercury*	1	1.9	0.83	1.9
Nickel*	**100**	**199**	**16.4**	**35.4**

PCBs

The analysis of the three samples indicates that PCB contamination is present in one sample, PS-152, at a concentration of 0.49 ppm.

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the nine subsurface samples in Area P-1. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Benzene*	8	0.002 - 120	21.2	0.014
Ethylbenzene*	4	0.004 - 27	6.8	U
Xylenes*	4	0.011 - 140	35.0	U
Acetone*	5	0.064 - 4.5	1.957	0.064

Note: A "U" indicates that the concentration was below the minimum detection limit.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Nitrobenzene*	5	5.7 - 1,800	507	5.7
Naphthalene*	4	0.13 - 50	14.1	U
Phenanthrene	4	0.24 - 49	13.4	U
Anthracene	3	0.30 - 12	4.1	U

Note: A "U" indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	2.0 - 179	37.4	4.4
Beryllium*	1	0.19 - 4.5	1.11	0.69
Chromium*	100	9.8 - 777	176	37.4
Copper*	170	11.2 - 43,600	5,202	29.9
Nickel*	100	18.1 - 980	240	29.2
Zinc*	350	27.4 - 2,370	518	146

PCBs

The analysis of the nine samples indicates that PCB contamination is present in two samples at the following concentrations:

Compound	PB-18A (ppm)	PB-18B (ppm)
PCB-1254	0.57	1.7

Production Area P-2

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the four surface samples

in Area P-2. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Toluene*	4	0.010 - 2.2	0.905	0.705
Xylenes*	3	0.008 - 180	60.10	0.119
Ethylbenzene*	1	6.1	-	-

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
1,4 Dichlorobenzene*	3	0.039 - 5.0	3.080	2.120
1,2-Dichlorobenzene*	3	0.100 - 24.0	12.70	7.050
Fluoranthene*	4	0.240 - 2.6	1.405	1.390
Pyrene*	4	0.150 - 3.6	1.738	1.600

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Chromium*	100	49.5 - 249	122	95.6
Copper	170	103 - 556	282	234
Mercury*	1	0.42 - 2.9	1.195	0.73
Zinc*	350	227 - 1,910	1,073	1,052

PCBs

The analysis of the four samples indicates that PCB contamination is present in three of the four samples at the following concentrations:

Compound	PS-106 (ppm)	PS-108 (ppm)	PS-109 (ppm)
PCB-1254	1.0	1.1	1.8

In addition to the four surface samples analyzed for the TCL, surface sampling was also conducted around three transformers in this area and were analyzed solely for PCBs. The analysis of the 11 samples indicates that PCB contamination is present at the following concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1254	1	0.41	-	-
PCB-1260	4	0.19 - 0.51	0.363	U

Note: A 'U' indicates that the concentration was below the minimum detection limit.

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the eleven subsurface samples. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Benzene*	4	0.003 - 340	85.3	U
Toluene*	8	0.002 - 3,000	380	0.098
Ethylbenzene*	4	0.003 - 530	133	U
Chlorobenzene*	8	0.012 - 4,000	548	0.110
Xylenes*	4	0.019 - 2,500	638	U
Acetone*	5	0.014 - 7.1	1.46	U
Methylene Chloride*	5	0.004 - 5.2	1.04	U
2-Butanone	1	130	---	---
Trichloroethylene*	1	300	---	---

Note: A "U" indicates that the concentration was below the minimum detection limit.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	Detects	No. of Range (ppm)	Mean (ppm)	Median (ppm)
1,2-Dichlorobenzene*	10	0.012 - 2,200	402	3.4
1,4-Dichlorobenzene*	7	0.110 - 290	60.0	1.0
Nitrobenzene*	5	0.026 - 2,000	422	U
Naphthalene*	7	0.005 - 5.1	1.26	0.044
Phenanthrene	8	0.007 - 6.9	1.48	0.220
1,2,4-Trichlorobenzene*	5	0.016 - 5.6	1.42	U

Note: A "U" indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	PB-9A (ppm)	PB-10A (ppm)	PB-11A (ppm)	PT16-1A (ppm)
Chromium*	100	33.1	30.6	87.8	13.5
Copper*	170	66.8	234	122	22.2
Zinc*	350	113	156	162	1,450

Note: Four of eleven samples exceeded NJDEPE Soil Action Levels.

PCBs

The analysis of the eleven samples indicates that PCB contamination is present in two samples at the following concentrations:

Compound	PB-11A (ppm)	PB-12A (ppm)
PCB-1254	0.20	0.28

Production Area P-3

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the six surface samples in Area P-3. Chemicals of interest are noted with an asterisk (*).

Volatiles

The analysis of the six samples indicates that no TCL volatile contamination is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm. However, the analysis of the samples for TICs indicates that one sample, PS-115, exceeds the Action Level. The following concentrations were detected for the TCL analysis and the TIC analysis.

Sample	Sum of TCL VOAs	Sum of TIC VOAs	Total TCL and TIC VOAs
PS-115	0.52 ppm	12.9 ppm	13.42 ppm

None of the chemicals of interest, which were defined in the EA and presented in Section 6 of this report, were detected in the surface samples at a concentration greater than 1 ppm.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Nitrobenzene*	5	0.079 - 45	10.22	0.310
Naphthalene	6	0.022 - 3.7	0.88	0.143
Phenanthrene	6	0.100 - 39	7.58	0.580
Fluoranthene*	6	0.180 - 120	21.49	1.450
Pyrene*	6	0.140 - 5.2	1.93	1.600
Anthracene*	3	0.097 - 16	5.97	0.049

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Chromium*	100	20.4 - 80.1	46.2	41.8
Mercury	1	0.35 - 25.8	5.6	0.935

PCBs

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1248	1	4.5	---	---
PCB-1254	4	1.7 - 5.1	3.45	2.35

Note: Four of six samples exceeded NJDEPE Soil Action Levels.

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the 21 subsurface samples collected from Area P-3. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The analysis of the 21 samples indicates that TCL volatile contamination is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm in only two samples. However, the analysis of the samples for TICs indicates that two additional samples exceed the Action Level. The following concentrations were detected for the TCL analysis and the TIC analysis of the four samples.

Sample	Sum of TCL VOAs	Sum of TIC VOAs	Total TCL and TIC VOAs
PT17-1A	1.320	U	1.32
PT-14B	1.790	3.50	5.29
PT17-3A	0.121	11.03	11.15
PB-13C	0.460	152	152.50

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
1,4-Dichlorobenzene*	11	0.027 - 8.4	1.283	0.027
1,2-Dichlorobenzene*	13	0.030 - 21	3.616	0.081
Nitrobenzene*	7	0.240 - 20	4.89	U
Naphthalene*	13	0.048 - 19	1.717	0.084
1,2,4-Trichlorobenzene*	6	0.045 - 42	11.7	U

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Chromium*	100	7.1 - 89.1	29.9	24.2
Copper*	170	8.7 - 2,080	126	23.1
Nickel*	100	6.0 - 2,010	114	17.6

PCBs

The analysis of the 21 samples indicates that PCB contamination is present in only one sample, PBMW-18A, at a concentration of 0.64 ppm.

Production Area P-4

1. Surface Samples

The following is a summary of the results from the analytical testing of the four surface samples in Area P-4. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The analysis of the four samples indicates that no volatile contamination, including TICs, is present at a concentration greater than the NJDEPE Soil Action Level of 1 ppm.

Semi-volatile

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Naphthalene	4	0.19 - 4.7	1.465	0.485
Phenanthrene	3	0.39 - 6.9	2.697	0.595
Fluoranthene*	3	0.77 - 8.1	3.323	0.935
Pyrene*	3	0.69 - 6.4	2.630	0.745

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Chromium*	100	26.5 - 134	80.20	80.10
Mercury*	1	1.7 - 4.7	2.68	2.15
Zinc*	350	120 - 1,830	628	280

PCBs

The analysis of the four samples indicates that PCB contamination is present in the following concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1254	4	0.35 - 1.4	0.98	1.085

2. Subsurface Samples

The following is a summary of the results from the analytical testing of the eleven subsurface samples in Area P-4. Chemicals of interest are noted below by an asterisks (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Acetone*	9	0.004 - 600	69.4	0.038
Benzene*	8	0.002 - 16,000	2,015	0.110
Toluene*	6	0.023 - 17,000	2,867	0.023
Chlorobenzene*	4	1.1 - 250,000	62,531	U
Xylenes*	2	0.011 - 3.0	1.50	U
Carbon Disulfide*	2	0.006 - 35	17.5	U
Chloroform*	1	27	-	-

Note: A "U" indicates that the concentration was below the minimum detection limit.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Nitrobenzene*	5	0.041 - 290	59.2	U
Naphthalene*	9	0.180 - 450	55.0	1.600
2-Methylnaphthalene	8	0.100 - 320	43.3	0.250
Dibenzofuran	8	0.018 - 36	9.0	0.023
Phenanthrene	8	0.038 - 30	7.4	0.370
1,4-Dichlorobenzene*	3	0.017 - 9.2	3.3	U

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Chromium*	100	9.1 - 181	60.0	37.8
Mercury	1	0.1 - 10.1	1.41	0.35
Zinc	350	35.6 - 1,010	189	80.2
Lead	250 - 1,000	7.8 - 821	100	23.0
Beryllium	1	0.18 - 3.0	1.07	0.80

Note: Three of eleven samples exceeded NJDEPE Soils Action Level[3].

PCBs

The following compound was detected at the indicated concentrations:

Compound	PB-45B (ppm)	PB-45C (ppm)	PB-46A (ppm)	PB-46B (ppm)
PCB-1254	0.20	1.00	0.82	1.10

Note: Four of eleven samples exceeded the NJDEPE Soil Action Level.

Production Area P-5

1. Surface Samples

The following is a summary of the results from the analytical testing of the four surface samples in Area P-5.

Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Toluene*	3	0.009 - 1.7	0.58	0.020
Xylenes*	2	0.013 - 4.0	2.01	0.007
Chlorobenzene*	2	0.920 - 1.1	1.01	0.460

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Phenanthrene	4	0.032 - 12	6.04	6.06
Naphthalene*	4	0.036 - 6.0	2.97	2.92
Dibenzofuran	3	0.030 - 11	4.58	1.37
Fluoranthene*	4	0.075 - 12	4.34	2.64
Pyrene*	4	0.056 - 10	3.56	2.30
Acenaphthene	3	0.017 - 2.7	1.61	1.06
Anthracene	2	2.1 - 4.1	3.10	1.05

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Copper	170	50.7 - 267	158	157
Mercury*	1	0.35 - 8.5	3.51	2.6
Nickel*	100	24.5 - 111	53.1	38.5
Zinc*	350	68.4 - 528	263	228

PCBs

The analysis of the four samples indicates that PCB contamination is present at the following concentrations:

Compound	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1254	0.19 - 16	6.27	4.45

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the 14 subsurface samples in Area P-5. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Methylene Chloride*	11	0.004 - 27	2.60	0.007
Toluene*	8	0.004 - 11	2.02	0.005
Chlorobenzene*	10	0.006 - 520	62.40	0.106
Xylenes*	6	0.045 - 5.6	2.96	U
Acetone*	8	0.006 - 53	6.80	0.008
Benzene*	7	0.002 - 3.6	0.97	0.001
Chloroform*	1	1.2	-	-

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Median (ppm)	Compound	No. of Detects	Range (ppm)	Mean (ppm)
Bis(2-ethylhexyl) phthalate*	8	0.170 - 12	2.71	0.250
Naphthalene*	13	0.006 - 530	72.8	0.256
Fluoranthene	8	0.060 - 7.8	2.31	0.145
Pyrene	8	0.086 - 5.9	1.75	0.138
Nitrobenzene*	4	0.078 - 360	99.1	U
2-Methylnaphthalene*	6	0.056 - 310	99.9	U

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	PB-33A (ppm)	PB-50A (ppm)
Chromium*	100	81.1	59.7
Mercury	1	10.8	4.9

Note: Two of 14 samples exceeded NJDEPE Soil Action Levels.

PCBs

The following compound was detected at the indicated concentrations:

Compound	PB-33A (ppm)	PB-50A (ppm)	PT25-1A (ppm)	PT26-1B (ppm)
PCB-1254	17.0	0.62	0.30	0.37

Note: Four of 14 samples exceeded NJDEPE Soil Action Levels.

Production Area P-6

1. Surface Samples

The following is a summary of the results from the analytical testing of the three surface samples in Area P-6. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The analysis of the three samples indicates that no volatile contamination, including TICs, is present at a concentration greater than the NJDEPE Soil Action Level of 1 ppm.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Phenanthene	3	0.35 - 21	7.34	0.68
Fluoranthene*	3	0.66 - 55	18.80	0.70
Pyrene*	3	0.20 - 53	18.10	1.10
Benzo(a) Anthracene	3	0.31 - 40	13.60	0.43
Chrysene	3	0.25 - 34	11.60	0.49
Anthracene*	2	0.14 - 7.6	3.87	0.14

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	4.7 - 35.4	22.4	27.0
Mercury*	1	1.3 - 15	5.9	1.3
Zinc*	350	199 - 1,072	548	372.0

PCBs

The following compounds were detected at the indicated concentrations:

Compound	PS-118 (ppm)	PS-120 (ppm)
PCB-1254	0.42	4.5

Note: Two of three samples exceeded NJDEPE Soil Action Levels.

In addition to the three surface samples analyzed for the TCL, surface sampling was also conducted around a transformer in this area and the samples were analyzed solely for PCBs.

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1248	2	2.0 - 7.6	4.8	2.0
PCB-1260	2	0.59 - 2.8	1.7	0.59

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the ten subsurface samples in Area P-6. Compounds of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Ethylbenzene*	4	0.002 - 19	5.08	U
Acetone*	8	0.024 - 6.2	2.00	0.037
Methylene Chloride*	10	0.005 - 19	3.56	0.136
Chlorobenzene*	3	0.540 - 2.0	1.28	U

Note: A "U" indicates that the concentration was below the minimum detection limit.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Naphthalene*	8	0.064 - 6,000	894.0	44.10
2-Methylnaphthalene*	7	1.6 - 3,200	494.0	4.75
Fluorene	7	0.21 - 280	44.0	1.31
Phenanthrene	8	0.041 - 600	79.2	1.90
Fluoranthene	7	0.055 - 69	11.1	0.33

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	0.98 - 38.2	9.1	2.3
Zinc*	350	33.6 - 438	126	66.1

PCBs

The analysis of the ten samples indicates that PCB contamination is present in one sample, PB-31B, at a concentration of 0.2 ppm.

Production Area P-7

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the two surface samples in Area P-7. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The analysis of the two samples indicates that no TCL volatile contamination is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm. However, the TIC analysis indicates that one of the samples, PS-130, has total volatile contamination greater than the action level as follows:

Sample	Sum of TCL VOAs	Sum of TIC VOAs	Total TCL & TIC VOAs
PS-130	0.271 ppm	0.901 ppm	1.172 ppm

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	PS-130 (ppm)
Phenanthrene	6.7
Pyrene	3.4
Bis (2-ethylhexyl) phthalate	4.9

Note: One of two samples exceeded NJDEPE Soil Action Levels.

Inorganics

The analysis of the two samples indicates that no inorganic contamination is present at concentrations greater than the NJDEPE Soil Action Level for the individual constituents.

PCBs

The analysis of the two samples indicates that no PCB contamination is present at concentrations greater than the minimum detection limit for those samples.

In addition to the two surface samples analyzed for the TCL, surface sampling was also conducted around a transformer in this area and the samples were analyzed solely for PCBs. The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1248	2	0.33 - 0.68	0.51	0.17
PCB-1254	2	0.41 - 0.48	0.45	0.21

2. Subsurface Samples

The following is a summary of the results from the analytical testing performed on the five subsurface samples in Area P-7. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	PB-42B (ppm)	PB-42C (ppm)
Methylene Chloride	2.20	0.009
Acetone	1.60	1.400
2-Butanone	0.51	U
Xylenes	0.13	U

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Two of 5 samples exceeded NJDEPE Soil Action Levels.

It should be noted that methylene chloride and acetone were both found in the laboratory blank at comparable concentrations to sample PB-42B.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	PB-42A (ppm)	PB-42B (ppm)	PB-42C (ppm)
Phenanthrene	6.2	5.2	3.4
2-Methylnaphthalene*	U	5.0	6.9
Bis (2-ethylhexyl) phthalate*	U	U	77.0
Di-n-octyl phthalate	U	U	76.0
Total BNA TICs	562	466	1,212

Note: Two of five samples exceeded NJDEPE Soil Action Levels. However, results from the TIC analysis indicate that a third sample contains semi-volatile contamination greater than the action level.

A 'U' indicates that the concentrations was below the minimum detection limit.

Inorganics

The analysis of the five samples indicates that no inorganic contamination is present at concentrations greater than the NJDEPE Soil Action Level for individual constituents.

PCBs

The analysis of the five samples indicates that no PCB contamination is present at concentrations greater than the minimum detection limit for those samples.

Production Area P-8

The following is a summary of the results from the analytical testing conducted on the three samples in Area P-8. Chemicals of interest are noted with an asterisk (*).

Volatiles

The analysis of the three samples indicates that no volatile contamination, including TICs, is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	PS-132 (ppm)	PB-47A (ppm)	PB-47B (ppm)
Nitrobenzene	0.079	2.8	U
4-Methylphenol	U	4.9	U
2-Methylnaphthalene	2.6	0.13	U
Total BNA TICs	34.5	51.2	9.4

Note: One of three samples exceeded the NJDEPE Soil Action Level. However, results from the TIC analysis indicate that a second sample exceeds the action levels.

A "U" indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	PS-132 (ppm)	PB-47A (ppm)	PB-47B (ppm)
Lead	250 - 1,000	92.3	448	36.9
Mercury	1	0.68	10.3	0.11
Zinc*	350	427	39.2	2.3

PCBs

The analysis of the three samples indicates that no PCB contamination is present at concentrations greater than the minimum detection limit for those samples.

Production Area P-9

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the six surface samples in Area P-9. Chemicals of interest are noted with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	PS-60 (ppm)	PS-146 (ppm)
Toluene*	580	2.70
Ethylbenzene*	63	0.47
Xylenes*	1,400	2.00

Note: Two of six samples exceeded NJDEPE Soil Action Levels.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Naphthalene*	6	0.130 - 44	11.1	0.200
2-Methylnaphthalene	6	0.033 - 40	8.9	0.097
Acenaphthene*	5	0.039 - 57	14.8	0.082
Dibenzofuran	6	0.022 - 46	9.5	0.071
Fluorene*	6	0.047 - 38	7.9	0.165
Anthracene*	4	0.150 - 9.3	3.5	0.245
Fluoranthene*	6	0.320 - 6.8	2.1	1.250

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Chromium*	100	25.9 - 169	63.1	37.7
Copper	170	22 - 350	117	73.2
Zinc*	350	44.5 - 607	195	109
Mercury*	1	0.62 - 4.8	1.88	1.2

PCBs

The following compound was detected at the indicated concentration:

Compound	PS-146 (ppm)	PS-147 (ppm)	PS-148 (ppm)	PS-150 (ppm)
PCB-1254	0.56	2.1	3.1	0.40

In addition to the six surface samples analyzed for the TCL, surface sampling was also conducted around a transformer

in this area and the samples were analyzed solely for PCBs. The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1248	2	2.8 - 4.9	3.85	2.8
PCB-1254	3	0.62 - 5.5	2.28	0.72

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the 24 subsurface samples in Area P-9. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Benzene*	15	0.003 - 160	24.3	0.005
Toluene*	21	0.010 - 1,200	69.3	0.265
Ethylbenzene*	15	0.003 - 120	17.6	0.171
Xylenes*	18	0.003 - 1,900	173	0.515
Acetone*	10	0.013 - 24	3.23	U
Chlorobenzene*	10	0.023 - 27	5.28	U
Carbon Disulfide*	2	0.001 - 1.7	0.85	U
Methylene Chloride*	15	0.006 - 28	3.05	0.006

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Naphthalene*	21	0.020 - 4,900	490	3.65
2-Methylnaphthalene	21	0.008 - 760	72.2	1.95
Fluorene	13	0.012 - 200	41.3	0.081
Phenanthrene	19	0.012 - 190	22.9	0.885
Nitrobenzene*	5	0.010 - 120	31.3	U
1,2-Dichlorobenzene*	6	0.010 - 47	8.0	U

Note: A "U" indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Chromium*	100	13.7 - 2,070	144	27.5
Copper*	170	7.5 - 274	56.4	24.4
Mercury	1	0.1 - 128	6.9	0.13
Nickel*	100	13.4 - 178	29.1	20.4
Zinc*	350	34.2 - 441	113	85.9

PCBs

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)
PCB-1248	3	0.16 - 1.1	0.48
PCB-1254	5	0.22 - 2.0	0.61

Note: Seven of 24 samples exceeded NJDEPE Soil Action Levels.

Production Area P-10

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the four surface samples in Area

P-10. Chemicals of interest are noted below using an asterisk (*).

Volatiles

The analysis of the four samples indicates that no volatile contamination, including TICs, is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Nitrobenzene*	4	0.180 - 340	85.6	1.09
Naphthalene*	4	0.430 - 240	61.1	1.97
2-Methylnaphthalene	4	0.110 - 150	37.7	0.32
Dibenzofuran	4	0.063 - 39	9.88	0.22
Fluoranthene*	4	0.720 - 18	5.81	2.25
Acenaphthene*	4	0.042 - 16	4.11	0.21
Fluorene*	4	0.032 - 8.0	2.14	0.26
Pyrene*	4	0.780 - 5.9	2.22	1.10

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Chromium*	100	28.8 - 369	202	206
Copper	170	87.8 - 625	400	444

PCBs

The analysis of the four samples indicates that no PCB contamination is present at concentrations greater than the minimum detection limit for these samples.

In addition to the four surface samples analyzed for the TCL, surface sampling was also conducted around a transformer in this area and the samples were analyzed solely for PCBs. The analysis of the three samples indicates that PCB contamination is present at the following concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1254	2	0.24 - 0.85	0.55	0.24

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the nine subsurface samples taken in Area P-10. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The analysis of the nine samples indicates that no volatile contamination, including TICs, is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm.

Semi-volatiles

The analysis of the nine samples indicates that no TCL semi-volatile contamination is present at concentrations greater than the NJDEPE Soil Action Level of 10 ppm. Results from the TCL analysis indicate that three of the nine samples contain TIC semi-volatile contamination at concentrations greater than the Action Level. The concentrations of the total TCL

contamination and the total TIC contamination for these three samples are as follows:

Sample	Sum of TCL BNAs (ppm)	Sum of TIC BNAs (ppm)	Total TCL & TIC BNAs (ppm)
PB-44A	8.91	67.20	76.11
PB-51A	0.37	57.05	57.42
PBMW-30A	0.27	47.11	47.38

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	PB-48A (ppm)	PB-51A (ppm)
Chromium*	100	18,800	47.2
Copper*	170	1,720	1,170

Note: Two of nine samples exceeded NJDEPE Soil Action Levels.

PCBs

The analysis of the nine samples indicates that no PCB contamination is present at concentrations greater than the minimum detection limit for these samples.

Production Area P-11

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the eight surface samples in Area P-11. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The analysis of the eight samples indicates that no volatile contamination, including TICs, is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm.

Semi-volatiles

The following compounds were detected at the indicated concentration:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Phenanthrene	8	0.150 - 240	31.7	1.23
Anthracene*	5	0.120 - 95	19.6	0.12
Fluoranthene*	6	0.260 - 210	38.8	0.76
Pyrene*	7	0.290 - 140	23.0	0.97
Benzo(a) Anthracene	7	0.190 - 76	12.2	0.69
Acenaphthene*	4	0.014 - 35	8.97	0.01
Fluorene*	4	0.075 - 46	11.7	0.04
Naphthalene*	8	0.038 - 34	4.75	0.18

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	PS-122 (ppm)	PB-128 (ppm)	PS-151 (ppm)
Copper	170	241	292	39.6
Mercury*	1	4.7	1.5	12.0
Zinc	350	680	184	60.3

Note: Three of eight samples exceeded NJDEPE Soil Action Levels.

PCBs

The analysis of the eight samples indicates that two of the samples contain PCB contamination in the following concentrations:

Compound	PS-121 (ppm)	PS-128 (ppm)
PCB-1254	3.2	0.71

In addition to the eight surface samples analyzed for the TCL, surface sampling was also conducted around one transformer in this area and the samples were analyzed solely for PCBs. The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1248	3	950 - 2,500	1,650	1,500
PCB-1254	1	120	-	-
PCB-1260	2	210 - 390	300	210

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the 31 subsurface samples in Area P-11. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	PB-17A (ppm)	PB-25A (ppm)	PBMW-26B (ppm)	PT27-4A (ppm)	PT30-1A (ppm)
Acetone*	1.5	1.0	U	6.4	13.0
Benzene	U	U	U	45	U
Ethylbenzene*	U	0.2	U	940	74
Toluene*	U	U	U	270	3.8
Xylenes*	U	0.13	U	72	400
Sum of TCLs	1.74	2.0	U	1,344	491
Sum of TICs	U	32.0	34.8	17	3,500
Total VOAs	1.74	34.0	34.8	1,351	3,991

Note: A "U" indicates that the concentration was below the minimum detection limit.

Four of 31 samples exceeded NJDEPE Soil Action Levels. However, results from the TIC analysis indicate that one additional sample exceeded the action level.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Median (ppm)	Compound	No. of Detects	Range (ppm)	Mean (ppm)
Naphthalene*	17	0.013 - 310	21.5	0.022
Phenanthrene	18	0.010 - 64	5.82	0.014
2-Methylnaphthalene*	12	0.009 - 19	4.12	U
Bis(2-ethylhexyl)phthalate*	23	0.037 - 8.2	1.66	0.190
1,2-Dichlorobenzene*	7	0.014 - 19	2.82	U

Note: A "U" indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	0.82 - 97.1	13.7	3.7
Chromium*	100	1.9 - 804	113	26.5
Copper*	170	1.8 - 2,720	252	26.9
Nickel*	100	1.0 - 1,260	115	21.5
Zinc*	350	3.8 - 11,800	730	61.1

PCBs

The following compounds were detected at the indicated concentrations:

Compound	PB-26A (ppm)	PT27-1A (ppm)	PT27-2A (ppm)	PT27-3A (ppm)
PCB-1254	0.29	0.79	0.63	0.937

Note: Four of 31 samples exceeded NJDEPE Soil Action Levels.

5.3 West Yard

5.3.1 Use History Overview

The West Yard (Figure 4), approximately 80 acres in size, has been used for various activities ranging from equipment storage to waste disposal. A site history review revealed that distinct areas of the West Yard were used for discrete purposes. As delineated in the Soils RI Work Plan, some areas were used extensively for the disposal of plant wastes; some for storage of coal, drummed material or drummed waste; and some for disposal of plant debris or chemical waste. The West Yard has the potential to contain soil contamination. A detailed discussion of the use history of the West Yard and the historical aerial photographic review is included within the Soils RI Work Plan submitted to the NJDEPE in January 1989 and revised in June 1989, in conformance with requirements of NJDEPE's conditional approval letter of May 17, 1989.

5.3.2 Sampling and Analysis

The physical and chemical characterizations of the soils in the West Yard were developed through the work efforts completed from July through November 1989. These work efforts are summarized in Section 3.1 of this report and sampling locations are shown on Figures 8 (surface samples) and 9 (subsurface samples). Additionally, the work efforts performed in each sub-area are summarized below.

Area	No. of Surface Soil Samples	No. of Subsurface Samples	No. of Soil Borings	No. Of Trenches	No. Of Monitoring Wells
W-1	7	13	0	5	2
W-2	15	10	0	5	3
W-3	10	20	0	5	1
W-4	19	18	0	6	3
W-5	19	12	0	3	1
W-6	16	21	2	8	2

Note: Trenches were completed during Phase 1 and Phase 2 of the investigation. Also, several trenches extend through two sub-areas (e.g. WT-39 is in both W-1 and W-2, WT-33 is in W-3, W-4, WT-34 is in both W-4 and W-6). Trench logs (Appendix A-1), boring logs (Appendix A-2), sample summaries (Appendix A-3), and monitoring well boring logs (Appendix A-4) provide a description of the materials encountered during these work efforts.

Specifically, 86 surface samples, 4 discrete samples taken from 2 borings, 77 discrete samples taken from 18 trenches, and 15 discrete samples taken from 11 borings during the installation of monitoring wells were analyzed for the modified TCL and for Tentatively Identified Compounds (TICs).

Samples were not analyzed for dioxin because the NJDEP's sampling and analysis program conducted in June of 1983 indicated that dioxin (TCDD) was not present at the site. The NJDEPE's sampling and analysis program confirmed Cyanamid's historical records which indicated that no dioxins were ever produced or disposed of at the site.

Historical records of Cyanamid's Bound Brook facility also indicate that no pesticides/herbicides were produced or disposed at the site. Additionally, Cyanamid provided the NJDEPE with letters certifying that pesticides/herbicides were not produced at Cyanamid's Bound Brook plant (Attachment 2). Therefore, soil samples were not analyzed for pesticides/herbicides either.

The results of the TCL analysis are presented in the subsequent portions of this section. The data presented herein is comprised of those constituents which were detected most frequently or in the highest concentrations. Within each of the sub-areas, the results of the TCL analysis are presented first for surface samples and then for subsurface samples. For both the surface and the subsurface samples, data is provided for volatile, semi-volatile, inorganic, and PCB analyses. The data for these analyses is also presented as ranges, means, and medians of constituents detected in the area of interest. The range represents the minimum and maximum detected concentrations of a constituent within the area of interest. The mean is the average of only those samples for which the constituent was detected. The median is the concentration at which half of the samples have a greater concentration and half of the samples have a lesser concentration. The median is calculated using results of the analyses for all of the samples (detected as well as undetected).

A draft Endangerment Assessment (EA) was completed for the Bound Brook site based on existing information and information developed from the Soils RI Program. This draft EA was submitted to the NJDEPE and USEPA as a separate document to this report. During the development of this draft EA, certain chemicals of interest were identified based on the observed concentrations of the chemicals, the chemicals' toxicity, and potential exposure pathways. (An overview of the draft EA, which presents the development of the chemicals of interest, is included in Section 6 of this report.) In presenting the results of the analytical work efforts in Section 5.3.3 below, particular emphasis is placed on

presenting the analytical results for the chemicals of interest because the overall site remediation will be driven by the concentrations of the chemicals of interest and how they compare to the site-specific, risk-based Soil Action Levels presented in the draft EA and highlighted in Section 6 of this report.

5.3.3 Results

The physical and analytical characterizations of each of the six sub-areas, as identified in the Soils RI Work Plan, are presented below. Because of the large volume of data generated during this program, it would be impractical to discuss the data in its entirety. Therefore, the data is presented herein in a summarized fashion, based upon samples which exceed the NJDEPE Soil Action Levels. It should be noted that these Action Levels are not promulgated regulatory standards, but rather are concentrations which, when exceeded, suggest a need for further study. For this reason, these Action Levels are being used solely for comparative purposes. Data for all sample locations can be found in the complete Tier CLP-1 data packages (submitted under separate cover to the NJDEPE) as well as in the database tables included as Tables 7 and 8 which present a summary of only those constituents which were detected. The database tables (Tables 7 and 8) include only one set of concentrations for each sample rather than including all analytical runs performed on a sample as presented in the Tier CLP-1 package. Therefore, matrix spike and matrix spike duplicate (MS and MSD) runs were not included on this table. Additionally, when dilution runs (DL) (runs conducted when the concentration of a constituent exceeded the instrumentation range on the initial run) and replicate runs (RE) (runs

conducted when internal laboratory standards were exceeded) were performed on a particular sample, only the values which constitute the most accurate concentrations for each constituent in the sample are shown on Tables 7 and 8. Table 7 presents the analytical results for the surface samples in the West Yard and Table 8 presents the analytical results for the subsurface samples in the West Yard. The data has also been summarized with respect to the NJDEPE Soil Action Levels on the following six figures included in Appendix B:

1. surface volatiles (Figure B-1);
2. surface semi-volatiles (Figure B-2);
3. surface inorganics (Figure B-3);
4. subsurface volatiles (Figure B-4);
5. subsurface semi-volatiles (Figure B-5); and
6. subsurface inorganics (Figure B-6).

On each of these figures, each sampling location has been designated as to whether or not the analytical results exceed the NJDEPE Action Level for soils or ground water. Specifically, for each sample which exceeded the Action Level, concentrations are listed for the chemicals of interest which are developed in the overview of the draft EA and presented in Section 6 of this report. A discussion of the concentrations of the chemicals of interest and how these concentrations compare to the site-specific, risk-based Soil Action Levels is also presented in Section 6.

The subsurface figures include all ground-water data, whether the sample exceeds the Action Level or not, as well as data for the impoundments on-site which was gathered during the Impoundment Characterization Program.

West Yard Area W-1

Area W-1 was identified in the Soils RI Work Plan as a disposal area for plant debris as well as being a potential recipient of both chemical and tar waste. The subsurface sampling activities, consisting almost entirely of trenches, were performed to confirm that the area was used for disposal purposes and to delineate the extent of such disposal.

As can be seen from the information presented in the Appendices, the majority of the material in Area W-1 consisted of soil mixed with large portions of construction and/or general plant debris. This debris consisted of pipe, timbers, drum remnants, jars, metal, concrete, fabric, and other objects in various amounts. Small pockets of black sludge and hard black tar were also identified in the area. The general composition of this area consisted of approximately two or three feet of black and brown silt, sand, and gravel at the surface with six to eight feet of soil mixed with debris underneath. Native soil was encountered at ten to twelve feet below the surface. The water table was generally found from four to six feet below the surface.

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the seven surface samples in Area W-1. Chemicals of interest are noted below with an asterisk (*).

Volatiles

Six of the seven samples analyzed indicate that no volatile contamination, including TICs, is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm. However, one sample (WS-69) showed volatile contamination over 100 times the NJDEPE Soil Action Level. Compounds which were detected in this sample and the concentrations of these compounds include, but may not be limited to:

Compound	WS-69 (ppm)
Toluene*	110.0
Chlorobenzene*	130.0
Acetone*	7.6
Ethylbenzene*	3.0
Xylenes*	3.3

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
1,2-Dichlorobenzene*	5	0.800 - 58	15.22	2.6
Nitrobenzene*	6	1.100 - 46	15.50	9.0
Naphthalene*	7	0.990 - 260	71.66	41.0
N-Nitrosodiphenylamine	7	0.910 - 110	35.57	21.0
1,2,4-Trichlorobenzene*	4	0.110 - 12	5.14	0.11

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	0.550 - 37.8	13.85	16.2
Chromium*	100	13.80 - 478	186	94.2
Copper	170	101 - 5,750	1,335	500
Zinc*	350	50.9 - 3,060	1,170	926
Mercury*	1	0.62 - 29.6	7.46	2.5
Nickel*	100	17.4 - 398	112	68

PCBs

The analysis of the seven samples indicates that PCB contamination is present in one sample, WS-70, at a concentration of 1.3 ppm for both PCB-1248 and PCB-1254.

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the thirteen subsurface samples in Area W-1. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Benzene*	12	0.033 - 22	5.55	2.00
Toluene*	11	0.003 - 21	3.41	0.33
Xylenes*	9	0.003 - 40	10.99	1.00
Chlorobenzene*	11	0.029 - 210	29.60	3.40
Methylene Chloride*	10	0.006 - 4.7	0.97	0.17
Ethylbenzene*	7	0.250 - 23	4.76	0.25

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Nitrobenzene*	3	15 - 580	258	U
Naphthalene*	13	0.350 - 2,700	749	37
N-Nitrosodiphenylamine	9	0.650 - 370	82.4	6.7
1,2-Dichlorobenzene*	7	0.061 - 270	83.9	0.06
4-Chloroaniline*	7	0.41 - 120	23.3	0.041
2-Methylnaphthalene*	9	0.120 - 300	49.1	1.3
1,4-Dichlorobenzene*	4	1.8 - 32	11.2	U

Note: A 'U' indicates that the concentration was below the minimum detection limit. 1,1,4-trichlorobenzene (single detect at 99 ppm in WT-1-7A).

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	0.51 - 57.3	17.3	8.0
Chromium*	100	24.9 - 1,980	471	90.6
Copper	170	12.3 - 40,600	5,133	408
Mercury	1	0.1 - 65.4	9.6	3.3
Nickel*	100	17.4 - 3,620	534	77.1
Zinc*	350	50.2 - 28,000	4,722	1,860

PCBs

The analysis of the thirteen samples indicates that PCB contamination is present in only one sample, WT1-4A, at concentrations of 0.72 ppm for PCB-1248 and 0.38 ppm for PCB-1254.

West Yard Area W-2

Area W-2 was identified in the Soils RI Work Plan as a disposal area for plant debris as well as being a potential recipient of chemical waste. Minor drum and equipment storage as well as storage of waste materials from the methyl violet process have also taken place in this area. The subsurface sampling activities, consisting of trenches and borings taken during the installation of monitoring wells, were performed to confirm that this area was used for disposal purposes and to delineate the vertical and horizontal extent of such disposal.

As can be seen from the information in trench logs WT-3, WT-41, and the first test pit in WT-40, the majority of the material in Area W-2 consists of purple, green, and blue dye sludge and other by-products of the methyl violet waste. Information from trench logs WT-39 and WT-40 indicates that a small pocket of construction and/or general plant debris exists on the western edge of Area W-2. This debris consisted of pipe, timbers, drum remnants, jars, metal, concrete, and fabric, as well as pockets of hard black tar. The general composition of the dye sludge area consists of various amounts of purple dye sludge, between six inches and twelve feet at the surface, with either sand, silt, and gravel or native clay underneath. The disposal area generally consisted of between three and four feet of brown sand and silt with between five and six feet of soil mixed with debris underneath. Native soil was normally encountered at ten or more feet while the water table was found at varying depths throughout the area.

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the 15 surface samples in Area W-2. Chemicals of interest are noted below using an asterisk (*).

Volatiles

The analysis of the 15 samples indicates that no volatile contamination, including TICs, is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Naphthalene	14	0.071-290	43.16	1.5
Nitrobenzene*	11	0.040-85	14.00	0.059
1,2,4-Trichlorobenzene*	9	0.035-12	4.39	0.071
N-Nitrosodiphenylamine	12	0.140-110	17.75	0.700
Phenanthrene*	13	0.070-13	4.31	2.2
1,2-Dichlorobenzene*	14	0.046-10	1.87	0.210
Fluoranthene*	14	0.060-13	2.92	1.7
Pyrene*	13	0.048-21	6.00	3.0
Acenaphthene*	10	0.079-13	2.94	0.120

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	3.1 - 26.2	11.3	12.6
Chromium*	100	79 - 128,000	10,997	1,660
Copper	170	49.3 - 14,600	3,173	1,680
Zinc*	350	64 - 50,100	5,631	1,350
Mercury*	1	0.39 - 23.9	5.13	1.4
Nickel*	100	15.6 - 501	107	41.9

PCBs

The following compounds were detected at the indicated concentrations:

Sample	PCB-1248(ppm)	PCB-1254(ppm)
WS-79	2.90	0.98
WS-80	0.31	2.60
WS-86	9.60	U

Note: A 'U' indicates that the concentration was below the minimum detection limit. Three of 15 samples exceeded NJDEPE Soil Action Levels.

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the ten subsurface samples in Area W-2. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	WT4-1A(ppm)	WT4-5A(ppm)
Benzene*	0.49	220
Ethylbenzene*	1.70	170
Chlorobenzene*	3.20	740
Toluene*	2.20	610
Xylenes*	14.00	1,290
Methylene Chloride*	0.73	4.8

Note: Two of 14 samples exceeded NJDEPE Soil Action Levels. However, results from the TIC analysis indicated that a third sample exceeded an action level.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Nitrobenzene*	5	0.045 - 40	8.35	U
Naphthalene*	13	0.019 - 2,800	259	3.2
2-Methylnaphthalene*	10	0.100 - 300	37.4	0.30
Acenaphthalene	10	0.032 - 76	12.2	0.12
Fluorene	10	0.027 - 56	9.9	0.11
Fluoranthene	9	0.059 - 98	14.1	0.31
1,2-Dichlorobenzene*	6	0.071 - 21	3.84	U
4-Chloroaniline*	3	0.056 - 45	15.1	U
Bis(2-ethylhexyl)phthalate*	8	0.130 - 7.9	1.87	0.065

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Chromium*	100	21.4 - 216,000	26,301	175.9
Copper*	170	13.4 - 13,000	1,713	359.5
Nickel*	100	18.0 - 263	73.8	36.9
Zinc*	350	52.8 - 38,000	3,040	289
Arsenic*	20	2.0 - 28.1	9.99	7.2
Mercury	1	0.1 - 8.5	1.32	0.59

PCBs

The analysis of the 14 samples indicates that PCB contamination is present in only one sample, WBMW-6A, at a concentration of 1.6 ppm for PCB-1248 and a concentration of 6.4 ppm for PCB-1254.

West Yard Area W-3

Area W-3 was identified in the Soils RI Work Plan as being a drum storage area north of Eighth Street and as being an equipment storage area south of Eighth Street. There is also some evidence that waste disposal occurred in this area. The subsurface sampling activities, consisting almost entirely of trenches, were performed to confirm that the area was used predominantly for storage and to locate any waste that may have been disposed.

As can be seen from this information, the majority of the area consisted of a soil/fill approximately five feet deep with minimal traces of construction debris (WT-5, WT-6, east end of WT-7). In a small section at the western end of Area W-3, debris was located which consists of wood, brick, metal, and isolated pockets of purple sludge and black tar (WT-31 and west end of WT-7). The fill/debris encountered in this portion of W-3 is approximately five feet deep, where native soil was then encountered.

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the 10 surface samples in Area

W-3. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The analysis of the ten samples including TIC analysis, indicates that no volatile contamination, is present at a concentration greater than the NJDEPE Soil Action Level of 1 ppm.

Semi-volatiles

The following compounds were determined at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
1,2,4-Trichlorobenzene*	5	0.011-10	2.141	0.006
Naphthalene*	10	0.015-16	2.656	0.320
Phenanthrene	8	0.170-4.1	1.766	0.675
Fluoranthene	10	0.034-3.8	1.609	1.400
Pyrene*	9	0.026-7.7	2.250	0.910
Benzo (b) fluoranthene	8	0.460-4.9	2.420	1.700

Inorganics

The following compounds were determined at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	6.1 - 104	25.3	15.2
Chromium*	100	51.9 - 1,780	417	172
Copper	170	45.3 - 22,500	3,344	510
Zinc*	350	70.1 - 662	313	241
Mercury*	1	0.21 - 4.5	166	0.53

PCBs

The following samples were detected at the indicated concentrations:

Compound	WS-53(ppm)	WS-64(ppm)	WS-65(ppm)	WS-66(ppm)	WS-67(ppm)
PCB-1248	U	U	0.41	18.0	0.26
PCB-1254	U	3.5	0.38	6.9	U
PCB-1260	0.46	U	U	U	U

Note: A 'U' indicates that the concentration was below the minimum detection limit. Five of ten samples exceeded NJDEPE Soil Action Levels.

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the 20 subsurface samples in Area W-3. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	WBMW-8A(ppm)	WT6-5A(ppm)	WT7-4A(ppm)	WT31-3A(ppm)
Benzene*	5.80	0.26	U	200
Toluene*	0.48	U	U	57
Xylenes*	1.60	0.38	0.46	89
Chlorobenzene*	0.35	14.00	28.00	3.8
Ethylbenzene*	0.28	0.25	0.64	10

Note: A 'U' indicates that the concentration was below the minimum detection limit. Four of 20 samples exceeded NJDEPE Soil Action Levels.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
1,2-Dichlorobenzene*	10	0.013 - 72	11.2	0.007
Naphthalene*	19	0.010 - 1,500	101	0.850
2-Methylnaphthalene*	14	0.016 - 14	2.2	0.034
Fluorene	10	0.010 - 80	10.1	0.005
Fluoranthene	17	0.005 - 3.3	1.1	0.320
Bis(2-ethylhexyl)phthalate*	17	0.067 - 9.4	0.71	0.097

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	1.7 - 39	9.32	3.8
Chromium*	100	15.5 - 1,290	164	29.2
Copper*	170	6.0 - 1190	298	20.4
Mercury	1	0.1 - 17.9	2.43	0.1
Zinc*	350	13.1 - 4,450	672	77.1

PCBs

The following compounds were detected at the indicated concentrations:

Sample	PCB-1254 (ppm)
WT6-5A	0.91
WT7-4A	2.90
WT31-3A	1.80
WBMW-8A	0.60

West Yard Area W-4

Area W-4 was identified in the Soils RI Work Plan as an area used extensively for waste disposal. Five pits, the former contents of which are unknown, are located in this area, as well as a

rectangular depression. Areas of stained soil and piles of material also exist here. In the early 1970s, the pits were covered over with general plant debris and cinders. The subsurface sampling activities, consisting almost entirely of trenches, were performed to confirm that the area was used for disposal purposes and to delineate the horizontal and vertical extent of this disposal.

As can be seen from the information in the trench logs of WT-9, WT-10, WT-32, and WT-34, the majority of the material in Area W-4 consists of soil mixed with large portions of construction and/or general plant debris. This debris consisted of pipe, timbers, drum remnants, jars, metal, concrete, fabric, and other objects in various amounts. Small pockets of black sludge which resembled iron oxide and hard and soft black tar were also identified in this area. Information in trench log WT-8 indicates that small isolated pockets of construction and/or general plant debris are also present in the northern portion of Area W-4. The general composition of the debris area consists of soil mixed with the debris up to nine or ten feet deep with native clay underneath. The ground-water table was generally encountered at five feet or less.

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the 19 surface samples in Area W-4. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The analysis of the 19 samples indicates that only one sample, WS-28, contains volatile contamination, including TICs, at concentrations greater than the NJDEPE Soil Action Level of 1 ppm.

Compound	WS-28 (ppm)
Benzene*	2.8
Toluene*	21.0
Chlorobenzene*	47.0
Xylenes*	38.0

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Fluorene*	5	0.160 - 5.2	1.30	U
Nitrobenzene*	14	0.014 - 13	2.32	0.330
Naphthalene*	18	0.022 - 54	4.96	0.640
Pyrene*	12	0.031 - 6.7	2.62	0.140
Benzo (a) Anthracene	11	0.110 - 7.6	3.77	0.190
1,2-Dichlorobenzene*	15	0.068 - 20	3.31	0.500
Anthracene	10	0.035 - 5.6	1.01	0.035
1,2,4-Trichlorobenzene*	12	0.050 - 8.9	1.80	0.100

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	3.9 - 86.1	30.2	19.6
Chromium*	100	7.7 - 4,940	922	498
Copper	170	32.4 - 6,720	1,613	880
Nickel*	100	10.1 - 1,300	223	139
Mercury*	1	0.1 - 94.8	8.4	2.1
Zinc*	350	8.9 - 2,440	326	163

PCBs

The following compounds were detected at the indicated concentrations:

Sample	PCB-1254 (ppm)	PCB-1260 (ppm)
WS-19	160	U
WS-25	U	0.58
WS-26	1.8	U
WS-28	130	U
WS-31	0.72	U
WS-52	1.5	U

Note: A "U" indicates that the concentration was below the detection limit. Six of 19 samples exceeded NJDEPE Soil Action Level.

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the 18 subsurface samples in Area W-4. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected for the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Benzene*	17	0.002 - 2,500	217	1.055
Toluene*	16	0.001 - 730	84.3	0.735
Chlorobenzene*	11	0.023 - 110	31.3	4.935
Ethylbenzene*	10	0.002 - 54	12.4	0.111
Xylenes*	14	0.003 - 880	141	1.950
Methylene Chloride*	13	0.006 - 45	6.08	0.013

Semi-volatiles

The following compounds were detected for the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
1,4-Dichlorobenzene*	10	0.055 - 68	14.1	0.13
1,2-Dichlorobenzene*	15	0.070 - 740	106	9.05
Naphthalene*	14	0.042 - 620	108	6.15
2-Methylnaphthalene*	13	0.120 - 180	25.1	1.45
Nitrobenzene*	11	0.020 - 1,300	152	0.15
Bis(2-ethylhexyl)phthalate*	6	0.067 - 9.7	4.10	U
4-Chloroaniline*	2	0.290 - 11	5.65	U

Note: A "U" indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	1.9 - 153	36.5	29.4
Chromium*	100	14.5 - 214,000	12,463	435
Copper*	170	24.4 - 7,400	1,661	1,380
Mercury	1	0.1 - 137	16.0	0.83
Zinc*	350	32.3 - 14,300	1,653	234
Nickel*	100	5.7 - 333	116	88.0
Beryllium*	1	0.32 - 3.6	1.10	0.66

PCBs

The following compounds were detected at the indicated concentrations:

Compound	WT9-1A (ppm)	WT9-2A (ppm)	WT10-2A (ppm)	WBMW-9A (ppm)
PCB-1242	U	5.6	U	U
PCB-1248	120	U	U	4.9
PCB-1254	33	U	0.73	5.4

Note: A "U" indicates that the concentration was below the minimum detection limit. Four of 18 samples exceeded NJDEPE Soil Action Levels.

West Yard Area W-5

Area W-5 was identified in the Soils RI Work Plan as an area for drum and equipment storage in the northern portion of the area. Evidence of product spillage exists surrounding an area where above

ground tanks were located. Plant debris has been used to cover an extensive area immediately south of Lagoon 20.

As shown from this information, the vast majority of this area consists of a soil/fill material in the southern portion of the area (WT-13, WT-14) and bedrock with less than two feet of cover in the northern portion (WT-15). Within the southern portion of the area, some traces of debris, including metal, concrete, and brick, were found mixed with the soil/fill. In addition, a six inch layer of purple sludge was found on the surface in the western portion of Area W-5, adjacent to Impoundment 14. In general, it appears that no significant plant waste was disposed in this area. The soil/fill material ranged in depth from three to eight feet in the southern portion of this area, while minimal soil was encountered in the northern portion.

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the 19 surface samples in Area W-5. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The analysis of the 19 samples indicates that no volatile contamination, including TICs, is present at concentrations greater than the NJDEPE Soil Action Level of 1 ppm, except for sample WS-104.

Compound	WS-104 (ppm)
Toluene*	420
Xylenes*	13,000
Ethylbenzene*	1,500
Chlorobenzene*	52

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Naphthalene	13	0.056 - 3.3	0.82	0.130
Phenanthrene	14	0.050 - 1.7	0.59	0.190
Pyrene	14	0.080 - 4.1	1.14	0.380
Benzo (a) Anthracene	14	0.180 - 8.7	1.61	0.520
1,2-Dichlorobenzene*	9	0.012 -12.0	1.44	U
1,2,4-Dichlorobenzene	8	0.025 - 5.0	1.36	U

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	2.2 - 63.2	11.4	7.4
Chromium*	100	12.0 - 812	176	101
Copper	170	13.3 - 2,570	401	152
Mercury*	1	0.1 - 19.2	2.54	0.34

PCBs

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1248	4	0.62 - 180	46.4	U
PCB-1254	8	0.28 - 40	7.0	U

Note: A 'U' indicates that the concentration was below the minimum detection limit. Ten of 19 samples exceeded the NJDEPE Soil Action Levels

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the 12 subsurface samples in Area W-5. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Sample	*Chlorobenzene (ppm)	*Toluene (ppm)	*Acetone (ppm)	Total TICs (ppm)
WT15-3A	2.8	0.083	U	14.66
WBMW-12B	U	U	1.3	0.17

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	WBMW-12A (ppm)	WBMW-12B (ppm)	WT13-5A (ppm)	WT13-6A (ppm)	WT15-2A (ppm)
Naphthalene*	5.1	0.04	0.55	2.1	U
Phenanthrene	9.6	0.06	1.10	3.2	0.02
Pyrene	5.8	0.03	2.20	6.6	0.01
Benzo (a) Anthracene	3.6	U	4.20	4.6	U
Fluoranthene	6.4	0.06	1.10	3.2	0.02

Note: A "U" indicates that the concentration was below the detection limit. Five of 12 samples exceeded NJDEPE Soil Action Levels.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Chromium*	100	9.7 - 364	116	69.6
Copper*	170	7.9 43,900	4,221	167
Zinc*	350	36.2 - 1,050	285	102
Arsenic*	20	1.6 - 30.2	9.96	7.2
Nickel*	100	14.2 - 310	55.8	24.3

PCBs

The following compounds were detected at the indicated concentrations:

Compound	WT13-6A (ppm)	WT15-2A (ppm)
PCB-1254	1.3	0.70

Note: Two of 12 samples exceeded NJDEPE Soil Action Levels.

West Yard Area W-6

Area W-6 was identified in the Soils RI Work Plan as an area used almost exclusively for coal storage and rail yard operation. There has been some drum and equipment storage in the eastern

portion of this area. Prior to placement of the coal yard in this area, there is evidence that disposal of plant debris occurred.

As can be seen from the information in the trench logs for WT-11, WT-34, WT-35, WT-36, and WT-42, the majority of the material in Area W-6 consists of both black coal fines and black sludge, which resembles iron oxide, mixed with soil. Small pockets of hard black tar were also identified in this area. The general composition of this area is approximately three to five feet of soil and black cinders with three to five feet of black iron oxide-like sludge underneath. The depths to native material and to the water table varied throughout the area from five to ten feet.

1. Surface Samples

The following is a summary of the results from the analytical testing conducted on the 16 surface samples. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	WS-35 (ppm)	WS-44 (ppm)
Benzene	0.63	0.11
Chlorobenzene*	U	3.00
Xylenes*	U	1.10
Total VOA TICs	0.67	64.2

Note: A 'U' indicates that the concentration was below the minimum detection limit. Two of 16 samples exceeded NJDEPE Soil Action Levels.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Nitrobenzene*	13	0.015-6.1	0.63	0.101
1,2,4-Trichlobenzene*	10	0.017 - 85	9.03	0.098
Naphthalene*	15	0.067 - 92	7.11	0.555
Fluoranthene*	13	0.067 - 17	1.77	0.300
Benzo (a) Anthracene	12	0.190 - 30	5.29	0.610
Anthracene*		5	0.056 - 5.2	1.15 U
1,2-Dichlorobenzene*	13	0.020 - 10	0.88	0.069

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	NJDEPE Soil Action Level (ppm)	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	4.3 - 102	22.7	13.8
Chromium*	100	18.4 - 3,410	578	129
Copper	170	4.7 - 1,610	364	215
Nickel*	100	4.2 - 435	105	48.1
Zinc*	350	18.9 - 1,040	234	151
Mercury*	1	0.14 - 4.4	1.22	0.94

PCB

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
PCB-1248	1	1.0	-	-
PCB-1254	5	0.24 - 1.00	0.56	U
PCB-1260	1	0.48	-	-

Note: A 'U' indicates that the concentrations was below the minimum detection limit. Six of 16 samples exceeded the NJDEPE Soil Action Levels.

2. Subsurface Samples

The following is a summary of the results from the analytical testing conducted on the 21 subsurface samples in Area W-6. Chemicals of interest are noted below with an asterisk (*).

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Benzene*	18	0.002 - 23,000	1,344	0.008
Toluene*	15	0.002 - 6,400	462	0.013
Ethylbenzene*	7	0.003 - 330	50.5	U
Xylenes*	10	0.007 - 1,900	223	U
Methylene* Chloride*	16	0.004 - 40	2.68	0.013

Note: A "U" indicates that the concentration was below the minimum detection limit.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Naphthalene*	17	0.007 -930	103	0.100
2-Methylnaphthalene*	9	0.036 - 57	12.2	U
Fluorene	6	0.038 -170	30.81	U
1,2-Dichlorobenzene*	8	0.035 - 41	10.9	U

Note: A "U" indicates that the concentrations below the minimum detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (ppm)	Mean (ppm)	Median (ppm)
Arsenic*	20	0.37 - 116	25.4	5.8
Chromium*	100	2.4 - 658	142	27.3
Copper*	170	3.7 -164,000	8,938	62.0
Nickel*	100	1.2 - 5,140	445	32.8
Zinc*	350	39 - 11,600	1,502	88.4

PCBs

The analysis of the 21 samples indicates that PCB-1254 contamination is present in only one sample, WB-8A, at a concentration of 1.2 ppm.

5.4 Ground Water

5.4.1 Sampling and Analysis

The physical and chemical characterizations of the ground-water system in the Main Plant were developed through the work efforts completed from July through November of 1989 and the supplemental work efforts completed from May through September of 1990. These work efforts are summarized in Sections 3.1 and 3.2 of this report and are discussed in detail in Attachment 3. Specifically, the [illegible] phase of the sampling program consisted of [illegible] which established a hydrogeologic

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1. forty-five soil borings
2. twenty-nine test trenc

3. twenty-eight overburden monitoring wells (both borings and water samples).

The second phase of the sampling consisted of:

1. nineteen additional test trenches;
2. re-sampling of eight of the 28 monitoring wells;
3. thirty-four piezometers in eleven clusters;
4. examination of wells for free product; and
5. installation of a still well in Cuckolds Brook.

All of the samples collected during the first phase of the program (water samples from 28 overburden monitoring wells) were analyzed for the TCL, excluding dioxin and pesticides/herbicides, and for Tentatively Identified Compounds (TICs). The samples collected during the second phase of the program (water samples from eight of the 28 overburden monitoring wells) were analyzed for particular parameters. Monitoring wells MW-6, 22, 28 and 31 were analyzed for TCL metals; MW-7, 17 and 27 were analyzed for TCL VOAs and TCL BNAs; and MW-23 was analyzed for TCL VOAs. The results from the second phase of the program are included in Table 10.

5.4.2 Results

The results from the hydrogeologic characterization of the ground-water system in the Main Plant are presented below. The findings presented have been summarized from the detailed discussion of the hydrogeologic investigatory program included as Attachment 2.

1. Site Geology

The stratigraphy of the site is generally comprised of a thin veneer of unconsolidated sediments (overburden) overlying the sedimentary units of bedrock.

The overburden material at the site is comprised of natural unconsolidated sediments ranging in thickness from 5 to 30 feet. However, in the Main Plant area, the natural unconsolidated sediments are covered by a 2 to 4 foot thick layer of man made fill (crushed stone, earth fill, construction rubble). These naturally occurring sediments are comprised of alluvial deposits overlying residual soil. The alluvial deposits consist of interbedded gravels, sands, silts, and clays which are thickest in the southern portion of the site and become thinner in the north.

The upper part of the alluvial deposits, directly below the man made fill, is comprised of silt and clay. Underlying the silt and clay is a sequence of sand and gravel mixtures which are in contact with the underlying residual deposits. (The silt and clay unit is missing in areas of the Main Plant and West Yard where building construction or other plant activities resulted in deep excavations. In these cases, the man made fill is in contact with the sand and gravel.) The residual soils of the naturally occurring unconsolidated sediments is the weathering product of the bedrock and consists of a 2 to 3 foot thick mixture of silt, clay, and shale fragments. In places, this unit has been eroded away and is missing.

2. Site Hydrogeology

Two aquifer systems underlie the site: a shallow overburden aquifer and a deeper semi-confined bedrock aquifer. The two aquifer systems are separated by a zone of weathered bedrock.

The overburden aquifer system is comprised of two water bearing units: the sand and gravel, which volumetrically is the significant water bearing unit, and the man made fill. Within the sand and gravel, the horizontal component of ground-water flow exhibits a divergent pattern. Generally, a ground water divide is defined by a line connecting the Lagoon 5 Complex with the northeastern corner of the Main Plant area. North of the divide, ground water flows to the north, and south of the divide ground water flows to the south. The man-made fill occupies the uppermost 2 to 4 feet of the Main Plant area soils and overlies the silt and clay unit creating localized perched water table conditions. Ground water in the fill occurs 6 to 18 inches below ground surface. The horizontal ground-water flow direction within the fill converges toward the area between Cuckolds Brook and Lagoon 1 in the southeast section of the Main Plant.

The vertical component of ground-water flow between the man-made fill and the sand and gravel is downward. The gradient is strongest where the silt and clay unit is present, and becomes weaker where the silt and clay until is missing, due to the co-mingling of the two water bearing zones. The

vertical gradient between the sand and gravel and the shallow bedrock aquifer is slight, as the static water levels in the two units are approximately equal.

The water bearing unit for the bedrock aquifer is the "Brunswick Shale." This is a semi-confined aquifer, separated from the overlying sediment sequence. The uppermost 5 to 10 feet of the bedrock are unsaturated, and the primary porosity of the rock is low. However, faulting, jointing, bedding, and parallel parting gives rise to significant secondary porosity. Wells that intersect zones that are highly fractured can provide yields of hundreds of gallons per minute. Three zones of highly fractured bedrock have been identified at the site and are referred to as "the SS transmissive zone", "the highly transmissive zone", and "the moderately transmissive" zone. These zones trend northeast-southwest and dip to the northwest. Under natural conditions, ground water from the bedrock aquifer is expected to discharge to the Raritan River. However, three production wells are in operation on the Hill Property and create a cone of depression that governs the direction of ground-water flow in the bedrock. Due to this pumpage, water flows from the perimeter of the site inward towards the pumping wells.

The analytical characterization of the ground water in the Main Plant is presented below. The data is presented herein in a summarized fashion based upon samples which exceed the MCLs. Data for all of the samples

can be found in the complete Tier CLP-1 data packages as well as in the database table included as Table 9 The database tables include only one set of concentrations for each sample instead of including all analytical runs performed on a sample as presented in the Tier CLP-1 package. Table 9 presents the analytical results for the overburden ground water in the Main Plant. The data has also been summarized with respect to the MCLs on three of the following six figures included in Appendix B:

1. surface volatiles (Figure B-1);
2. surface semi-volatiles (Figure B-2);
3. surface inorganics (Figure B-3);
4. subsurface volatiles (Figure B-4);
5. subsurface semi-volatiles (Figure B-5); and
6. subsurface inorganics (Figure B-6).

The ground-water data is included on the subsurface figures and the data for the impoundments on-site, which was gathered during the Impoundment Characterization Program, is also included on these figures.

The results of the TCL analysis for the first phase of the program are presented in the subsequent portion of this section. The data presented herein is comprised of those constituents which were detected most frequently or in the highest concentrations. The data is provided for volatile, semi-volatile, inorganic, and PCB analyses. The data for these analyses is presented as ranges, means, and medians of constituents detected in the ground water. The range represents the minimum and maximum detected concentrations of a constituent. The mean is the average of only those samples for which the constituent was detected. The median is the concentration at which half of the samples have a greater concentration and

half of the samples have a lesser concentration. The median is calculated using the results of the analyses for all of the samples (detected as well as undetected results).

A Baseline Site-Wide Endangerment Assessment (EA) was completed for the Bound Brook site based on existing information and information developed from the Soils RI Program. This EA was submitted to the NJDEPE and USEPA in March of 1992 and approved on April 29, 1992. During the development of the EA, certain chemicals of interest were identified based on the observed concentrations of the chemicals, the chemicals' toxicity, and potential exposure pathways. An overview of the EA, which presents the development of the chemicals of interest, is included in Section 6 of this report. In the presentation of the data for the ground water, the detection of any of the chemicals of interest, as developed from the EA, is qualitatively discussed herein. Particular emphasis was placed on presenting the analytical results for the chemicals of interest because the overall site remediation will be driven by the concentrations of the chemicals of interest and how they compare to the site-specific, risk-based MCLs presented in the EA and highlighted in Section 6 of this report.

The following is a summary of the results from the analytical testing conducted on the 28 water samples taken from the overburden ground-water wells throughout the Main Plant.

Volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (mg/L)	Mean (mg/L)	Median (mg/L)
Ethylbenzene*	15	0.002 - 1.9	0.254	0.001
Benzene*	21	0.006 - 4,800	242	0.045
Toluene*	17	0.001 - 1,800	108	0.003
Xylenes*	19	0.001 - 300	17.2	0.008
Chlorobenzene*	19	0.006 - 4.5	0.79	0.033
1,1-Dichloroethene*	17	0.002 - 390	23.3	0.004
Acetone*	15	0.008 - 18	1.48	0.004
Methylene Chloride*	15	0.001 - 2.3	0.164	0.001
Carbon Disulfide*	12	0.002 - 4.8	0.416	U
Chloroform*	3	0.014 - 0.31	0.113	U

Note: A 'U' indicates that the concentration was below the minimum detection limit.

Semi-volatiles

The following compounds were detected at the indicated concentrations:

Compound	No. of Detects	Range (mg/L)	Mean (mg/L)	Median (mg/L)
1,2-Dichlorobenzene*	18	0.001 - 8.4	1.208	0.010
Nitrobenzene*	6	0.002 - 88	19.35	U
Naphthalene*	18	0.003 - 6.4	1.307	0.056
4-Chloroaniline*	13	0.001 - 1.4	0.265	U
2-Methylnaphthalene*	8	0.007 - 1.5	0.276	U
1,4-Dichlorobenzene	10	0.004 - 0.68	0.174	U
1,2,4-Trichlorobenzene*	6	0.002 - 0.20	0.059	U

Note: A 'U' indicates that the concentration was below the detection limit.

Inorganics

The following compounds were detected at the indicated concentrations:

Compound	MCL	Range (mg/L)	Mean (mg/L)	Median (mg/L)
Arsenic*	0.05	0.010 - 6.80	0.355	0.012
Chromium*	0.05	0.010 - 0.47	0.034	0.010
Copper*	1.00	0.025 - 58.8	2.138	0.025

PCBs

The analysis of the 28 samples indicates that no PCB contamination is present at concentrations greater than the minimum detection limit for these samples.

5.5 Summary

The information gathered during the field activities indicates that general trends in the data exist and that certain portions of the Production Area and West Yard are relatively more contaminated than other portions.

Production Area

The age of the plant and the accepted manufacturing and disposal practices of the past are responsible for the contamination in the Production Area originating from spills and leaks from the many underground process, sewer, and utility pipes and conduits.

The surface samples in the Production Area tend to contain no volatile contamination. Of the surface samples analyzed, only 22 percent exceed the total volatile organics Action Level. Those samples which do exceed the Action level tend to be isolated.

The surface samples tend to contain base-neutral contamination. Of the surface samples analyzed, 91 percent exceed the total base-neutral Action Level, which suggests that the base-neutral contamination is widespread. Samples which contain elevated levels of contamination are located in the northeast corner, north-central portion (between Buildings 81 and 85) and in the south-southwest portion (southwest of Building 88) of the Production Area.

The surface samples also tend to contain inorganic contamination. Of the surface samples analyzed, 76 percent exceed specific inorganic Action Levels. Samples which contain elevated levels of contamination are located in the northeast corner and central portion (near Building 85) of the Production Area.

The subsurface samples in the Production Area tend to contain volatile contamination. Of the subsurface samples analyzed, 41 percent exceed the total volatile organics Action Level. Samples which contain elevated levels of contamination are located in the northwest corner (near Building 102) and in the west-central portion (near Building 88 and the former location of Building 92) of the Production Area.

The subsurface samples also tend to contain base-neutral contamination. Of the subsurface samples analyzed, 68 percent exceed the total base-neutral Action Level. Samples with elevated levels of contamination are located in the southeast corner, northeast corner, east-central portion (south of Building 47 and southwest of Building 49-A), and west-central portion (near Building 88 and the former location of Building 92) of the Production Area.

Only 37 percent of the subsurface samples contain inorganic contamination which exceeds specific inorganic Action Levels. Samples which contain elevated levels of contamination are located in the southeast corner and in the area north of Impoundment 25 and south of Building 88.

Specific areas within the Production Area tended to contain soils which are significantly more contaminated than other areas.

specific inorganic Action Levels which suggests that the inorganic contamination is widespread. Samples which contain elevated levels of contamination are located in the northwest corner and southwest corner of the West Yard.

The subsurface samples in the West Yard tend to contain volatile contamination. Of the samples analyzed, 41 percent exceed the total volatile organics Action Level. Samples which contain elevated levels of contamination are located in the northwest corner (trenches 1 and 2), southwest portion (trenches 8 and 9), and southeast portion (trench 11 and boring 8) of the West Yard.

The subsurface samples tend to contain base-neutral contamination. Of the samples analyzed, 75 percent exceed the total base-neutral Action Level which suggests that semi-volatile contamination is widespread.

The subsurface samples also tend to contain inorganic contamination. Of the samples analyzed, 60 percent exceed specific inorganic Action Levels. No specific area seems to contain noticeably higher concentrations of inorganics than in the areas surrounding it. Rather, the samples with elevated levels of contamination are sporadically distributed throughout the West Yard.

Within the West Yard, areas which were suspected of containing disposed material were confirmed. Two areas of contaminated soil and debris and one area of dye sludge disposal were identified. The dye sludge disposal area is in the north-central portion of the West Yard (trenches 3, 4, 40, and 41) and was discussed in detail in the description of West Yard Area W-2. One of the areas of

Those areas which contain significant contamination are the northeast corner (borings 17, 18, 19, and 20) the west-central portion (near Building 88 and the former location of Building 92), and the southeast corner (trenches 27 and 30).

West Yard

The majority of the West Yard has supported some form of disposal activity with different portions experiencing various degrees of disposal. General plant debris, construction debris, and occasional crushed drums were the items which most often comprised the material disposed in the West Yard. Additionally, the north-central portion of the West Yard was identified as containing sludge.

The surface samples in the West Yard tend not to contain volatile contamination. Of the surface samples analyzed, only 6 percent exceed the total volatile organics Action Level. Those samples which do exceed the Action Level tend to be isolated instances of contamination.

The surface samples tend to contain base-neutral contamination. Of the surface samples analyzed, 94 percent exceed the total base-neutral Action Level which suggests that the semi-volatile contamination is widespread. Samples with elevated levels of contamination are located in the northwest corner and two distinct areas in the southwest corner of the West Yard.

The surface samples also tend to contain inorganic contamination. Of the surface samples analyzed, 88 percent exceed

contaminated soil and debris is located in the northwestern portion of the West Yard (trenches 1, 2, 37, 38, and 39) and was discussed in detail in the description of West Yard Area W-1. The other area of contaminated soil and debris is located in the southwestern portion of the West Yard (trenches 8, 9, 10, 32, 33, 34, and 35) and was discussed in detail in the description of West Yard Area W-4.

Ground Water

The analysis of the ground water obtained from the 28 overburden monitoring wells indicates that wide-spread organic contamination is present in the on-site ground water.

The ground-water samples tend to contain volatile organic contamination. Of the samples analyzed, 96 percent exceed MCLs for specific volatile organics. The ground-water samples also tend to contain semi-volatile organic contamination. Of the samples analyzed, 86 percent exceed MCLs for specific semi-volatile organics. The ground-water samples tend not to contain inorganic contamination. Of the samples analyzed, only 25 percent exceed MCLs for specific inorganics.

One purpose for sampling the overburden ground-water monitoring wells was to assist in identifying areas where soils contamination may have impacted ground water. Because the results of the analytical work efforts associated with the ground water have indicated that wide-spread contamination exists and due to the complex hydrogeologic conditions of the site, it is not possible to

accurately determine whether specific areas of soil contamination or impoundments are responsible for the ground-water contamination. Although specific sources cannot be identified, it is likely that both the on-site impoundments and the contaminated soils are contributing to the contamination of the ground water.

Section 6 - Development Of Remedial Objectives/Approach

SECTION 6 - DEVELOPMENT OF REMEDIAL OBJECTIVES AND APPROACH

6.1 General

As previously discussed in Section 1 of this report, the objectives of the Soils Investigation and Remedial Action Program as outlined in Paragraph VI.14.d of the 1988 ACO, are as follows:

1. Short-Term - the discovery and cleanup of soil conditions that pose a threat to worker health or safety as defined in USEPA CERCLA/SARA guidance documents, and/or as defined under OSHA standards and guidance, and/or other appropriate guidance. Short-term action is also contemplated based upon the ground-water contamination potential of contaminated soils as compared to the contamination potential of solid waste management units at the facility.
2. Long-Term - the discovery and cleanup of all contaminated soils to NJDEPE standards applicable at the time of remedial action.

In accordance with the requirements of the ACO, a soils investigation program was completed to assist in working toward the fulfillment of the objectives. The results of this investigation were presented in Sections 4 and 5 of this report. Based on these results, and additional information generated over the past 10 years of investigatory work efforts conducted at the Cyanamid facility, an Endangerment Assessment (EA) was completed for the Cyanamid Bound Brook site and submitted separately to the NJDEPE and USEPA. The EA was approved by the agencies on April 29, 1992. The purpose of preparing the EA was twofold:

1. to identify baseline conditions at the site with respect to potential effects of existing contamination on human health or the environment; and

2. to focus the investigations and engineering evaluations associated with the Soils Investigation and Remedial Action Program and the Impoundment CMS/FS Program to be conducted over the next several years in fulfillment of the requirements of the ACO.

Specifically with respect to the soils program, the EA provides the basis for defining the specific scope of the short-term actions to be completed at the Cyanamid facility. In accordance with the objectives of the ACO and based on the findings of the EA, the short-term actions proposed for the Cyanamid facility will include the investigation, evaluation, and implementation of remedial actions associated with surface soils posing a potential threat to worker health and safety. The investigation, evaluation, and implementation of appropriate remedial actions for other contaminated soils and ground water which do not currently present a significant threat to human health and the environment due to incomplete exposure pathways or low exposure potentials will be completed as part of the long-term cleanup program.

Section 6.2 (Endangerment Assessment Overview) and Section 6.3 (Soils Program - Remedial Objectives and Approach) were prepared for the purpose of expanding on the basis and logic of the short-term and long-term approach to the soils program as described above. Additionally, Section 6.4 (ARARs) provides an initial identification of ARARs which will be utilized for the evaluation of potential remedial alternatives.

6.2 Endangerment Assessment Overview

The NJDEPE RI/FS Program and the USEPA RI/FS and RFI/CMS Programs provide guidance for the completion of Baseline EAs. The guidance provided as part of the USEPA RI/FS process was used in preparing the Baseline EA for the Bound Brook facility which was submitted to the NJDEPE/USEPA as a separate document from this Soils RI Report. The EA was prepared, in part, to focus the investigations and engineering evaluations associated with the Soils Investigation and Remedial Action Program and the Impoundment CMS/FS Program, scheduled to be conducted over the next several years in fulfillment of ACO requirements.

The results and conclusions of the EA for the Bound Brook facility as they relate to the short-term activities are summarized below. The EA should be referenced for a more detailed discussion of the potential risks associated with the soils and ground water at the Bound Brook facility.

1. The risk characterization (an integrated analysis of three factors - contaminant concentration, toxicity, and exposure) concluded that the most significant on-site total carcinogenic and non-carcinogenic risks are posed by the potential incidental ingestion and dermal contact exposure to Production Area and West Yard surface soils of production employees. For this exposure scenario, the carcinogenic risk of 1×10^{-6} and the non-carcinogenic risk (Hazard Index Value of 1.0) are exceeded.

2. Based on the exposure assessment, neither the subsurface soils or ground water present a significant risk to human health or the environment due to insignificant and/or incomplete exposure pathways.

The final component of the EA discussed and presented media-specific risk-based cleanup objectives for chemicals of interest (specific chemicals screened within the EA), based on quantitative risk calculations. These risk-based soil cleanup objectives (SCOs) were calculated for the specific chemicals of interest in surface soils only since the findings of the EA concluded that only isolated locations of surface soils represented any potential risk to human health or the environment. The risk-based SCOs for surface soils were developed based on worst-case exposure scenarios and target risk levels or hazard indexes. No risk-based cleanup objectives were defined for subsurface soils or ground water, as such media do not present a threat to human health or the environment. This conclusion is based on the results of the EA exposure assessment, which demonstrated that the exposure pathways for subsurface soils and ground-water contamination are incomplete and, therefore, the potential for exposure is insignificant. The EA should be referenced for a more detailed discussion of the SCOs and their development.

Risk-based SCOs for all chemicals of interest, as developed within the EA, are summarized in Tables 11A and 11B. SCOs are presented for the two worst-case exposure scenarios defined within the EA - ingestion/dermal contact and inhalation. For each exposure scenario and each carcinogenic chemical of interest, SCOs are developed for the NCP defined risk range of 1×10^{-4} to 1×10^{-6}. The SCOs for non-carcinogens are based on a hazard index of 1 or 10.

It is important to recognize, however, that the SCOs which are referenced in the EA and highlighted on Tables 11A and 11B are developed primarily to assist in identifying the specific locations which should be addressed to meet the short-term objectives of the ACO. Since these risk-based numbers

at this point in time are being utilized herein only to provide the direction and focus for subsequent work efforts, these numbers are more appropriately referred to hereafter as Risk Based Soil Action Levels (RBSALs).

6.3 Soils Program - Remedial Objectives and Approach

6.3.1 Short-Term and Long-Term Objectives and Approach

As previously discussed, the objectives of the Soils Investigation and Remedial Action Program as outlined in Paragraph VI.14.d of the 1988 ACO are divided into short-term and long-term actions. In keeping with the ACO's identification of short-term and long-term objectives and in consideration of the major conclusions of the EA discussed in Section 6.2, the approach for investigating and implementing remedial actions at the Bound Brook facility will be divided into short-term and long-term actions as discussed below:

1. Short-Term Actions

   Short-term actions will entail the investigation, evaluation, and implementation of remedial actions for those isolated locations of the facility (excluding impoundments which are currently being addressed as part of a separate CMS/FS program) where surface soils pose a potential threat to worker health or safety as defined in the EA. As discussed in detail in the EA, the most significant on-site carcinogenic and non-carcinogenic risks are posed by the potential incidental ingestion and dermal contact exposure of production employees to surface soils. Therefore, in addressing the short-term objectives of the ACO, surface soils only will be addressed with respect to potential short-term actions.

Since the October 1990 draft of this report, the NJDEPE and USEPA have determined (letter to Cyanamid dated January 31, 1992) that specific actions related to remediation of surface soil contamination will be addressed in a report entitled "Surface Soil Remedial/Removal Action" (SSR/RA). Based on the limited extent of surface areas requiring short-term cleanup, the agencies will review and evaluate the SSR/RA in lieu of a Feasibility Study Report for these areas of contamination. All work efforts to be completed as part of the short-term actions will comply with the requirements of the ACO and will include the preparation and implementation of a SSR/RA Report.

Specific locations of the surface soils at the Bound Brook facility where actual short-term remedial actions will be considered are defined as those locations where the concentrations of the chemicals of interest (defined within the EA) exceed the chemical-specific carcinogenic or non-carcinogenic risk-based soil action level (RBSAL). The RBSALs are defined based on carcinogenic risk levels for carcinogenic contaminants and hazard indices for non-carcinogenic contaminants. The RBSAL for each chemical of interest represents the concentration of that contaminant that, if left in surface soils, could result in an elevated risk to receptors in these areas through dermal contact, ingestion, or inhalation of particulates. NJDEPE determined that it would be appropriate to apply a cancer risk level of 10^{-4} and a hazard index of 10 as the basis for determining short-term preliminary remedial surface soil cleanup goals or RBSALs. In a January 22, 1992

letter from NJDEPE to Cyanamid, these preliminary risk-based remedial goals are discussed for use in streamlining treatability studies and screening remedial alternatives.

Table 12 identifies the specific short-term threshold RBSAL for each chemical of interest that meets the short-term preliminary remedial goals established by the NJDEPE. These short-term threshold RBSALs are utilized for identifying locations subject to short-term actions.

As shown on Tables 11A and 11B, and as presented in the EA, RBSALs for carcinogens were derived for a range of risk levels from 10^{-4} to 10^{-6} as specified in the NCP. The short-term threshold RBSALs based on a 10^{-4} risk level have been chosen to delineate areas of potential concern to be addressed under the short-term activities in consideration of the following:

a. As discussed in the preamble to the Final Rule of the NCP, page 8717 of the March 8, 1990 Federal Register, the USEPA's approach on setting remediation goals is based on "risk levels and is intended to protect currently exposed individuals as well as those who potentially may be exposed in the future." While preliminary remediation goals for carcinogens are set at a 10^{-6} excess cancer risk as a point of departure, revised risk levels within the USEPA acceptable risk range of 10^{-4} to 10^{-6} may be selected as a final remediation goal based on such variables as exposure,

uncertainty, and technical factors. As an example presented in the preamble, soil that is not currently in residential use but may have potential future residential uses would be protected to levels appropriate for residential uses. However, "contaminated soil at an industrial site might be cleaned up to a less stringent standard, but still within the 10^{-4} to 10^{-6} risk range, than soil at a residential site, as long as there is reasonable certainty that the site would remain for industrial use only (institutional controls may be necessary to ensure that the site is not used for residential purposes)". This approach, as indicated in the preamble, allows a "pragmatic and flexible evaluation of potential remedies at a site while still protecting human health and the environment."

b. Similar to the NCP, the proposed rules for Corrective Action for Solid Waste Management Units (July 27, 1990 Federal Register) indicate an allowable protective risk range of 10^{-4} to 10^{-6}, based on site-specific factors (page 30826 of the Federal Register). As presented in the preamble to the Corrective Action proposed regulations, this approach allows a "pragmatic and flexible evaluation of potential remedies at a site while protecting human health and the environment. This approach emphasizes the overall goal of 10^{-6} as

the point of departure (in situations where there are no existing standards, such as MCLs), while allowing site- or remedy-specific factors including reasonably foreseeable future uses, to enter the evaluation of what is appropriate at a given site."

2. Long-Term Actions

The long-term actions will address all contaminated soils and ground water at the site by appropriately remediating such soils and ground water to standards applicable at the time of remedial action in accordance with the requirements of the NJDEPE and USEPA's CERCLA and RCRA Programs. All actions will be completed in accordance with the requirements of the ACO and will include the preparation and implementation of an FS Work Plan and the preparation and implementation of a Remedial Action Plan (RAP).

3. Ground-Water Actions

With respect to contaminated ground water, no further remedial investigation will be conducted based on EA conclusions which determined that no threat to human health or the environment is imposed by the overburden or bedrock ground water. In consideration of the conclusion of the EA, the approach for addressing ground-water conditions will be as follows:

a. Identify ACLs for ground water which are equivalent to present ground-water quality conditions. The ACLs will have a point of compliance designated as the boundary of the Bound Brook facility with the Raritan River. Additionally, the ACLs are proposed with the understanding that the sources of the ground-water contamination (impoundments and soils) will undergo some form of remediation as part of a site-wide remediation program which will provide for continual improvement of ground-water quality. As promulgated in 7:14A-6.15(e)2 of the NJPDES Regulations, ACLs may be established for hazardous constituents provided that the constituents will not pose a substantial present or potential hazard to human health or the environment and as long as the ACL is not exceeded.

b. Cyanamid will continue to implement the NJPDES/DGW Program which entails quarterly monitoring of the bedrock and overburden ground water and requires Cyanamid to continue the pumping of the bedrock aquifer to control the off-site migration of bedrock ground water. The development of the final ACL requirements and the monitoring of such ACLs are proposed to be conducted within the framework of, and as a part of, the NJPDES/DGW Program.

Additionally, Cyanamid will take into consideration alternative ground-water management strategies that may become available upon the promulgation of pending state regulations including the proposed Cleanup Standards for Contaminated Sites (N.J.A.C. 7:26D) and the proposed Ground-Water Quality Standards (N.J.A.C. 7:9-6). The potential strategies under each set of proposed regulations are as follows:

Cleanup Standards

Pursuant to Section 4.3 of the proposed Cleanup Standards for Contaminated Sites (NJAC 7:26D), Cyanamid may petition the NJDEPE for approval of a Natural Remediation Compliance Program for the Bound Brook site. The petition would be based primarily on the fact that contaminants are not expected to migrate at significant concentrations to any on-site or off-site receptors and that site-specific conditions are favorable for chemical degradation and natural attenuation of the contaminants of concern.

Ground-Water Quality Standards

Pursuant to the Preliminary Draft Ground-Water Quality Standards (NJAC 7:9-6), Cyanamid will continue to pursue approval of its petition for classification of a Class II-B ground-water area for a highly industrialized stretch of land along the Raritan River. The petition was part of a July 30, 1991 comment letter from Blasland, Bouck & Lee to NJDEPE on the proposed Class II-B Rule. The proposed Class II-B ground-water area has boundaries based on

current and future expected land uses, as well as the lack of potable wells within the area.

6.3.2 Schedule of Short-Term and Long-Term Activities

Cyanamid will implement the SSR/RA program upon NJDEPE/USEPA approval of this Soils RI Report/FS Work Plan. The SSR/RA program will parallel the ongoing Impoundment CMS/FS Program. However, the SSR/RA report will be completed on an expedited schedule, well in advance of the regulatory time-frame of 24 to 30 months following NJDEPE/USEPA approval of the Work Plan. The selected remedial option(s) will be implemented as defined by the schedule incorporated within the SSR/RA report.

The long-term actions, which will address all contaminated soils and ground water at the site which pose no imminent threat to human health or the environment, will be addressed upon completion of the Corrective Action Program (CAP) for the impoundments. The basis/logic for addressing the long-term actions only upon completion of the CAP is presented below:

1. The soils investigations have shown that a widespread area of contamination may potentially need to be addressed as a long-term remedial action. If it is determined that the presence of such wide-spread, large-volume contamination requires remediation, a long-term in-situ cleanup program may be the only practical solution.
2. Based on the EA, the soils contamination, other than specific locations of surface soils, does not present a threat to on-site receptors (worker health or safety) or to off-site receptors.

3. There is a practical limit to the number of units which may be reasonably addressed under short-term investigation and remediation. As part of the Impoundment CMS/FS Program, which is currently underway, 16 impoundments containing approximately 877,000 tons of waste material will be addressed.

4. Ongoing measures to address contaminated ground water will continue. Such measures include continued pumping and collection of the bedrock ground water and remediation of 16 impoundments, some of which are known to contribute to ground-water contamination.

6.3.3 Focus of Short-Term FS - Identification of Short-Term Areas of Interest

As discussed in Section 6.3.1, the potential locations to be addressed as part of the short-term actions include only surface soil locations previously sampled, for which the RBSALs identified on the last column of Table 12 have been exceeded. Specifically, locations for which short-term remedial action may be considered appropriate are defined by comparing the concentrations of the chemicals of interest (as defined in the EA) to the carcinogenic RBSALs for each of these compounds. Those samples which exceed the carcinogenic RBSALs and, therefore, present a risk factor of greater than 10^{-4} are considered a potential short-term remedial action concern. For those compounds which do not have a carcinogenic RBSAL, non-carcinogenic RBSALs have been established based upon a hazard index of 10.0 for that compound. Those samples which exceed the non-carcinogenic RBSALs are also considered a potential short-term remedial action concern.

One exception to the RBSAL approach to short-term surface soil action is PCBs. For the purpose of establishing a PCB action level to identify potential areas of PCB contamination which should be addressed as part of the short-term actions, the USEPA document entitled Guidance on Remedial Actions for Superfund Sites with PCB Contamination (OSWER Directive No. 9355.4-01 August 1990) was referenced. This document identifies starting point concentrations (preliminary cleanup goals) for each media in which PCBs are identified. For soils, a starting point of up to 25 ppm is suggested for sites where non-residential land use is anticipated. This preliminary cleanup goal of 25 ppm is appropriate for Cyanamid, given that it is in an industrial setting and is well secured. However, the NJDEPE has identified 20 ppm as the required preliminary cleanup goal for PCBs at the Cyanamid site (see January 22, 1992 NJDEPE letter to Cyanamid).

Based on an extensive review of the data generated during the Soils RI Program and comparison of these data (surface soil analytical data presented on Tables 3, 5, and 7) to the RBSALs previously discussed, a number of areas, represented by specific sampling points, will be subject to the short-term action work efforts. These areas (sampling points) are identified below. Figure 11 identifies each of these surface soil sampling locations in which one or more chemicals of interest were detected at levels above the selected RBSAL or PCB preliminary cleanup goal.

PCBs

The initial Soils RI program identified five locations in the West Yard where surface samples contained PCB contamination at a concentration greater than the 20 ppm preliminary cleanup goal. These

West Yard locations were: WS-19, WS-28, WS-62, WS-66, and WS-105. Additionally, surface samples from the area surrounding transformer location number 3 which also contained PCB contamination greater than 20 ppm were identified as: TR3-1, TR3-2, and TR3-3.

Supplemental PCB samples were collected in December of 1991 and January and March of 1992 to define the extent of the PCB-contaminated areas. Based on the results of these supplemental sampling efforts, the transformer pad and three of the five original West Yard locations were targeted for short-term remediation. The details of the supplemental sampling program, sampling results, and proposed remediation program will be included in a SSR/RA Report. A SSR/RA Report will be submitted to NJDEPE for approval in the spring of 1992.

The initial Soils RI program identified several locations where contaminant concentrations exceeded the chemical-specific RBSALs for other chemicals of interest. The contaminants, RBSALs, and locations are presented below:

Benzo(a)pyrene

One surface sample (PS-151) exhibited benzo(a)pyrene at a concentration greater than the 18 ppm 1×10^{-4} carcinogenic RBSAL for benzo(a)pyrene.

Benzo(a)anthracene

Three surface samples, WS-69, WS-68, and WS-74, exhibited benzo(a)anthracene at a concentration greater than the 176 ppm 1×10^{-4} carcinogenic RBSAL.

Chromium

Two surface samples, LS14 and WS85, exhibited total chromium at a concentration greater than 17,000 ppm, the RBSAL for chromium based on a Hazard Index of 10 for non-carcinogens.

Supplemental samples were collected in March of 1992 to define the extent of contamination at each of the locations identified above. As of the date of this report, delineation of the contaminated areas is not complete. The details of the supplemental sampling program, sampling results, and a proposed remediation program for the affected areas of contaminated surface soils will be presented to the NJDEPE in a SSR/RA Report in the spring of 1992.

6.4 ARARs

The ACO mandates that the selection of remedial actions and the implementation of the cleanup be consistent with the provisions of CERCLA, as amended by SARA, and the requirements of the NCP. The NCP outlines the required approach for the selection of a remedial action which incorporates a detailed analysis of limited alternatives with respect to nine evaluation criteria: overall protection of human health and the environment; compliance with Applicable Relevant and Appropriate Requirements (ARARs) (unless grounds are provided for invoking one of the six waivers included in the NCP); long-term effectiveness; reduction of toxicity, mobility, or volume; short-term effectiveness; implementability; cost; state acceptance; and community acceptance. It is the intent of this section to present a brief discussion with respect to ARARs (the second evaluation criterion defined by the NCP) and to list those potential ARARs which will be used to evaluate

the compliance of a remedial action with applicable or relevant and appropriate laws and regulations.

ARARs are generally grouped into three categories: chemical-specific, location-specific, and action-specific. The following provides a brief definition of each:

1. **Chemical-Specific ARARs**

   Chemical-specific ARARs are usually health- or risk-based and establish the amount or concentration of a chemical which can be found in, or discharged to, the ambient environment. The ARARs may be in the form of methodologies which calculate health- or risk-based values based on site-specific conditions.

2. **Location-Specific ARARs**

   Location-specific ARARs are restrictions placed on the concentration of a chemical or the conduct of activities at a site because the site is located in a specific area. Examples of specific areas are wetlands, floodplains, and sensitive ecosystems.

3. **Action-Specific ARARs**

   Action-specific ARAR requirements are based on the type of technology or activity which will be conducted during the remediation of hazardous waste.

The following sections present a preliminary summary of the major environmental laws, regulations, and standards which will likely be ARARs for the evaluation of remedial alternatives at the Cyanamid Bound Brook site.

A final listing of ARARs will be included within the CMS/FS final report. This preliminary summary of ARARs has been prepared with the assumption that the focus of the CMS/FS Program will be on the remediation of the impoundments contents only (source control).

A separate program, the Soils RI/FS, addresses soils remedial goals for areas of surface soil contamination identified in the RI/FS Work Plan Report as potentially requiring remedial action. The agencies will determine the final surface remedial cleanup goals for contaminants that exceed either NJDEPE soil action levels or proposed cleanup standards based on either a site-specific risk-based number or NJDEPE surface cleanup standards, if they are in effect at that time. Action-specific ARARs for subsurface contamination will be identified in the future, using a similar approach, once the agencies have selected an appropriate remedial alternative from those recommended/identified in the FS.

The laws, regulations, and standards are presented below according to their grouping as a chemical, action, or location-specific ARAR. In addition, other nonpromulgated guidance and requirements which should be considered as part of the evaluation are presented below. These are designated as To Be Considered (TBC).

6.4.1 Chemical-Specific ARARs

The following chemical-specific ARARs will likely be ARARs for the soils remediation program evaluation:

1. **RCRA Maximum Concentration Limits (MCLs)**

Standards for 14 compounds, primarily heavy metals and pesticides, have been adopted as a part of the RCRA ground-water protection standards (promulgated in 40 CFR 264.94).

2. **New Jersey Water Quality Standards**

The NJDEPE has classified ground water in New Jersey in accordance with suitable designated uses based upon total dissolved solids (TDS) quality criteria. These standards are promulgated in NJAC 7:9-6.1 et seq., and thus may be considered relevant and appropriate for setting ground-water cleanup levels.

3. **New Jersey Pollutant Discharge Elimination System**

The NJDEPE regulates the discharge of pollutants to surface and ground water by implementing the New Jersey Pollutant Discharge Elimination System (NJPDES) permit program as promulgated in NJAC 7:14A-1.1 et seq.

4. **Land Disposal Restrictions**

In 40 CFR Part 268, restrictions are provided with respect to any land disposal activities by establishing treatment standards for hazardous wastes which must be achieved prior to disposal.

If during the final evaluation/selection of remedial alternatives it is determined that an alternative for source control will not be able to

attain the ground-water ARARs (e.g., RCRA MCLs), the alternative will not be automatically dismissed from further consideration for the following reasons:

1. the NCP provides grounds for invoking waivers from the ARARs. Under this provision of the NCP, the ground-water alternative standard to be attained via an impoundment-specific remediation activity may be defined utilizing the methodology for establishing ACLs; and

2. the selected alternative must provide the best balance of trade-offs in terms of all of the nine remedial alternative evaluation criteria: overall protection of human health and the environment; compliance with ARARs; long-term effectiveness; reduction of toxicity, mobility, or volume; short-term effectiveness; implementability; cost; and state and community acceptance.

6.4.2 Location-Specific ARARs

The following location-specific ARARs will likely be ARARs for the soils remediation program evaluation:

1. **Location Standards (Floodplains) (40 CFR 264.18)**

   As promulgated in 40 CFR 264.18, a facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of any hazardous waste by a 100-year flood, unless certain conditions are met such that it can be shown that no adverse effects on human health or the environment will result if washout occurs. In determining

that no adverse effects on human health or the environment will occur, consideration must be given to such issues as the volume and chemical and physical characteristics of the waste in the facility.

2. **Executive Order 11990 - Protection of Wetlands, May 24, 1977**

Executive Order 11990 directs federal agencies to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.

3. **Aquifer Classification**

Regulatory classification of ground water beneath the Cyanamid facility pertains only to the bedrock aquifer, as discussed in Section 2.5.3. The water-bearing unit for the bedrock aquifer is the Passaic Formation (formerly the Brunswick Formation), which is regionally classified as a Class II aquifer.

The overburden ground-water system is small in areal extent, narrow in thickness, and is not capable of providing water in sufficient quantities for domestic or industrial consumption or use. This makes the overburden water-transmitting zone not suitable as a water source.

6.4.3 Action-Specific ARARs

The following action-specific ARARs will likely be ARARs for the soils remediation program evaluation:

1. **RCRA Hazardous Waste Facility Requirements**

USEPA has promulgated standards for owners and operators of hazardous treatment, storage, and disposal facilities in 40 CFR 264. Included are requirements for capping wastes in place, closure of wastes in place, container storage, construction of new landfills, land treatment, excavation, and incineration.

2. **NJDEPE Division of Waste Management Regulations**

The NJDEPE has promulgated standards for owners and operators of solid waste and hazardous waste treatment, storage, and disposal facilities in Title 7 - Chapter 26 of the New Jersey Administrative Code.

6.4.4 TBCs

In addition to the potential ARARs presented above, the following state guidance will likely be categorized as TBCs for the soils remediation program evaluation:

1. **NJDEPE Soil Action Levels**

The NJDEPE has developed concentration levels for 16 metals, plus total volatile organic compounds, total base/neutral compounds, total polycyclic aromatic hydrocarbons (PAHs), and PCBs in soils. These levels are not promulgated; however, they serve as guidance for determining when a cleanup action should be considered.

2. **NJDEPE Proposed Cleanup Standards**

In addition, the NJDEPE has recently entered proposed cleanup regulations (NJAC 7:26D) in the New Jersey Register (February 3, 1992). If these become law by the time remedial action occurs at a site, they may be considered ARARs. Until such time, they will be used by the NJDEPE as guidance.

3. **Guidance on Remedial Actions for Superfund Sites With PCB Contamination (OSWER Directive No. 9355.4-01) August 1990**

The document describes the recommended approach for evaluating and remediating Superfund sites which have PCB contamination. This guidance provides preliminary remediation goals for various media which may have PCB contamination and identifies other considerations important to ensuring protection of human health and the environment.

Section 7 - Feasibility Study Work Plan

SECTION 7 - FEASIBILITY STUDY WORK PLAN

7.1 General

Paragraph VI.14.d of the 1988 ACO defines the goals of the Soils RI Program. This paragraph, as previously discussed, states that the "short-term goal of this program is the discovery and cleanup" of soils which "pose a threat to worker health or safety" as defined in guidance documents and/or other appropriate guidance. It also states that the ground-water contamination potential of the soils as compared to that of the impoundments on site is to be contemplated when considering short-term action. The long-term goal of the program is defined as "the discovery and cleanup of all contaminated soils to NJDEPE standards applicable at the time of remedial action." As discussed in the previous section, only the short-term areas of concern defined in Section 6 will be addressed at the present time. The long-term soil remediation program will be implemented following the completion of the short-term soils program and after corrective actions at the on-site impoundments are completed. A separate FS for the long-term soils program will be submitted to the agencies at that time.

This FS program addresses only the specific surface soil areas subject to short-term actions. As discussed in Section 6.3.1, the agencies have determined (letter to Cyanamid dated January 31, 1992) that specific actions related to remediation of surface soils contamination will be addressed in a report entitled "Surface Soil Remedial/Removal Action" or "SSR/RA". Based on the limited extent of surface areas requiring short-term cleanup, the agencies will review and evaluate the SSR/RA in lieu of a Feasibility Study Report for these areas of contamination.

7.2 Areas Subject to Short-Term Actions

The areas which pose a potential threat to worker health or safety as defined in Section 6 of this report are the surface soils which contain the following compounds at a concentration greater than the short-term threshold RBSAL or preliminary cleanup goal for PCBs for each of the particular contaminants: PCBs, PAHs (polycyclic aromatic hydrocarbons - benzo(a)anthracene, benzo(a)pyrene), and chromium (see Figure 11).

The following highlights the work efforts which will be completed as part of the FS program for the areas subject to short-term actions. Certain of these field activities have been completed since this report was originally submitted.

PCB Areas

For the five sampling locations exhibiting PCBs at a concentration greater than the 20 ppm short-term cleanup goal, additional samples were collected in December 1991, January and March 1992 to delineate the extent of contamination in the surface soils (Figure 11). The results of this investigative effort and the proposed remediation program will be included in the SSR/RA Report.

PAH Areas

a. Benzo(a)anthracene

For the three locations exhibiting benzo(a)anthracene at a concentration greater than 176 ppm (the RBSAL), additional samples were collected to delineate the extent of contamination in these surface soils (Figure 11). After determination of the extent of contamination, remedial technologies will be evaluated to determine an appropriate remedial action if necessary. The sampling results

and an evaluation of remedial alternatives will be included in the SSR/RA Report.

b. Benzo(a)pyrene

For the one sample location exhibiting benzo(a)pyrene at a concentration greater than 18 ppm (the RBSAL), additional samples were collected to delineate the extent of the contamination in these surface soils (Figure 11). The sampling results and an evaluation of remedial alternatives will be included in the SSR/RA Report.

Chromium

Additional delineation of two sample locations exceeding the 17,000 ppm RBSAL for chromium was performed (Figure 11). The sampling results and an evaluation of remedial alternatives will be included in the SSR/RA Report.

7.3 Schedule

As discussed previously, the SSR/RA Program presented herein includes activities associated with short-term areas of concern only. The short-term remedial actions which are to be completed for the soils include:

1. delineation of all designated contaminated areas; and
2. evaluation of the effectiveness and implementability of potential remedial actions for each area of contamination.

Upon NJDEPE and USEPA approval of this Soils RI Report/FS Work Plan, Cyanamid will submit the draft SSR/RA Report, which will describe the field

program, analytical results, and proposed short-term remedial options. Applicable USEPA guidance and protocol for completing the SSR/RA will be followed. The work efforts associated with evaluation of the short-term areas of concern, as presented in the work plans, will be completed in parallel with the Impoundment CMS/FS Program. However, once the SSR/RA Report is approved by the agencies, it will be completed within 12 to 15 months.

Soils and ground water subject to long-term actions will not be addressed until the Corrective Action Plan (CAP) is completed for the impoundments, as discussed in the previous section. Upon completion of the CAP for the impoundments, feasibility studies will be initiated for the soils associated with the long-term actions. Current USEPA guidance and protocol for conducting a FS will also be followed for the areas of long-term action. The following sequence of events will be completed to address the long-term actions of the soils program:

1. prepare and submit a FS Work Plan for the soils and ground water subject to long-term actions;
2. implement the FS Work Plan and prepare a FS Report; and
3. prepare and implement a Remedial Action Plan for the soils and ground water subject to long-term actions.

Respectfully submitted,

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Tables

TABLE 1

DETECTED COMPOUNDS - SECOND PHASE OF SAMPLING

TABLE 1

AMERICAN CYANAMID - BOUND BROOK FACILITY
DETECTED COMPOUNDS - SECOND PHASE OF SAMPLING

Sample	Depth	PCB-1242	PCB-1248	PCB-1260
TR3-1B	6 - 12"	U	0.71	1.20
TR3-1C	12 - 18"	U	U	5.40
TR3-2B	6 - 12"	U	1.50	0.70
TR3-2C	12 - 18"	U	U	U
TR3-3B	6 - 12"	U	8.00	0.98
TR3-3C	12 - 18"	U	0.43	U
TR3-4A	0 - 6 "	U	U	0.74
TR3-5A	0 - 6 "	U	1.50	1.60
TR3-6A	0 - 6 "	U	0.82	20.0
TR3-7	Hilti Drill	1.30	U	U
TR3-SCRAPE	Scrape	U	U	4,400

TABLE 1 (Continued)

AMERICAN CYANAMID - BOUND BROOK FACILITY
DETECTED COMPOUND - SECOND PHASE OF SAMPLING

Sample	Arsenic	Nickel	Nitrobenzene
LS-15	55.7	NA	NA
LS-16	8.09	NA	NA
LS-17	5.64	NA	NA
LS-18	14.3	NA	NA
LS-19	28.4	NA	NA
LS-20	59.5	NA	NA
LS-21	12.8	NA	NA
LS-22	10.1	NA	NA
LS-23	14.4	NA	NA
LS-24	15.9	NA	NA
LS-25	23.0	NA	NA
LS-26	42.4	NA	NA
PS-155	16.5	NA	0.064 J
PS-156	14.7	NA	0.420 J
PS-157	45.8	NA	1.2
PS-158	5.42	NA	0.063 J
PS-159	2.24	NA	U
PS-160	3.07	NA	0.64 J
PS-161	3.39	NA	NA
PS-162	5.89	NA	NA
PS-163	5.61	NA	NA
PS-164	<1.09	NA	NA
PS-165	NA	NA	U
PS-166	NA	NA	0.250 J

TABLE 1 (Continued)

AMERICAN CYANAMID - BOUND BROOK FACILITY
DETECTED COMPOUND - SECOND PHASE OF SAMPLING

Sample	Arsenic	Nickel	Nitrobenzene
WS-167	2.36	NA	NA
WS-168	29.5	NA	NA
WS-169	20.7	NA	NA
WS-170	21.7	NA	NA
WS-171	3.93	NA	NA
WS-172	9.36	NA	NA
WS-173	8.33	NA	NA
WS-174	<2.37	190	NA
WS-175	9.21	48.8	NA
WS-176	143.8	526	NA
WS-177	5.85	7.90	NA
WS-178	220	727	NA

TABLE 1 (Continued)

AMERICAN CYANAMID - BOUND BROOK FACILITY
DETECTED COMPOUNDS - SECOND PHASE OF SAMPLING

Compounds	WT33-2A	WT34-6A	WT40-4A	WT-41-2A	LT-51-1A	LT54-1A
Volatiles:						
Methylene Chloride	0.094	0.023 J	0.008	0.010	U	U
Acetone	0.022	U	0.029	0.005 J	0.026 B	0.050 B
Chloroform	U	U	U	0.003 J	U	U
Benzene	U	U	U	U	U	U
Ethylbenzene	U	0.008	U	U	U	U
Toluene	U	0.015 JB	U	U	U	U
Xylenes	U	0.052	U	U	U	U
Total VOA TICs	U	0.017	U	U	0.310	U
Semi-Volatiles						
1,4-Dichlorobenzene	0.020 J	U	0.130 J	U	0.150 J	U
1,2-Dichlorobenzene	U	U	0.640 J	U	2.4	U
2-Methylphenol	U	U	0.120 J	U	U	U
4-Methylphenol	U	U	0.660	U	U	U
Nitrobenzene	U	U	0.260 J	U	U	U
2,4-Dimethylphenol	U	U	0.350 J	U	U	U
1,2,4-Trichlorobenzene	U	U	1.2	U	0.073 J	U
Naphthalene	0.023 J	0.580	3.6	0.073 J	0.300 J	U
4-Chloroaniline	U	0.073J	U	U	U	U
2-Methylnaphthalene	U	0.020 J	0.910	U	U	U
Acenaphthylene	U	U	0.390 J	U	U	U
3-Nitroaniline	U	U	0.380	U	U	U
Acenaphthene	U	U	1.0	U	U	U
Dibenzofuran	U	0.018 J	1.04	U	U	U
Fluorene	U	U	0.950	U	0.140 J	U
4-Nitroaniline	U	U	3.4	U	U	U
N-nitrosodiphenylamine	U	1.8	2.1	U	U	U
Phenanthrene	U	0.440	4.0	0.059 J	U	U
Anthracene	U	0.059 J	1.4	U	U	U
Di-n-butylphthalate	U	U	U	U	0.029 J	U
Fluoranthene	U	0.300 J	2.3	0.100 J	U	U
Pyrene	U	0.510	5.5	0.090 J	U	U
Benzo(a)anthracene	U	U	2.8	0.130 J	U	U
Chrysene	U	0.180 J	1.8	0.077 J	U	U
Bis(2-ethylhexyl)phthalate	0.014 J	U	0.360 J	0.018 J	0.020 J	U
Benzo(b)fluoranthene	U	U	1.6	0.052 J	U	U
Benzo(k)fluoranthene	U	U	1.8	0.067 J	U	U
Benzo(a)pyrene	U	U	1.2	0.050 J	U	0.094
Indeno (1,2,3,c,d)pyrene	U	U	0.590	U	U	U
Benzo (g,h,i)perylene	U	U	0.590	U	U	U
Total BNA TICs	7.05	39.2	202.2	8.74	4.74	0.480
PCBs:						
PCB-1248	U	U	0.78	U	U	U
PCB-1254	U	U	1.30	U	U	U

TABLE 1 (Continued)

AMERICAN CYANAMID - BOUND BROOK FACILITY
DETECTED COMPOUNDS - SECOND PHASE OF SAMPLING

Compounds	WT33-2A	WT34-6A	WT40-4A	WT-41-2A	LT-51-1A	LT54-1A
Inorganics						
Aluminum	14,800	490	13,200	11,700	13,600	15,800
Antimony	<6.51	144	7.42	27.8	<8.15	<7.78
Arsenic	3.95	84.7	7.50	5.18	3.94	3.24
Barium	77.4	88.2	2,200	109	187	131
Beryllium	1.59	18.4	1.92	1.22	1.04	1.84
Cadmium	<0.54	<0.50	1.08	<0.55	<0.68	<0.65
Calcium	906	<622	2,530	<554	<679	1,070
Chromium	75.8	474	230	2,550	67.0	19.0
Cobalt	13.3	51.2	12.1	10.9	10.3	13.4
Copper	45.4	1,770	263	114	98.2	15.4
Iron	19,500	540,000	25,500	23,000	29,200	19,900
Lead	9.55	202	2,150	29.0	17.8	8.60
Magnesium	5,130	297	5,350	5,590	3,720	4,200
Manganese	810	2,200	338	227	240	678
Mercury	<0.10	<0.12	1.57	<0.11	<0.14	<0.13
Nickel	28.7	838	39.7	26.0	19.8	21.3
Potassium	1,440	783	1,910	1,570	734	696
Vanadium	28.9	175	35.0	41.6	49.4	35.6
Zinc	83.4	51.0	1,610	180	43.4	53.4

Notes:

U Constituent was not detected
Concentration was below the minimum detection limit

J Constituent was detected at a concentration below the minimum detection limit

B Constituent was found in the blank as well as the samples. Possible laboratory contamination has occurred.

NA Sample was not analyzed for this constituent.

TABLE 2

PROPOSED VS. ACTUAL SAMPLING ACTIVITIES
(INITIAL PHASE OF SAMPLING)

TABLE 2

AMERICAN CYANAMID - BOUND BROOK FACILITY
PROPOSED VS. ACTUAL SAMPLING ACTIVITIES
(INITIAL PHASE OF SAMPLING)

MAIN PLANT

	Sample Type	Proposed Locations	Actual Locations
Production Area			
	Surface Soil:		
	Surface	44	45 (PS-136)
	Subsurface Soil:		
	Borings	44	45 (PB-51)
	Trenches	11	9 (PT-22, 24)
	Well Borings	17	16 (MW-14)
	Water:		
	Monitoring Well	17	16 (MW-14)
West Yard			
	Surface Soil:		
	Surface	87	86 (WS-29)
	Subsurface Soil:		
	Borings	2	2
	Trenches	17	18 (WT-31)
	Well Borings	14	12 (MW-3, 11)
	Water:		
	Monitoring Well	14	12 (MW-4, 11)

SOUTH OF PRRR

	Surface Soil:		
	Surface	6	10 (LS-10, 11, 12, 13)
	Subsurface Soil:		
	Trenches	2	2

TABLE 3

SURFACE SAMPLES SOUTH OF PORT READING RAILROAD

QUALIFIERS AND EXPLANATORY NOTES FOR TABLES 3 THROUGH 9

Tables 3 through 9 indicate only those compounds which were detected in the samples presented in each particular table.

The lower limit of detections (LLDs) shown on the tables for the PCBs are those of water samples. The LLDs for the PCBs in soil samples are as follows:

Aroclor - 1016:	80
Aroclor - 1221:	80
Aroclor - 1232:	80
Aroclor - 1242:	80
Aroclor - 1248:	80
Aroclor - 1254:	160
Aroclor - 1260:	160

The minimum detection limit (MDL) for the analysis of individual compounds can be calculated in the following manner:

$$MDL = LLD \times \text{Dilution Factor}$$

U - Indicates that the compound was analyzed for, but was not detected.

TABLE 3
AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES SOUTH OF PORT READING RAILROAD

			FIELDID:	LS-5	LS-6	LS-7	LS-8	LS-9	LS-10	LS-11	LS-12	LS-13	LS-14
			LOCATION:	L-1	L-1	L-1	L-1	L-2	L-2	L-1	L-1	L-1	L-1
			DATE:	24-Aug	24-Aug	24-Aug	24-Aug	25-Aug	25-Aug	03-Oct	03-Oct	03-Oct	03-Oct
			DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
			HNU_PPM:	0	2	0	1	1	1	0	0	0	0
INORGANIC		units											
			MDL										
	ALUMINUM	ppm	11.2	253.0	1410.0	390.0	5730.0	8990.0	13400.0	17400.0	15000.0	4920.0	9480.0
	ANTIMONY	ppm	2.6	3.200	3.100	3.200	3.600	3.200	3.300	4.700	5.100	12.300	21.600
	ARSENIC	ppm	0.5	71.500	69.900	70.400	57.200	39.300	26.700	5.400	11.300	74.100	37.400
	BARIUM	ppm	0.7	5.900	11.700	7.900	141.000	104.000	492.000	129.000	170.000	728.000	1670.000
	BERYLLIUM	ppm	0.2	2.400	2.300	2.400	2.700	0.190	2.000	1.600	0.990	0.490	0.610
	CADMIUM	ppm	0.2	0.360	0.340	0.360	0.400	0.290	0.300	0.330	0.480	0.900	1.200
	CALCIUM	ppm	2.3	84.300	71.000	108.000	472.000	307.000	578.000	1500.000	1760.000	894.000	2280.000
	CHROMIUM	ppm	0.8	951.000	1060.000	1130.000	795.000	388.000	259.000	32.800	39.500	336.000	23200
	COBALT	ppm	0.7	42.000	31.000	36.700	30.600	15.400	52.900	10.100	12.700	4.800	13.900
	COPPER	ppm	0.4	2050.000	1940.000	2840.000	819.000	866.000	1720.000	32.600	99.400	1360.000	3820.000
	IRON	ppm	5.3	534000.0	453000.0	552000.0	353000.0	192000.0	128000.0	28900.0	29300.0	17800.0	68700.0
	LEAD	ppm	0.2	177.000	162.000	176.000	264.000	128.000	186.000	20.800	50.600	325.000	1330.000
	MAGNESIUM	ppm	3.3	73.800	369.000	89.600	1300.000	2510.000	2730.000	4120.000	4150.000	1180.000	3820.000
	MANGANESE	ppm	0.2	2340.000	1790.000	1880.000	1330.000	732.000	2700.000	266.000	842.000	48.000	188.000
	MERCURY	ppm	0.1	0.130	0.110	0.120	1.170	1.100	5.200	0.360	0.710	109.000	28.800
	NICKEL	ppm	0.7	1270.000	883.000	1050.000	849.000	256.000	384.000	27.400	47.600	15.700	107.000
	POTASSIUM	ppm	46.1	99.900	147.000	125.000	450.000	560.000	572.000	818.000	887.000	782.000	827.000
	SELENIUM	ppm	0.1	0.130	0.150	0.180	0.250	0.170	0.220	0.370	0.380	2.700	1.900
	SILVER	ppm	0.9	11.800	11.500	11.900	13.300	1.100	1.200	0.880	0.950	3.700	2.800
	SODIUM	ppm	56.7	256.000	189.000	67.700	170.000	110.000	152.000	209.000	196.000	192.000	247.000
	THALLIUM	ppm	0.5	0.390	0.380	0.390	0.430	0.650	0.660	0.310	0.340	0.400	0.500
	VANADIUM	ppm	0.6	87.400	85.800	96.400	73.200	71.800	55.700	37.600	34.600	16.500	51.200
	ZINC	ppm	0.3	144.000	115.000	96.300	128.000	65.500	141.000	79.700	111.000	48.800	387.000
	CYANIDE	ppm	1.0	1.200	1.200	1.200	1.300	1.300	1.300	1.400	1.500	6.200	2.600
PCB	DILUTION			1.190	1.160	1.190	1.260	1.220	1.260	1.410	1.490	1.780	2.630
			LLD										
	AROCLOR-1248	ppm	0.5	U	U	U	U	U	0.130	U	U	U	U
	AROCLOR-1254	ppm	1.0	1.100	1.200	1.300	0.640	0.360	U	U	U	U	U
SEMIVOL	DILUTION			39.600	38.700	39.600	42.200	40.600	42.200	46.900	49.800	59.500	877.000
			LLD										
	1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	0.150
	1,4-Dichlorobenzene	ppm	10	U	U	U	0.009	U	U	U	U	U	2.300
	1,2-Dichlorobenzene	ppm	10	U	U	U	0.036	0.031	0.015	U	U	0.170	12.000
	Nitrobenzene	ppm	10	0.061	U	U	0.028	0.060	0.057	U	U	1.000	24.000
	1,2,4-Trichlorobenzene	ppm	10	U	U	U	0.019	0.026	0.041	U	U	0.050	15.000
	Naphthalene	ppm	10	U	U	U	0.230	0.520	0.340	U	0.015	6.600	89.000
	2-Methylnaphthalene	ppm	10	0.052	U	U	0.033	0.047	0.034	U	U	1.900	10.000
	Acenaphthylene	ppm	10	U	U	U	U	U	U	U	U	0.330	0.680
	Acenaphthene	ppm	10	U	U	U	0.038	0.036	U	U	0.024	3.200	12.000

TABLE 3
AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES SOUTH OF PORT READING RAILROAD

			FIELDID:	LS-5	LS-6	LS-7	LS-8	LS-9	LS-10	LS-11	LS-12	LS-13	LS-14
			LOCATION:	L-1	L-1	L-1	L-1	L-2	L-2	L-1	L-1	L-1	L-1
			DATE:	24-Aug	24-Aug	24-Aug	24-Aug	25-Aug	25-Aug	03-Oct	03-Oct	03-Oct	03-Oct
			DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
			HNU_PPM:	0	2	0	1	1	1	0	0	0	0
Dibenzofuran	ppm	10		0.015	U	U	0.018	0.025	U	U	U	1.000	11.000
Diethyl Phthalate	ppm	10		U	U	U	U	0.029	U	U	U	U	U
Flourene	ppm	10		U	U	U	0.018	U	U	U	U	0.900	U
N-Nitrosodiodiphenylamine(1)	ppm	10		U	U	U	0.035	0.055	0.160	U	U	U	68.000
Hexachlorobenzene	ppm	10		U	U	U	U	U	U	U	U	0.230	U
Phenanthrene	ppm	10		0.180	0.100	0.090	0.120	U	U	0.027	0.320	3.500	14.000
Anthracene	ppm	10		U	U	U	0.025	U	U	U	0.056	2.500	11.000
Flouranthene	ppm	10		0.100	0.140	0.150	0.120	0.190	0.082	U	0.410	1.500	68.000
Pyrene	ppm	10		0.070	0.096	0.084	0.130	0.190	0.083	0.069	0.590	3.100	16.000
Benzo(a)anthracene	ppm	10		U	U	U	0.220	0.380	0.430	U	0.200	5.400	23.000
Chrysene	ppm	10		U	U	U	U	0.260	U	U	0.290	1.100	6.000
bis(2-Ethylhexyl)Phthalate	ppm	10		0.048	0.073	U	0.540	0.060	0.160	U	0.150	U	U
Benzo(b)flouranthene	ppm	10		U	U	U	U	0.410	U	U	0.120	2.800	5.200
Benzo(k)flouranthene	ppm	10		U	U	U	0.270	U	U	U	U	U	U
Benzo(a)pyrene	ppm	10		U	U	U	U	U	U	U	0.190	0.740	4.100
Benzo(g,h,i)perylene	ppm	10		U	U	U	U	U	U	U	U	0.530	U
VOLATILE	DILUTION			1.180	1.160	1.190	1.270	1.220	1.270	1.410	1.490	1.790	2.630
			LLD										
Methylene Chloride	ppm	5		U	0.005	U	0.007	0.009	0.007	U	U	0.020	0.022
Acetone	ppm	10		0.019	0.012	0.006	0.008	0.012	0.013	U	0.026	0.010	U
Benzene	ppm	5		0.010	0.008	0.006	0.017	0.034	0.045	U	U	U	U
4-Methyl-2-Pentanone	ppm	10		U	U	U	U	U	U	U	0.006	U	U
2-Hexanone	ppm	10		U	U	U	U	U	U	U	0.007	U	U
Toluene	ppm	5		0.025	0.051	0.038	0.058	0.005	U	U	U	0.005	U
Total Xylenes	ppm	5		0.006	0.015	0.007	0.018	U	U	U	U	U	U

TABLE 4

SUBSURFACE SAMPLES SOUTH OF PORT READING RAILROAD

TABLE 4
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES SOUTH OF PORT READING RAILROAD

			FIELDID:	LT28-1A	LT28-1B	LT28-2A	LT28-3A	LT28-4A	LT28-5A	LT29-1A	LT29-2A	LT29-3A
			LOCATION:	L-1	L-1	L-1	L-1	L-1	L-1	L-1	L-1	L-1
			DATE:	18-Sep	18-Sep	18-Sep	18-Sep	18-Sep	18-Sep	18-Sep	18-Sep	18-Sep
			DEPTH:	4.0-5.5	5.5-6.5	5-7	7-8	6-8	3-4	1-2	2-4	3-5
		units	HNU_PPM:	460	500	40	22	3	4	1	3	1
INORGANIC												
			MDL									
ALUMINUM		ppm	11.2	847.0	250.0	2850.0	1160.0	7100.0	3790.0	5510.0	1520.0	19800.0
ANTIMONY		ppm	2.6	5.400	6.200	6.800	12.400	6.400	5.600	3.700	4.100	5.000
ARSENIC		ppm	0.5	14.100	9.700	53.700	6.600	43.700	125.000	32.800	87.600	3.200
BARIUM		ppm	0.7	42.500	29.400	307.000	75.900	107.000	95.100	99.600	112.000	190.000
BERYLLIUM		ppm	0.2	0.210	0.650	2.700	0.480	2.400	0.210	0.780	0.340	1.700
CADMIUM		ppm	0.2	0.420	0.470	5.200	3.000	0.760	2.100	0.250	0.280	0.600
CALCIUM		ppm	2.3	1210.0	1180.0	5170.0	9580.0	17900.0	3640.0	246.0	50.3	1310.0
CHROMIUM		ppm	0.8	331.0	34.7	468.0	127000.0	1060.0	981.0	612.0	758.0	30.4
COBALT		ppm	0.7	5.600	11.200	58.300	10.000	377.000	61.700	13.600	38.400	15.300
COPPER		ppm	0.4	248.000	79.200	3430.000	1020.000	3970.000	2600.000	357.000	500.000	17.100
IRON		ppm	5.3	81200.0	67100.0	371000.0	104000.0	318000.0	532000.0	138000.0	499000.0	25000.0
LEAD		ppm	0.2	150.000	110.000	2380.000	4900.000	683.000	156.000	127.000	257.000	17.300
MAGNESIUM		ppm	3.3	530.000	917.000	3140.000	1130.000	1940.000	842.000	1690.000	275.000	4440.000
MANGANESE		ppm	0.2	301.000	1360.000	2430.000	557.000	1340.000	1750.000	560.000	1620.000	821.000
MERCURY		ppm	0.1	0.630	0.120	1.100	0.150	0.560	0.160	0.780	0.220	0.100
NICKEL		ppm	0.7	80.800	32.300	523.000	160.000	462.000	904.000	233.000	849.000	35.900
POTASSIUM		ppm	46.1	495.000	173.000	399.000	518.000	848.000	201.000	675.000	190.000	775.000
SELENIUM		ppm	0.1	0.780	7.800	0.250	0.490	0.450	0.330	1.800	0.130	0.230
SILVER		ppm	0.9	0.630	0.710	0.820	1.400	0.740	0.740	0.700	0.780	0.940
SODIUM		ppm	56.7	764.000	29300.0	575.000	751.000	1330.000	398.000	124.000	51.000	158.000
THALLIUM		ppm	0.5	0.210	0.240	0.250	0.490	0.220	0.210	0.360	0.400	0.480
VANADIUM		ppm	0.6	28.200	15.900	86.100	19.500	69.700	112.000	45.900	105.000	36.800
ZINC		ppm	0.3	25.400	41.900	1250.000	678.000	235.000	115.000	92.200	77.600	69.500
CYANIDE		ppm	1.0	0.500	0.600	1.900	1.400	1.200	0.800	1.100	1.200	1.400
PCB	DILUTION			1.06	11.60	1.27	1.89	1.23	1.25	1.11	1.23	1.41
			LLD									
AROCLOR-1254		ppm	1.0	0.160	U	0.370	0.140	0.680	1.400	U	U	U
SEMIVOL	DILUTION			354.00	77400.00	211.00	126.00	41.10	41.60	37.00	41.20	46.90
			LLD									
Phenol		ppm	10	1.100	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene		ppm	10	U	U	0.300	0.200	0.090	U	U	U	U
1,4-Dichlorobenzene		ppm	10	2.400	U	2.000	0.760	1.100	U	U	U	U
1,2-Dichlorobenzene		ppm	10	34.000	830.000	16.000	9.900	2.800	U	U	U	U
Isophorone		ppm	10	U	530.000	U	U	U	U	U	U	U
Benzoic Acid		ppm	50	3.500	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene		ppm	10	0.510	U	U	U	U	U	0.029	U	U
Naphthalene		ppm	10	29.000	5900.000	0.180	U	0.220	6.500	0.580	0.080	U
4-Chloroanaline		ppm	10	U	U	U	0.300	U	U	U	U	U
2-Methylnaphthalene		ppm	10	2.100	220.000	U	U	U	0.054	0.095	U	U

TABLE 4
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES SOUTH OF PORT READING RAILROAD

		FIELDID:	LT28-1A	LT28-1B	LT28-2A	LT28-3A	LT28-4A	LT28-5A	LT29-1A	LT29-2A	LT29-3A
		LOCATION:	L-1	L-1	L-1	L-1	L-1	L-1	L-1	L-1	L-1
		DATE:	18-Sep	18-Sep	18-Sep	18-Sep	18-Sep	18-Sep	18-Sep	18-Sep	18-Sep
		DEPTH:	4.0-5.5	5.5-6.5	5-7	7-8	6-8	3-4	1-2	2-4	3-5
	units	HNU_PPM:	460	500	40	22	3	4	1	3	1
Acenaphthene	ppm	10	U	U	U	U	U	U	0.130	U	U
Dibenzofuran	ppm	10	0.190	U	U	U	U	U	U	U	U
Flourene	ppm	10	U	U	U	U	U	U	0.046	U	U
4-Nitroanaline	ppm	50	U	U	U	0.390	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	U	U	U	0.720	0.100	0.100	U	U	U
Phenanthrene	ppm	10	0.620	U	U	U	0.071	U	0.200	0.039	U
Anthracene	ppm	10	U	U	U	U	U	1.400	U	U	U
di-n-Butyl Phthalate	ppm	10	U	U	0.092	0.042	0.035	0.037	U	U	U
Flouranthene	ppm	10	0.750	U	U	U	0.064	0.130	0.150	0.076	U
Pyrene	ppm	10	0.340	U	U	U	0.032	0.059	0.250	0.065	U
Chrysene	ppm	10	0.430	U	U	U	U	0.075	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10	0.600	U	0.450	U	0.220	0.310	U	U	U
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	0.036	U	U	U
Benzo(b)flouranthene	ppm	10	0.420	U	U	U	0.025	U	0.280	U	U
Benzo(k)flouranthene	ppm	10	0.480	U	U	U	U	U	U	U	U
Benzo(a)pyrene	ppm	10	0.370	U	U	U	U	U	U	U	U
VOLATILE DILUTION			133.00	18100.00	154.00	195.00	159.00	154.00	1.11	1.25	1.45
		LLD									
Methylene Chloride	ppm	5	U	230.000	1.300	0.460	2.000	1.100	0.019	0.014	0.012
Acetone	ppm	10	U	U	U	0.790	U	U	0.020	0.005	0.140
Chloroform	ppm	5	U	U	0.120	U	0.130	0.110	U	U	U
2-Butanone	ppm	10	0.490	47.000	U	0.510	0.076	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	0.130	U	U	U	U
Benzene	ppm	5	23.000	13000.0	0.660	5.700	0.260	0.210	0.027	0.010	0.018
Toluene	ppm	5	12.000	4000.000	0.690	1.100	0.210	0.130	0.012	0.006	0.011
Chlorobenzene	ppm	5	U	U	0.200	2.700	0.110	U	U	U	U
Ethylbenzene	ppm	5	0.260	63.000	U	U	U	U	U	U	U
Total Xylenes	ppm	5	5.500	1000.000	0.310	0.240	U	U	U	U	U

TABLE 5

SURFACE SAMPLES IN THE PRODUCTION AREA

TABLE 5

AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PS-56	PS-58	PS-59	PS-60	PS-106	PS-107	PS-108	PS-109	PS-113	PS-114	PS-115	PS-116	PS-117	PS-118	PS-119
		LOCATION:	P-4/W-6	P-4/W-6	P-10	P-9/W-5	P-2	P-2	P-2	P-2	P-3	P-3	P-3	P-3	P-3	P-6	P-6
		DATE:	28-Aug	28-Aug	07-Sep	28-Aug	29-Aug	29-Aug	07-Aug	07-Aug	29-Aug	04-Aug	07-Aug	01-Aug	28-Jul	04-Aug	04-Aug
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
INORGANIC		HNU PPM:	0	22	0	310	0	0	0	28	0	0	14	1	0	0	0
ALUMINUM	ppm	11.2	8550.0	10500.0	9910.0	1910.0	13500.0	6740.0	6000.0	9810.0	8530.0	9160.0	9360.0	12900.0	9360.0	10800.0	3410.0
ANTIMONY	ppm	2.6	2.900	3.000	2.800	3.200	2.800	2.900	2.900	2.800	2.800	2.800	3.100	2.900	2.900	2.900	3.300
ARSENIC	ppm	0.5	4.800	5.300	11.900	15.800	2.800	2.600	16.500	3.500	4.000	4.800	3.500	8.300	14.100	35.400	27.000
BARIUM	ppm	0.7	66.300	114.000	100.000	55.300	36.500	87.700	796.000	123.000	98.200	68.600	66.500	92.400	130.000	85.300	73.900
BERYLLIUM	ppm	0.2	0.280	0.230	0.350	0.190	0.160	0.610	0.170	0.160	1.100	0.720	1.100	1.400	0.200	0.520	0.190
CADMIUM	ppm	0.2	0.280	0.280	0.250	0.870	1.300	1.700	3.500	0.270	0.550	0.260	0.260	0.350	0.280	0.690	1.800
CALCIUM	ppm	2.3	5860.0	2730.0	10000.0	389.0	8180.0	1780.0	4230.0	4310.0	2630.0	4100.0	25200.0	9820.0	4870.0	3860.0	3360.0
CHROMIUM	ppm	0.8	26.500	97.200	113.000	26.300	127.000	64.200	249.000	49.500	53.200	30.300	29.500	80.100	20.400	28.800	31.200
COBALT	ppm	0.7	9.000	10.000	15.300	4.600	16.800	10.100	10.400	11.500	9.200	8.000	6.200	14.000	8.500	9.700	7.300
COPPER	ppm	0.4	47.000	42.000	294.000	137.000	112.000	356.000	556.000	103.000	62.100	53.200	51.700	168.000	55.000	42.300	76.900
IRON	ppm	5.3	18400	17000	44800	14700	34300	14100	82000	26200	17300	17700	17600	28700	24400	19	17700
LEAD	ppm	0.2	85.800	80.800	171.000	125.000	37.200	48.000	443.000	58.000	59.700	97.100	184.000	226.000	90.500	55.200	94.400
MAGNESIUM	ppm	3.3	4990	3950	8920	694	9910	3280	3930	6870	3990	2960	3920	5340	3720	4040	1300
MANGANESE	ppm	0.2	280.000	325.000	584.000	78.600	348.000	676.000	410.000	318.000	322.000	184.000	275.000	418.000	341.000	465.000	176.000
MERCURY	ppm	0.1	4.700	1.700	0.680	2.600	0.800	0.660	2.900	0.420	1.100	4.900	25.800	0.670	0.350	15.000	1.300
NICKEL	ppm	0.7	20.500	19.800	59.300	52.200	23.400	24.200	42.300	32.500	21.600	20.700	17.800	41.800	19.900	19.900	16.700
POTASSIUM	ppm	46.1	889.000	1140.000	320.000	184.000	357.000	1010.000	476.000	662.000	869.000	702.000	941.000	1150.000	972.000	1010.000	332.000
SELENIUM	ppm	0.1	0.160	0.160	0.110	0.330	0.150	0.150	0.160	0.170	0.150	0.370	0.160	0.160	0.180	0.190	0.720
SILVER	ppm	0.9	1.000	1.000	1.000	1.100	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.200
SODIUM	ppm	56.7	329.000	189.000	482.000	88.200	1010.000	149.000	497.000	687.000	250.000	587.000	558.000	1320.000	226.000	152.000	155.000
THALLIUM	ppm	0.5	0.580	0.600	0.570	0.640	0.570	0.580	0.590	0.570	0.570	0.580	0.600	0.620	0.580	0.590	0.670
VANADIUM	ppm	0.6	25.300	25.900	38.200	11.900	68.800	23.000	25.400	31.600	24.900	28.400	20.500	42.300	22.800	25.200	14.500
ZINC	ppm	0.3	127.000	120.000	347.000	118.000	1910.000	833.000	1270.000	277.000	215.000	96.400	107.000	143.000	120.000	1072.000	372.000
CYANIDE	ppm	1.0	1.100	1.100	1.100	6.300	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.500	1.100	1.100	4.000
PCB DILUTION			1.10	1.14	1.06	1.19	1.09	1.11	1.10	1.09	1.09	1.33	1.12	1.10	1.12	1.32	1.49
AROCLOR-1242	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	0.350	1.400	U	U	1.000	U	1.100	1.800	1.700	U	3.000	5.100	U	0.420	U
AROCLOR-1260	ppm	1.0	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
SEMIVOL DILUTION			110.00	2270.00	35.50	2380.00	36.20	185.00	36.60	36.20	344.00	44.40	37.50	36.60	39.40	43.80	50.50
		LLD															
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	0.028	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	0.760	0.019	1.500	U	U	0.023	0.067	U	U	U
1,4-Dichlorobenzene	ppm	10	U	U	0.094	U	U	4.200	0.039	5.000	U	U	0.099	0.120	U	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	U	U	1.900	U	U	14.000	0.100	24.000	U	U	1.100	1.200	0.019	U	U
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	0.056	U	0.070	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	U	U	0.084	U	U	U	U	U	U	U
Hexachloroethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	U	U	0.680	U	U	U	0.065	U	0.440	5.400	45.000	0.150	0.079	U	0.140
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	U	0.170	U	U	0.220	U	U	U	U	U
2,4-dichlorophenol	ppm	10	U	U	U	U	U	U	0.072	0.060	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	U	U	0.770	U	U	0.280	0.370	0.100	U	0.054	0.890	0.500	2.800	U	U

TABLE 5

AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PS-56	PS-58	PS-59	PS-60	PS-106	PS-107	PS-108	PS-109	PS-113	PS-114	PS-115	PS-116	PS-117	PS-118	PS-119
		LOCATION:	P-4/W-6	P-4/W-6	P-10	P-9/W-5	P-2	P-2	P-2	P-2	P-3	P-3	P-3	P-3	P-3	P-6	P-6
		DATE:	28-Aug	28-Aug	07-Sep	28-Aug	29-Aug	29-Aug	07-Aug	07-Aug	29-Aug	04-Aug	07-Aug	01-Aug	28-Jul	04-Aug	04-Aug
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	22	0	310	0	0	0	28	0	0	14	1	0	0	0
Naphthalene	ppm	10	0.190	4.700	0.430	22.000	0.320	0.160	0.320	0.970	0.200	3.700	1.200	0.050	0.086	0.140	1.500
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	0.130	U	0.110	13.000	0.047	U	0.079	0.230	U	2.600	0.900	0.040	0.083	U	0.300
2,4,5-Trichlorophenol	ppm	50	U	U	U	U	U	U	0.360	U	U	U	U	U	U	U	U
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	0.027	U	U	U	0.038	0.400	U	U	0.600
Acenaphthylene	ppm	10	U	U	0.036	U	0.028	U	U	0.009	U	2.500	U	U	U	0.058	U
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	0.150	U	U
Acenaphthene	ppm	10	0.540	U	0.043	17.000	0.038	U	0.069	0.370	U	2.600	0.720	U	0.044	U	1.200
2,4-Dinitrophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10	0.530	U	0.063	11.000	0.037	U	U	0.250	U	2.200	0.960	U	0.048	U	0.930
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	0.350	U	U
Diethyl Phthalate	ppm	10	U	U	0.096	U	0.038	U	0.024	0.014	U	U	U	U	U	U	U
4-Chlorophenyl-Phenyl Ether	ppm	10	U	U	U	U	U	U	U	0.023	U	U	U	U	U	U	U
Flourene	ppm	10	0.450	U	0.032	9.000	0.024	U	0.110	0.360	U	3.500	0.600	U	0.058	0.046	1.900
N-Nitrosodiphenylamine(1)	ppm	10	U	U	0.390	7.200	0.120	U	4.100	0.630	U	0.860	2.600	0.110	0.100	U	U
Hexachlorobenzene	ppm	10	U	U	U	U	U	U	0.069	U	U	U	0.016	U	0.085	U	U
Phenanthrene	ppm	10	6.900	U	0.370	7.000	0.200	0.110	2.400	1.900	0.100	39.000	5.000	0.420	0.740	0.350	21.000
Anthracene	ppm	10	1.700	U	U	4.100	U	U	0.380	U	U	16.000	1.800	0.097	U	0.140	7.600
di-n-Butyl Phthalate	ppm	10	0.040	U	U	U	0.019	U	U	0.019	U	U	U	U	U	U	U
Flouranthene	ppm	10	8.100	U	0.720	2.300	0.680	0.240	2.600	2.100	0.180	120.000	5.400	1.300	1.600	0.700	55.000
Pyrene	ppm	10	6.400	U	0.780	2.200	0.500	0.150	3.600	2.700	0.140	0.320	5.200	2.700	2.000	0.200	53.000
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	3.900	U	0.580	U	0.370	0.900	0.590	1.200	0.210	U	3.500	0.860	0.910	0.310	40.000
Chrysene	ppm	10	3.400	U	0.470	U	0.320	0.180	0.650	0.940	0.150	U	3.200	0.880	0.440	0.250	34.000
bis(2-Ethylhexyl)Phthalate	ppm	10	0.170	U	0.120	U	2.000	0.400	2.000	0.960	1.250	U	1.200	0.640	0.640	0.140	0.860
di-n-OctylPhthalate	ppm	10	U	U	U	U	0.051	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	2.700	U	0.350	U	0.920	0.340	0.220	0.950	0.270	U	2.900	1.500	1.000	0.200	24.000
Benzo(k)flouranthene	ppm	10	U	U	0.630	U	U	U	U	0.830	U	U	2.500	U	U	0.200	U
Benzo(a)pyrene	ppm	10	2.800	U	0.350	U	0.310	0.120	U	0.930	U	U	2.700	0.930	U	0.250	33.000
Indeno(1,2,3,c,d)pyrene	ppm	10	1.500	U	0.083	U	0.083	U	U	0.540	U	3.500	1.300	U	0.480	0.029	22.000
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	0.260	U	U	0.610	U	U	U	4.200
Benzo(g,h,i)perylene	ppm	10	0.620	U	U	U	U	U	U	U	U	U	1.500	U	0.520	U	5.900
VOLATILE DILUTION			1.10	1.14	1.06	14900.00	1.09	1390.00	140.00	136.00	1.09	1.33	140.00	1.10	1.12	1.32	1.49
		LLD															
Methylene Chloride	ppm	5	U	0.006	0.007	U	0.006	U	U	U	0.005	0.015	U	0.035	0.014	U	0.012
Acetone	ppm	10	0.022	0.037	0.091	U	0.007	U	U	U	U	0.021	U	0.065	0.029	0.016	0.018
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	U	U	U	U	0.200	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	0.005	U	U
2-Hexanone	ppm	10	U	U	U	U	U	U	0.350	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	0.036	U	U	U
Toluene	ppm	5	U	U	U	580.000	0.010	2.200	1.200	0.210	0.007	0.007	U	0.010	U	U	U
Chlorobenzene	ppm	5	U	U	U	U	U	U	0.190	0.150	U	U	0.520	U	U	U	U

TABLE 5

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AMERICAN CYANAMID - BOUND BROOK FACILITY

SURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PS-56	PS-58	PS-59	PS-60	PS-106	PS-107	PS-108	PS-109	PS-113	PS-114	PS-115	PS-116	PS-117	PS-118	PS-119
		LOCATION:	P-4/W-6	P-4/W-6	P-10	P-9/W-5	P-2	P-2	P-2	P-2	P-3	P-3	P-3	P-3	P-3	P-6	P-6
		DATE:	28-Aug	28-Aug	07-Sep	28-Aug	29-Aug	29-Aug	07-Aug	07-Aug	29-Aug	04-Aug	07-Aug	01-Aug	28-Jul	04-Aug	04-Aug
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	22	0	310	0	0	0	28	0	0	14	1	0	0	0
Ethylbenzene	ppm	5	U	U	U	63.000	U	6.100	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	U	U	U	1400.000	0.008	180.000	0.230	U	U	U	U	U	U	U	U

TABLE 5

AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PS-120	PS-121	PS-122	PS-123	PS-125	PS-126	PS-127	PS-128	PS-129	PS-130	PS-132	PS-133	PS-135	PS-136	PS-137
		LOCATION:	P-6	P-11	P-11	P-11	P-11	P-7	P-11	P-11	P-11	P-7	P-8	P-10	P-10	P-10	P-4
		DATE:	03-Aug	02-Aug	28-Jul	26-Jul	24-Jul	26-Jul	25-Jul	02-Aug	27-Jul	26-Jul	25-Jul	25-Jul	03-Aug	28-Aug	02-Aug
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
INORGANIC		HNU_PPM:	3	0	0	12	0	0	8	15	0	18	1	0	0	0	22
ALUMINUM	ppm	11.2	12400.0	8420.0	9990.0	8270.0	5420.0	8640.0	5230.0	11200.0	7800.0	5870.0	11100.0	4990.0	10400.0	9920.0	9860.0
ANTIMONY	ppm	2.6	3.000	2.800	2.800	2.900	2.900	2.900	2.900	2.800	2.700	3.000	3.000	2.900	3.000	2.900	3.700
ARSENIC	ppm	0.5	4.700	9.600	12.600	8.400	12.100	3.600	4.500	5.500	4.100	1.400	4.600	11.500	6.000	7.900	2.700
BARIUM	ppm	0.7	1970.000	246.000	71.100	71.000	281.000	57.000	78.100	127.000	92.600	50.500	100.000	66.000	1280.000	360.000	60.100
BERYLLIUM	ppm	0.2	0.560	3.100	0.170	0.560	0.180	0.500	0.420	3.400	0.520	0.240	0.720	0.180	2.800	0.170	0.600
CADMIUM	ppm	0.2	0.360	0.250	0.260	0.260	0.530	0.260	2.000	0.460	1.700	0.270	0.470	0.960	0.270	0.260	1.000
CALCIUM	ppm	2.3	15500.0	9300.0	5120.0	2000.0	10900.0	598.0	4960.0	6400.0	4630.0	385.0	18700.0	5300.0	2120.0	1770.0	42600.0
CHROMIUM	ppm	0.8	67.000	59.800	50.400	21.300	26.300	20.100	14.500	64.200	22.700	15.400	26.700	28.800	369.000	298.000	134.000
COBALT	ppm	0.7	13.400	10.300	16.800	8.800	6.400	7.600	4.200	17.200	9.200	4.900	8.700	6.700	11.800	10.900	5.100
COPPER	ppm	0.4	90.200	135.000	241.000	42.500	41.200	15.300	23.100	292.000	50.000	17.800	31.300	87.800	593.000	625.000	31.800
IRON	ppm	5.3	29300	33800	24900	16400	15100	21800	16700	31200	16300	14700	27700	19000	34600	48100	12400
LEAD	ppm	0.2	105.000	157.000	279.000	67.000	271.000	14.000	107.000	71.700	156.000	18.500	92.300	181.000	225.000	138.000	46.600
MAGNESIUM	ppm	3.3	4680	5980	5700	3210	2710	3120	2230	9160	3880	4320	5430	2410	3560	4210	4440
MANGANESE	ppm	0.2	657.000	317.000	248.000	243.000	225.000	221.000	92.200	500.000	571.000	75.700	650.000	245.000	174.000	289.000	218.000
MERCURY	ppm	0.1	1.300	1.400	4.700	0.510	0.400	0.100	0.340	1.500	0.190	0.360	0.680	0.190	5.200	6.200	1.800
NICKEL	ppm	0.7	29.100	41.900	57.100	17.800	18.800	14.600	94.500	38.300	18.600	18.700	20.100	20.400	73.900	69.800	15.900
POTASSIUM	ppm	46.1	1250.000	541.000	520.000	813.000	642.000	1250.000	922.000	712.000	870.000	1040.000	1350.000	548.000	770.000	959.000	876.000
SELENIUM	ppm	0.1	0.160	0.150	1.100	0.700	0.960	0.160	0.250	0.150	0.300	0.160	0.160	0.370	0.250	0.150	0.200
SILVER	ppm	0.9	1.000	0.990	1.000	1.000	1.000	1.000	1.000	0.980	0.960	1.100	1.100	1.000	1.100	1.000	1.300
SODIUM	ppm	56.7	644.000	594.000	1170.000	243.000	258.000	240.000	328.000	489.000	146.000	385.000	330.000	335.000	395.000	361.000	277.000
THALLIUM	ppm	0.5	0.600	0.560	0.570	0.580	0.590	0.580	0.580	0.560	0.540	0.600	0.600	0.580	0.610	0.580	0.750
VANADIUM	ppm	0.6	46.500	31.600	40.900	30.900	18.100	31.300	23.000	43.600	15.800	11.300	25.000	23.600	32.200	29.200	18.000
ZINC	ppm	0.3	199.000	224.000	680.000	114.000	199.000	43.700	29.400	184.000	75.200	52.800	427.000	193.000	276.000	76.200	1830.000
CYANIDE	ppm	1.0	1.300	1.000	1.200	1.100	1.160	1.100	1.120	1.400	1.050	1.150	1.180	1.100	1.200	1.100	1.400
PCB	DILUTION		1.15	1.03	1.15	27.80	5.81	1.10	1.12	1.08	15.80	1.20	29.40	1.10	1.15	1.11	1.08
AROCLOR-1242	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	4.500	3.200	U	U	U	U	U	0.710	U	U	U	U	U	U	1.300
AROCLOR-1260	ppm	1.0	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
SEMIVOL	DILUTION		38.30	34.70	40.30	2200.00	40.80	38.60	37.40	35.80	36.90	2300.00	39.20	38.60	47.60	2220.00	46.80
		LLD															
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.012
1,3-Dichlorobenzene	ppm	10	U	0.092	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10	U	0.320	U	U	0.017	U	U	U	U	U	U	U	0.096	U	0.053
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	U	1.100	U	U	0.072	U	U	0.024	0.060	U	U	U	0.380	U	0.027
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	0.110	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Hexachloroethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	0.066	0.094	0.029	U	1.200	U	U	0.036	0.026	U	0.079	0.180	1.500	340.000	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	0.440	U	U
2,4-dichlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	U	0.550	0.028	U	U	U	U	U	U	U	U	U	4.500	U	U

TABLE 5

AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PS-120	PS-121	PS-122	PS-123	PS-125	PS-126	PS-127	PS-128	PS-129	PS-130	PS-132	PS-133	PS-135	PS-136	PS-137
		LOCATION:	P-6	P-11	P-11	P-11	P-11	P-7	P-11	P-11	P-11	P-7	P-8	P-10	P-10	P-10	P-4
		DATE:	03-Aug	02-Aug	28-Jul	26-Jul	24-Jul	26-Jul	25-Jul	02-Aug	27-Jul	26-Jul	25-Jul	25-Jul	03-Aug	28-Aug	02-Aug
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	3	0	0	12	0	0	8	15	0	18	1	0	0	0	22
Naphthalene	ppm	10	0.510	0.092	0.095	3.100	0.300	U	0.250	0.110	0.038	U	0.910	0.940	3.000	240.000	0.560
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	0.200	0.120	0.059	6.700	0.280	U	0.340	0.150	0.019	U	2.600	0.310	0.320	150.000	0.600
2,4,5-Trichlorophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	0.041	U	U	U	U	0.110	17.000	4.800
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	0.052	U	U
Acenaphthylene	ppm	10	0.024	U	U	U	0.017	U	U	U	U	U	U	0.030	0.068	1.200	U
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	0.160	U	0.014	U	0.810	U	U	0.071	U	U	0.200	0.042	0.370	16.000	0.120
2,4-Dinitrophenol	ppm	50	0.640	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10	0.140	0.053	0.040	U	0.370	U	0.170	0.060	0.015	U	0.120	0.170	0.270	39.000	0.120
2,4-Dinitrotoluene	ppm	10	U	0.960	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl Phthalate	ppm	10	U	U	U	U	0.053	U	U	U	U	U	U	0.032	1.600	U	0.025
4-Chlorophenyl-Phenyl Ether	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flourene	ppm	10	0.120	0.083	U	U	0.710	U	U	0.075	U	U	0.440	0.073	0.350	8.000	U
N-Nitrosodiodiphenylamine(1)	ppm	10	6.300	0.190	0.052	U	U	U	U	0.110	0.380	U	U	U	27.000	120.000	0.760
Hexachlorobenzene	ppm	10	U	0.530	U	U	U	U	U	U	U	U	U	U	0.300	U	U
Phenanthrene	ppm	10	0.680	0.550	0.280	3.400	6.400	0.011	1.900	0.520	0.150	6.700	0.640	0.980	1.100	20.000	0.800
Anthracene	ppm	10	U	0.120	U	U	2.600	U	0.350	0.120	U	U	U	0.150	0.340	4.400	U
di-n-Butyl Phthalate	ppm	10	U	U	U	U	0.028	U	U	0.064	0.073	U	U	0.095	0.660	U	U
Flouranthene	ppm	10	0.660	1.200	0.640	U	20.000	U	U	0.870	0.260	U	U	2.800	1.900	18.000	1.100
Pyrene	ppm	10	1.100	0.730	0.610	U	15.000	U	2.900	1.200	0.290	3.400	U	1.100	1.100	5.900	0.690
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	0.210	U	U
Benzo(a)anthracene	ppm	10	0.430	0.830	0.400	U	5.900	U	1.300	0.550	0.190	U	U	1.200	5.700	5.900	0.390
Chrysene	ppm	10	0.490	0.800	0.450	U	5.500	U	1.500	0.590	0.170	U	U	1.200	0.940	2.600	0.380
bis(2-Ethylhexyl)Phthalate	ppm	10	0.930	0.560	0.870	5.100	1.900	0.150	0.120	4.600	0.300	4.900	0.160	0.350	3.400	U	0.300
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	1.500	U	U
Benzo(b)flouranthene	ppm	10	0.350	1.100	0.640	U	4.800	U	2.500	0.077	0.160	U	U	1.900	0.720	U	0.360
Benzo(k)flouranthene	ppm	10	0.280	1.200	U	U	3.800	U	0.240	U	U	U	U	U	0.820	U	0.240
Benzo(a)pyrene	ppm	10	0.380	0.870	U	U	U	U	0.930	0.570	U	U	U	0.095	0.490	U	0.280
Indeno(1,2,3,c,d)pyrene	ppm	10	0.200	0.600	U	U	0.440	U	0.620	0.520	U	U	U	U	U	U	0.150
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	1.100	U	0.250	U	U	U	U	0.340	U	U	U
Benzo(g,h,i)perylene	ppm	10	0.220	0.680	U	U	0.140	U	0.590	0.610	U	U	U	0.550	0.410	U	0.160
VOLATILE DILUTION			1.15	1.03	1.15	1.10	1.16	1.10	1.12	1.08	1.05	1.15	1.18	1.10	1.15	1.11	1.20
		LLD															
Methylene Chloride	ppm	5	0.011	0.008	0.017	U	0.020	U	0.009	0.008	0.007	U	0.008	0.007	0.015	U	0.020
Acetone	ppm	10	0.017	0.013	0.015	0.280	U	0.016	0.170	0.016	0.008	0.150	0.012	U	0.010	0.061	0.065
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	U	0.012	0.005	U	0.006	0.009	U	U	U	0.005	U	U	0.094
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.018
2-Hexanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	0.015	U	U	U	0.008	U	U	0.007	0.012	U	U	U	0.007	0.005	0.006
Toluene	ppm	5	0.007	0.007	0.008	0.087	U	U	U	0.012	0.010	U	U	0.005	U	U	0.092
Chlorobenzene	ppm	5	0.018	U	U	U	U	U	U	U	U	U	U	U	U	U	0.270

TABLE 5

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AMERICAN CYANAMID - BOUND BROOK FACILITY

SURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PS-120	PS-121	PS-122	PS-123	PS-125	PS-126	PS-127	PS-128	PS-129	PS-130	PS-132	PS-133	PS-135	PS-136	PS-137
		LOCATION:	P-6	P-11	P-11	P-11	P-11	P-7	P-11	P-11	P-11	P-7	P-8	P-10	P-10	P-10	P-4
		DATE:	03-Aug	02-Aug	28-Jul	26-Jul	24-Jul	26-Jul	25-Jul	02-Aug	27-Jul	26-Jul	25-Jul	25-Jul	03-Aug	28-Aug	02-Aug
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	3	0	0	12	0	0	8	15	0	18	1	0	0	0	22
Ethylbenzene	ppm	5	U	U	U	U	U	U	U	U	U	0.050	U	U	U	U	U
Total Xylenes	ppm	5	0.005	U	U	U	U	U	U	U	U	0.071	U	U	U	U	U

TABLE 5

AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PS-138	PS-139	PS-140	PS-141	PS-142	PS-143	PS-145	PS-146	PS-147	PS-148	PS-150	PS-151	PS-152	PS-153	PS-154
		LOCATION:	P-5	P-5	P-5	P-3	P-4	P-5	P-9	P-9	P-9	P-9	P-9	P-11	P-1	P-1	P-1
		DATE:	01-Aug	27-Jul	01-Aug	01-Aug	01-Aug	03-Aug	03-Aug	28-Aug	25-Aug	29-Aug	30-Aug	21-Jul	21-Jul	24-Jul	21-Jul
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
INORGANIC		HNU_PPM:	0	4	0	0	0	2	0	6	5	0	0	0	4	38	12
ALUMINUM	ppm	11.2	10500.0	10500.0	4200.0	14100.0	15200.0	15200.0	8700.0	10900.0	10700.0	9140.0	8390.0	2960.0	5600.0	6450.0	2270.0
ANTIMONY	ppm	2.6	2.900	4.000	2.800	2.900	2.700	2.900	2.800	2.800	2.900	3.000	3.000	2.900	3.200	3.100	3.200
ARSENIC	ppm	0.5	5.000	6.400	6.400	4.300	3.500	2.600	3.200	2.600	6.300	10.200	7.700	11.700	23.400	23.300	48.900
BARIUM	ppm	0.7	85.700	131.000	35.500	147.000	78.000	79.900	67.700	57.200	81.600	139.000	83.300	41.600	30.300	68.200	63.900
BERYLLIUM	ppm	0.2	1.100	1.900	0.470	1.400	1.800	0.430	0.960	0.160	0.990	1.000	0.500	0.370	0.200	0.190	0.190
CADMIUM	ppm	0.2	0.920	0.460	0.250	0.260	0.360	0.260	0.260	0.250	0.270	0.740	0.270	0.260	0.700	1.100	0.800
CALCIUM	ppm	2.3	15300.0	7040.0	1700.0	13600.0	13300.0	10400.0	3870.0	6010.0	1040.0	3160.0	5750.0	37200.0	5020.0	14700.0	1050.0
CHROMIUM	ppm	0.8	67.600	72.500	71.200	63.500	63.000	51.800	26.000	25.900	82.400	49.100	169.000	11.500	125.000	24.400	81.800
COBALT	ppm	0.7	12.800	12.100	5.600	11.200	16.500	17.700	8.100	15.000	10.900	10.600	8.800	4.900	16.000	5.900	8.400
COPPER	ppm	0.4	267.000	154.000	50.700	83.100	161.000	160.000	22.000	350.000	46.000	72.200	74.200	39.600	335.000	66.400	167.000
IRON	ppm	5.3	29700	36200	11100	29300	37900	29400	15000	23000	25200	23500	19000	11600	98700	23800	70300
LEAD	ppm	0.2	147.000	328.000	67.200	133.000	96.200	40.200	19.900	29.900	118.000	81.600	59.500	80.600	175.000	561.000	337.000
MAGNESIUM	ppm	3.3	7770	4500	1340	4000	10600	12300	3700	9360	3720	4840	3090	20300	4770	1980	669
MANGANESE	ppm	0.2	342.000	352.000	134.000	383.000	505.000	685.000	438.000	466.000	328.000	284.000	284.000	380.000	770.000	105.000	338.000
MERCURY	ppm	0.1	1.900	8.500	0.350	0.770	2.500	3.300	0.620	1.200	1.200	4.800	0.830	12.000	1.900	0.830	1.900
NICKEL	ppm	0.7	111.000	45.000	24.500	37.100	88.600	32.000	18.300	32.100	25.800	28.700	22.500	9.600	199.000	16.400	35.400
POTASSIUM	ppm	46.1	726.000	743.000	399.000	1240.000	753.000	956.000	1080.000	674.000	918.000	808.000	738.000	357.000	420.000	316.000	204.000
SELENIUM	ppm	0.1	0.240	0.210	0.520	0.160	0.150	0.160	0.150	0.160	0.250	0.160	0.180	0.160	0.170	0.690	0.680
SILVER	ppm	0.9	1.200	1.000	1.000	1.000	0.960	1.000	1.000	1.000	1.000	1.100	1.000	1.000	1.100	1.100	1.100
SODIUM	ppm	56.7	857.000	235.000	312.000	429.000	1470.000	752.000	204.000	547.000	156.000	275.000	335.000	207.000	703.000	191.000	126.000
THALLIUM	ppm	0.5	0.620	0.590	0.610	0.630	0.580	0.590	0.580	0.570	0.600	0.600	0.600	0.580	0.640	0.630	0.640
VANADIUM	ppm	0.6	34.300	34.500	16.800	41.300	53.400	49.200	19.900	33.000	26.400	26.600	22.500	16.900	38.900	20.400	21.200
ZINC	ppm	0.3	528.000	330.000	68.400	182.000	433.000	126.000	44.500	75.600	99.000	607.000	223.000	60.300	97.100	373.000	113.000
CYANIDE	ppm	1.0	1.100	1.130	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.200	1.100	1.060	1.190	1.180	1.190
PCB	DILUTION		1.10	16.80	1.09	1.14	1.09	1.33	1.10	1.09	1.12	1.16	1.11	1.06	1.19	11.80	1.19
AROCLOR-1242	ppm	0.5	U	U	U	4.500	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	6.800	16.000	0.190	4.000	0.870	2.100	U	0.560	2.100	3.100	0.400	U	0.490	U	U
AROCLOR-1260	ppm	1.0	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
SEMIVOL	DILUTION		39.00	39.40	2170.00	37.90	35.10	44.40	36.60	2170.00	37.40	36.80	37.00	2130.00	39.60	2350.00	2380.00
		LLD															
2-Chlorophenol	ppm	10	U	0.023	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	0.047	U	U	U	0.008	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10	U	U	U	U	U	0.190	U	U	U	0.034	U	U	U	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	0.085	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	U	0.017	U	U	0.012	0.470	0.020	U	0.019	0.380	U	U	0.088	U	U
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	0.240	U	U	U	U	U	U	U	U	U
Hexachloroethane	ppm	10	0.027	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	U	U	U	U	0.400	0.085	0.040	U	U	0.160	U	U	0.260	600.000	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	0.051	U	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	U	0.870	U	U	U	U	U
2,4-dichlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
[illegible],4-Tr[illegible]benz[illegible]	[illegible]	10	U	0.00[illegible]	U	U	U	0.170	U	U	0.170	0.022	U	U	0.170	U	U

TABLE 5

AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PS-138	PS-139	PS-140	PS-141	PS-142	PS-143	PS-145	PS-146	PS-147	PS-148	PS-150	PS-151	PS-152	PS-153	PS-154
		LOCATION:	P-5	P-5	P-5	P-3	P-4	P-5	P-9	P-9	P-9	P-9	P-9	P-11	P-1	P-1	P-1
		DATE:	01-Aug	27-Jul	01-Aug	01-Aug	01-Aug	03-Aug	03-Aug	28-Aug	25-Aug	29-Aug	30-Aug	21-Jul	21-Jul	24-Jul	21-Jul
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	4	0	0	0	2	0	6	5	0	0	0	4	38	12
Naphthalene	ppm	10	0.036	0.044	5.800	0.022	0.410	6.000	0.180	44.000	0.220	0.150	0.130	34.000	5.100	1.000	U
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	0.180	U	U	U	U	U
2-Methylnaphthalene	ppm	10	U	U	32.000	U	0.065	2.400	0.072	40.000	0.033	0.110	0.084	12.000	0.900	0.800	U
2,4,5-Trichlorophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	0.830	0.038	U	U	U	U	U	U	2.900	U
Acenaphthylene	ppm	10	U	U	U	U	0.014	U	U	3.600	U	0.023	0.071	U	U	U	U
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	0.017	2.100	U	0.100	2.700	0.054	57.000	U	0.110	0.039	35.000	2.300	U	U
2,4-Dinitrophenol	ppm	50	U	U	U	1.200	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10	U	0.030	11.000	U	0.067	2.700	0.056	46.000	0.022	0.070	0.071	29.000	2.200	U	U
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl Phthalate	ppm	10	U	U	U	U	U	0.082	0.031	U	U	0.060	U	U	1.300	U	U
4-Chlorophenyl-Phenyl Ether	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flourene	ppm	10	U	0.015	0.720	U	0.049	3.200	0.064	38.000	0.110	0.220	0.047	46.000	2.700	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	0.360	2.800	U	1.100	4.100	1.900	1.100	11.000	U	U	U	U	1.500	41.000	U
Hexachlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	0.030	U	U	U	U	U
Phenanthrene	ppm	10	0.032	0.120	12.000	0.210	0.390	12.000	0.350	28.000	0.170	0.960	0.630	240.000	8.500	1.400	U
Anthracene	ppm	10	U	U	2.100	U	0.130	4.100	U	9.300	U	0.320	0.150	95.000	2.800	U	U
di-n-Butyl Phthalate	ppm	10	U	U	U	U	0.012	U	0.020	U	U	0.084	0.017	U	U	U	U
Flouranthene	ppm	10	0.075	0.280	5.000	0.440	0.770	12.000	0.490	6.800	0.320	1.100	1.400	210.000	8.700	1.300	U
Pyrene	ppm	10	0.056	0.300	3.900	1.200	0.800	10.000	0.520	4.900	0.210	1.300	0.610	140.000	5.200	0.930	U
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	0.043	0.170	U	0.290	0.500	6.700	0.260	1.100	0.160	0.760	0.600	76.000	5.300	U	U
Chrysene	ppm	10	0.055	0.240	2.100	0.330	0.570	6.000	0.220	U	0.250	0.660	0.720	71.000	4.900	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10	U	0.430	2.100	0.260	0.290	1.100	3.300	1.100	0.120	0.140	0.120	U	0.680	2.900	U
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	U	0.260	U	U	0.790	4.900	0.170	U	0.260	0.470	0.890	48.000	2.800	U	U
Benzo(k)flouranthene	ppm	10	0.130	0.180	U	U	U	4.000	0.160	U	U	U	1.200	60.000	2.300	U	U
Benzo(a)pyrene	ppm	10	0.062	0.170	U	U	0.730	3.400	0.150	U	0.086	0.650	0.430	61.000	3.000	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	U	U	0.450	3.100	0.087	U	0.110	U	0.240	24.000	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	0.180	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	0.190	U	U	0.510	3.200	U	U	0.130	U	0.140	24.000	2.400	U	U
VOLATILE DILUTION			1.11	11.20	1.09	1.14	1.05	167.00	1.10	136.00	1.12	1.16	1.11	1.06	1.19	294.00	1.19
		LLD															
Methylene Chloride	ppm	5	0.037	U	0.024	0.027	0.006	U	0.016	0.320	0.008	0.011	0.009	0.018	0.011	0.920	0.010
Acetone	ppm	10	0.083	0.180	U	U	U	U	0.039	U	0.009	0.007	0.067	U	0.220	5.800	0.056
Chloroform	ppm	5	U	U	U	U	U	0.690	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	U	U	2.200	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	0.008	U	0.006	U	U	U	U
Benzene	ppm	5	0.008	U	0.054	0.007	U	0.310	U	0.390	U	U	0.005	U	U	3.800	0.007
4-Methyl-2-Pentanone	ppm	10	0.013	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Hexanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	0.019	U	0.014	0.021	0.013	0.190	0.005	U	U	U	U	0.047	U	2.400	0.005
Toluene	ppm	5	0.031	U	0.009	0.022	0.014	1.700	U	2.700	U	U	0.013	0.013	U	U	0.010
Chlorobenzene	ppm	5	U	0.920	U	0.025	U	1.100	U	U	U	U	U	U	U	U	U

TABLE 5

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AMERICAN CYANAMID - BOUND BROOK FACILITY

SURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PS-138	PS-139	PS-140	PS-141	PS-142	PS-143	PS-145	PS-146	PS-147	PS-148	PS-150	PS-151	PS-152	PS-153	PS-154
		LOCATION:	P-5	P-5	P-5	P-3	P-4	P-5	P-8	P-9	P-9	P-9	P-9	P-11	P-1	P-1	P-1
		DATE:	01-Aug	27-Jul	01-Aug	01-Aug	01-Aug	03-Aug	03-Aug	28-Aug	25-Aug	29-Aug	30-Aug	21-Jul	21-Jul	24-Jul	21-Jul
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	4	0	0	0	2	0	6	5	0	0	0	4	38	12
Ethylbenzene	ppm	5	U	U	U	U	U	0.640	U	0.470	U	U	U	U	U	U	U
Total Xylenes	ppm	5	0.013	U	U	U	U	4.000	U	2.000	U	U	0.008	0.011	U	U	0.008

TABLE 5

AMERICAN CYANAMID - BOUND BROOK

SURFACE SAMPLES IN PRODUCTION AREA

PCB	units	FIELD ID: / DILUTION:	TR1-1 / 1.10	TR1-2 / 1.40	TR1-3 / 1.06	TR2-1 / 1.09	TR2-2 / 1.11	TR2-3 / 1.11	TR3-1 / 112.00	TR3-2 / 215.00	TR3-3 / 150.00	TR4-1 / 1.10	TR4-2 / 1.10	TR4-3 / 1.10	TR4-4 / 1.00	TR5-1 / 1.26	TR5-2 / 1.35
		LLD															
AROCLOR1248	ppm	0.5	U	4.900	2.000	U	2.000	9.000	1500.000	2500.000	850.000	0.330	0.880	U	U	U	U
AROCLOR1254	ppm	1.0	0.720	5.500	0.670	U	U	U	U	U	120.000	0.410	U	U	0.480	U	U
AROCLOR1260	ppm	1.0	U	U	U	U	0.590	2.000	210.000	300.000	U	U	U	U	U	0.190	0.200

TABLE 5

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AMERICAN CYANAMID - BOUND BROOK

SURFACE SAMPLES IN PRODUCTION AREA

PCB	units	FIELDID:	TR5-3	TR5-4	TR6-1	TR6-2	TR6-3	TR6-4	TR7-1	TR7-2	TR7-3	TR8-1	TR8-2	TR8-3	TR9-1	TR9-2
		DILUTION:	1.14	1.18	1.12	1.11	1.11	1.00	1.11	1.50	1.11	1.16	1.08	1.11	1.10	0.00
		LLD														
AROCLOR1248	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR1254	ppm	1.0	0.410	U	U	U	U	U	U	U	U	U	0.850	0.240	U	0.700
AROCLOR1260	ppm	1.0	U	U	U	U	0.510	0.460	U	U	U	U	U	U	U	U

TABLE 6

SUBSURFACE SAMPLES IN THE PRODUCTION AREA

TABLE 6

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	LLD	PB-5A	PB-5B	PB-6A	PB-6B	PB-9A	PB-10A	PB-10B	PB-10C	PB-11A	PB-11B	PB-12A	PB-12B	PB-13A	PB-13B
FIELDID:			PB-5A	PB-5B	PB-6A	PB-6B	PB-9A	PB-10A	PB-10B	PB-10C	PB-11A	PB-11B	PB-12A	PB-12B	PB-13A	PB-13B
LOCATION:			P-3	P-3	P-4	P-4	P-2	P-2	P-2	P-2	P-2	P-2	P-2	P-2	P-3	P-3
DATE:			11-Aug	11-Aug	10-Aug	10-Aug	11-Aug	09-Aug	09-Aug	09-Aug	07-Aug	07-Aug	07-Aug	07-Aug	28-Jul	28-Jul
DEPTH:			4-6	8-10	2-4	8-10	2-4	2-4	6-8	16-18	2-4	5-6	2-4	6-8	2-4	10-12
HNU PPM:			0	2	1	1	13	500	460	420	0	48	0	0	0	0
INORGANIC																
ALUMINUM	ppm	11.2	11400.00	18300.00	10200.00	10700.00	18700.00	7640.00	8190.00	11700.00	10700.00	10700.00	10500.00	11300.00	3390.00	10500.00
ANTIMONY	ppm	2.6	3.10	3.20	2.90	3.40	3.00	2.90	3.30	3.00	2.90	3.20	3.40	3.60	2.90	3.00
ARSENIC	ppm	0.5	3.40	0.67	4.10	2.40	2.00	2.80	2.00	2.80	5.00	3.50	9.20	2.70	5.00	4.10
BARIUM	ppm	0.7	87.10	112.00	92.00	210.00	592.00	67.20	155.00	178.00	116.00	105.00	95.20	79.70	68.80	60.10
BERYLLIUM	ppm	0.2	0.73	0.38	1.60	3.00	1.50	0.17	0.35	1.20	0.47	0.19	0.47	0.55	0.23	0.67
CADMIUM	ppm	0.2	0.28	0.28	1.20	0.31	0.27	0.26	0.30	0.28	0.26	0.29	0.30	0.32	0.26	0.36
CALCIUM	ppm	2.3	1630.00	2840.00	1130.00	4940.00	2370.00	1360.00	1200.00	1520.00	970.00	2800.00	1020.00	2540.00	1570.00	758.00
CHROMIUM	ppm	0.8	89.10	39.50	161.00	24.90	33.10	30.60	15.60	21.90	87.80	44.40	26.50	22.80	7.10	22.50
COBALT	ppm	0.7	9.20	15.10	10.30	7.20	18.70	9.10	8.40	14.20	9.10	11.30	9.20	10.60	3.00	11.70
COPPER	ppm	0.4	30.90	19.70	169.00	9.70	66.80	234.00	20.60	15.90	122.00	139.00	42.90	23.40	42.00	26.70
IRON	ppm	5	23200	19600	29100	26400	34900	14400	10100	17700	20000	24000	20900	15800	8940	14000
LEAD	ppm	0.2	9.70	15.60	68.60	14.30	19.80	16.00	7.40	13.60	24.30	30.10	84.50	53.40	93.70	24.70
MAGNESIUM	ppm	3.3	3470.00	5300.00	3730.00	3060.00	11700.00	4610.00	3520.00	6790.00	4240.00	5150.00	2860.00	3980.00	1260.00	3160.00
MANGANESE	ppm	0.2	126.00	174.00	247.00	316.00	412.00	489.00	855.00	351.00	288.00	654.00	298.00	187.00	85.40	97.50
MERCURY	ppm	0.1	0.10	0.10	0.53	0.10	0.10	0.10	0.10	0.10	0.39	0.25	0.14	0.10	0.20	0.10
NICKEL	ppm	0.7	19.30	28.30	28.50	15.00	45.50	21.70	19.80	57.30	21.50	25.60	17.70	21.20	6.00	21.10
POTASSIUM	ppm	46.1	1030.00	1630.00	928.00	448.00	4530.00	1100.00	934.00	2680.00	1160.00	1100.00	847.00	1230.00	732.00	1420.00
SELENIUM	ppm	0.1	0.17	0.17	0.16	0.24	0.16	0.18	0.18	0.16	0.16	0.18	0.45	0.19	0.26	0.16
SILVER	ppm	0.9	1.10	1.10	1.00	1.20	1.10	1.00	1.20	1.10	1.00	1.10	1.20	1.30	1.00	1.10
SODIUM	ppm	56.7	116.00	173.00	142.00	171.00	342.00	141.00	212.00	253.00	382.00	544.00	774.00	784.00	252.00	191.00
THALLIUM	ppm	0.5	0.64	0.64	0.60	0.70	0.61	0.59	0.67	0.62	0.60	0.64	0.68	0.73	0.59	0.60
VANADIUM	ppm	0.6	43.40	44.70	27.00	40.50	38.30	16.50	22.00	39.00	22.60	29.10	30.00	212.00	9.90	23.00
ZINC	ppm	0.3	54.60	60.40	149.00	35.60	113.00	156.00	65.70	69.70	162.00	253.00	143.00	169.00	18.20	54.80
CYANIDE	ppm	1.0	1.20	1.20	1.30	1.30	1.10	1.10	1.40	1.20	1.10	1.20	1.30	1.50	1.20	1.10
PCB																
DILUTION			1.20	1.23	1.14	1.25	1.14	1.12	1.35	1.16	1.12	1.20	1.26	1.54	1.15	1.10
		LLD														
AROCLOR-1248	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	U	U	U	U	U	U	U	U	0.200	U	0.280	U	U	U
SEMIVOL																
DILUTION			2410.00	2470.00	37.50	2500.00	2270.00	7500.00	3660.00	38.80	37.50	201.00	42.20	51.30	40.30	38.60
		LLD														
Phenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	0.037	0.020	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	23.000	7.200	0.190	0.140	2.600	U	U	0.059	0.057
1,4-Dichlorobenzene	ppm	10	U	U	0.017	U	U	290.000	93.000	1.900	1.000	15.000	U	U	0.050	0.064
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	U	0.030	0.440	U	U	1300.000	420.000	8.200	3.400	84.000	0.052	0.012	0.063	0.081
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	1.000	U	0.170	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	U	U	1.200	0.073	0.130	U	U	U	U
Nitrobenzene	ppm	10	U	U	0.041	U	U	U	9.100	U	U	U	0.026	U	2.700	1.200
Isophorone	ppm	10	U	U	U	U	U	U	U	0.180	U	U	U	U	U	U
2-Nitrophenol	ppm	10	U	U	U	U	U	U	U	U	0.008	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	U	0.250	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2,4-dichlorophenol	ppm	10	U	U	U	U	U	U	U	0.021	U	U	U	U	U	U

TABLE 6

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-5A	PB-5B	PB-6A	PB-6B	PB-9A	PB-10A	PB-10B	PB-10C	PB-11A	PB-11B	PB-12A	PB-12B	PB-13A	PB-13B
		LOCATION:	P-3	P-3	P-4	P-4	P-2	P-2	P-2	P-2	P-2	P-2	P-2	P-2	P-3	P-3
		DATE:	11-Aug	11-Aug	10-Aug	10-Aug	11-Aug	09-Aug	09-Aug	09-Aug	07-Aug	07-Aug	07-Aug	07-Aug	28-Jul	28-Jul
		DEPTH:	4-6	8-10	2-4	8-10	2-4	2-4	6-8	16-18	2-4	5-6	2-4	6-8	2-4	10-12
		HNU_PPM:	0	2	1	1	13	500	460	420	0	48	0	0	0	0
1,2,4-Trichlorobenzene	ppm	10	U	U	U	U	U	U	1.100	0.038	U	0.330	0.015	U	9.500	12.000
Naphthalene	ppm	10	U	19.000	2.700	0.360	1.200	U	2.200	0.044	0.170	U	0.100	0.005	0.100	0.190
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	0.870	U	U	U	U
2-Methylnaphthalene	ppm	10	U	1.100	0.290	U	1.500	U	U	0.014	0.054	0.350	0.033	U	0.089	0.110
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	0.075	U	U	U	U	U	U	U	U	U	U	1.100	0.800
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	0.550	U	U	U	U	U	U	0.053	0.170	0.019	U	U	U
Dibenzofuran	ppm	10	U	0.990	0.150	U	1.100	U	U	0.013	0.046	0.150	0.025	U	0.029	0.034
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	4.800	5.400
Diethyl Phthalate	ppm	10	U	U	U	U	U	U	U	0.030	0.008	U	0.022	0.015	U	U
Flourene	ppm	10	U	1.100	U	U	1.800	U	U	0.017	0.070	0.250	0.024	U	U	U
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	U	0.400	0.380	U	U	U	U	U	0.530	0.240	0.042	0.013	U	U
Phenanthrene	ppm	10	U	4.900	0.370	U	8.900	U	1.900	0.080	0.360	0.850	0.220	0.007	0.110	0.140
Anthracene	ppm	10	U	3.300	U	U	0.620	U	U	0.017	U	0.140	U	U	U	U
di-n-Butyl Phthalate	ppm	10	U	U	0.007	U	U	U	U	U	0.005	U	0.008	U	U	U
Flouranthene	ppm	10	U	3.300	0.660	U	3.500	U	U	0.042	0.340	0.340	0.240	U	0.140	0.200
Pyrene	ppm	10	U	2.500	0.580	U	5.300	U	U	U	0.610	0.640	0.570	U	0.100	0.190
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	0.600	0.650	U	U	U	U	U	0.350	U	0.140	U	0.076	0.110
Chrysene	ppm	10	U	0.510	0.380	U	U	U	U	U	0.170	U	0.170	U	0.100	0.130
bis(2-Ethylhexyl)Phthalate	ppm	10	U	1.600	0.810	U	2.700	U	U	U	0.380	2.500	0.130	0.250	0.470	0.810
di-n-OctylPhthalate	ppm	10	U	0.180	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	U	0.300	0.220	U	U	U	U	U	0.170	U	0.190	U	0.170	0.190
Benzo(k)flouranthene	ppm	10	U	0.170	0.270	U	U	U	U	U	0.130	U	0.120	U	U	U
Benzo(a)pyrene	ppm	10	U	0.160	0.240	U	U	U	U	U	0.160	U	0.150	U	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	0.089	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	U	0.023	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	0.120	U	U	U	U	U	U	U	0.110	U	U	U

VOLATILE		DILUTION	1.20	1.23	1.14	1.25	1.14	1400.00	18900.00	1450.00	1.12	300.00	1.27	1.54	1.15	1.10
		LLD														
Bromoethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	0.005	0.005	0.008	0.005	0.005	5.200	U	U	0.006	U	U	0.009	0.019	0.010
Acetone	ppm	10	0.021	0.270	0.025	0.038	0.014	U	U	U	0.110	7.100	0.015	0.071	0.024	0.021
Carbon Disulfide	ppm	5	U	U	0.006	U	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	U	U	U	U	U	U	130.000	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	300.000	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	U	U	U	1.200	340.000	U	0.009	U	U	U	U	U
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6

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AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-5A	PB-5B	PB-6A	PB-6B	PB-9A	PB-10A	PB-10B	PB-10C	PB-11A	PB-11B	PB-12A	PB-12B	PB-13A	PB-13B
		LOCATION:	P-3	P-3	P-4	P-4	P-2	P-2	P-2	P-2	P-2	P-2	P-2	P-2	P-3	P-3
		DATE:	11-Aug	11-Aug	10-Aug	10-Aug	11-Aug	09-Aug	09-Aug	09-Aug	07-Aug	07-Aug	07-Aug	07-Aug	28-Jul	28-Jul
		DEPTH:	4-6	8-10	2-4	8-10	2-4	2-4	6-8	16-18	2-4	5-6	2-4	6-8	2-4	10-12
		HNU_PPM:	0	2	1	1	13	500	460	420	0	48	0	0	0	0
4-Methyl-2-Pentanone	ppm	10	0.006	0.014	U	0.007	U	U	U	U	U	U	U	0.005	U	0.005
2-Hexanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	0.008	U	U	U	0.018	0.007
Toluene	ppm	5	U	U	U	U	U	1.300	3000.000	3.400	0.110	36.000	U	U	U	U
Chlorobenzene	ppm	5	U	U	U	U	0.012	U	370.000	U	0.110	8.400	U	0.014	U	U
Ethylbenzene	ppm	5	U	U	U	U	U	2.200	530.000	U	U	0.770	U	U	U	U
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	U	U	U	U	U	48.000	2500.000	U	0.019	5.600	U	U	U	U

TABLE 6

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-13C	PB-14A	PB-14B	PB-15A	PB-16A	PB-16B	PB-17A	PB-17B	PB-18A	PB-18B	PB-19A	PB-19B	PB-20A	PB-20B
		LOCATION:	P-3	P-3	P-3	P-3	P-3	P-3	P-11	P-11	P-1	P-1	P-1	P-1	P-1	P-1
		DATE:	28-Jul	07-Aug	07-Aug	04-Aug	01-Aug	01-Aug	21-Jul	21-Jul	21-Jul	21-Jul	21-Jul	21-Jul	24-Jul	24-Jul
		DEPTH:	20-22	2-4	4-6	2-4	1-2	4-5	4-6	8-10	2.7-4.7	4.7-6.7	2-4	6-8	2-4	6.5-7.5
INORGANIC		HNU PPM:	50	14	16	6	10	20	1	19	19	4	1	0	120	240
ALUMINUM	ppm	11.2	13500.00	10100.00	10800.00	11400.00	4800.00	19500.00	9890.00	7090.00	1410.00	410.00	4570.00	8300.00	17500.00	12900.00
ANTIMONY	ppm	2.6	3.10	3.00	3.00	3.50	3.10	3.20	3.20	3.00	3.00	2.90	3.10	3.10	3.30	3.20
ARSENIC	ppm	0.5	11.10	1.60	1.30	5.40	12.40	2.70	6.90	1.80	72.00	66.30	4.40	2.00	4.40	2.10
BARIUM	ppm	0.7	85.90	66.60	87.90	66.80	87.20	131.00	240.00	43.40	25.70	10.60	39.80	74.00	94.50	158.00
BERYLLIUM	ppm	0.2	0.18	0.80	0.72	0.21	0.44	0.37	1.20	0.62	4.50	1.80	0.19	0.41	0.73	0.94
CADMIUM	ppm	0.2	2.40	0.27	0.27	0.39	0.28	0.29	0.30	0.28	1.60	2.00	0.28	0.29	0.56	0.30
CALCIUM	ppm	2.3	1020.00	3330.00	2190.00	775.00	1620.00	1870.00	3980.00	1900.00	1790.00	198.00	12500.00	2360.00	1860.00	468.00
CHROMIUM	ppm	0.8	23.80	21.00	26.70	25.60	25.60	33.50	42.00	28.50	533.00	777.00	9.80	17.40	51.20	32.00
COBALT	ppm	0.7	19.50	9.00	5.40	14.50	4.40	6.20	21.70	11.90	34.30	46.10	6.00	10.60	14.00	9.60
COPPER	ppm	0.4	23.10	10.60	18.00	35.50	106.00	18.40	37.30	16.40	43600.00	2830.00	55.90	15.90	29.00	11.20
IRON	ppm	5	35800	15600	14900	24200	26600	30500	30700	14600	368000	590000	11500	17300	31800	15200
LEAD	ppm	0.2	14.80	32.70	23.90	29.60	690.00	34.40	33.60	11.10	816.00	247.00	53.20	9.70	62.80	72.00
MAGNESIUM	ppm	3.3	6600.00	2660.00	2880.00	3800.00	1300.00	3040.00	5460.00	4560.00	732.00	98.50	2370.00	3310.00	4650.00	2700.00
MANGANESE	ppm	0.2	251.00	382.00	98.80	178.00	107.00	200.00	2030.00	187.00	2640.00	3520.00	175.00	206.00	179.00	89.20
MERCURY	ppm	0.1	0.10	1.30	0.78	3.70	0.23	0.10	0.72	0.13	0.27	0.11	0.29	0.12	0.13	0.19
NICKEL	ppm	0.7	30.40	13.00	15.80	31.90	15.90	17.60	18.60	20.90	958.00	980.00	29.20	18.80	26.20	19.50
POTASSIUM	ppm	46.1	2040.00	540.00	829.00	1220.00	983.00	754.00	351.00	1000.00	290.00	228.00	325.00	471.00	747.00	458.00
SELENIUM	ppm	0.1	0.18	0.16	0.16	0.19	0.26	0.27	0.20	0.16	0.16	0.15	0.17	0.17	0.18	0.17
SILVER	ppm	0.9	1.10	1.10	1.10	1.20	1.10	1.10	1.20	1.10	6.10	1.00	1.10	1.10	1.20	1.10
SODIUM	ppm	56.7	208.00	330.00	326.00	643.00	598.00	799.00	228.00	159.00	501.00	397.00	161.00	324.00	153.00	161.00
THALLIUM	ppm	0.5	0.62	0.61	0.62	0.71	0.66	0.69	0.65	0.60	0.59	0.58	0.62	0.63	0.67	0.65
VANADIUM	ppm	0.6	43.50	25.60	23.70	28.90	27.00	39.20	70.90	34.00	59.60	109.00	10.90	41.70	75.20	33.30
ZINC	ppm	0.3	73.00	95.40	117.00	142.00	32.40	48.60	99.60	54.60	2370.00	862.00	61.50	59.80	152.00	107.00
CYANIDE	ppm	1.0	1.10	1.10	1.20	1.30	1.20	1.10	1.22	1.11	1.11	1.09	1.19	1.22	1.27	1.22
PCB																
DILUTION			1.13	1.14	1.16	1.20	1.20	1.14	1.22	1.11	1.11	1.09	1.19	1.22	31.60	6.10
		LLD														
AROCLOR-1248	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	U	U	U	U	U	U	U	U	0.570	1.700	U	U	U	U
SEMIVOL																
DILUTION			39.90	190.00	38.80	50.50	40.20	37.90	40.60	37.00	2220.00	36.20	2380.00	40.60	2530.00	2440.00
		LLD														
Phenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10	0.045	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	0.240	U	U	U	0.260	0.018	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10	0.390	U	0.027	U	0.290	0.053	0.140	U	U	U	U	U	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	1.000	U	0.140	0.120	0.990	0.170	0.037	U	U	0.089	U	U	U	U
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	U	20.000	3.500	0.240	3.100	U	U	U	U	U	5.700	U	530.000	1800.000
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitrophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2,4-dichlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-13C	PB-14A	PB-14B	PB-15A	PB-16A	PB-16B	PB-17A	PB-17B	PB-18A	PB-18B	PB-19A	PB-19B	PB-20A	PB-20B
		LOCATION:	P-3	P-3	P-3	P-3	P-3	P-3	P-11	P-11	P-1	P-1	P-1	P-1	P-1	P-1
		DATE:	28-Jul	07-Aug	07-Aug	04-Aug	01-Aug	01-Aug	21-Jul	21-Jul	21-Jul	21-Jul	21-Jul	21-Jul	24-Jul	24-Jul
		DEPTH:	20-22	2-4	4-6	2-4	1-2	4-5	4-6	8-10	2.7-4.7	4.7-6.7	2-4	6-8	2-4	6.5-7.5
		HNU_PPM:	50	14	16	6	10	20	1	19	19	4	1	0	120	240
1,2,4-Trichlorobenzene	ppm	10	42.000	U	0.045	U	6.700	U	U	U	U	U	U	U	U	U
Naphthalene	ppm	10	0.200	0.110	0.330	0.710	0.048	U	U	U	4.400	0.130	U	2.000	U	U
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	U	0.033	0.120	0.170	U	U	U	U	U	0.120	U	0.970	U	U
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	0.780	U	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	U	U	0.076	U	U	U	U	U	U	U	U	U	U
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	U	0.091	0.870	U	U	U	U	U	0.160	U	U	U	U
Dibenzofuran	ppm	10	U	0.015	0.120	0.990	U	U	U	U	6.800	0.170	U	U	U	U
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl Phthalate	ppm	10	U	U	0.019	U	U	U	U	U	U	U	U	U	U	U
Flourene	ppm	10	U	U	0.130	1.600	U	U	U	U	9.300	0.260	U	0.250	U	U
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	U	U	0.140	U	U	U	U	U	U	U	U	U	1.800	2.000
Phenanthrene	ppm	10	U	0.048	0.220	1.100	0.110	U	U	U	49.000	1.300	U	0.240	U	U
Anthracene	ppm	10	U	U	0.030	1.000	U	U	U	U	12.000	0.300	U	0.100	U	U
di-n-Butyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flouranthene	ppm	10	U	U	0.060	2.500	0.270	U	U	U	37.000	1.300	U	U	U	U
Pyrene	ppm	10	U	U	0.041	1.600	0.650	U	U	U	22.000	0.590	U	U	U	U
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	U	0.022	1.100	0.160	U	U	U	U	0.350	U	U	U	U
Chrysene	ppm	10	U	U	0.017	1.000	0.220	U	U	U	U	0.350	U	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10	0.250	U	0.170	0.180	0.370	U	0.490	0.190	U	0.130	U	U	2.300	U
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	U	U	U	0.710	0.260	U	U	U	U	0.130	U	U	U	U
Benzo(k)flouranthene	ppm	10	U	U	U	0.490	U	U	U	U	U	0.130	U	U	U	U
Benzo(a)pyrene	ppm	10	U	U	0.028	0.870	U	U	U	U	U	0.160	U	U	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	U	0.320	U	U	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	0.170	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	U	0.280	U	U	U	U	U	U	U	U	U	U
VOLATILE DILUTION			142.00	142.00	145.00	1.20	1.20	1.14	6.10	1.11	1.11	1.09	1.18	1.22	316.00	610.00
		LLD														
Bromomethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	0.280	U	U	0.008	0.047	0.031	0.140	0.025	0.038	0.037	0.026	0.018	U	U
Acetone	ppm	10	U	U	U	0.013	0.090	0.049	1.500	0.046	0.083	U	0.064	0.008	4.500	U
Carbon Disulfide	ppm	5	U	U	U	U	U	U	U	U	0.019	0.007	U	U	U	U
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	0.005	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	0.014	0.270	U	U	U	U	U	U	U	U
1,2-Dichloroethane	ppm	5	U	U	0.160	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	0.440	U	0.010	0.007	U	U	0.013	0.014	0.005	U	43.000	120.000
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6
\\\\\\\\\\
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-13C	PB-14A	PB-14B	PB-15A	PB-16A	PB-16B	PB-17A	PB-17B	PB-18A	PB-18B	PB-19A	PB-19B	PB-20A	PB-20B
		LOCATION:	P-3	P-3	P-3	P-3	P-3	P-3	P-11	P-11	P-1	P-1	P-1	P-1	P-1	P-1
		DATE:	28-Jul	07-Aug	07-Aug	04-Aug	01-Aug	01-Aug	21-Jul	21-Jul	21-Jul	21-Jul	21-Jul	21-Jul	24-Jul	24-Jul
		DEPTH:	20-22	2-4	4-6	2-4	1-2	4-5	4-6	8-10	2.7-4.7	4.7-6.7	2-4	6-8	2-4	6.5-7.5
		HNU_PPM:	50	14	16	6	10	20	1	19	19	4	1	0	120	240
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	U	0.011	U	U	U	U	U	U	U	U
2-Hexanone	ppm	10	U	0.430	0.920	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	0.024	0.007	U	U	U	U	U	U	U	U
Toluene	ppm	5	0.180	U	U	0.007	0.021	0.013	U	U	0.052	0.054	U	U	U	U
Chlorobenzene	ppm	5	U	U	0.270	0.032	0.340	0.360	U	U	U	U	U	U	U	U
Ethylbenzene	ppm	5	U	U	U	U	U	U	U	U	0.008	0.015	U	U	U	U
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	U	U	U	U	U	0.009	U	U	0.011	0.020	U	U	U	U

TABLE 6

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-20C	PB-21A	PB-21B	PB-22A	PB-22B	PB-23A	PB-23B	PB-23C	PB-24A	PB-24B	PB-25A	PB-26A	PB-26B	PB-27A	PB-27B
		LOCATION:	P-1	P-6	P-6	P-6	P-6	P-11	P-11	P-11	P-11	P-11	P-11	P-11	P-11	P-9	P-9
		DATE:	24-Jul	04-Aug	04-Aug	04-Aug	04-Aug	02-Aug	02-Aug	02-Aug	28-Jul	28-Jul	26-Jul	24-Jul	24-Jul	14-Aug	14-Aug
		DEPTH:	22.0-22.8	2-4	6.5-8.0	2-4	6-8	2-4	4-6	15-17	2-4	8-10	2-4	8-10	12-14	2-4	8-10
INORGANIC		HNU_PPM:	80	0	1	0	0	6	8	5	0	0	12	1	1	0	0
ALUMINUM	ppm	11.2	13000.00	14100.00	7180.00	18000.00	11400.00	14700.00	9450.00	5860.00	12800.00	5140.00	9490.00	12400.00	5170.00	20700.00	7080.00
ANTIMONY	ppm	2.6	3.00	3.40	3.00	4.00	3.20	3.30	3.10	2.90	3.00	2.90	3.10	3.00	2.90	3.40	3.30
ARSENIC	ppm	0.5	2.90	4.40	1.20	2.40	2.20	1.40	0.82	2.30	1.70	1.20	4.20	3.00	3.50	2.50	5.90
BARIUM	ppm	0.7	89.10	109.00	31.50	96.10	58.30	88.10	47.50	30.30	59.70	37.90	61.40	168.00	28.60	173.00	87.70
BERYLLIUM	ppm	0.2	0.69	0.56	0.72	0.69	0.94	2.30	1.90	1.10	0.18	0.19	0.68	0.79	0.36	1.20	0.71
CADMIUM	ppm	0.2	0.31	0.58	0.27	0.36	0.29	0.30	0.28	0.26	0.28	0.28	0.28	0.28	0.27	0.38	0.36
CALCIUM	ppm	2.3	534.00	1490.00	816.00	1430.00	911.00	1110.00	536.00	694.00	368.00	1460.00	1310.00	1190.00	931.00	1130.00	768.00
CHROMIUM	ppm	0.8	31.60	34.80	18.20	31.80	23.80	26.80	30.80	13.90	22.00	14.10	17.20	39.40	13.70	34.50	17.90
COBALT	ppm	0.7	16.20	10.60	9.40	14.80	11.80	7.70	6.80	7.80	7.20	7.60	10.20	11.10	9.90	10.30	8.40
COPPER	ppm	0.4	21.00	17.90	13.50	14.10	17.10	15.80	14.80	17.50	28.80	10.90	17.10	19.00	11.50	22.50	7.50
IRON	ppm	5	25700	17300	13200	27900	17100	19100	17000	9500	19600	12400	15900	22300	11300	22800	12200
LEAD	ppm	0.2	13.50	17.80	5.30	19.40	9.90	18.60	11.80	7.50	49.20	6.80	19.10	15.80	7.80	29.00	10.10
MAGNESIUM	ppm	3.3	6970.00	3540.00	3850.00	3940.00	4260.00	3550.00	3180.00	3530.00	3690.00	2350.00	3260.00	3690.00	3100.00	5000.00	3060.00
MANGANESE	ppm	0.2	187.00	308.00	127.00	533.00	230.00	117.00	77.20	74.70	128.00	90.70	367.00	166.00	78.30	389.00	98.90
MERCURY	ppm	0.1	0.11	0.43	0.10	0.10	0.10	0.10	0.10	0.10	0.33	0.10	0.17	0.12	0.11	0.80	0.12
NICKEL	ppm	0.7	32.50	19.90	18.30	19.10	31.90	17.50	15.30	17.80	16.60	14.00	17.70	22.80	16.80	24.50	14.80
POTASSIUM	ppm	46.1	1660.00	960.00	701.00	907.00	1180.00	796.00	954.00	678.00	978.00	797.00	997.00	785.00	787.00	1150.00	727.00
SELENIUM	ppm	0.1	0.16	0.21	0.16	0.39	0.17	0.18	0.17	0.16	0.18	0.16	0.23	0.16	0.16	0.40	0.15
SILVER	ppm	0.9	1.10	1.20	1.10	1.40	1.10	1.20	1.10	1.00	1.10	1.00	1.10	1.10	1.00	1.30	1.20
SODIUM	ppm	56.7	181.00	152.00	209.00	294.00	226.00	661.00	443.00	173.00	200.00	321.00	243.00	161.00	142.00	306.00	182.00
THALLIUM	ppm	0.5	0.60	0.69	0.61	0.82	0.65	0.67	0.64	0.59	0.61	0.58	0.62	0.61	0.58	0.42	0.40
VANADIUM	ppm	0.6	50.30	32.30	25.00	51.00	35.20	32.20	28.50	17.40	35.50	16.50	27.40	43.70	20.60	41.80	20.40
ZINC	ppm	0.3	877.00	438.00	44.80	58.80	54.50	54.60	47.50	62.90	67.10	39.60	52.80	61.20	35.00	127.00	77.70
CYANIDE	ppm	1.0	1.14	1.30	1.20	1.50	1.20	1.30	1.20	1.10	1.20	1.10	1.18	1.16	1.15	1.30	1.30
PCB DILUTION			5.75	1.26	1.30	1.43	1.43	1.43	1.16	1.12	1.19	1.10	28.40	1.16	1.15	1.30	1.30
		LLD															
AROCLOR-1248	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	U	U	U	U	U	U	U	U	U	U	U	0.290	U	U	U
SEMIVOL DILUTION			2300.00	42.20	43.20	47.60	47.60	38.30	38.70	37.40	41.80	38.60	2200.00	40.80	40.30	43.20	43.20
		LLD															
Phenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	1.700	0.400
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10	U	U	U	U	U	0.029	U	U	U	U	U	U	U	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	0.042	0.100
1,2-Dichlorobenzene	ppm	10	U	U	U	U	U	0.300	0.240	U	U	U	U	U	U	0.150	0.200
2-Methylphenol	ppm	10	U	U	U	0.200	U	U	U	U	U	U	U	U	U	0.016	0.082
4-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	0.620	0.210
Nitrobenzene	ppm	10	170.000	U	U	U	U	U	U	U	U	U	U	0.061	0.016	0.010	U
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitrophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	0.150	U	U	U	U	U	U	U	U	U	U	0.035
Benzoic Acid	ppm	50	U	U	U	0.470	U	U	U	U	U	U	U	U	U	U	U
2,4-dichlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-20C	PB-21A	PB-21B	PB-22A	PB-22B	PB-23A	PB-23B	PB-23C	PB-24A	PB-24B	PB-25A	PB-26A	PB-26B	PB-27A	PB-27B
		LOCATION:	P-1	P-6	P-6	P-6	P-6	P-11	P-11	P-11	P-11	P-11	P-11	P-11	P-11	P-9	P-9
		DATE:	24-Jul	04-Aug	04-Aug	04-Aug	04-Aug	02-Aug	02-Aug	02-Aug	28-Jul	28-Jul	26-Jul	24-Jul	24-Jul	14-Aug	14-Aug
		DEPTH:	22.0-22.8	2-4	6.5-8.0	2-4	6-8	2-4	4-6	15-17	2-4	8-10	2-4	8-10	12-14	2-4	8-10
		HNU_PPM:	80	0	1	0	0	6	8	5	0	0	12	1	1	0	0
1,2,4-Trichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	0.160	U	U	0.013	U	U	U
Naphthalene	ppm	10	U	0.064	U	7.200	U	U	U	0.030	0.140	U	U	U	U	0.027	0.340
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	U	U	U	4.900	U	U	U	0.031	0.020	U	U	U	U	U	0.520
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	0.053	U	0.250	U	U	U	U	U	U	U	U	U	U	U
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	0.027	U	U	0.017
Acenaphthene	ppm	10	U	U	U	0.240	U	U	U	U	U	U	U	0.011	U	U	0.010
Dibenzofuran	ppm	10	U	U	U	U	U	U	U	0.024	U	U	U	U	U	U	U
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl Phthalate	ppm	10	U	0.940	0.015	U	0.077	0.007	U	U	0.018	U	U	U	0.009	0.014	0.014
Flourene	ppm	10	U	U	U	0.420	U	U	U	U	U	U	U	U	U	U	U
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	0.770	U	U	U	U	U	U	U	U	U	U	U	U	U	0.021
Phenanthrene	ppm	10	U	0.041	U	1.500	U	U	U	U	0.018	U	1.900	0.270	0.014	0.012	0.014
Anthracene	ppm	10	U	U	0.016	0.580	U	U	U	U	U	U	U	0.072	U	U	U
di-n-Butyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	1.200	U	U	0.013	0.007
Flouranthene	ppm	10	U	0.055	U	1.900	0.083	0.005	U	U	0.021	U	U	0.320	0.018	0.019	U
Pyrene	ppm	10	U	0.027	U	4.400	0.031	U	U	U	0.022	U	U	0.320	0.026	0.019	U
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	U	U	33.000	0.065	U	U	U	U	U	U	0.150	U	0.014	U
Chrysene	ppm	10	U	U	U	U	0.033	U	U	U	U	U	U	0.150	U	0.016	U
bis(2-Ethylhexyl)Phthalate	ppm	10	0.510	0.120	0.210	U	0.140	0.051	0.180	U	0.190	0.340	5.600	0.970	0.260	U	0.260
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	U	U	U	1.300	U	U	U	U	U	U	U	0.210	U	U	U
Benzo(k)flouranthene	ppm	10	U	U	U	1.800	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)pyrene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	0.110	U	0.010	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

VOLATILE		DILUTION	287.00	1.27	1.30	1.43	1.43	1.43	1.16	1.12	1.19	1.10	150.00	1.16	1.15	1620.00	1.30
		LLD															
Bromoethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	U	0.009	0.005	0.011	0.006	0.006	0.006	0.006	0.017	0.021	0.350	U	0.005	6.700	0.006
Acetone	ppm	10	U	0.036	0.024	0.038	0.079	0.056	0.060	0.060	U	0.014	1.000	U	U	U	0.024
Carbon Disulfide	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	U	U	U	U	U	U	U	0.290	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	6.700	U	U	U	U	U	U	U	U	U	U	U	U	92.000	0.005
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-20C	PB-21A	PB-21B	PB-22A	PB-22B	PB-23A	PB-23B	PB-23C	PB-24A	PB-24B	PB-25A	PB-26A	PB-26B	PB-27A	PB-27B
		LOCATION:	P-1	P-6	P-6	P-6	P-6	P-11	P-11	P-11	P-11	P-11	P-11	P-11	P-11	P-9	P-9
		DATE:	24-Jul	04-Aug	04-Aug	04-Aug	04-Aug	02-Aug	02-Aug	02-Aug	28-Jul	28-Jul	26-Jul	24-Jul	24-Jul	14-Aug	14-Aug
		DEPTH:	22.0-22.8	2-4	6.5-8.0	2-4	6-8	2-4	4-6	15-17	2-4	8-10	2-4	8-10	12-14	2-4	8-10
	units	HNU_PPM:	80	0	1	0	0	6	8	5	0	0	12	1	1	0	0
4-Methyl-2-Pentanone	ppm		10	U	0.007	U	0.025	0.013	0.008	0.025	0.016	U	U	U	U	U	U	0.006
2-Hexanone	ppm		10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm		5	U	U	U	U	U	U	U	U	0.005	U	U	U	U	U	U
Toluene	ppm		5	U	0.006	U	0.007	U	0.005	U	U	U	U	U	U	U	3.200	0.013
Chlorobenzene	ppm		5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	ppm		5	U	U	U	U	U	U	U	U	U	U	0.200	U	U	U	0.006
Styrene	ppm		5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm		5	U	U	U	U	U	U	U	U	U	U	0.130	U	U	U	0.095

TABLE 6

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-28A	PB-28B	PB-29A	PB-29B	PB-30A	PB-30B	PB-31A	PB-31B	PB-32A	PB-32B	PB-33A	PB-33B	PB-34A	PB-34B	PB-35A
		LOCATION:	P-9	P-9	P-9	P-9	P-9	P-9	P-6	P-6	P-3	P-3	P-5	P-5	P-9	P-9	P-9
		DATE:	08-Aug	08-Aug	08-Aug	08-Aug	08-Aug	08-Aug	03-Aug	03-Aug	01-Aug	01-Aug	27-Jul	27-Jul	11-Aug	11-Aug	03-Aug
		DEPTH:	2-4	6-8	1-3	8-10	2.0-3.5	8-10	2-4	6-8	1-3	8-10	1-2	4-5	2-4	10-12	2-4
		HNU_PPM:	0	6	100	520	500	600	80	70	0	0	13	18	1	70	14
INORGANIC																	
ALUMINUM	ppm	11.2	17500.00	12400.00	6880.00	10000.00	10400.00	16800.00	11000.00	14600.00	14100.00	6920.00	9120.00	9420.00	10500.00	6110.00	9170.00
ANTIMONY	ppm	2.6	3.10	3.20	3.10	3.20	3.00	4.90	3.40	3.00	3.00	2.90	3.00	3.00	3.00	3.10	3.10
ARSENIC	ppm	0.5	5.60	1.50	4.90	1.80	6.00	3.20	14.00	1.70	3.10	1.70	8.20	1.80	3.00	4.80	1.20
BARIUM	ppm	0.7	123.00	121.00	87.60	148.00	83.00	279.00	3230.00	1220.00	78.50	34.90	146.00	47.80	93.10	50.10	43.90
BERYLLIUM	ppm	0.2	0.62	1.00	0.72	0.76	1.20	1.30	1.70	1.20	0.65	0.51	1.40	0.53	0.70	0.62	0.36
CADMIUM	ppm	0.2	0.28	0.29	0.28	0.28	0.29	0.27	0.44	0.30	0.27	0.27	0.26	0.76	0.27	0.27	0.28	0.29
CALCIUM	ppm	2.3	4900.00	739.00	835.00	1440.00	910.00	1750.00	3680.00	1300.00	6460.00	764.00	5040.00	1240.00	1790.00	632.00	69100.00
CHROMIUM	ppm	0.8	44.30	23.40	17.50	22.10	85.80	28.70	49.10	30.80	41.20	19.00	81.10	51.60	17.10	15.00	31.90
COBALT	ppm	0.7	89.30	6.00	7.30	9.20	10.60	13.00	16.70	11.00	9.20	9.40	12.30	6.90	11.90	12.80	3.60
COPPER	ppm	0.4	246.00	8.00	76.80	17.70	61.00	16.80	134.00	18.00	55.20	12.60	121.00	29.60	85.20	61.50	20.00
IRON	ppm	5	23000	9970	16200	22500	39400	16400	50900	22600	25200	17	26400	17700	16800	10400	7820
LEAD	ppm	0.2	22.40	13.30	36.80	15.10	51.80	16.30	243.00	12.50	104.00	8.20	349.00	82.90	26.40	10.10	12.10
MAGNESIUM	ppm	3.3	5510.00	2880.00	3240.00	2670.00	4110.00	4390.00	3020.00	4450.00	4200.00	3920.00	3630.00	4460.00	4940.00	3040.00	4540.00
MANGANESE	ppm	0.2	676.00	93.30	149.00	215.00	407.00	152.00	270.00	184.00	306.00	98.40	305.00	116.00	398.00	80.10	136.00
MERCURY	ppm	0.1	0.10	0.10	1.60	0.10	0.74	0.10	1.00	0.10	0.10	0.10	10.80	0.21	0.19	0.10	1.80
NICKEL	ppm	0.7	178.00	14.30	42.90	20.00	31.20	24.00	36.50	21.60	26.70	23.70	35.40	16.90	22.80	19.00	13.40
POTASSIUM	ppm	46.1	1840.00	842.00	898.00	464.00	1040.00	1220.00	837.00	1140.00	868.00	905.00	646.00	645.00	1160.00	443.00	743.00
SELENIUM	ppm	0.1	0.37	0.17	0.17	0.17	0.16	0.35	0.44	0.16	0.17	0.16	0.26	0.16	0.16	0.16	0.17
SILVER	ppm	0.9	1.10	1.10	1.10	1.20	1.10	1.70	1.20	1.10	1.10	1.00	1.10	1.10	1.00	1.10	1.10
SODIUM	ppm	56.7	8960.00	210.00	165.00	355.00	257.00	2080.00	340.00	396.00	2000.00	377.00	218.00	142.00	322.00	204.00	334.00
THALLIUM	ppm	0.5	0.63	0.65	0.63	0.66	0.60	1.00	0.68	0.61	0.65	0.63	0.61	0.61	0.60	0.62	0.64
VANADIUM	ppm	0.6	31.80	22.80	15.10	28.70	23.60	30.70	47.40	46.50	32.50	20.80	31.10	30.50	22.00	21.30	17.00
ZINC	ppm	0.3	104.00	102.00	145.00	94.00	130.00	114.00	185.00	73.30	147.00	49.80	251.00	82.00	52.90	45.70	34.20
CYANIDE	ppm	1.0	1.20	1.20	1.80	1.30	1.10	1.90	2.30	1.20	1.20	1.10	1.15	1.16	1.10	1.40	1.20
PCB																	
DILUTION			1.18	1.19	1.19	1.32	1.12	1.92	1.28	1.11	1.16	1.12	17.20	1.16	1.15	1.39	1.20
		LLD															
AROCLOR-1248	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	U	U	U	U	1.000	U	U	0.200	U	U	17.000	U	2.000	U	0.240
SEMIVOL																	
DILUTION			39.20	39.70	1980.00	43.90	37.50	64.10	42.70	740.00	38.80	37.50	2300.00	62.70	38.30	46.30	40.10
		LLD															
Phenol	ppm	10	U	U	0.720	U	1.600	1.800	U	U	U	U	U	U	U	U	2.300
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	0.048	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.017
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	0.017	U	U	0.010	U	U	U	U	U	U	U	0.098	U	U	U
2-Methylphenol	ppm	10	U	U	U	0.570	0.630	0.290	U	U	U	U	U	U	0.093	U	0.420
4-Methylphenol	ppm	10	U	U	U	0.510	0.700	0.590	U	U	U	U	U	U	0.350	U	1.600
Nitrobenzene	ppm	10	U	U	120.000	0.950	U	U	U	U	U	U	U	U	U	34.000	U
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitrophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	0.170	U	0.520	U	U	U	U	U	U	0.260	U	0.390
Benzoic Acid	ppm	50	U	U	U	0.350	U	U	U	U	U	U	U	U	U	U	U
2,4-dichlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-28A	PB-28B	PB-29A	PB-29B	PB-30A	PB-30B	PB-31A	PB-31B	PB-32A	PB-32B	PB-33A	PB-33B	PB-34A	PB-34B	PB-35A
		LOCATION:	P-9	P-9	P-9	P-9	P-9	P-9	P-6	P-6	P-3	P-3	P-5	P-5	P-9	P-9	P-9
		DATE:	08-Aug	08-Aug	08-Aug	08-Aug	08-Aug	08-Aug	03-Aug	03-Aug	01-Aug	01-Aug	27-Jul	27-Jul	11-Aug	11-Aug	03-Aug
		DEPTH:	2-4	6-8	1-3	8-10	2.0-3.5	8-10	2-4	6-8	1-3	8-10	1-2	4-5	2-4	10-12	2-4
		HNU_PPM:	0	6	100	520	500	600	80	70	0	0	13	18	1	70	14
1,2,4-Trichlorobenzene	ppm	10	U	U	U	U	0.041	U	U	U	U	U	U	U	U	U	U
Naphthalene	ppm	10	0.035	0.020	37.000	0.400	4.900	0.420	520.000	300.000	U	U	0.480	0.740	5.200	U	5.800
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	0.008	U	23.000	0.160	0.340	U	4.600	100.000	U	U	U	1.600	12.000	5.600	2.600
2-Chloronaphthalene	ppm	10	U	U	0.990	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	2.400	U
Acenaphthylene	ppm	10	U	U	U	U	U	U	U	14.000	U	U	U	U	0.540	2.700	U
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	0.009	1.400	U	U	U	2.300	14.000	U	U	U	0.640	9.000	U	0.510
Dibenzofuran	ppm	10	U	0.006	U	0.011	0.066	U	2.100	15.000	U	U	U	0.800	5.500	0.470	0.510
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl Phthalate	ppm	10	0.012	U	U	U	U	0.010	U	U	U	U	1.400	U	U	U	U
Flourene	ppm	10	U	0.012	0.600	U	U	U	2.200	11.000	U	U	U	0.520	6.200	U	0.500
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	U	U	15.000	0.028	U	U	U	U	U	0.520	8.600	0.540	U	U	13.000
Phenanthrene	ppm	10	0.025	0.120	1.300	U	0.950	U	2.300	11.000	U	0.110	0.800	2.400	4.600	69.000	0.820
Anthracene	ppm	10	U	U	U	U	0.130	U	0.660	2.700	U	U	U	U	4.600	U	0.250
di-n-Butyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flouranthene	ppm	10	0.044	0.240	U	U	0.890	U	0.580	3.300	U	0.250	1.600	1.600	3.000	9.300	0.230
Pyrene	ppm	10	0.093	0.260	U	U	1.000	U	0.310	2.700	U	0.410	1.400	2.200	1.600	6.400	0.380
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	0.130	18.000	2.100	0.490	U	0.120	U	U	U	U	0.630	0.500	2.100	0.110
Chrysene	ppm	10	U	0.120	U	U	0.670	U	0.068	U	U	U	U	0.800	0.420	1.200	U
bis(2-Ethylhexyl)Phthalate	ppm	10	0.270	0.110	U	0.130	0.210	0.110	U	U	U	0.180	12.000	0.600	0.420	0.420	2.900
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	U	0.130	U	U	0.540	U	U	U	U	U	U	0.870	0.420	0.350	U
Benzo(k)flouranthene	ppm	10	U	0.130	U	0.050	0.350	U	U	U	U	U	U	U	0.400	0.240	U
Benzo(a)pyrene	ppm	10	U	0.130	U	U	0.340	0.320	U	U	U	U	U	0.440	0.380	0.270	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	U	U	0.300	U	U	U	U	U	U	U	0.320	0.072	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	0.340	U	U

VOLATILE		DILUTION	1.18	1.19	298.00	165.00	1400.00	960.00	1603.00	1389.00	1.16	1.12	23.00	23.20	1.15	174.00	1.20
		LLD															
Bromomethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	0.024	0.006	1.200	0.580	U	2.900	19.000	13.000	0.026	0.026	U	0.049	0.006	U	0.011
Acetone	ppm	10	0.085	0.085	U	2.800	U	U	6.200	5.500	0.029	0.082	U	0.120	0.049	U	0.072
Carbon Disulfide	ppm	5	0.006	U	U	U	U	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	U	92.000	17.000	U	0.510	U	U	U	U	U	0.660	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	0.130	0.008	2.500	0.470	1.100	32.000	U	U	U	U	U	U	U	U	U
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-28A	PB-28B	PB-29A	PB-29B	PB-30A	PB-30B	PB-31A	PB-31B	PB-32A	PB-32B	PB-33A	PB-33B	PB-34A	PB-34B	PB-35A
		LOCATION:	P-9	P-9	P-9	P-9	P-9	P-9	P-6	P-6	P-3	P-3	P-5	P-5	P-9	P-9	P-9
		DATE:	08-Aug	08-Aug	08-Aug	08-Aug	08-Aug	08-Aug	03-Aug	03-Aug	01-Aug	01-Aug	27-Jul	27-Jul	11-Aug	11-Aug	03-Aug
		DEPTH:	2-4	6-8	1-3	8-10	2.0-3.5	8-10	2-4	6-8	1-3	8-10	1-2	4-5	2-4	10-12	2-4
	units	HNU PPM:	0	6	100	520	500	600	80	70	0	0	11	18	1	70	14
4-Methyl-2-Pentanone	ppm	10	0.029	0.025	U	U	U	U	U	U	0.010	0.008	U	U	0.016	U	0.009
2-Hexanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5	0.150	0.023	24.000	0.430	38.000	22.000	U	U	U	U	U	U	0.010	0.150	0.053
Chlorobenzene	ppm	5	U	0.031	0.720	U	U	U	2.000	1.100	U	U	5.000	5.800	U	U	U
Ethylbenzene	ppm	5	U	U	2.800	0.920	5.300	1.600	U	U	U	U	U	U	U	0.320	0.022
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	0.010	0.051	49.000	1.100	120.000	6.300	U	U	U	U	U	U	U	2.400	0.200

TABLE 6

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

INORGANIC

	units	FIELDID:	PB-35B	PB-36A	PB-36B	PB-36C	PB-37A	PB-37B	PB-38A	PB-38B	PB-39A	PB-40A	PB-40B	PB-41A	PB-41B	PB-42A	PB-42B
		LOCATION:	P-9	P-4	P-4	P-4	P-5	P-5	P-5	P-5	P-11	P-11	P-11	P-11	P-11	P-7	P-7
		DATE:	03-Aug	01-Aug	01-Aug	01-Aug	01-Aug	01-Aug	01-Aug	01-Aug	27-Jul	25-Jul	25-Jul	02-Aug	02-Aug	26-Jul	26-Jul
		DEPTH:	4-6	2-4	4-6	18-20	1-3	4-6	1-3	4-6	2-4	2-4	8-10	2-4	4-6	2-4	6-8
		HNU_PPM:	102	2	22	72	0	0	0	5	0	18	40	4	3	30	40
ALUMINUM	ppm	11.2	5900.00	11800.00	13000.00	13300.00	15700.00	9170.00	16000.00	8850.00	9420.00	16800.00	6900.00	14300.00	12300.00	11300.00	11600.00
ANTIMONY	ppm	2.6	3.20	2.80	2.80	3.00	2.90	2.90	2.90	2.80	2.90	3.10	2.90	3.00	2.90	3.10	3.20
ARSENIC	ppm	0.5	9.90	3.70	2.20	3.00	2.40	2.20	3.30	3.30	2.90	4.20	2.90	3.30	2.40	6.40	7.20
BARIUM	ppm	0.7	31.50	60.20	31.80	159.00	48.10	58.80	61.80	51.00	73.60	56.00	52.70	53.30	72.50	81.10	55.80
BERYLLIUM	ppm	0.2	0.19	0.52	0.80	1.10	2.00	0.93	0.61	0.71	0.89	1.00	0.32	2.40	1.30	0.85	0.19
CADMIUM	ppm	0.2	0.29	0.25	0.26	0.27	0.27	0.26	0.26	0.26	0.26	0.28	0.26	0.27	0.26	0.41	0.29
CALCIUM	ppm	2.3	25500.00	1640.00	1670.00	1060.00	859.00	798.00	1170.00	2360.00	2340.00	1690.00	930.00	305.00	848.00	758.00	441.00
CHROMIUM	ppm	0.8	24.20	42.70	42.70	36.50	29.50	20.30	25.70	16.40	19.80	26.20	15.70	69.90	82.10	25.80	31.70
COBALT	ppm	0.7	6.80	11.20	10.50	10.10	13.40	11.50	13.80	10.10	9.90	13.70	6.30	7.90	8.40	12.90	8.80
COPPER	ppm	0.4	127.00	33.40	19.60	20.90	20.90	21.40	21.50	25.10	31.40	29.90	11.10	33.10	39.80	54.40	22.20
IRON	ppm	5	21100	24000	25300	35100	34200	22600	28400	18900	16400	26500	15900	22900	18900	15400	30400
LEAD	ppm	0.2	137.00	18.10	7.80	11.50	10.60	14.10	13.80	14.10	70.70	20.00	9.00	13.00	13.30	23.90	34.80
MAGNESIUM	ppm	3.3	3230.00	5520.00	4720.00	6620.00	5030.00	4190.00	4840.00	3730.00	4540.00	4890.00	3290.00	4810.00	5330.00	3430.00	3320.00
MANGANESE	ppm	0.2	216.00	324.00	227.00	195.00	444.00	571.00	756.00	529.00	544.00	580.00	119.00	284.00	247.00	103.00	152.00
MERCURY	ppm	0.1	28.50	0.16	0.10	0.10	0.10	0.10	0.12	0.10	0.48	0.12	0.11	0.10	0.10	0.38	0.14
NICKEL	ppm	0.7	18.80	81.30	54.00	30.00	30.20	22.60	26.20	23.90	20.70	67.90	16.20	22.00	23.10	32.50	24.10
POTASSIUM	ppm	46.1	330.00	1230.00	1190.00	2250.00	1540.00	1070.00	1270.00	1000.00	1110.00	1290.00	905.00	683.00	1070.00	1370.00	1600.00
SELENIUM	ppm	0.1	0.17	0.15	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.15	0.16	0.16	0.17	0.17
SILVER	ppm	0.9	1.20	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.10	1.00	1.10	1.10
SODIUM	ppm	56.7	336.00	390.00	330.00	316.00	324.00	175.00	197.00	181.00	148.00	228.00	154.00	113.00	157.00	347.00	388.00
THALLIUM	ppm	0.5	0.66	0.60	0.61	0.64	0.64	0.62	0.63	0.62	0.59	0.62	0.58	0.62	0.58	0.62	0.64
VANADIUM	ppm	0.6	16.70	26.60	31.50	44.70	48.20	29.30	38.20	22.40	18.10	43.20	23.00	38.20	26.40	22.80	54.50
ZINC	ppm	0.3	62.20	80.20	59.10	65.70	57.50	58.40	77.70	46.50	64.60	61.00	40.60	57.40	56.20	119.00	94.20
CYANIDE	ppm	1.0	1.20	1.10	1.10	1.20	1.10	1.20	1.10	1.10	1.12	1.16	1.11	1.20	1.10	1.19	1.22

PCB

		DILUTION	1.35	1.15	1.15	1.28	1.14	1.10	1.05	1.06	55.60	1.16	1.11	1.16	1.04	29.80	1.22
		LLD															
AROCLOR-1248	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

SEMIVOL

		DILUTION	4500.00	35.50	36.20	1920.00	37.90	36.60	37.50	36.60	39.00	194.00	185.00	38.70	34.70	2380.00	2440.00
		LLD															
Phenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	0.037	U	U	U	U	U	U
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	U	0.062	4.600	290.000	U	U	U	U	U	U	U	U	U	U	U
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitrophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-dic[illegible]henol	[illegible]	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-35B	PB-36A	PB-36B	PB-36C	PB-37A	PB-37B	PB-38A	PB-38B	PB-39A	PB-40A	PB-40B	PB-41A	PB-41B	PB-42A	PB-42B
		LOCATION:	P-9	P-4	P-4	P-4	P-5	P-5	P-5	P-5	P-11	P-11	P-11	P-11	P-11	P-7	P-7
		DATE:	03-Aug	01-Aug	01-Aug	01-Aug	01-Aug	01-Aug	01-Aug	01-Aug	27-Jul	25-Jul	25-Jul	02-Aug	02-Aug	26-Jul	26-Jul
		DEPTH:	4-6	2-4	4-6	18-20	1-3	4-6	1-3	4-6	2-4	2-4	8-10	2-4	4-6	2-4	6-8
		HNU_PPM:	102	2	22	72	0	0	0	5	0	18	40	4	3	30	40
1,2,4-Trichlorobenzene	ppm	10	U	U	U	2.900	U	U	U	U	U	U	U	U	U	U	U
Naphthalene	ppm	10	3400.000	2.400	1.600	450.000	U	0.018	0.006	0.009	0.044	U	3.300	U	U	U	U
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	17.000	0.110	0.250	320.000	U	0.056	U	U	0.017	19.000	19.000	U	U	U	5.000
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	U	U	2.900	U	U	U	U	U	U	U	U	U	U	U
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	0.086	0.040	25.000	U	U	U	U	U	2.100	1.100	U	U	U	U
Dibenzofuran	ppm	10	U	0.018	0.023	36.000	U	0.031	U	U	0.014	3.000	1.300	U	U	U	U
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flourene	ppm	10	U	0.013	0.017	29.000	U	U	U	U	0.016	9.400	4.400	U	U	U	U
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	7.000	0.081	1.200	6.800	U	U	U	U	0.350	U	U	U	U	U	U
Phenanthrene	ppm	10	U	0.062	0.038	24.000	U	U	U	0.039	0.140	18.000	9.800	U	U	6.200	5.200
Anthracene	ppm	10	U	U	U	6.400	U	U	U	U	U	3.600	1.400	U	U	U	U
di-n-Butyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	0.056	U	U	U	U	U	U
Flouranthene	ppm	10	U	0.120	0.072	4.200	U	U	U	0.060	0.210	3.600	0.440	U	U	U	U
Pyrene	ppm	10	U	0.110	0.077	2.500	U	U	U	0.086	0.290	5.500	1.600	U	U	U	2.000
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	0.085	0.049	U	U	U	U	U	0.150	1.400	0.190	U	U	U	U
Chrysene	ppm	10	U	0.096	0.054	U	U	U	U	U	0.150	1.400	0.230	U	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10	U	0.360	0.120	U	0.680	0.330	0.170	0.610	1.700	1.300	0.180	3.800	1.800	U	U
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	U	U	U	U	U	U	U	U	0.140	0.740	U	U	U	U	U
Benzo(k)flouranthene	ppm	10	U	0.200	0.065	U	U	U	U	U	U	0.740	U	U	U	U	U
Benzo(a)pyrene	ppm	10	U	0.080	U	U	U	U	U	U	U	0.970	U	U	U	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	U	U	U	U	U	U	U	0.460	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	U	U	U	U	U	U	U	0.490	U	U	U	U	U

VOLATILE		DILUTION	1689.00	1.06	136.00	144.00	1.14	1.10	1.12	1.10	1.11	1.16	1.11	1.16	1.04	1.19	150.00
		LLD															
Bromoethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	U	0.006	0.940	0.700	0.024	U	0.007	0.005	0.009	0.009	0.009	0.005	0.005	0.016	2.200
Acetone	ppm	10	U	U	0.760	0.790	U	U	0.011	0.006	0.006	0.220	0.150	0.018	0.009	U	1.600
Carbon Disulfide	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	0.012	U
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.510
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	0.110	0.200	U	U	U	U	U	U	U	U	U	U	U
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-35B	PB-36A	PB-36B	PB-36C	PB-37A	PB-37B	PB-38A	PB-38B	PB-39A	PB-40A	PB-40B	PB-41A	PB-41B	PB-42A	PB-42B
		LOCATION:	P-9	P-4	P-4	P-4	P-5	P-5	P-5	P-5	P-11	P-11	P-11	P-11	P-11	P-7	P-7
		DATE:	03-Aug	01-Aug	01-Aug	01-Aug	01-Aug	01-Aug	01-Aug	01-Aug	27-Jul	25-Jul	25-Jul	02-Aug	02-Aug	26-Jul	26-Jul
		DEPTH:	4-6	2-4	4-6	18-20	1-3	4-6	1-3	4-6	2-4	2-4	8-10	2-4	4-6	2-4	6-8
	units	HNU_PPM:	102	2	22	72	0	0	0	5	0	18	40	4	3	30	40
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	0.012	U	U	U	U	0.007	U	U	U	U	U
2-Hexanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	0.009	U
Tetrachloroethylene	ppm	5	U	U	0.140	U	U	U	U	U	0.007	U	U	U	U	U	U
Toluene	ppm	5	14.000	U	0.120	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	ppm	5	27.000	U	U	U	U	U	U	U	U	U	0.025	U	U	U	U
Ethylbenzene	ppm	5	2.600	U	U	U	U	U	U	U	U	U	0.006	U	U	U	U
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	15.000	U	U	U	U	U	U	U	U	U	0.012	U	U	U	0.130

TABLE 6

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

INORGANIC

	units	FIELDID:	PB-42C	PB-43A	PB-43B	PB-44A	PB-44B	PB-45A	PB-45B	PB-45C	PB-46A	PB-46B	PB-46C	PB-47A	PB-47B	PB-48A	PB-48B
		LOCATION:	P-7	P-7	P-7	P-10	P-10	P-4	P-4	P-4	P-4	P-4	P-4	P-8	P-8	P-10	P-10
		DATE:	26-Jul	26-Jul	26-Jul	10-Aug	10-Aug	09-Aug	09-Aug	09-Aug	02-Aug	02-Aug	02-Aug	25-Jul	25-Jul	03-Aug	03-Aug
		DEPTH:	14-16	2-4	6-8	2-4	4-6	1-3	4-6	12-14	1-3	4-6	11-13	4-6	8.0-9.7	2-4	6-8
		HNU_PPM:	20	6	0	1	4	0	8	400	400	250	400	7	11	1	1
ALUMINUM	ppm	11.2	6910.00	12400.00	11900.00	2240.00	10400.00	6160.00	7870.00	3740.00	8200.00	13200.00	15600.00	2760.00	572.00	15700.00	18300.00
ANTIMONY	ppm	2.6	5.30	3.00	3.10	2.90	3.20	3.00	3.00	3.20	3.20	3.00	3.10	3.00	3.00	3.90	3.50
ARSENIC	ppm	0.5	0.50	4.20	1.90	5.40	7.00	3.40	2.70	4.80	1.80	2.40	1.00	1.70	14.60	15.80	2.30
BARIUM	ppm	0.7	159.00	50.60	42.70	45.00	97.80	82.20	71.40	37.40	45.00	69.00	148.00	75.40	100.00	168.00	232.00
BERYLLIUM	ppm	0.2	0.18	0.69	0.65	0.17	0.19	0.20	0.18	0.19	0.67	1.20	2.30	0.18	0.18	2.30	2.00
CADMIUM	ppm	0.2	0.27	0.27	0.28	0.90	0.29	0.27	0.28	0.28	0.29	0.68	0.30	0.27	0.38	0.35	0.32
CALCIUM	ppm	2.3	586.00	458.00	489.00	1990.00	1720.00	2200.00	605.00	343.00	56600.00	6710.00	3430.00	2280.00	121.00	3040.00	1980.00
CHROMIUM	ppm	0.8	18.80	24.80	33.40	30.40	25.90	20.00	31.90	9.10	37.80	181.00	73.00	12.90	11.00	18800.00	53.20
COBALT	ppm	0.7	10.00	9.80	13.30	7.70	9.40	4.30	6.30	10.90	2.90	7.00	9.60	2.90	0.79	8.80	8.60
COPPER	ppm	0.4	33.60	14.30	13.30	67.40	37.60	47.20	95.90	27.20	21.00	34.50	14.80	25.80	3.80	1720.00	95.10
IRON	ppm	5	20700	20900	20600	16500	30800	11200	11600	4330	9460	17200	13200	6290	1890	26400	17800
LEAD	ppm	0.2	16.10	0.16	17.70	318.00	21.10	60.70	35.50	821.00	23.00	26.10	13.30	448.00	36.90	41.70	12.80
MAGNESIUM	ppm	3.3	3620.00	3660.00	4020.00	1110.00	3140.00	2580.00	3900.00	562.00	4770.00	3190.00	3650.00	1950.00	81.90	3300.00	4060.00
MANGANESE	ppm	0.2	180.00	143.00	139.00	178.00	724.00	63.60	109.00	25.20	194.00	207.00	126.00	76.00	10.20	222.00	225.00
MERCURY	ppm	0.1	0.10	0.10	0.10	0.54	0.10	0.35	1.80	10.10	0.68	1.50	0.10	10.30	0.11	0.20	0.11
NICKEL	ppm	0.7	26.60	19.90	19.20	24.50	28.20	15.00	16.50	18.60	11.50	21.40	21.00	9.40	1.30	46.40	39.80
POTASSIUM	ppm	46.1	1450.00	1070.00	886.00	229.00	647.00	633.00	922.00	406.00	446.00	693.00	1120.00	300.00	583.00	749.00	965.00
SELENIUM	ppm	0.1	0.16	0.16	0.16	1.00	0.32	0.16	0.16	0.17	0.18	0.16	0.18	0.18	0.16	0.53	0.36
SILVER	ppm	0.9	1.10	1.10	1.10	1.00	1.20	1.10	1.10	1.10	1.20	1.10	1.20	1.10	1.10	1.40	1.30
SODIUM	ppm	56.7	3130.00	754.00	740.00	329.00	194.00	133.00	141.00	139.00	271.00	240.00	233.00	336.00	190.00	253.00	240.00
THALLIUM	ppm	0.5	0.60	0.60	0.62	0.59	0.66	0.61	0.62	0.64	0.66	0.61	0.67	0.60	0.60	0.79	0.72
VANADIUM	ppm	0.6	22.90	41.10	47.30	13.00	28.20	15.40	14.60	9.60	14.20	19.90	31.90	14.20	1.40	49.80	32.40
ZINC	ppm	0.3	46.10	66.00	86.40	230.00	135.00	29.80	44.70	430.00	80.70	1010.00	96.00	39.20	2.30	205.00	193.00
CYANIDE	ppm	1.0	1.14	1.15	1.17	1.10	1.10	1.20	1.10	4.70	1.20	1.10	1.30	1.18	1.16	1.50	1.40

PCB

		DILUTION	1.14	1.15	1.19	1.15	1.12	1.16	1.14	1.25	1.33	1.37	1.32	29.40	1.18	1.43	1.37
		LLD															
AROCLOR-1248	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	U	U	U	U	U	U	0.200	1.000	0.820	1.100	U	U	U	U	U

SEMIVOL

		DILUTION	2270.00	2300.00	41.30	2250.00	41.50	2330.00	38.90	334.00	44.40	45.60	43.90	39.20	38.70	2380.00	45.60
		LLD															
Phenol	ppm	10	U	U	U	U	U	U	U	U	U	0.430	0.730	U	U	U	U
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	0.110	1.000	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	0.022	0.310	U	U	U	U
1,4-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	0.670	9.200	U	U	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	U	U	U	U	0.011	U	U	U	U	0.180	2.700	U	U	U	U
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	0.200	U	0.140	U	0.170	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	U	U	0.400	U	0.140	U	4.900	U	U	U
Nitrobenzene	ppm	10	U	U	U	2.600	U	1.100	U	U	U	U	U	2.600	U	U	U
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitrophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	U	72.000	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2,4-dichlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-42C	PB-43A	PB-43B	PB-44A	PB-44B	PB-45A	PB-45B	PB-45C	PB-46A	PB-46B	PB-46C	PB-47A	PB-47B	PB-48A	PB-48B
		LOCATION:	P-7	P-7	P-7	P-10	P-10	P-4	P-4	P-4	P-4	P-4	P-4	P-8	P-8	P-10	P-10
		DATE:	26-Jul	26-Jul	26-Jul	10-Aug	10-Aug	09-Aug	09-Aug	09-Aug	02-Aug	02-Aug	02-Aug	25-Jul	25-Jul	03-Aug	03-Aug
		DEPTH:	14-16	2-4	6-8	2-4	4-6	1-3	4-6	12-14	1-3	4-6	11-13	4-6	8.0-9.7	2-4	6-8
		HNU_PPM:	20	6	0	1	4	0	8	400	400	250	400	7	11	1	1
1,2,4-Trichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	0.085	1.700	U	U	U	U
Naphthalene	ppm	10	U	U	U	2.300	U	32.000	U	U	0.180	1.100	4.300	1.300	U	U	U
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	6.900	U	U	1.300	0.005	7.600	U	U	0.100	1.900	16.000	0.130	U	U	U
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	0.350	0.180	2.200	0.270	U	U	U	U
2-Nitroanaline	ppm	10	U	U	U	U	0.150	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	0.130	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	U	U	U	U	U	U	32.000	U	0.160	0.590	U	U	U	U
Dibenzofuran	ppm	10	U	U	U	0.400	U	1.800	U	34.000	0.021	0.170	U	U	U	U	U
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl Phthalate	ppm	10	U	U	U	U	U	U	0.012	U	U	U	U	0.088	0.052	U	U
Flourene	ppm	10	U	U	U	U	U	U	U	31.000	U	0.150	0.770	U	U	U	U
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiphenylamine(1)	ppm	10	U	U	U	U	U	U	U	2.900	0.190	0.490	1.500	U	U	U	U
Phenanthrene	ppm	10	3.400	U	U	1.500	0.013	2.100	U	30.000	U	0.900	1.700	2.600	0.055	U	U
Anthracene	ppm	10	U	U	U	U	U	U	U	17.000	U	U	0.200	0.056	U	U	U
di-n-Butyl Phthalate	ppm	10	U	U	U	U	0.006	U	U	U	U	U	U	U	U	U	U
Flouranthene	ppm	10	U	U	U	0.810	0.020	U	U	4.100	0.260	0.580	0.530	5.200	U	U	U
Pyrene	ppm	10	U	U	U	U	0.023	U	U	2.200	0.130	1.200	0.540	0.340	U	U	U
Butyl Benzyl Phthalate	ppm	10	20.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	U	U	U	0.025	U	U	0.560	0.079	0.410	0.210	0.460	U	U	U
Chrysene	ppm	10	U	U	U	U	0.036	U	U	0.340	0.085	0.490	0.200	2.600	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10	77.000	0.160	0.230	U	0.300	U	0.200	U	1.200	0.410	1.600	1.300	0.350	U	0.840
di-n-OctylPhthalate	ppm	10	76.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	U	U	U	U	U	U	U	U	0.072	0.270	0.130	3.300	U	U	U
Benzo(k)flouranthene	ppm	10	U	U	U	U	U	U	U	U	0.080	U	0.110	U	U	U	U
Benzo(a)pyrene	ppm	10	U	U	U	U	0.026	U	U	U	0.076	0.350	0.160	2.000	U	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	U	U	U	U	U	U	U	0.250	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	U	U	U	U	U	U	U	0.260	U	U	U	U	U

VOLATILE		DILUTION		1.14	1.15	1.18	1.12	1.12	1.16	142.00	156.00	1.33	4280.00	********	1.19	1.16	1.43	1.37
		LLD																
Bromomethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	0.009	0.009	U	0.018	0.021	U	U	U	0.042	U	U	0.006	U	0.022	0.015
Acetone	ppm	10	1.400	0.110	0.440	0.016	0.027	0.023	U	U	0.110	23.000	600.000	U	0.330	0.110	0.230
Carbon Disulfide	ppm	5	U	0.007	U	0.014	U	U	U	35.000	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	27.000	U	U	U	U	U
1,2-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	0.045	U	U	U	U	U	U	130.000	1700.000	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	U	U	U	U	U	0.260	0.180	120.000	********	U	U	0.010	U
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	9.200	U	U	U	U	U

TABLE 6
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-42C	PB-43A	PB-43B	PB-44A	PB-44B	PB-45A	PB-45B	PB-45C	PB-46A	PB-46B	PB-46C	PB-47A	PB-47B	PB-48A	PB-48B
		LOCATION:	P-7	P-7	P-7	P-10	P-10	P-4	P-4	P-4	P-4	P-4	P-4	P-8	P-8	P-10	P-10
		DATE:	26-Jul	26-Jul	26-Jul	10-Aug	10-Aug	09-Aug	09-Aug	09-Aug	02-Aug	02-Aug	02-Aug	25-Jul	25-Jul	03-Aug	03-Aug
		DEPTH:	14-16	2-4	6-8	2-4	4-6	1-3	4-6	12-14	1-3	4-6	11-13	4-6	8.0-9.7	2-4	6-8
		HNU_PPM:	20	6	0	1	4	0	8	400	400	250	400	7	11	1	1
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	U	0.007	U	U	0.013	U	U	U	0.006	0.011	0.005
2-Hexanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	0.005	U	U	U	U	U	U	U	U	U	U	U	0.007	U
Toluene	ppm	5	U	0.005	U	0.006	0.014	0.023	U	0.990	0.430	200.000	*********	0.008	U	0.033	0.011
Chlorobenzene	ppm	5	U	U	U	U	0.009	U	U	4.200	1.100	120.000	*********	U	U	0.014	U
Ethylbenzene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	U	U	U	U	0.009	0.011	U	3.000	U	U	U	U	U	0.008	U

hp

$1125\ kW \cdot \frac{12\ hr}{day} \cdot \frac{260\ day}{yr} =$

TABLE 6

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-49A	PB-49B	PB-50A	PB-50B	PB-50C	PB-51A	PB-51B	PT16-1A	PT16-2A	PT16-3A	PT17-1A	PT17-2A	PT17-3A	PT18-1A	PT18-2A
		LOCATION:	P-10	P-10	P-5	P-5	P-5	P-10	P-10	P-2	P-2	P-2	P-3	P-3	P-3	P-6	P-6
		DATE:	25-Jul	25-Jul	03-Aug	03-Aug	03-Aug	10-Aug	10-Aug	25-Sep	25-Sep	25-Sep	22-Sep	22-Sep	22-Sep	22-Sep	22-Sep
		DEPTH:	4-5	8-10	1-3	3-5	8-10	2-4	6-8	5-6	7-8	3-5	7-9	5-7	3-4	8.5-9.5	10-11
INORGANIC		HNU_PPM:	0	1	14	150	164	3	6	540	480	300	24	30	80	90	106
ALUMINUM	ppm	11.2	2160.00	6690.00	12900.00	20400.00	17300.00	11400.00	13600.00	6900.00	17900.00	8450.00	7870.00	9970.00	11200.00	7650.00	9400.00
ANTIMONY	ppm	2.6	3.00	2.90	2.90	3.20	3.30	3.20	3.60	3.70	4.00	3.90	4.50	4.10	4.00	4.20	4.20
ARSENIC	ppm	0.5	2.90	1.90	3.60	3.90	1.80	2.80	1.60	2.90	2.00	5.10	1.60	4.80	2.60	1.30	0.98
BARIUM	ppm	0.7	21.80	37.60	94.30	136.00	137.00	100.00	157.00	50.80	127.00	87.20	31.50	65.80	94.50	45.10	46.70
BERYLLIUM	ppm	0.2	0.18	0.27	0.69	0.38	1.10	0.83	1.60	0.77	1.30	0.80	0.37	0.89	0.92	0.72	0.95
CADMIUM	ppm	0.2	0.32	0.26	0.26	0.29	0.30	0.29	4.40	4.50	0.27	0.26	0.31	0.28	0.27	0.36	0.29
CALCIUM	ppm	2.3	778.00	605.00	2280.00	909.00	794.00	205.00	469.00	1650.00	1290.00	362.00	603.00	511.00	535.00	582.00	773.00
CHROMIUM	ppm	0.8	33.20	22.20	59.70	37.10	34.70	47.20	27.00	13.50	57.50	12.00	12.40	24.20	21.00	15.60	18.50
COBALT	ppm	0.7	2.90	7.40	10.70	11.60	10.40	5.30	8.80	7.50	18.50	8.30	7.90	7.10	8.10	7.50	7.50
COPPER	ppm	0.4	24.40	10.00	51.20	22.10	9.80	1170.00	271.00	22.20	18.80	28.50	15.30	11.60	17.00	14.20	11.70
IRON	ppm	5	7820	16100	35100	23800	27100	14200	18800	18800	13800	13900	16300	19100	21900	11400	13100
LEAD	ppm	0.2	39.60	7.60	36.00	15.30	13.80	92.80	26.10	30.00	15.80	10.60	9.10	24.30	27.30	9.40	11.00
MAGNESIUM	ppm	3.3	819.00	3050.00	4870.00	4990.00	3840.00	2590.00	3520.00	3410.00	4920.00	3840.00	3150.00	2910.00	3650.00	3560.00	3890.00
MANGANESE	ppm	0.2	154.00	134.00	468.00	343.00	250.00	121.00	286.00	996.00	252.00	866.00	123.00	127.00	293.00	94.00	138.00
MERCURY	ppm	0.1	0.11	0.11	4.90	0.18	0.28	0.10	0.10	0.16	0.10	0.10	0.15	0.18	0.10	0.10	0.10
NICKEL	ppm	0.7	6.70	14.40	23.10	24.60	19.70	39.80	37.80	20.80	33.00	17.80	16.30	15.10	18.00	16.80	17.60
POTASSIUM	ppm	46.1	256.00	686.00	1560.00	1140.00	897.00	454.00	522.00	847.00	1300.00	782.00	1090.00	1890.00	2230.00	937.00	1090.00
SELENIUM	ppm	0.1	0.18	0.16	0.16	0.19	0.46	0.31	0.30	0.08	0.17	0.09	0.15	0.13	0.13	0.14	0.14
SILVER	ppm	0.9	1.10	1.00	1.00	1.20	1.20	1.10	1.30	0.69	0.76	0.73	0.85	0.77	0.78	0.79	0.80
SODIUM	ppm	56.7	150.00	115.00	876.00	1880.00	844.00	121.00	173.00	252.00	203.00	117.00	682.00	1200.00	358.00	139.00	170.00
THALLIUM	ppm	0.5	0.60	0.58	0.59	0.66	0.67	0.65	0.73	0.24	0.27	0.26	0.44	0.40	0.38	0.40	0.41
VANADIUM	ppm	0.6	18.60	21.40	46.40	43.30	43.40	25.80	29.90	13.10	56.70	12.30	14.20	32.50	21.00	17.50	21.10
ZINC	ppm	0.3	92.30	36.70	110.00	59.10	46.80	100.00	341.00	1450.00	56.10	46.80	36.70	35.50	64.40	33.60	36.50
CYANIDE	ppm	1.0	1.18	1.15	1.10	1.20	1.30	1.20	1.40	0.63	0.62	0.59	1.40	1.40	1.20	1.20	1.30

PCB		DILUTION	1.18	1.15	1.09	1.43	1.28	1.23	1.35	1.33	1.20	1.14	1.35	1.37	1.18	1.22	1.26
		LLD															
AROCLOR-1248	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	U	U	0.620	U	U	U	U	U	U	U	U	U	U	U	U

SEMIVOL		DILUTION	41.30	40.30	36.20	238.00	4300.00	40.70	45.70	44.90	39.90	37.60	45.00	45.70	39.20	40.70	2110.00
		LLD															
Phenol	ppm	10	U	U	U	45.000	120.000	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	0.220	U	U	U	0.170	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	0.750	U	U	U	U	0.370	U	U
1,4-Dichlorobenzene	ppm	10	U	U	0.110	U	U	U	U	19.000	U	0.110	U	0.069	8.400	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	2200.000	1.400	2.300	0.120	1.500	17.000	U	U
2-Methylphenol	ppm	10	U	U	U	47.000	120.000	U	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	0.190	65.000	170.000	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	0.041	U	U	U	U	U	U	2000.000	39.000	62.000	U	U	U	U	U
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitrophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	220.000	360.000	U	U	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	0.079	0.072	U	U	U	U	U
2,4-dichlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	0.070	U	U

TABLE 6
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PB-49A	PB-49B	PB-50A	PB-50B	PB-50C	PB-51A	PB-51B	PT16-1A	PT16-2A	PT16-3A	PT17-1A	PT17-2A	PT17-3A	PT18-1A	PT18-2A
		LOCATION:	P-10	P-10	P-5	P-5	P-5	P-10	P-10	P-2	P-2	P-2	P-3	P-3	P-3	P-6	P-6
		DATE:	25-Jul	25-Jul	03-Aug	03-Aug	03-Aug	10-Aug	10-Aug	25-Sep	25-Sep	25-Sep	22-Sep	22-Sep	22-Sep	22-Sep	22-Sep
		DEPTH:	4-5	8-10	1-3	3-5	8-10	2-4	6-8	5-6	7-8	3-5	7-9	5-7	3-4	8.5-9.5	10-11
		HNU_PPM:	0	1	14	150	164	3	6	540	480	300	24	30	80	90	106
1,2,4-Trichlorobenzene	ppm	10	U	U	0.150	U	U	U	U	5.600	U	U	U	U	U	U	U
Naphthalene	ppm	10	0.031	U	26.000	380.000	530.000	U	5.400	5.100	U	U	U	0.310	0.084	3.100	240.000
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	0.035	U	6.500	310.000	280.000	U	0.300	0.270	U	U	U	0.083	0.031	1.600	110.000
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	U	0.140	6.500	6.700	U	U	0.028	U	U	U	U	U	0.120	7.700
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	U	1.800	28.000	41.000	U	0.074	0.480	U	U	U	U	U	0.270	14.000
Dibenzofuran	ppm	10	U	U	1.100	28.000	36.000	U	0.082	0.310	U	U	U	U	U	0.280	11.000
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl Phthalate	ppm	10	0.011	U	0.430	U	U	0.099	0.028	U	U	U	U	U	U	U	U
Flourene	ppm	10	U	U	1.100	21.000	29.000	U	0.092	0.400	U	U	U	U	U	0.210	9.000
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	U	U	0.740	U	U	U	U	0.210	U	0.058	U	U	0.190	U	U
Phenanthrene	ppm	10	0.032	U	4.700	20.000	27.000	0.096	0.088	1.500	U	U	U	0.033	0.046	0.170	7.600
Anthracene	ppm	10	U	U	1.600	6.200	6.900	U	U	0.380	U	U	U	U	U	0.036	U
di-n-Butyl Phthalate	ppm	10	U	U	U	U	U	U	U	0.045	0.027	0.038	U	U	U	U	U
Flouranthene	ppm	10	0.023	U	7.800	2.500	4.400	U	U	1.000	U	U	U	U	0.034	U	U
Pyrene	ppm	10	U	U	5.900	1.500	2.500	0.093	0.026	0.940	U	U	U	U	U	U	U
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	U	5.300	U	U	U	U	0.290	U	U	U	U	U	U	U
Chrysene	ppm	10	U	U	4.400	U	U	U	U	0.280	U	U	U	U	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10	0.800	0.220	0.920	U	6.400	0.086	0.040	0.220	0.350	0.370	U	U	U	U	U
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	U	U	3.300	U	U	U	U	0.130	U	U	U	U	U	U	U
Benzo(k)flouranthene	ppm	10	U	U	3.900	U	U	U	U	0.160	U	U	U	U	U	U	U
Benzo(a)pyrene	ppm	10	U	U	4.600	U	U	U	U	0.150	U	U	U	U	U	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	1.900	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	0.570	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	2.100	U	U	U	U	U	U	U	U	U	U	U	U
VOLATILE DILUTION			1.18	1.15	136.00	179.00	160.00	1.23	1.35	62500.00	149.00	145.00	1.35	1.37	1.18	1.22	156.00
		LLD															
Bromomethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	0.006	U	U	0.890	U	0.008	0.012	U	U	U	0.010	0.008	0.008	0.007	0.260
Acetone	ppm	10	U	0.042	U	0.920	U	0.022	0.034	U	U	U	0.038	0.055	0.059	0.031	U
Carbon Disulfide	ppm	5	U	0.008	U	U	U	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	0.006	U	1.200	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	ppm	5	U	U	U	U	1.100	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	1.800	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	U	0.053	U	U	U	U	U	U	0.006	U	U	U	U
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PB-49A	PB-49B	PB-50A	PB-50B	PB-50C	PB-51A	PB-51B	PT16-1A	PT16-2A	PT16-3A	PT17-1A	PT17-2A	PT17-3A	PT18-1A	PT18-2A
		LOCATION:	P-10	P-10	P-5	P-5	P-5	P-10	P-10	P-2	P-2	P-2	P-3	P-3	P-3	P-6	P-6
		DATE:	25-Jul	25-Jul	03-Aug	03-Aug	03-Aug	10-Aug	10-Aug	25-Sep	25-Sep	25-Sep	22-Sep	22-Sep	22-Sep	22-Sep	22-Sep
		DEPTH:	4-5	8-10	1-3	3-5	8-10	2-4	6-8	5-6	7-8	3-5	7-9	5-7	3-4	8.5-9.5	10-11
	units	HNU_PPM:	0	1	14	150	164	3	6	540	480	300	24	30	80	90	106
4-Methyl-2-Pentanone	ppm	10	U	0.017	U	U	U	U	0.005	U	U	U	0.051	0.028	0.034	0.025	U
2-Hexanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5	U	U	0.310	0.700	0.490	0.013	U	U	U	0.098	0.005	0.013	U	U	0.370
Chlorobenzene	ppm	5	U	U	0.380	0.370	0.180	U	0.029	4000.000	4.800	0.260	1.200	0.144	U	U	U
Ethylbenzene	ppm	5	U	U	0.150	0.400	0.310	U	U	U	U	U	U	0.006	0.005	U	1.100
Styrene	ppm	5	U	U	0.400	0.990	0.310	U	U	U	U	U	U	U	U	U	1.400
Total Xylenes	ppm	5	U	U	1.700	3.700	2.300	U	0.016	U	U	U	U	0.014	0.010	U	5.700

TABLE 6

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PT18-2B	PT18-3A	PT19-1A	PT19-2A	PT19-3A	PT20-1A	PT20-1B	PT20-2A	PT25-1A	PT25-2A	PT26-1A	PT26-1B	PT26-2A	PT27-1A	PT27-2A
		LOCATION:	P-6	P-6	P-9	P-9	P-9	P-9	P-9	P-9	P-5	P-5	P-5	P-5	P-5	P-11	P-11
		DATE:	22-Sep	22-Sep	25-Sep	25-Sep	25-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	20-Sep	20-Sep
		DEPTH:	2-3	5-7	2.5-3.5	7-8	3-5	6-7	9-10	10-11	7-8	7-8	3-4	7-8	8-9	6.5-7.5	6-7
		HNU_PPM:	120	50	80	130	1	310	200	425	0	220	18	700	8	6	1
INORGANIC																	
ALUMINUM	ppm	11.2	2920.00	9400.00	9720.00	9930.00	16000.00	9850.00	5880.00	10100.00	3420.00	1150.00	765.00	5480.00	1710.00	805.00	1210.00
ANTIMONY	ppm	2.6	8.30	4.90	4.20	4.20	3.90	4.00	4.10	4.80	4.40	4.00	4.20	4.30	4.30	4.40	4.70
ARSENIC	ppm	0.5	38.20	24.50	13.30	5.00	3.20	3.90	5.50	1.40	4.80	2.70	0.88	11.40	2.80	61.30	60.80
BARIUM	ppm	0.7	88.30	91.00	62.80	88.90	74.70	90.90	43.10	196.00	106.00	84.10	6.00	46.60	20.70	7.20	22.80
BERYLLIUM	ppm	0.2	1.30	1.60	1.00	1.30	1.60	0.54	0.44	1.10	0.36	0.33	0.35	0.36	0.35	0.37	0.38
CADMIUM	ppm	0.2	1.30	0.51	0.48	0.29	0.26	0.27	0.28	0.32	0.30	0.27	0.28	0.29	0.29	0.30	0.81
CALCIUM	ppm	2.3	6060.00	2650.00	608.00	2190.00	432.00	959.00	1380.00	2540.00	538.00	296.00	373.00	777.00	2070.00	1340.00	730.00
CHROMIUM	ppm	0.8	32.00	60.00	93.40	22.40	21.30	28.40	13.70	23.00	18.70	12.30	4.90	22.70	11.70	804.00	888.00
COBALT	ppm	0.7	7.50	10.40	9.40	11.00	8.90	8.40	7.00	9.20	2.10	1.30	0.82	5.60	1.60	41.00	31.80
COPPER	ppm	0.4	162.00	75.30	113.00	25.60	15.10	25.20	16.20	13.60	24.20	93.30	5.90	142.00	115.00	1970.00	1330.00
IRON	ppm	5	30600	26300	26800	22100	21200	13700	10100	18900	21800	5250	2810	26800	5160	484000	449000
LEAD	ppm	0.2	112.00	116.00	308.00	95.10	9.50	152.00	21.70	16.10	54.40	90.60	6.70	32.70	162.00	196.00	189.00
MAGNESIUM	ppm	3.3	788.00	2780.00	3280.00	3950.00	4840.00	3770.00	2260.00	2870.00	647.00	355.00	230.00	2380.00	763.00	179.00	198.00
MANGANESE	ppm	0.2	492.00	136.00	634.00	370.00	254.00	312.00	146.00	186.00	25.50	43.60	11.40	147.00	49.10	1550.00	1030.00
MERCURY	ppm	0.1	2.00	0.53	0.38	0.10	0.56	0.83	0.11	0.10	0.22	0.38	0.10	0.10	0.10	0.19	0.29
NICKEL	ppm	0.7	18.30	17.70	41.00	21.80	21.90	19.20	13.80	18.90	6.40	3.70	0.82	28.30	3.80	1260.00	789.00
POTASSIUM	ppm	46.1	432.00	1030.00	913.00	820.00	1330.00	858.00	727.00	564.00	543.00	121.00	126.00	1070.00	189.00	130.00	199.00
SELENIUM	ppm	0.1	2.70	0.23	0.25	0.92	0.09	0.19	0.13	0.32	0.14	0.24	0.14	0.14	0.16	0.14	0.15
SILVER	ppm	0.9	1.60	0.93	0.79	0.80	0.74	0.76	0.77	0.90	0.83	0.76	0.79	0.82	0.81	0.84	1.00
SODIUM	ppm	56.7	228.00	178.00	213.00	265.00	158.00	332.00	221.00	417.00	96.70	64.80	62.60	178.00	82.20	68.20	62.60
THALLIUM	ppm	0.5	0.80	0.48	0.28	0.28	0.26	0.39	0.40	0.46	0.43	0.39	0.41	0.42	0.42	0.43	0.45
VANADIUM	ppm	0.6	23.10	28.80	20.00	22.20	26.40	18.70	10.00	25.90	42.10	8.70	9.70	20.20	15.90	94.50	88.50
ZINC	ppm	0.3	261.00	75.70	152.00	156.00	54.50	55.80	46.00	43.30	19.60	20.10	5.70	41.20	16.10	89.60	119.00
CYANIDE	ppm	1.0	10.80	1.40	0.59	0.65	0.69	1.20	1.20	1.30	1.40	1.20	1.20	1.20	1.30	1.30	1.40

PCB		DILUTION	1.49	1.39	1.23	1.27	1.19	1.18	1.22	1.32	1.37	1.20	17.60	1.20	1.32	1.18	1.35
		LLD															
AROCLOR-1248	ppm	0.5	U	U	0.160	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	U	U	0.230	U	U	U	0.380	U	0.300	U	U	0.370	U	0.790	0.630

SEMIVOL

		DILUTION	20300.00	926.00	41.00	2110.00	39.60	2350.00	2440.00	2630.00	2410.00	39.20	2410.00	43.80	43.80	2700.00	2330.00
		LLD															
Phenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10	U	U	0.120	U	U	U	U	2.700	U	U	U	U	U	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	U	U	0.600	U	U	U	U	47.000	1.300	U	U	0.110	0.100	U	U
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	0.390	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	U	U	U	U	1.700	U	U	U	36.000	0.078	360.000	U	0.260	U	U
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitrophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	0.150	U	U	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	0.300	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PT18-2B	PT18-3A	PT19-1A	PT19-2A	PT19-3A	PT20-1A	PT20-1B	PT20-2A	PT25-1A	PT25-2A	PT26-1A	PT26-1B	PT26-2A	PT27-1A	PT27-2A
		LOCATION:	P-6	P-6	P-9	P-9	P-9	P-9	P-9	P-9	P-5	P-5	P-5	P-5	P-5	P-11	P-11
		DATE:	22-Sep	22-Sep	25-Sep	25-Sep	25-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	20-Sep	20-Sep
		DEPTH:	2-3	5-7	2.5-3.5	7-8	3-5	6-7	9-10	10-11	7-8	7-8	3-4	7-8	8-9	6.5-7.5	6-7
		HNU_PPM:	120	50	80	130	1	310	200	425	0	220	18	700	8	6	1
1,2,4-Trichlorobenzene	ppm	10	U	U	0.390	U	U	U	U	U	67.000	0.710	100.000	0.410	U	U	U
Naphthalene	ppm	10	6000.000	81.000	0.310	260.000	0.095	980.000	62.000	420.000	7.400	0.032	1.200	0.029	0.110	2.200	29.000
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	3200.000	38.000	0.260	9.800	0.082	760.000	8.800	83.000	1.400	U	U	U	U	U	4.900
2-Chloronaphthalene	ppm	10	U	U	U	1.900	U	U	U	29.000	U	U	U	U	U	5.700	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	U	U	U	0.021	7.600	U	4.100	U	U	U	U	U	U	U
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	630.000	16.000	0.033	U	U	75.000	3.300	210.000	U	U	U	U	U	6.000	1.400
Dibenzofuran	ppm	10	410.000	10.000	U	3.500	0.035	84.000	3.300	210.000	U	U	U	U	0.046	8.700	2.300
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flourene	ppm	10	280.000	8.300	U	190.000	U	76.000	4.500	200.000	U	U	U	U	U	U	U
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	U	U	0.380	U	U	U	U	U	20.000	0.700	98.000	0.094	4.600	3.400	18.000
Phenanthrene	ppm	10	600.000	11.000	0.087	3.100	0.140	73.000	4.300	190.000	U	U	U	0.110	0.500	64.000	3.700
Anthracene	ppm	10	U	1.800	0.032	U	0.047	36.000	U	57.000	U	U	U	U	U	6.000	0.900
di-n-Butyl Phthalate	ppm	10	U	U	0.017	U	0.033	U	U	U	U	U	U	U	U	U	U
Flouranthene	ppm	10	69.000	2.900	0.082	U	0.200	9.200	U	29.000	U	U	U	0.270	0.240	5.600	U
Pyrene	ppm	10	U	1.500	0.026	U	0.110	6.100	U	14.000	U	U	U	0.260	0.320	3.100	3.900
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	U	0.110	U	U	U	U	U	U	U	U	U	U	U	U
Chrysene	ppm	10	U	U	0.023	U	0.058	U	U	U	U	U	U	0.160	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10	U	U	0.290	U	0.370	U	U	4.800	U	U	U	U	U	6.000	2.500
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	0.095	U	U	U
Benzo(k)flouranthene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)pyrene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
VOLATILE	DILUTION		745.00	174.00	150.00	309.00	1.20	2950.00	1.22	660.00	1.36	6000.00	1.18	300.00	1.32	1.32	1.35
		LLD															
Bromomethane	ppm	10	U	U	U	U	U	U	U	U	U	0.210	U	U	U	U	U
Methylene Chloride	ppm	5	2.800	0.520	U	0.600	0.006	28.000	0.008	5.100	0.007	27.000	0.006	0.600	0.017	0.008	0.012
Acetone	ppm	10	4.100	U	U	U	0.020	24.000	0.013	5.200	0.008	53.000	0.015	U	0.025	0.087	0.050
Carbon Disulfide	ppm	5	U	U	U	U	U	1.700	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	0.370	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	[illegible]	[illegible]	0.600	[illegible].000	U	[illegible]	0.[illegible]	[illegible]	.005	[illegible]0	[illegible]	3.[illegible]	0.01	.029	[illegible]6
[illegible]		5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PT18-2B	PT18-3A	PT19-1A	PT19-2A	PT19-3A	PT20-1A	PT20-1B	PT20-2A	PT25-1A	PT25-2A	PT26-1A	PT26-1B	PT26-2A	PT27-1A	PT27-2A
		LOCATION:	P-6	P-6	P-9	P-9	P-9	P-9	P-9	P-9	P-5	P-5	P-5	P-5	P-5	P-11	P-11
		DATE:	22-Sep	22-Sep	25-Sep	25-Sep	25-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	21-Sep	20-Sep	20-Sep
		DEPTH:	2-3	5-7	2.5-3.5	7-8	3-5	6-7	9-10	10-11	7-8	7-8	3-4	7-8	8-9	6.5-7.5	6-7
	units	HNU_PPM:	120	50	80	130	1	310	200	425	0	220	18	700	8	6	1
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	U	U	0.008	U	0.015	U	0.017	U	0.041	0.006	0.015
2-Hexanone	ppm	10	U	U	U	U	U	U	U	U	U	U	0.036	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	1.000	U	U	U

TABLE 6
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PT27-3A	PT30-1A	PT30-2A	PT30-3A	PBMW-15A	PBMW-16A	PBMW-16B	PBMW-17A	PBMW-17B	PBMW-18A	PBMW-19A	PBMW-19B	PBMW-20A	PBMW-20B	PBMW-21A
		LOCATION:	P-11	P-11	P-11	P-11	P-3	P-11	P-11	P-9/W-5	P-9/W-5	P-3	P-3	W-3	P-3	P-3	P-1
		DATE:	20-Sep	20-Sep	20-Sep	20-Sep	16-Aug	14-Aug	14-Aug	25-Aug	25-Aug	29-Aug	21-Aug	21-Aug	22-Aug	22-Aug	22-Aug
		DEPTH:	3-4	5-6	5-6	3-4	1-3	4-6	8-10	2-4	6-8	1-3	2.5-4.0	6-8	2-4	6-8	2-4
	units	HNU_PPM:	1	200	7	1	0	0	0	660	520	0	0	0	0	0	220
INORGANIC																	
ALUMINUM	ppm	11.2	5220.00	3650.00	14000.00	13100.00	9000.00	9160.00	18600.00	13300.00	14500.00	5800.00	20300.00	9200.00	37100.00	11600.00	13500.00
ANTIMONY	ppm	2.6	4.00	4.30	4.20	4.40	3.40	3.30	3.00	3.10	3.40	3.00	3.30	3.20	3.30	3.00	3.60
ARSENIC	ppm	0.5	33.80	97.10	22.20	5.70	3.40	6.70	4.00	3.20	2.50	2.70	0.92	2.70	1.70	4.00	3.30
BARIUM	ppm	0.7	181.00	68.20	46.50	311.00	39.50	72.90	103.00	146.00	122.00	69.90	155.00	59.50	263.00	57.80	117.00
BERYLLIUM	ppm	0.2	0.91	0.37	0.86	0.36	0.25	0.25	0.41	0.92	1.60	0.60	0.48	0.71	1.20	0.49	0.48
CADMIUM	ppm	0.2	0.64	1.60	0.28	0.30	0.37	0.37	0.33	0.28	0.31	0.27	0.24	0.36	0.37	0.34	0.40
CALCIUM	ppm	2.3	3200.00	568.00	1080.00	779.00	450.00	2070.00	4520.00	1420.00	1440.00	2220.00	787.00	542.00	10800.00	1790.00	956.00
CHROMIUM	ppm	0.8	550.00	637.00	23.20	96.00	12.80	16.30	85.70	26.50	57.40	20.10	23.50	20.80	84.20	34.20	20.80
COBALT	ppm	0.7	8.10	32.20	11.40	10.50	6.40	6.50	19.50	9.80	11.10	7.10	6.00	6.10	558.00	12.70	8.50
COPPER	ppm	0.4	416.00	2720.00	24.90	519.00	31.80	22.30	67.50	17.00	23.60	24.30	8.70	11.30	2080.00	37.20	20.40
IRON	ppm	5	31000	380000	23200	77000	16600	13700	38000	16200	25100	11300	10100	16900	31000	15300	17700
LEAD	ppm	0.2	123.00	271.00	19.30	341.00	15.20	41.80	11.90	16.70	17.00	35.40	13.60	12.10	6.60	11.10	19.30
MAGNESIUM	ppm	3.3	2070.00	1010.00	4800.00	4540.00	3120.00	2040.00	8400.00	3740.00	3920.00	2660.00	2310.00	2830.00	6470.00	3700.00	2150.00
MANGANESE	ppm	0.2	210.00	1840.00	148.00	238.00	238.00	361.00	314.00	400.00	251.00	215.00	80.80	84.00	784.00	134.00	124.00
MERCURY	ppm	0.1	0.94	2.10	0.11	0.54	0.12	0.11	0.11	0.24	0.11	4.00	0.12	0.14	0.12	0.11	0.13
NICKEL	ppm	0.7	61.90	815.00	26.10	80.50	13.60	11.00	38.70	18.60	26.40	15.70	14.20	14.30	2010.00	32.00	18.10
POTASSIUM	ppm	46.1	450.00	398.00	978.00	1160.00	954.00	463.00	861.00	702.00	1320.00	683.00	784.00	954.00	8440.00	743.00	618.00
SELENIUM	ppm	0.1	4.70	0.19	0.14	0.23	0.18	0.23	0.16	0.24	0.34	0.16	0.17	0.17	4.10	0.13	0.51
SILVER	ppm	0.9	0.74	2.30	0.79	0.82	1.20	1.20	1.10	1.10	1.20	1.00	1.20	1.20	1.20	1.10	1.30
SODIUM	ppm	58.7	207.00	183.00	171.00	219.00	95.40	197.00	321.00	228.00	397.00	219.00	273.00	160.00	90800.00	1470.00	360.00
THALLIUM	ppm	0.5	0.38	0.44	0.41	0.42	0.66	0.40	0.36	0.64	0.69	0.60	0.40	0.39	0.40	0.37	0.43
VANADIUM	ppm	0.6	25.00	71.10	40.00	38.90	15.70	26.20	110.00	30.30	34.60	17.30	23.70	49.50	60.20	36.60	32.10
ZINC	ppm	0.3	260.00	143.00	64.80	8860.00	40.60	55.60	61.40	52.00	60.80	63.60	41.10	40.30	60.80	56.40	146.00
CYANIDE	ppm	1.0	1.20	1.60	1.20	1.20	1.30	1.20	1.10	1.20	1.60	1.10	1.20	1.20	1.20	1.10	1.40
PCB																	
DILUTION			1.16	1.61	1.23	1.23	1.26	1.23	1.12	1.19	1.59	1.12	1.23	1.19	1.23	1.12	1.14
		LLD															
AROCLOR-1248	ppm	0.5	U	U	U	U	U	U	U	1.100	0.170	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	0.930	U	U	U	U	U	U	U	U	0.640	U	U	U	U	U
SEMIVOL																	
DILUTION			2300.00	3230.00	41.10	2470.00	42.20	0.00	37.40	39.60	52.90	178.00	41.10	39.60	41.10	37.40	2740.00
		LLD															
Phenol	ppm	10	3.900	U	U	U	U	U	U	1.500	2.300	U	U	U	U	U	U
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	0.610	U	U	1.100	0.170	U
1,4-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	3.500	U	U	1.100	0.170	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	0.770	U
1,2-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	21.000	U	U	4.500	U	U
2-Methylphenol	ppm	10	2.400	U	U	U	U	U	U	U	0.082	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	U	U	0.029	0.150	U	U	U	U	U	U
Nitrobenzene	ppm	10	U	U	U	U	U	U	U	U	U	1.500	U	U	U	U	U
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitrophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	U	U	0.035	U	U	U	U	U	U

TABLE 6
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PT27-3A	PT30-1A	PT30-2A	PT30-3A	PBMW-15A	PBMW-16A	PBMW-16B	PBMW-17A	PBMW-17B	PBMW-18A	PBMW-19A	PBMW-19B	PBMW-20A	PBMW-20B	PBMW-21A
		LOCATION:	P-11	P-11	P-11	P-11	P-3	P-11	P-11	P-9/W-5	P-9/W-5	P-3	P-3	W-3	P-3	P-3	P-1
		DATE:	20-Sep	20-Sep	20-Sep	20-Sep	16-Aug	14-Aug	14-Aug	25-Aug	25-Aug	29-Aug	21-Aug	21-Aug	22-Aug	22-Aug	22-Aug
		DEPTH:	3-4	5-6	5-6	3-4	1-3	4-6	8-10	2-4	6-8	1-3	2.5-4.0	6-8	2-4	6-8	2-4
		HNU_PPM:	1	200	7	1	0	0	0	660	520	0	0	0	0	0	220
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2,4-dichlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	0.180	U	U	U	U	U
Naphthalene	ppm	10	17.000	310.000	0.094	3.500	U	0.056	0.013	0.095	2.400	0.170	U	U	1.000	0.049	50.000
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	U	6.400	U	U	U	0.014	U	0.014	0.066	0.074	U	U	U	U	2.200
2-Chloronaphthalene	ppm	10	U	55.000	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	U	U	U	U	U	0.024	U	U	0.032	U	U	U	U	U
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	U	U	U	0.031	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10	U	U	U	U	0.029	0.006	0.006	U	U	0.064	U	U	U	U	U
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl Phthalate	ppm	10	U	U	U	U	0.073	0.014	0.008	U	0.030	U	U	0.036	U	0.032	U
Flourene	ppm	10	U	U	U	U	0.037	U	0.016	0.270	0.150	0.051	U	U	U	U	U
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	U	46.000	0.770	U	U	U	U	U	U	3.500	U	U	0.230	0.410	U
Phenanthrene	ppm	10	2.300	U	U	U	0.290	0.064	0.150	U	U	0.310	U	U	0.071	0.059	3.000
Anthracene	ppm	10	U	U	U	U	0.086	U	0.032	U	0.110	0.290	U	U	U	U	U
di-n-Butyl Phthalate	ppm	10	U	U	U	U	U	0.006	0.005	U	U	0.039	U	0.039	U	0.034	U
Flouranthene	ppm	10	1.700	U	U	U	0.340	0.062	0.210	U	U	0.570	U	U	0.120	0.088	U
Pyrene	ppm	10	1.700	U	U	U	0.250	0.069	0.230	U	U	0.470	U	U	0.093	0.060	U
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	12.000	U	87.000	0.140	0.046	0.160	U	U	0.380	U	U	0.075	0.046	U
Chrysene	ppm	10	U	U	U	U	0.130	0.049	0.160	U	U	0.300	U	U	0.067	0.041	U
bis(2-Ethylhexyl)Phthalate	ppm	10	3.900	8.200	U	U	0.160	0.083	U	0.052	0.240	0.240	0.230	0.170	0.280	0.180	U
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	0.024	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	U	U	U	U	0.091	0.028	0.120	U	U	0.200	U	U	0.064	0.040	U
Benzo(k)flouranthene	ppm	10	U	U	U	U	0.110	U	0.130	U	U	U	U	U	0.051	0.029	U
Benzo(a)pyrene	ppm	10	U	U	U	U	0.100	0.037	0.140	U	U	0.280	U	U	0.057	0.037	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	U	U	0.050	0.022	0.074	U	U	U	U	U	0.035	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	U	U	0.049	0.025	0.079	U	U	U	U	U	0.037	U	U
VOLATILE DILUTION			1.16	4000.00	1.23	1.23	1.27	1.23	1.12	595.00	794.00	1.12	1.23	1.19	1.23	1.12	3430.00
		LLD															
Bromomethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	0.015	U	0.007	0.008	U	0.007	0.007	U	U	0.007	U	0.005	0.006	U	U
Acetone	ppm	10	0.030	13.000	0.030	0.015	0.011	0.015	U	U	U	0.018	0.020	0.031	0.028	0.029	U
Carbon Disulfide	ppm	5	U	U	0.005	U	U	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6

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AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PT27-3A	PT30-1A	PT30-2A	PT30-3A	PBMW-15A	PBMW-16A	PBMW-16B	PBMW-17A	PBMW-17B	PBMW-18A	PBMW-19A	PBMW-19B	PBMW-20A	PBMW-20B	PBMW-21A
		LOCATION:	P-11	P-11	P-11	P-11	P-3	P-11	P-11	P-9/W-5	P-9/W-5	P-3	P-3	W-3	P-3	P-3	P-1
		DATE:	20-Sep	20-Sep	20-Sep	20-Sep	16-Aug	14-Aug	14-Aug	25-Aug	25-Aug	29-Aug	21-Aug	21-Aug	22-Aug	22-Aug	22-Aug
		DEPTH:	3-4	5-6	5-6	3-4	1-3	4-6	8-10	2-4	6-8	1-3	2.5-4.0	6-8	2-4	6-8	2-4
	units	HNU_PPM:	1	200	7	1	0	0	0	660	520	0	0	0	0	0	220
1,1,1-Trichloroethane	ppm	5	0.012	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	0.078	U	0.009	0.018	U	U	U	U	U	U	U	U	U	U	U
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10	0.025	U	0.011	0.009	0.005	0.005	U	U	U	U	U	U	0.005	U	U
2-Hexanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5	0.170	3.800	0.014	0.035	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	ppm	5	0.031	U	U	0.012	U	U	U	U	U	0.033	U	U	0.026	U	U
Ethylbenzene	ppm	5	0.074	74.000	0.005	0.011	U	U	U	U	U	U	U	U	U	U	27.000
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	0.033	400.000	U	0.015	U	U	U	U	U	U	U	U	0.007	U	140.000

TABLE 6
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PBMW-22A	PBMW-23A	PBMW-24A	PBMW-25A	PBMW-25B	PBMW-26A	PBMW-26B	PBMW-27A	PBMW-27B	PBMW-28A	PBMW-28B	PBMW-30A	PBMW-31A
		LOCATION:	P-1	P-9/W-5	P-9	P-9	P-9	P-11	P-11	P-11	P-11	P-11	P-11	P-10	P-11
		DATE:	17-Aug	24-Aug	29-Aug	24-Aug	24-Aug	28-Aug	28-Aug	23-Aug	23-Aug	18-Aug	18-Aug	13-Sep	14-Sep
		DEPTH:	1-3	1-3	1-3	2-4	4-6	2-4	6-8	2-4	4-6	2-4	15-17	4-6	4-6
	units	HNU_PPM:	0	0	0	26	28	0	48	0	0	0	0	0	0
INORGANIC															
ALUMINUM	ppm	11.2	219.00	8080.00	5980.00	12300.00	9790.00	887.00	1610.00	15400.00	8690.00	14700.00	8820.00	17000.00	6370.00
ANTIMONY	ppm	2.6	3.30	3.20	3.10	2.90	2.90	3.60	3.10	3.10	2.90	3.20	3.10	3.20	3.10
ARSENIC	ppm	0.5	179.00	12.50	13.70	2.40	2.70	1.60	2.10	3.70	2.70	2.40	58.60	6.67	6.70
BARIUM	ppm	0.7	67.80	155.00	104.00	52.90	54.80	76.40	37.20	52.90	60.90	89.00	57.00	118.00	72.40
BERYLLIUM	ppm	0.2	0.24	0.24	0.54	1.10	1.00	0.22	0.18	0.64	0.57	0.95	0.90	1.90	0.45
CADMIUM	ppm	0.2	4.10	0.35	0.42	0.33	0.33	0.33	0.28	0.34	0.33	9.30	0.71	0.28	0.28
CALCIUM	ppm	2.3	180.00	2980.00	927.00	939.00	951.00	944.00	753.00	218.00	456.00	1180.00	1730.00	3370.00	320.00
CHROMIUM	ppm	0.8	91.60	52.00	35.00	648.00	2070.00	1.90	6.80	24.00	15.40	28.20	29.80	48.10	16.40
COBALT	ppm	0.7	32.30	10.80	6.60	11.30	11.00	0.96	0.81	12.50	6.90	11.90	16.20	14.40	4.40
COPPER	ppm	0.4	236.00	274.00	55.80	16.50	27.20	1.80	4.80	17.90	21.80	9.90	64.50	30.00	174.00
IRON	ppm	5	478000	25700	18400	18300	17200	394	5510	24900	15200	21400	24000	29300	19300
LEAD	ppm	0.2	43.50	145.00	514.00	8.60	4.70	15.40	9.80	13.50	8.80	36.80	14.40	19.00	45.50
MAGNESIUM	ppm	3.3	58.20	2510.00	2420.00	3880.00	5150.00	101.00	221.00	4330.00	3850.00	5660.00	5300.00	3990.00	1620.00
MANGANESE	ppm	0.2	143.00	323.00	150.00	583.00	402.00	5.40	14.10	477.00	200.00	234.00	143.00	1160.00	108.00
MERCURY	ppm	0.1	0.90	0.12	128.00	0.11	0.13	0.10	0.10	0.11	0.11	0.12	0.12	0.10	0.10
NICKEL	ppm	0.7	77.30	32.40	20.10	19.20	20.70	1.00	1.50	44.10	17.10	25.30	35.80	36.20	10.30
POTASSIUM	ppm	46.1	140.00	840.00	585.00	969.00	1140.00	457.00	896.00	1190.00	980.00	1510.00	709.00	903.00	459.00
SELENIUM	ppm	0.1	0.17	0.70	0.29	0.70	0.70	0.26	0.17	0.16	0.15	0.17	0.16	0.23	0.45
SILVER	ppm	0.9	1.20	1.20	1.10	1.10	1.10	1.30	1.10	1.10	1.10	1.20	1.10	1.10	1.10
SODIUM	ppm	56.7	233.00	359.00	151.00	255.00	206.00	157.00	184.00	124.00	163.00	296.00	197.00	225.00	124.00
THALLIUM	ppm	0.5	0.64	0.38	0.64	0.36	0.35	0.74	0.62	0.37	0.35	0.39	0.37	0.64	0.63
VANADIUM	ppm	0.6	14.60	20.00	23.90	28.90	25.10	2.10	5.30	39.10	20.70	32.70	38.60	34.40	19.90
ZINC	ppm	0.3	27.40	170.00	184.00	214.00	441.00	3.80	8.00	70.60	50.70	11800.00	130.00	60.10	37.10
CYANIDE	ppm	1.0	1.20	1.20	13.00	1.10	1.10	1.40	1.20	1.10	1.10	1.20	1.10	1.30	1.20
PCB	DILUTION		1.22	1.18	1.25	1.10	1.09	1.39	1.18	1.13	1.09	1.20	1.22	1.28	1.22
		LLD													
AROCLOR-1248	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	U	0.220	U	U	U	U	U	U	U	U	U	U	U
SEMIVOL															
\\\\\\\\\\ DILUTION			2440.00	1960.00	19800.00	36.60	36.20	44.00	37.30	37.80	36.20	40.10	37.40	42.70	40.70
		LLD													
Phenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	0.330	U	U
1,4-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	2.400	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	0.014	19.000	U	U
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	0.014	U	U	U
Nitrobenzene	ppm	10	27.000	U	U	U	U	U	U	U	U	U	0.080	U	U
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Nitrophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

	units	FIELDID:	PBMW-22A	PBMW-23A	PBMW-24A	PBMW-25A	PBMW-25B	PBMW-26A	PBMW-26B	PBMW-27A	PBMW-27B	PBMW-28A	PBMW-28B	PBMW-30A	PBMW-31A
		LOCATION:	P-1	P-9/W-5	P-9	P-9	P-9	P-11	P-11	P-11	P-11	P-11	P-11	P-10	P-11
		DATE:	17-Aug	24-Aug	29-Aug	24-Aug	24-Aug	28-Aug	28-Aug	23-Aug	23-Aug	18-Aug	18-Aug	13-Sep	14-Sep
		DEPTH:	1-3	1-3	1-3	2-4	4-6	2-4	6-8	2-4	4-6	2-4	15-17	4-6	4-6
		HNU_PPM:	0	0	0	26	28	0	48	0	0	0	0	0	0
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U
2,4-dichlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	4.000	U	U
Naphthalene	ppm	10	U	210.000	4900.000	U	U	U	U	0.022	0.027	0.170	0.250	0.009	U
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	U	77.000	510.000	5.100	1.300	U	U	0.009	0.010	0.019	0.071	U	U
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	U	U	U	0.140	U	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	U	4.100	U	U	U	U	U	U	U	0.029	U	U
2,6-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	22.000	77.000	1.700	1.800	U	0.980	U	U	U	0.033	U	U
Dibenzofuran	ppm	10	U	17.000	85.000	U	U	U	1.100	U	U	U	0.160	U	U
2,4-Dinitrotoluene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
Diethyl Phthalate	ppm	10	U	U	U	U	U	0.085	U	U	0.030	0.012	0.028	0.200	U
Flourene	ppm	10	U	U	54.000	2.300	2.100	U	1.900	U	U	U	0.450	U	U
4-Nitroanaline	ppm	50	U	7.600	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	U	U	U	U	U	U	U	U	U	U	0.280	U	U
Phenanthrene	ppm	10	U	12.000	70.000	2.600	2.700	U	2.300	0.010	0.014	0.057	1.500	U	U
Anthracene	ppm	10	U	U	26.000	0.600	0.520	U	0.310	U	U	U	0.350	U	U
di-n-Butyl Phthalate	ppm	10	U	U	U	U	U	0.035	U	U	U	U	0.012	U	U
Flouranthene	ppm	10	U	U	12.000	0.650	0.720	0.005	0.170	U	0.011	0.032	0.760	U	U
Pyrene	ppm	10	U	U	8.300	0.850	0.800	U	0.480	U	U	U	1.300	U	U
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	U	5.700	0.170	0.190	U	U	U	U	10.000	0.660	U	U
Chrysene	ppm	10	U	U	U	0.150	0.150	U	0.096	U	U	U	0.630	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10	U	U	0.170	0.350	0.210	0.037	U	0.052	0.063	U	0.200	0.064	U
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	U	U	U	0.050	U	0.007	0.084	U	U	U	0.310	U	U
Benzo(k)flouranthene	ppm	10	U	U	U	0.060	0.110	U	U	U	U	U	0.390	U	U
Benzo(a)pyrene	ppm	10	U	U	U	0.070	0.045	U	0.048	U	U	U	0.380	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
VOLATILE DILUTION			6.10	7350.00	15600.00	137.00	136.00	1.39	148.00	1.14	1.09	1.20	1.12	1.28	1.22
		LLD													
Bromomethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	0.027	U	U	U	0.560	0.008	U	U	0.006	0.005	0.006	U	0.008
Acetone	ppm	10	0.180	U	U	U	U	0.017	U	0.010	0.018	0.100	0.050	U	0.019
Carbon Disulfide	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 6

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AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN PRODUCTION AREA

		FIELDID:	PBMW-22A	PBMW-23A	PBMW-24A	PBMW-25A	PBMW-25B	PBMW-26A	PBMW-26B	PBMW-27A	PBMW-27B	PBMW-28A	PBMW-28B	PBMW-30A	PBMW-31A
		LOCATION:	P-1	P-9/W-5	P-9	P-9	P-9	P-11	P-11	P-11	P-11	P-11	P-11	P-10	P-11
		DATE:	17-Aug	24-Aug	29-Aug	24-Aug	24-Aug	28-Aug	28-Aug	23-Aug	23-Aug	18-Aug	18-Aug	13-Sep	14-Sep
		DEPTH:	1-3	1-3	1-3	2-4	4-6	2-4	6-8	2-4	4-6	2-4	15-17	4-6	4-6
	units	HNU_PPM:	0	0	0	26	28	0	48	0	0	0	0	0	0
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	0.008	0.018
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	0.014	160.000	U	U	U	U	U	U	U	0.008	0.005	U	U
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	U	U	U	U	0.011	0.007	0.006	U	U
2-Hexanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5	U	1200.000	76.000	0.150	0.120	0.006	U	U	U	0.007	0.005	U	U
Chlorobenzene	ppm	5	U	U	U	0.660	0.110	U	U	U	U	U	U	U	U
Ethylbenzene	ppm	5	U	110.000	120.000	U	U	U	U	U	U	U	U	U	U
Styrene	ppm	5	U	400.000	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	0.039	1900.000	810.000	U	U	U	U	U	U	U	U	U	U

TABLE 7

SURFACE SAMPLES IN THE WEST YARD

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-15	WS-16	WS-17	WS-18	WS-19	WS-20	WS-21	WS-22	WS-23	WS-24	WS-25	WS-26	WS-27	WS-28
		LOCATION:	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4
		DATE:	30-Aug	30-Aug	17-Oct	17-Oct	06-Oct	06-Oct	06-Oct	06-Oct	06-Oct	06-Oct	17-Oct	02-Oct	17-Oct	17-Oct
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
INORGANIC		HNU_PPM:	0	0	0	0	0	1	0	0	0	0	0	0	0	20
ALUMINUM	ppm	11.2	4010.0	2140.0	2770.0	2380.0	2320.0	3710.0	2650.0	1540.0	2410.0	1200.0	1790.0	8260.0	7520.0	2970.0
ANTIMONY	ppm	2.6	3.000	3.300	4.500	4.400	4.800	4.100	3.700	3.800	4.900	3.900	4.100	3.900	4.400	4.300
ARSENIC	ppm	0.5	8.900	10.500	19.600	39.700	86.100	23.200	28.800	4.200	84.000	3.900	16.300	9.300	23.800	61.800
BARIUM	ppm	0.7	70.400	52.600	680.000	62.300	204.000	446.000	1340.000	48.400	1400.000	48.000	136.000	121.000	258.000	4120.000
BERYLLIUM	ppm	0.2	0.540	0.580	0.370	1.300	0.380	0.470	0.300	0.320	0.400	0.320	0.410	0.320	0.360	1.600
CADMIUM	ppm	0.2	0.270	0.690	0.300	0.300	0.740	0.310	0.470	0.260	0.880	0.260	0.280	1.200	5.700	0.290
CALCIUM	ppm	2.3	482.0	672.0	1400.0	253.0	980.0	2100.0	733.0	489.0	1290.0	568.0	604.0	5070.0	14500.0	968.0
CHROMIUM	ppm	0.8	4940.0	197.0	466.0	929.0	990.0	498.0	399.0	7.7	1030.0	13.9	240.0	527.0	3140.0	492.0
COBALT	ppm	0.7	5.800	7.100	11.900	15.200	26.600	15.800	13.300	2.400	20.500	3.000	5.600	9.800	11.600	20.500
COPPER	ppm	0.4	387.000	381.000	1480.000	1120.000	6720.000	2490.000	2020.000	32.800	3260.000	32.400	448.000	696.000	4110.000	1660.000
IRON	ppm	5.3	44300.0	53000.0	117000.0	233000.0	389000.0	160000.0	132000.0	4560.0	410000.0	5180.0	49200.0	51000.0	86200.0	206000.0
LEAD	ppm	0.2	37.000	106.000	264.000	132.000	113.000	324.000	380.000	37.900	270.000	6.700	45.800	171.000	474.000	543.000
MAGNESIUM	ppm	3.3	730.000	633.000	754.000	492.000	269.000	1760.000	1200.000	102.000	242.000	117.000	291.000	3440.000	4200.000	1040.000
MANGANESE	ppm	0.2	160.000	481.000	839.000	1160.000	1660.000	862.000	589.000	31.100	1350.000	38.400	295.000	282.000	684.000	565.000
MERCURY	ppm	0.1	0.300	1.500	2.900	1.000	3.100	2.300	6.000	0.100	3.000	0.200	0.910	2.600	8.500	94.800
NICKEL	ppm	0.7	48.400	65.700	149.000	128.000	373.000	200.000	139.000	10.100	308.000	13.800	65.200	63.500	162.000	392.000
POTASSIUM	ppm	46.1	628.000	456.000	254.000	228.000	382.000	624.000	276.000	341.000	382.000	243.000	352.000	1020.000	948.000	330.000
SELENIUM	ppm	0.1	0.230	1.300	2.400	0.860	9.100	1.200	0.620	1.100	1.400	1.200	1.800	0.270	1.400	1.200
SILVER	ppm	0.9	1.000	1.200	0.840	0.830	0.870	0.770	0.690	0.720	0.930	0.730	0.770	0.730	0.830	2.200
SODIUM	ppm	56.7	259.000	158.000	229.000	138.000	453.000	280.000	156.000	110.000	450.000	82.600	103.000	587.000	450.000	145.000
THALLIUM	ppm	0.5	0.600	0.660	0.300	0.290	0.760	0.270	0.240	0.260	0.780	0.260	0.270	0.260	0.290	0.290
VANADIUM	ppm	0.6	32.800	15.800	50.700	79.400	156.000	59.600	78.800	6.300	102.000	6.700	24.500	45.400	49.000	50.500
ZINC	ppm	0.3	32.500	247.000	241.000	63.400	170.000	163.000	276.000	8.900	99.000	9.500	73.300	258.000	1230.000	125.000
CYANIDE	ppm	1.0	1.100	1.100	1.400	1.200	6.100	1.600	7.600	1.200	20.800	1.100	1.200	1.500	1.300	1.800
PCB DILUTION			1.1	1.2	140.0	1.3	14.1	1.1	1.1	1.2	68.0	1.1	1.2	1.2	1.3	32.0
		LLD														
AROCLOR-1248	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	U	U	U	U	160.000	U	U	U	U	U	U	1.800	U	130.000
AROCLOR-1260	ppm	1.0	U	U	U	U	U	U	U	U	U	U	0.580	U	U	U
SEMIVOL DILUTION			37.9	39.7	45.7	41.7	46.9	37.9	37.9	38.3	45.0	37.5	39.7	41.2	214.0	43.3
		LLD														
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	0.120	U	0.099	U	U	U	U	U	U	0.075	0.110	U
1,4-Dichlorobenzene	ppm	10	U	U	0.680	U	0.660	U	U	U	0.190	U	U	0.280	0.410	0.020
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	0.130	0.170	8.400	0.600	20.000	0.770	0.350	U	6.800	U	0.500	2.600	4.200	0.210
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Hexachloroethane	ppm	10	U	U	1.400	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	0.120	U	0.820	0.067	5.800	2.600	0.370	U	1.300	U	0.100	0.560	5.000	2.200
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	0.053	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	0.061	1.500	U	0.100	0.670	6.700	U	U	0.620	U	0.050	0.720	1.100	0.960

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-15	WS-16	WS-17	WS-18	WS-19	WS-20	WS-21	WS-22	WS-23	WS-24	WS-25	WS-26	WS-27	WS-28
		LOCATION:	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4
		DATE:	30-Aug	30-Aug	17-Oct	17-Oct	06-Oct	06-Oct	06-Oct	06-Oct	06-Oct	06-Oct	17-Oct	02-Oct	17-Oct	17-Oct
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	0	1	0	0	0	0	0	0	0	20
Naphthalene	ppm	10	0.110	0.450	1.100	0.640	1.100	0.460	0.350	0.056	2.300	U	0.780	4.400	19.000	2.400
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Chloro-3-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	0.043	0.140	0.110	U	U	0.065	0.480	U	0.170	U	U	0.520	1.700	0.300
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	0.670	U	U	U	U	U	0.150	0.220
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	0.085	U	U	U	U	U	U	U	U	U	U	0.039	U	0.069
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	0.510	0.140	U	U	U	0.460	U	0.260	U	U	0.530	1.000	0.550
2,4-Dinitrophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10	U	U	0.140	U	U	U	0.300	U	0.190	U	U	0.290	0.710	0.620
Diethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flourene	ppm	10	U	0.470	0.160	U	U	U	U	U	U	U	U	U	0.490	U
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	0.400	U	21.000	1.100	6.100	3.300	1.500	U	6.800	U	2.100	3.500	12.000	6.700
Hexachlorobenzene	ppm	10	0.770	1.000	U	U	U	3.100	U	U	U	U	U	U	U	U
Pentachlorophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10	0.130	3.200	1.200	0.130	U	0.810	0.980	U	0.440	U	0.150	1.800	2.100	0.610
Anthracene	ppm	10	U	0.760	0.390	U	U	0.330	0.310	U	U	U	U	0.670	0.910	0.700
di-n-Butyl Phthalate	ppm	10	U	U	0.210	U	U	U	U	U	U	U	U	U	U	0.071
Flouranthene	ppm	10	0.210	3.400	1.200	0.160	U	2.100	0.990	U	U	U	U	1.300	0.740	0.950
Pyrene	ppm	10	0.090	3.700	1.400	U	U	2.600	2.100	U	U	U	U	4.400	4.600	U
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	0.110	5.400	3.100	U	U	1.500	U	U	U	U	5.500	2.800	4.300	U
Chrysene	ppm	10	U	1.300	U	U	U	1.200	U	U	U	U	U	1.700	1.200	U
bis(2-Ethylhexyl)Phthalate	ppm	10	0.049	3.000	U	U	U	U	5.600	U	U	U	U	U	1.900	U
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	0.110	1.100	U	U	U	1.300	0.910	U	U	U	U	1.300	U	U
Benzo(k)flouranthene	ppm	10	0.069	U	U	U	U	1.200	0.890	U	U	U	U	1.300	1.600	3.800
Benzo(a)pyrene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	1.100	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	0.690	U	U	U	0.620	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	0.670	U	U	U	0.600	U	U	U	U	U	0.550	U	U

VOLATILE	DILUTION		1.1	1.2	1.4	1.3	1.4	1.1	1.1	1.2	1.4	1.1	1.2	1.2	1.3	163.0
		LLD														
Chloromethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	0.010	0.013	U	0.009	0.014	0.006	0.009	0.018	0.012	0.013	0.008	U	0.016	0.580
Acetone	ppm	10	0.220	0.012	U	0.026	0.035	0.029	0.024	0.013	0.009	0.009	0.016	0.008	0.007	U
Carbon Disulfide	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	0.005	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	0.008	U	U	U	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	ppm	5	U	U	U	U	U	U	U	U	U	U	0.005	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	U	0.008	0.009	U	0.005	0.014	U	0.007	U	U	0.009	2.800

TABLE 7
\\\\\\\\\\
AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-15	WS-16	WS-17	WS-18	WS-19	WS-20	WS-21	WS-22	WS-23	WS-24	WS-25	WS-26	WS-27	WS-28
		LOCATION:	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4
		DATE:	30-Aug	30-Aug	17-Oct	17-Oct	06-Oct	06-Oct	06-Oct	06-Oct	06-Oct	06-Oct	17-Oct	02-Oct	17-Oct	17-Oct
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	0	1	0	0	0	0	0	0	0	20
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	0.013	0.007	U	0.011	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5	U	U	U	0.008	0.006	U	0.005	0.011	U	0.005	U	U	0.014	21.000
Chlorobenzene	ppm	5	U	U	U	U	0.058	0.009	U	U	U	U	U	U	U	47.000
Ethylbenzene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	5.600
Total Xylenes	ppm	5	0.011	U	U	U	0.006	U	U	U	U	U	U	U	U	38.000

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD
INORGANIC

FIELDID:		WS-30	WS-31	WS-32	WS-33	WS-34	WS-35	WS-36	WS-37	WS-38	WS-39	WS-40	WS-41	WS-42	WS-43	WS-44
LOCATION:		W-4	W-4	W-6	W-6	W-6	W-6	W-6	W-6	W-6	W-6	W-4	W-6	W-6	W-6	W-6
DATE:		30-Aug	29-Aug	03-Oct	29-Aug	29-Aug	09-Oct	26-Oct	17-Oct	26-Oct	30-Aug	05-Sep	26-Oct	26-Oct	17-Oct	17-Oct
DEPTH:		Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
HNU_PPM:		0	0	0	0	2	0	10	0	0	0	0	0	0	0	4
ALUMINUM	ppm	11.2	4780.0	177.0	960.0	7860.0	8330.0	10900.0	18700.0	1460.0	12700.0	11600.0	11100.0	7300.0	3880.0	8010.0	11000.0
ANTIMONY	ppm	2.6	3.100	3.300	4.600	2.800	2.900	3.800	3.400	4.300	1.500	3.100	3.800	3.120	3.300	4.000	3.900
ARSENIC	ppm	0.5	14.900	73.800	41.200	24.800	24.700	7.600	14.100	22.800	23.700	5.400	13.000	8.230	34.600	10.200	13.500
BARIUM	ppm	0.7	73.000	7.000	43.700	54.600	264.000	147.000	468.000	82.200	110.000	69.600	115.000	61.100	43.700	434.000	1540.000
BERYLLIUM	ppm	0.2	0.180	0.190	0.380	0.170	0.170	0.310	0.250	0.800	0.680	0.510	1.100	0.230	0.230	0.330	1.100
CADMIUM	ppm	0.2	0.280	0.300	1.000	0.260	1.700	0.260	0.420	0.290	0.440	0.280	0.340	0.350	0.360	0.270	0.270
CALCIUM	ppm	2.3	410.0	18.9	257.0	5090.0	1620.0	3530.0	4580.0	506.0	1410.0	264.0	1440.0	365.0	195.0	444.0	1070.0
CHROMIUM	ppm	0.8	1650.0	905.0	720.0	135.0	3410.0	467.0	108.0	106.0	70.4	18.4	312.0	690.0	2070.0	59.5	123.0
COBALT	ppm	0.7	15.400	25.700	19.800	17.500	20.000	10.600	13.700	1.400	10.600	9.000	7.300	10.200	22.500	5.100	13.500
COPPER	ppm	0.4	413.000	880.000	467.000	454.000	479.000	169.000	344.000	172.000	92.700	43.500	534.000	197.000	884.000	120.000	388.000
IRON	ppm	5.3	152000.0	578000.0	255000.0	89900.0	106000.0	26900.0	42500.0	14700.0	28000.0	14000.0	29400.0	59500.0	238000.0	24700.0	28500.0
LEAD	ppm	0.2	81.200	148.000	174.000	54.800	135.000	414.000	121.000	32.300	84.000	11.400	89.000	37.600	298.000	116.000	315.000
MAGNESIUM	ppm	3.3	1690.000	15.700	191.000	7400.000	3880.000	5220.000	5200.000	265.000	2920.000	5180.000	3390.000	3530.000	906.000	1420.000	2060.000
MANGANESE	ppm	0.2	584.000	2070.000	694.000	626.000	848.000	206.000	399.000	36.500	273.000	305.000	203.000	469.000	1040.000	169.000	310.000
MERCURY	ppm	0.1	0.310	1.600	0.320	1.500	1.100	0.990	0.990	0.640	0.140	0.100	0.830	0.200	1.200	2.300	3.800
NICKEL	ppm	0.7	307.000	1300.000	435.000	147.000	173.000	28.600	78.200	8.100	49.700	23.100	40.900	46.500	203.000	34.800	95.500
POTASSIUM	ppm	46.1	665.000	119.000	224.000	267.000	1110.000	849.000	615.000	281.000	637.000	1370.000	738.000	975.000	226.000	569.000	637.000
SELENIUM	ppm	0.1	0.700	0.180	1.300	0.640	0.180	0.320	0.620	13.900	0.720	0.130	0.420	0.580	0.610	1.200	1.100
SILVER	ppm	0.9	1.100	1.200	1.800	1.000	1.000	0.710	1.250	0.810	1.450	1.100	1.400	1.200	1.250	0.750	0.740
SODIUM	ppm	56.7	108.000	70.900	130.000	648.000	488.000	584.000	432.000	179.000	662.000	126.000	198.000	152.000	109.000	113.000	226.000
THALLIUM	ppm	0.5	0.620	0.660	0.300	0.580	0.590	0.250	1.250	0.480	1.450	0.630	0.770	1.570	1.220	0.270	0.260
VANADIUM	ppm	0.6	44.000	99.600	54.900	47.200	63.100	37.900	38.300	10.900	34.000	15.700	29.400	25.200	63.500	19.300	24.900
ZINC	ppm	0.3	83.600	58.700	80.200	108.000	1040.000	194.000	373.000	27.200	99.200	63.800	195.000	71.000	241.000	188.000	687.000
CYANIDE	ppm	1.0	1.200	1.300	1.200	1.100	1.100	1.100	1.100	1.300	1.300	1.200	1.400	1.200	1.200	1.200	1.100
PCB DILUTION			1.2	1.3	1.2	1.1	1.1	1.1	1.1	1.3	1.3	1.2	1.4	1.2	1.3	30.0	1.1
		LLD															
AROCLOR-1248	ppm	0.5	U	U	U	U	1.000	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	U	0.720	0.620	U	1.000	U	0.630	0.240	U	U	U	U	U	U	U
AROCLOR-1260	ppm	1.0	U	U	U	U	U	0.480	U	U	U	U	U	U	U	U	U
SEMIVOL DILUTION			38.3	39.6	40.7	34.1	37.0	37.9	36.6	43.9	0.0	0.0	139.0	39.2	41.7	39.7	1890.0
		LLD															
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	0.054	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10	U	U	U	U	U	U	0.120	U	U	U	U	U	U	0.094	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	U	0.068	0.037	0.039	0.079	0.110	0.530	0.055	U	U	U	U	0.110	0.280	10.000
2-Methylphenol	ppm	10	U	U	U	0.036	U	U	U	U	0.048	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	0.055	U	U	0.600	U	U	U	U	U	U	U	U
Hexachloroethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	U	0.014	0.068	0.360	0.150	0.120	0.470	0.170	U	U	U	0.015	0.043	0.270	6.100
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	0.050	U	U	U	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	0.018	U	0.053	U	U	U	U	0.430	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	U	U	0.017	0.190	0.560	0.086	2.300	0.230	U	U	U	U	U	0.850	85.000

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-30	WS-31	WS-32	WS-33	WS-34	WS-35	WS-36	WS-37	WS-38	WS-39	WS-40	WS-41	WS-42	WS-43	WS-44
		LOCATION:	W-4	W-4	W-6	W-6	W-6	W-6	W-6	W-6	W-6	W-6	W-4	W-6	W-6	W-6	W-6
		DATE:	30-Aug	29-Aug	03-Oct	29-Aug	29-Aug	09-Oct	26-Oct	17-Oct	26-Oct	30-Aug	05-Sep	26-Oct	26-Oct	17-Oct	17-Oct
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	2	0	10	0	0	0	0	0	0	0	4
Naphthalene	ppm	10	0.200	0.022	0.100	0.880	0.500	1.000	0.360	0.920	1.300	U	1.400	0.470	6.000	0.340	92.000
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Chloro-3-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	0.050	0.007	0.075	0.810	0.140	0.780	0.087	1.300	0.260	U	0.170	0.013	0.110	0.110	U
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	0.071	U	U	U	U	U	U	U	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	0.024	U	U	0.071	0.057	U	0.012	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	0.050	U	U	U	0.150	1.300	0.130	0.072	U	U	U	U	0.020	U	U
2,4-Dinitrophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10	0.050	U	0.037	0.290	0.066	1.300	0.270	0.470	U	U	U	U	0.046	0.077	U
Diethyl Phthalate	ppm	10	U	0.035	0.011	0.037	0.029	U	0.037	U	U	U	U	U	U	U	U
Flourene	ppm	10	U	U	U	0.067	U	1.800	U	0.063	U	U	U	U	U	U	U
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	U	0.034	0.120	1.500	3.900	1.100	130.000	1.400	U	U	U	0.033	0.280	5.900	190.000
Hexachlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Pentachlorophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10	0.180	0.030	0.130	0.640	0.250	14.000	0.950	1.400	U	U	U	U	0.200	0.290	U
Anthracene	ppm	10	0.035	U	U	0.130	U	5.200	U	U	U	U	U	U	0.056	U	U
di-n-Butyl Phthalate	ppm	10	U	0.012	U	0.080	0.030	U	0.038	U	U	U	U	U	U	U	1.200
Flouranthene	ppm	10	0.320	0.029	0.110	0.630	0.330	17.000	0.480	1.700	U	U	0.260	0.067	0.140	0.180	U
Pyrene	ppm	10	0.160	0.031	0.250	0.680	0.270	U	0.160	2.900	U	U	0.140	0.110	0.230	0.460	U
Butyl Benzyl Phthalate	ppm	10	U	U	U	0.045	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	0.190	U	0.280	0.550	0.810	15.000	U	1.200	30.000	U	7.100	U	0.280	U	12.000
Chrysene	ppm	10	0.220	0.033	U	0.610	0.310	15.000	0.074	1.900	1.000	U	U	U	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10	0.072	0.039	0.160	0.170	0.120	0.170	U	U	U	0.028	U	0.064	U	U	1.900
di-n-OctylPhthalate	ppm	10	U	U	U	0.068	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	0.330	0.011	0.130	0.630	0.240	13.000	0.410	1.400	U	U	U	U	U	U	U
Benzo(k)flouranthene	ppm	10	0.250	U	0.099	U	0.300	11.000	0.440	U	U	U	U	U	U	U	U
Benzo(a)pyrene	ppm	10	U	U	U	0.240	0.210	14.000	0.610	0.860	U	U	U	U	U	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	U	U	U	7.300	U	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	0.082	3.100	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	U	U	U	7.800	0.380	U	U	U	U	U	U	U	U

VOLATILE	DILUTION		1.2	1.3	1.2	1.1	1.1	143.0	1.1	1.3	1.3	1.2	1.4	1.2	1.3	1.2	143.0
		LLD															
Chloromethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	0.005	0.006	0.008	0.005	0.005	U	0.005	0.006	0.009	0.005	U	U	0.005	0.008	0.390
Acetone	ppm	10	U	0.007	0.007	0.011	0.200	U	0.007	0.005	0.039	U	0.011	U	U	0.009	U
Carbon Disulfide	ppm	5	U	U	U	U	U	U	U	U	0.005	U	U	U	0.008	U	U
1,1-Dichloroethene	ppm	5	U	U	U	U	U	U	0.005	U	U	U	U	0.005	0.006	U	U
1,1-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	U	U	U	0.630	U	U	U	U	U	U	U	U	0.110

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-30	WS-31	WS-32	WS-33	WS-34	WS-35	WS-36	WS-37	WS-38	WS-39	WS-40	WS-41	WS-42	WS-43	WS-44
		LOCATION:	W-4	W-4	W-6	W-6	W-6	W-6	W-6	W-6	W-6	W-6	W-4	W-6	W-6	W-6	W-6
		DATE:	30-Aug	29-Aug	03-Oct	29-Aug	29-Aug	09-Oct	26-Oct	17-Oct	26-Oct	30-Aug	05-Sep	26-Oct	26-Oct	17-Oct	17-Oct
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	2	0	10	0	0	0	0	0	0	0	4
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	0.006	U	U	U	U	U	U	U	U
Toluene	ppm	5	U	U	U	U	U	0.110	U	U	U	U	U	U	U	U	0.330
Chlorobenzene	ppm	5	U	U	U	U	U	U	0.014	U	U	U	U	U	U	U	3.000
Ethylbenzene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.220
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1.100

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-45	WS-46	WS-47	W6-48	WS-49	WS-50	WS-51	WS-52	WS-53	WS-54	WS-55	WS-57	WS-61	WS-62	WS-63
		LOCATION:	W-6	W-6	W-6	W-3	W-3	W-3	W-4	W-4	W-3	W-3	W-3	W-6	W-5	W-5	W-5
		DATE:	26-Oct	17-Oct	26-Oct	30-Aug	16-Oct	16-Oct	02-Oct	02-Oct	16-Oct	16-Oct	30-Aug	26-Oct	05-Sep	14-Sep	14-Sep
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	0	0	1	0	0	0	0	0	0	36	0
INORGANIC																	
ALUMINUM	ppm	11.2	3270.0	3360.0	923.0	1380.0	10700.0	13800.0	6060.0	7590.0	12300.0	12500.0	8240.0	5680.0	7700.0	9980.0	9350.0
ANTIMONY	ppm	2.6	3.100	4.600	3.800	4.400	3.700	4.500	4.400	3.600	3.700	3.800	3.500	3.000	3.100	2.700	2.900
ARSENIC	ppm	0.5	12.600	102.000	4.310	12.800	17.600	41.700	34.700	16.400	104.000	6.100	8.600	13.100	7.400	6.000	8.900
BARIUM	ppm	0.7	80.400	62.500	17.600	32.200	96.000	382.000	691.000	110.000	91.300	68.800	51.900	126.000	323.000	104.000	79.000
BERYLLIUM	ppm	0.2	0.230	3.800	0.280	1.600	1.600	0.540	0.360	0.570	0.750	1.900	1.200	0.220	0.810	1.000	0.930
CADMIUM	ppm	0.2	0.340	0.310	0.420	0.400	0.250	0.910	3.800	1.100	0.250	0.260	0.320	0.330	0.280	0.250	0.340
CALCIUM	ppm	2.3	500.0	917.0	393.0	379.0	3320.0	1590.0	18200.0	4780.0	3960.0	1420.0	2850.0	1200.0	3330.0	3630.0	664.0
CHROMIUM	ppm	0.8	255.0	848.0	94.5	225.0	60.4	901.0	649.0	138.0	153.0	51.9	158.0	73.8	135.0	125.0	33.7
COBALT	ppm	0.7	5.900	12.800	0.770	6.400	11.400	12.300	18.500	10.500	14.200	11.200	14.100	9.100	5.000	10.400	10.100
COPPER	ppm	0.4	233.000	1610.000	1.710	565.000	94.600	1400.000	3340.000	640.000	217.000	45.300	455.000	174.000	92.900	1480.000	104.000
IRON	ppm	5.3	38700.0	268000.0	7770.0	89400.0	23300.0	43700.0	119000.0	33900.0	32200.0	20400.0	64.6	32700.0	23300.0	17900.0	21300.0
LEAD	ppm	0.2	270.000	612.000	24.200	433.000	78.500	357.000	1470.000	194.000	73.900	16.700	66.100	71.100	109.000	116.000	22.400
MAGNESIUM	ppm	3.3	963.000	678.000	145.000	288.000	5350.000	4300.000	2300.000	4870.000	7020.000	3250.000	3510.000	1880.000	1930.000	4970.000	3730.000
MANGANESE	ppm	0.2	175.000	1120.000	29.100	623.000	475.000	320.000	531.000	356.000	566.000	562.000	970.000	364.000	79.900	416.000	415.000
MERCURY	ppm	0.1	0.890	4.400	0.220	0.220	0.210	4.500	26.700	2.100	0.450	0.110	1.000	0.750	5.000	0.740	0.170
NICKEL	ppm	0.7	41.500	269.000	4.200	61.600	23.900	72.300	405.000	63.600	38.300	20.500	85.200	41.900	15.300	33.400	33.800
POTASSIUM	ppm	46.1	491.000	180.000	207.000	162.000	874.000	1100.000	755.000	409.000	923.000	983.000	1000.000	363.000	695.000	875.000	1010.000
SELENIUM	ppm	0.1	1.440	0.360	1.940	0.180	0.090	0.380	1.200	0.520	0.220	0.180	0.140	0.730	0.330	0.180	0.120
SILVER	ppm	0.9	1.250	0.860	1.410	1.600	0.690	0.850	1.500	0.680	0.700	0.720	1.200	1.100	1.100	0.980	1.000
SODIUM	ppm	56.7	123.000	186.000	120.000	319.000	252.000	299.000	510.000	456.000	463.000	109.000	196.000	179.000	214.000	285.000	155.000
THALLIUM	ppm	0.5	1.150	0.300	1.410	0.890	0.250	0.310	0.290	0.240	0.250	0.290	0.710	1.100	0.630	0.560	0.580
VANADIUM	ppm	0.6	25.300	56.500	3.900	21.100	35.800	53.200	117.000	34.600	42.400	32.600	23.900	23.700	38.000	47.000	19.600
ZINC	ppm	0.3	128.000	251.000	18.900	220.000	147.000	662.000	2440.000	420.000	480.000	70.100	237.000	173.000	45.600	185.000	105.000
CYANIDE	ppm	1.0	1.100	1.800	1.500	1.700	1.100	1.400	13.400	1.200	1.100	1.100	1.300	1.200	7.100	1.200	1.100
PCB	DILUTION		1.2	1.3	1.5	1.8	1.1	1.4	1.4	1.2	1.1	1.1	0.0	1.1	1.1	29.4	1.1
		LLD															
AROCLOR-1248	ppm	0.5	U	U	U	U	U	U	U	U	U	U	U	U	1.200	180.000	U
AROCLOR-1254	ppm	1.0	0.300	U	U	U	U	U	U	1.500	U	U	U	2.600	0.820	U	U
AROCLOR-1260	ppm	1.0	U	U	U	U	U	U	U	U	0.460	U	U	U	U	U	U
SEMIVOL	DILUTION		38.3	43.3	51.3	175.0	35.8	45.7	47.6	38.8	37.5	37.0	47.6	35.8	37.5	39.2	35.8
		LLD															
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	0.220	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10	U	U	U	U	U	U	1.200	0.056	U	U	U	U	U	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	0.093	0.083	0.020	U	U	0.420	5.400	0.520	U	U	0.073	0.059	0.075	0.065	U
2-Methylphenol	ppm	10	U	U	U	U	U	U	0.180	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	U	0.670	U	U	U	U	U	U	U	U
Hexachloroethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	0.082	U	0.050	U	U	0.690	13.000	0.330	0.110	U	U	0.270	0.140	0.120	U
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	0.200	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	0.110	U	U	U	U	0.610	8.900	0.180	U	U	U	0.910	0.980	0.170	U

TABLE 7
AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

FIELDID:			WS-45	WS-46	WS-47	WS-48	WS-49	WS-50	WS-51	WS-52	WS-53	WS-54	WS-55	WS-57	WS-61	WS-62	WS-63
LOCATION:			W-6	W-6	W-6	W-3	W-3	W-3	W-4	W-4	W-3	W-3	W-3	W-6	W-5	W-5	W-5
DATE:			26-Oct	17-Oct	26-Oct	30-Aug	16-Oct	16-Oct	02-Oct	02-Oct	16-Oct	16-Oct	30-Aug	26-Oct	05-Sep	14-Sep	14-Sep
DEPTH:			Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
HNU_PPM:			0	0	0	0	0	0	1	0	0	0	0	0	0	36	0
Naphthalene	ppm	10	0.280	1.800	0.067	16.000	0.015	2.300	54.000	0.560	0.370	0.069	6.100	0.610	0.980	0.610	0.140
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Chloro-3-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	0.072	0.150	U	U	0.071	0.380	5.300	0.140	0.084	0.120	U	0.110	0.140	0.220	0.170
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	2.200	U	U	U	U	0.027	U	0.019	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	U	U	U	U	U	0.350	0.023	U	U	U	U	0.350	0.014	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	0.017	0.085	U	U	0.260	0.520	4.900	0.220	U	0.280	U	0.048	0.520	0.220	U
2,4-Dinitrophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10	0.064	0.100	U	U	0.160	0.290	4.500	0.170	U	0.320	U	0.100	0.370	0.210	U
Diethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	0.150	0.200
Flourene	ppm	10	U	0.110	U	U	0.320	0.240	5.200	0.160	U	0.690	U	U	U	0.200	U
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiphenylamine(1)	ppm	10	0.240	2.400	0.063	U	U	4.200	25.000	1.500	0.530	U	0.980	5.100	0.700	U	U
Hexachlorobenzene	ppm	10	U	U	U	U	U	0.110	0.710	U	U	U	U	0.037	U	U	U
Pentachlorophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10	0.400	0.970	U	U	2.800	1.900	7.000	2.600	0.310	4.100	U	0.540	0.800	U	0.140
Anthracene	ppm	10	U	0.230	U	U	0.590	0.400	5.600	0.440	U	1.300	U	0.120	0.400	U	U
di-n-Butyl Phthalate	ppm	10	U	U	U	U	U	0.056	U	0.037	U	U	U	U	0.075	U	U
Flouranthene	ppm	10	0.590	0.910	0.270	0.081	3.800	1.600	2.100	3.100	0.370	3.500	0.034	0.630	1.700	U	0.150
Pyrene	ppm	10	0.620	1.400	0.260	U	3.500	4.400	5.500	6.700	0.870	7.700	0.026	0.870	0.920	4.100	0.160
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	0.670	0.890	0.190	U	2.100	3.000	7.600	3.900	1.300	2.900	U	1.600	1.100	2.400	0.230
Chrysene	ppm	10	0.630	U	U	U	2.000	2.100	1.900	3.500	U	2.800	U	0.630	1.300	2.100	U
bis(2-Ethylhexyl)Phthalate	ppm	10	U	U	0.095	U	U	0.900	U	0.380	U	U	U	0.190	0.200	0.330	U
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	0.550	0.850	U	4.900	1.900	2.700	U	3.400	0.460	1.700	U	0.580	1.500	2.400	U
Benzo(k)flouranthene	ppm	10	U	0.640	U	U	1.700	1.500	U	U	U	2.300	U	U	1.800	U	U
Benzo(a)pyrene	ppm	10	U	0.770	U	U	1.900	1.700	U	3.100	0.500	2.300	U	0.490	0.690	2.600	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	U	U	U	0.810	1.100	U	U	U	0.440	U	0.370	0.250	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	0.490	U	U	U	U	U	0.170	U	U	U
Benzo(g,h,i)perylene	ppm	10	U	U	U	U	0.840	1.100	U	1.900	U	U	U	0.420	0.220	U	U

VOLATILE	DILUTION		1.2	1.3	1.5	1.8	1.1	1.4	1.4	1.2	1.1	1.1	1.1	1.1	1.2	1.2	1.8
		LLD															
Chloromethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	U	U	0.007	0.013	0.005	0.008	U	0.010	0.008	U	U	U	0.008	0.007	0.010
Acetone	ppm	10	0.006	0.010	0.010	0.008	U	0.006	0.064	U	U	U	U	0.008	0.009	0.023	0.012
Carbon Disulfide	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	ppm	5	0.007	U	0.010	U	U	U	U	U	U	U	U	0.006	U	U	U
1,1-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	U	U	U	U	0.007	U	U	U	U	U	U	U	U

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-45	WS-46	WS-47	WS-48	WS-49	WS-50	WS-51	WS-52	WS-53	WS-54	WS-55	WS-57	WS-61	WS-62	WS-63
		LOCATION:	W-6	W-6	W-6	W-3	W-3	W-3	W-4	W-4	W-3	W-3	W-3	W-6	W-9	W-5	W-5
		DATE:	26-Oct	17-Oct	26-Oct	30-Aug	16-Oct	16-Oct	02-Oct	02-Oct	16-Oct	16-Oct	30-Aug	26-Oct	05-Sep	14-Sep	14-Sep
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	0	0	1	0	0	0	0	0	0	36	0
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	U	0.005	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5	U	U	U	U	U	U	0.010	U	0.005	U	U	U	U	U	U
Chlorobenzene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	ppm	5	U	U	U	U	U	U	0.007	U	U	U	U	U	U	U	U
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	U	U	U	U	U	U	0.010	U	U	U	U	U	U	U	U

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-64	WS-65	WS-66	WS-67	WS-68	WS-69	WS-70	WS-71	WS-72	WS-73	WS-74	WS-75	WS-76	WS-77	WS-78
		LOCATION:	W-3	W-3	W-3	W-3	W-1	W-1	W-1	W-1	W-1	W-1	W-1	W-2	W-2	W-2	W-2
		DATE:	05-Sep	26-Sep	26-Sep	26-Sep	26-Sep	26-Sep	26-Sep	06-Sep	07-Sep	06-Sep	07-Sep	07-Sep	07-Sep	07-Sep	08-Sep
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	0	51	0	0	0	0	7	0	0	0	0
INORGANIC																	
ALUMINUM	ppm	11.2	4790.0	7180.0	9150.0	8610.0	141.0	484.0	11900.0	7000.0	946.0	3880.0	249.0	7100.0	5890.0	5480.0	5820.0
ANTIMONY	ppm	2.6	3.000	4.100	4.500	3.900	4.200	4.500	3.700	2.900	3.300	9.000	3.500	3.200	3.300	3.000	2.800
ARSENIC	ppm	0.5	12.400	20.200	18.200	11.800	0.550	2.100	16.200	16.800	21.600	37.800	1.900	22.200	16.200	16.100	15.000
BARIUM	ppm	0.7	128.000	78.900	216.000	98.400	8.000	16.600	331.000	435.000	148.000	512.000	91.700	2100.000	1210.000	779.000	774.000
BERYLLIUM	ppm	0.2	0.920	0.410	0.910	0.920	0.340	0.370	0.310	1.700	0.200	0.200	0.210	0.190	0.190	1.800	0.170
CADMIUM	ppm	0.2	0.280	0.480	0.350	0.620	0.280	1.200	4.600	12.200	0.300	5.600	0.430	2.800	1.300	1.400	1.800
CALCIUM	ppm	2.3	515.0	2860.0	1460.0	1440.0	759.0	1140.0	11800.0	13400.0	15300.0	5440.0	3300.0	2680.0	1510.0	1540.0	1350.0
CHROMIUM	ppm	0.8	1780.0	78.3	580.0	185.0	13.8	55.1	94.2	431.0	178.0	478.0	55.2	8200.0	7110.0	1870.0	1880.0
COBALT	ppm	0.7	6.900	7.600	8.600	10.900	0.810	1.200	15.600	12.500	2.900	20.600	1.700	17.800	12.000	912.000	12.900
COPPER	ppm	0.4	7330.000	594.000	22500.0	241.000	101.000	395.000	535.000	1630.000	433.000	5750.000	500.000	3530.000	2530.000	1680.000	1800.000
IRON	ppm	5.3	38300.0	15500.0	36600.0	25000.0	3560.0	11500.0	37400.0	49100.0	40700.0	167000.0	13700.0	137000.0	77300.0	82800.0	88300.0
LEAD	ppm	0.2	366.000	48.000	215.000	76.800	33.300	51.100	382.000	784.000	708.000	928.000	91.100	906.000	701.000	583.000	989.000
MAGNESIUM	ppm	3.3	2290.000	2840.000	4440.000	4390.000	131.000	370.000	9850.000	3700.000	182.000	1560.000	428.000	3090.000	3010.000	3350.000	2640.000
MANGANESE	ppm	0.2	190.000	288.000	349.000	449.000	27.900	97.700	540.000	507.000	103.000	1170.000	142.000	570.000	360.000	410.000	597.000
MERCURY	ppm	0.1	3.300	0.610	2.300	0.310	0.620	1.000	2.500	12.400	4.900	29.600	1.200	23.900	14.000	12.300	6.200
NICKEL	ppm	0.7	47.500	27.500	55.200	45.000	17.400	68.300	68.000	160.000	23.200	398.000	45.700	212.000	131.000	139.000	151.000
POTASSIUM	ppm	46.1	525.000	581.000	789.000	1300.000	108.000	106.000	676.000	726.000	847.000	328.000	123.000	756.000	557.000	663.000	645.000
SELENIUM	ppm	0.1	0.430	11.200	1.400	0.320	0.470	0.100	1.200	0.700	0.490	1.200	0.140	0.770	0.740	0.300	0.290
SILVER	ppm	0.9	1.100	0.780	1.900	0.730	0.790	0.850	2.100	1.000	1.200	1.200	1.300	1.200	1.200	1.100	1.000
SODIUM	ppm	56.7	134.000	216.000	272.000	247.000	10100.0	8220.000	2080.000	554.000	408.000	480.000	1170.000	806.000	513.000	516.000	384.000
THALLIUM	ppm	0.5	0.620	0.280	0.340	0.260	0.280	0.300	0.250	0.590	0.680	0.670	0.720	0.660	0.660	0.610	0.580
VANADIUM	ppm	0.6	30.200	22.100	39.800	24.200	1.000	3.000	46.800	45.100	13.100	53.300	7.200	85.300	78.600	44.800	54.800
ZINC	ppm	0.3	212.000	271.000	245.000	582.000	111.000	1980.000	926.000	1490.000	50.900	3060.000	571.000	1940.000	1020.000	1230.000	1460.000
CYANIDE	ppm	1.0	1.200	0.590	1.500	0.720	0.650	4.200	1.500	12.000	1.500	13.200	2.100	13.600	27.900	12.700	3.500
PCB DILUTION			1.2	1.1	13.0	1.2	1.4	1.4	1.1	1.1	2.3	1.4	27.8	1.1	2.3	2.3	1.3
		LLD															
AROCLOR-1248	ppm	0.5	U	0.410	18.000	0.260	U	U	1.300	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	3.500	0.380	6.900	U	U	U	1.300	U	U	U	U	U	U	U	U
AROCLOR-1260	ppm	1.0	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
SEMIVOL DILUTION			38.3	37.6	43.6	40.0	228.0	45.9	366.0	2380.0	51.3	225.0	3080.0	3230.0	2780.0	2630.0	2740.0
		LLD															
2-Chlorophenol	ppm	10	U	0.008	0.038	0.008	U	0.550	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	0.019	U	U	U	U	U	U	U	U	U	1.300	U	U
1,4-Dichlorobenzene	ppm	10	U	U	0.084	U	U	U	U	U	0.410	0.460	U	U	U	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	1.600	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	0.060	0.037	0.680	0.020	U	5.300	U	9.400	0.800	2.600	58.000	3.600	10.000	6.500	3.800
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	7.700	U	U	U	U	U	U	U	U	U
Hexachloroethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	0.090	0.130	U	0.070	15.000	46.000	U	9.000	1.100	5.900	16.000	14.000	85.000	30.000	23.000
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	0.100	U	U	U	U	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	0.100	1.400	0.130	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	0.050	0.036	10.000	0.011	U	U	U	7.800	0.110	0.640	12.000	9.900	9.800	12.000	7.300

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-64	WS-65	WS-66	WS-67	WS-68	WS-69	WS-70	WS-71	WS-72	WS-73	WS-74	WS-75	WS-76	WS-77	WS-78
		LOCATION:	W-3	W-3	W-3	W-3	W-1	W-1	W-1	W-1	W-1	W-1	W-1	W-2	W-2	W-2	W-2
		DATE:	05-Sep	26-Sep	26-Sep	26-Sep	26-Sep	26-Sep	26-Sep	06-Sep	07-Sep	06-Sep	07-Sep	07-Sep	07-Sep	07-Sep	08-Sep
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	0	51	0	0	0	0	7	0	0	0	0
Naphthalene	ppm	10	0.270	0.190	1.100	0.150	260.000	130.000	0.990	45.000	3.600	21.000	41.000	290.000	190.000	75.000	37.000
4-Chloroanaline	ppm	10	0.190	U	U	U	U	U	U	U	1.600	U	U	U	U	U	U
4-Chloro-3-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	0.140	0.043	0.430	0.067	3.100	7.200	U	7.300	0.330	0.670	6.100	3.900	16.000	7.200	6.200
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	0.950	U	U	0.760	U	0.920	U	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	0.140	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	0.250	0.094	0.380	0.075	U	0.490	U	U	0.210	0.280	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	4.900	U	U	U	U	U
Acenaphthene	ppm	10	0.070	0.068	0.470	0.015	U	2.000	U	3.400	0.170	0.930	5.000	2.800	13.000	5.900	6.500
2,4-Dinitrophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10	U	0.054	0.620	U	U	U	U	3.000	U	U	3.600	2.100	8.200	4.500	4.400
Diethyl Phthalate	ppm	10	U	U	0.410	0.012	U	U	U	1.200	U	U	U	U	U	U	U
Flourene	ppm	10	0.060	0.089	2.700	U	U	U	U	1.100	U	U	U	1.500	4.300	2.600	1.500
4-Nitroanaline	ppm	50	U	U	U	0.019	U	U	U	U	4.000	4.200	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	0.530	0.430	4.100	0.220	110.000	57.000	1.100	21.000	0.910	13.000	46.000	44.000	110.000	32.000	17.000
Hexachlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	2.200	2.700	2.500	U
Pentachlorophenol	ppm	50	0.280	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10	0.500	0.850	3.500	0.170	U	3.600	0.270	4.700	0.940	1.100	U	6.200	8.500	12.000	6.900
Anthracene	ppm	10	0.250	0.310	1.300	0.110	U	4.100	U	1.400	0.410	U	U	1.600	2.100	2.600	1.200
di-n-Butyl Phthalate	ppm	10	0.050	U	0.220	0.043	6.600	2.100	0.120	U	U	U	U	1.300	U	1.600	U
Flouranthene	ppm	10	1.200	1.800	3.100	0.610	1.500	0.160	0.280	3.800	1.500	0.900	U	4.800	4.000	13.000	3.100
Pyrene	ppm	10	0.950	1.500	0.770	0.530	2.300	U	0.280	4.100	1.000	0.440	U	7.300	7.700	20.000	5.300
Butyl Benzyl Phthalate	ppm	10	0.220	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	1.300	1.100	U	0.530	1300.000	1200.000	4.400	36.000	3.100	6.900	530.000	22.000	30.000	21.000	8.600
Chrysene	ppm	10	1.100	1.100	U	0.520	U	41.000	U	3.400	0.900	0.460	12.000	3.900	U	8.400	U
bis(2-Ethylhexyl)Phthalate	ppm	10	1.700	0.640	U	0.650	U	U	0.730	1.800	U	U	5.400	7.400	5.900	3.800	3.100
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	4.800
Benzo(b)flouranthene	ppm	10	1.700	1.400	4.600	U	U	U	U	5.900	U	U	U	U	U	U	U
Benzo(k)flouranthene	ppm	10	1.300	1.600	U	0.620	U	U	U	U	1.500	4.100	U	U	9.700	16.000	U
Benzo(a)pyrene	ppm	10	0.630	1.200	2.300	0.250	U	U	U	U	0.370	U	U	U	U	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10	0.400	U	1.100	U	U	U	U	U	0.270	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	0.480	U	0.570	U	U	U	U	U	U	U	U	U	U	U	U

VOLATILE	DILUTION		1.2	1.3	1.3	1.2	1.3	160.0	1.1	1.1	1.5	1.4	1.9	1.1	1.2	1.1	1.3
		LLD															
Chloromethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	0.005	0.011	0.008	0.014	0.010	0.220	0.006	0.031	0.010	U	0.011	U	0.007	0.007	0.008
Acetone	ppm	10	0.011	0.021	0.016	0.015	0.023	7.600	0.047	0.010	0.016	0.016	0.036	0.010	0.011	0.012	0.021
Carbon Disulfide	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.006
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	0.019	U	U	U	U	U	U	0.007	0.012	0.020	0.006	0.006	0.010	0.013	0.030
Carbon Tetrachloride	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	U	0.007	0.007	U	U	U	U	U	0.006	U	U	U	0.160

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-64	WS-65	WS-66	WS-67	WS-68	WS-69	WS-70	WS-71	WS-72	WS-73	WS-74	WS-75	WS-76	WS-77	WS-78
		LOCATION:	W-3	W-3	W-3	W-3	W-1	W-1	W-1	W-1	W-1	W-1	W-1	W-2	W-2	W-2	W-2
		DATE:	05-Sep	26-Sep	26-Sep	26-Sep	26-Sep	26-Sep	26-Sep	06-Sep	07-Sep	06-Sep	07-Sep	07-Sep	07-Sep	07-Sep	08-Sep
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	0	51	0	0	0	0	7	0	0	0	0
Bromoform	ppm	5	U	0.075	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5	U	0.016	0.021	0.021	0.043	110.000	0.015	0.006	U	U	0.013	U	0.005	U	0.041
Chlorobenzene	ppm	5	U	0.019	U	0.047	0.031	130.000	0.090	U	U	U	0.011	U	0.009	U	U
Ethylbenzene	ppm	5	U	U	0.019	0.007	0.180	3.000	0.008	U	U	U	0.041	U	U	U	0.022
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	U	0.005	0.009	0.018	0.013	3.300	0.040	U	U	U	0.052	U	U	U	0.048

TABLE 7
AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

INORGANIC

		FIELDID:	WS-79	WS-80	WS-81	WS-82	WS-83	WS-84	WS-85	WS-86	WS-87	WS-88	WS-89	WS-90	WS-91	WS-92	WS-93
		LOCATION:	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-5	W-5	W-5	W-5
		DATE:	12-Sep	11-Sep	08-Sep	08-Sep	08-Sep	12-Sep	12-Sep	12-Sep	12-Sep	12-Sep	12-Sep	12-Sep	15-Sep	15-Sep	14-Sep
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
ALUMINUM	ppm	11.2	10500.0	10300.0	4490.0	10000.0	10900.0	11300.0	2710.0	1620.0	9970.0	11000.0	5820.0	4780.0	12700.0	13000.0	9140.0
ANTIMONY	ppm	2.6	2.900	2.800	3.000	3.000	3.400	2.900	3.200	5.300	2.900	2.900	3.400	3.000	3.900	3.800	2.900
ARSENIC	ppm	0.5	7.000	10.900	7.200	8.400	5.600	26.200	4.500	12.600	3.100	7.700	6.400	14.100	3.900	7.500	15.800
BARIUM	ppm	0.7	96.100	127.000	123.000	110.000	196.000	128.000	51.400	36.900	70.700	114.000	90.200	89.600	81.300	112.000	379.000
BERYLLIUM	ppm	0.2	0.670	0.340	0.180	0.420	0.820	0.170	0.190	0.310	0.170	0.800	0.200	0.880	0.600	0.310	0.170
CADMIUM	ppm	0.2	0.600	0.840	0.270	1.600	0.310	0.260	0.280	0.480	4.500	7.300	20.100	0.490	0.460	0.540	0.580
CALCIUM	ppm	2.3	1800.0	2760.0	479.0	1320.0	1130.0	2220.0	299.0	6900.0	739.0	1200.0	2450.0	1650.0	1360.0	5020.0	1060.0
CHROMIUM	ppm	0.8	350.0	174.0	1660.0	150.0	79.0	147.0	9050.0	128000.0	4790.0	911.0	584.0	35.5	56.8	154.0	168.0
COBALT	ppm	0.7	10.100	10.800	6.400	19.300	10.000	21.400	3.900	20.800	9.800	10.500	11.000	3.000	11.000	14.800	11.000
COPPER	ppm	0.4	72.200	261.000	6940.000	158.000	49.300	265.000	532.000	14600.0	355.000	424.000	14400.0	2570.000	35.600	727.000	179.000
IRON	ppm	5.3	21800.0	25300.0	36000.0	37100.0	12700.0	129000.0	12300.0	71900.0	18200.0	20200.0	39200.0	21900.0	25100.0	30600.0	48400.0
LEAD	ppm	0.2	59.600	87.600	345.000	93.700	31.700	107.000	63.400	790.000	77.900	135.000	186.000	8.800	23.900	278.000	74.900
MAGNESIUM	ppm	3.3	4500.000	3510.000	2140.000	3620.000	3180.000	4190.000	790.000	1090.000	4340.000	3330.000	584.000	240.000	5400.000	5610.000	2880.000
MANGANESE	ppm	0.2	347.000	392.000	550.000	717.000	235.000	787.000	56.900	198.000	320.000	344.000	412.000	62.200	372.000	365.000	335.000
MERCURY	ppm	0.1	9.400	3.500	1.100	1.000	1.400	0.840	0.390	1.600	0.160	0.600	0.610	0.170	0.340	1.000	1.100
NICKEL	ppm	0.7	23.400	27.700	132.000	40.500	25.200	112.000	15.600	501.000	30.000	25.900	41.900	9.800	23.400	34.000	58.800
POTASSIUM	ppm	46.1	882.000	764.000	509.000	890.000	702.000	1150.000	404.000	92.900	1040.000	988.000	343.000	353.000	1360.000	830.000	673.000
SELENIUM	ppm	0.1	0.210	0.350	0.220	0.240	0.610	0.120	0.140	0.210	0.120	0.190	29.400	4.200	0.120	0.290	1.100
SILVER	ppm	0.9	1.000	0.990	1.100	1.100	1.200	1.000	1.100	1.900	1.000	1.000	1.200	1.100	0.730	0.720	1.000
SODIUM	ppm	56.7	152.000	212.000	125.000	145.000	122.000	191.000	162.000	287.000	126.000	140.000	228.000	139.000	176.000	373.000	195.000
THALLIUM	ppm	0.5	0.600	0.560	0.600	0.610	0.700	0.590	0.640	1.100	0.610	0.580	0.690	0.610	0.370	0.360	0.590
VANADIUM	ppm	0.6	29.400	33.600	28.700	28.300	35.500	77.000	29.600	260.000	29.100	30.600	70.200	19.200	29.500	47.300	38.900
ZINC	ppm	0.3	350.000	1350.000	552.000	2660.000	98.000	178.000	64.000	1680.000	7590.000	14200.0	50100.0	98.400	116.000	208.000	159.000
CYANIDE	ppm	1.0	1.100	1.100	1.100	1.500	1.500	1.100	1.200	2.200	1.100	1.100	1.300	1.200	1.100	1.200	1.200

PCB

		DILUTION		1.1	1.1	5.6	2.3	1.5	1.1	1.2	2.1	1.1	2.2	1.3	1.2	1.1	1.2	1.2
		LLD																
AROCLOR-1248	ppm	0.5	2.900	0.310	U	U	U	U	U	9.600	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.0	0.980	2.600	U	U	U	U	U	U	U	U	U	U	U	1.000	U
AROCLOR-1260	ppm	1.0	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

SEMIVOL

		DILUTION		36.6	37.0	37.5	38.8	49.8	37.5	39.2	69.4	37.8	36.6	42.7	38.8	34.4	38.3	39.2
		LLD																
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10	0.012	0.030	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	0.046	0.190	0.270	0.094	U	0.170	0.210	1.100	0.110	0.046	0.052	U	U	U	0.160
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.084
4-Methylphenol	ppm	10	0.061	U	U	U	U	U	U	U	U	U	U	U	U	U	0.160
Hexachloroethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	0.040	0.088	1.500	0.059	U	U	0.210	U	U	0.053	0.043	U	U	0.049	0.260
Isophorone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.200
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	0.035	0.089	0.260	0.071	U	U	U	U	U	0.099	U	U	U	U	4.300

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-79	WS-80	WS-81	WS-82	WS-83	WS-84	WS-85	WS-86	WS-87	WS-88	WS-89	WS-90	WS-91	WS-92	WS-93
		LOCATION:	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-5	W-5	W-5	W-5
		DATE:	12-Sep	11-Sep	08-Sep	08-Sep	08-Sep	12-Sep	12-Sep	12-Sep	12-Sep	12-Sep	12-Sep	12-Sep	15-Sep	15-Sep	14-Sep
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Naphthalene	ppm	10	4.800	0.370	1.500	0.530	0.090	0.150	2.900	U	0.071	1.600	0.290	0.056	U	0.470	3.300
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	0.910	0.016	U	U	U	U	U	U
4-Chloro-3-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	1.400	0.120	0.440	0.150	U	0.079	0.290	U	0.016	0.300	0.071	0.026	U	0.180	0.490
2-Chloronaphthalene	ppm	10	U	U	U	U	U	0.081	U	U	U	U	U	U	U	U	U
2-Nitroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	U	0.390	0.042	U	U	U	U	U	0.016	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	0.210	0.530	0.120	U	0.150	0.079	U	U	U	0.097	U	0.033	0.190	0.068
2,4-Dinitrophenol	ppm	50	2.900	U	U	U	U	U	U	U	0.033	0.320	U	U	U	U	U
Dibenzofuran	ppm	10	2.100	0.160	0.340	0.079	U	1.600	0.110	0.060	U	0.330	0.110	U	0.016	0.210	U
Diethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	0.017	U	0.100	U	U	0.150
Flourene	ppm	10	U	0.260	0.380	0.098	U	0.330	U	U	U	0.170	0.066	U	0.043	0.210	0.049
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	U	0.580	0.700	0.160	U	1.300	U	5.800	0.210	1.100	0.140	U	U	0.440	15.000
Hexachlorobenzene	ppm	10	U	U	0.057	U	U	U	U	U	U	U	U	U	U	U	0.089
Pentachlorophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10	13.000	2.200	2.200	0.670	0.070	2.900	0.270	0.450	U	U	0.680	0.050	0.390	1.200	0.360
Anthracene	ppm	10	3.100	0.510	U	U	U	0.560	U	U	U	U	0.120	U	0.085	0.370	U
di-n-Butyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	0.094	0.150
Flouranthene	ppm	10	5.600	2.800	2.800	0.820	0.065	1.700	U	0.490	0.060	0.480	1.200	U	0.330	1.300	0.220
Pyrene	ppm	10	21.000	5.900	U	0.440	0.048	4.100	U	1.600	0.170	1.500	3.000	0.080	0.380	1.300	0.560
Butyl Benzyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	5.700	2.700	U	0.700	U	1.700	U	U	0.120	1.300	1.400	U	0.180	0.910	3.100
Chrysene	ppm	10	5.500	2.300	U	0.360	0.035	1.500	U	U	U	0.470	2.000	U	0.200	0.830	0.420
bis(2-Ethylhexyl)Phthalate	ppm	10	1.200	U	U	0.062	0.062	U	U	U	0.091	U	U	U	U	U	U
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	5.000	1.700	2.200	0.640	U	1.100	U	U	U	0.400	1.800	U	0.095	0.640	U
Benzo(k)flouranthene	ppm	10	3.900	2.100	1.300	U	U	1.100	U	U	U	0.350	1.700	U	0.160	0.690	0.510
Benzo(a)pyrene	ppm	10	4.800	2.200	2.000	0.340	U	1.500	U	U	U	U	1.400	U	0.140	0.690	U
Indeno(1,2,3,c,d)pyrene	ppm	10	U	0.940	1.400	0.140	U	0.600	U	U	U	U	U	U	U	0.390	U
Dibenzo(a,h)anthracene	ppm	10	1.100	0.450	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	2.100	0.970	1.700	0.140	U	U	U	U	U	U	U	U	U	0.390	U
VOLATILE DILUTION			1.1	1.1	1.1	1.2	1.5	1.1	1.2	2.1	1.1	1.1	1.3	1.2	1.1	1.2	1.8
		LLD															
Chloroethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Methylene Chloride	ppm	5	0.010	U	0.010	0.010	0.010	0.012	0.016	U	0.010	U	0.006	0.007	0.005	0.005	U
Acetone	ppm	10	0.007	U	0.007	0.006	0.012	0.350	0.160	0.022	U	U	0.036	0.033	0.005	0.028	U
Carbon Disulfide	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	0.008	U	0.011	0.006	U	U	0.060	U	U	U	0.035	U	U	0.020
Carbon Tetrachloride	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	U	U	U	U	U	U	U	0.011	U	U	U	U	U	U	U

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-79	WS-80	WS-81	WS-82	WS-83	WS-84	WS-85	WS-86	WS-87	WS-88	WS-89	WS-90	WS-91	WS-92	WS-93
		LOCATION:	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-5	W-5	W-5	W-5
		DATE:	12-Sep	11-Sep	08-Sep	08-Sep	08-Sep	12-Sep	12-Sep	12-Sep	12-Sep	12-Sep	12-Sep	12-Sep	15-Sep	15-Sep	14-Sep
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5	U	U	U	U	U	U	U	0.005	U	U	U	U	U	U	U
Chlorobenzene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD
INORGANIC

		FIELDID:	WS-94	WS-95	WS-96	WS-97	WS-98	WS-99	WS-100	WS-101	WS-102	WS-103	WS-104	WS-105
		LOCATION:	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5
		DATE:	15-Sep	15-Sep	15-Sep	26-Sep	26-Sep	12-Sep	15-Sep	15-Sep	26-Sep	15-Sep	26-Sep	15-Sep
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	1	0	0	0	0	0	0	0	0	0	196	0
ALUMINUM	ppm	11.2	9050.0	7870.0	10900.0	8150.0	9290.0	10100.0	16500.0	13400.0	9280.0	6690.0	7890.0	10800.0
ANTIMONY	ppm	2.6	3.900	3.800	3.800	3.700	4.700	2.800	3.600	3.700	3.700	3.500	3.900	3.600
ARSENIC	ppm	0.5	6.200	63.200	7.700	17.200	6.920	2.200	10.200	2.600	5.400	3.500	4.000	23.300
BARIUM	ppm	0.7	759.000	105.000	82.000	87.400	102.000	71.900	127.000	63.400	93.100	48.100	89.200	121.000
BERYLLIUM	ppm	0.2	0.320	0.310	0.540	0.660	1.300	0.680	1.300	0.400	0.610	0.400	0.660	0.390
CADMIUM	ppm	0.2	0.540	0.940	0.460	0.620	0.320	0.270	0.510	0.250	0.250	0.250	0.410	0.840
CALCIUM	ppm	2.3	2570.0	2720.0	3250.0	5210.0	877.0	819.0	4410.0	9480.0	727.0	558.0	967.0	2570.0
CHROMIUM	ppm	0.8	107.0	65.0	47.3	457.0	812.0	269.0	101.0	37.0	61.3	12.0	39.2	619.0
COBALT	ppm	0.7	9.900	7.000	9.500	10.000	9.500	9.000	20.000	13.800	8.000	7.800	8.400	10.000
COPPER	ppm	0.4	173.000	113.000	70.600	152.000	397.000	100.000	113.000	826.000	34.500	13.300	264.000	179.000
IRON	ppm	5.3	27000.0	22500.0	22700.0	32600.0	19400.0	14200.0	38300.0	24800.0	16800.0	15300.0	17000.0	29400.0
LEAD	ppm	0.2	124.000	180.000	201.000	414.000	34.200	13.400	87.700	13.000	21.900	9.000	27.200	154.000
MAGNESIUM	ppm	3.3	3740.000	2430.000	4350.000	4220.000	4340.000	5210.000	10400.0	8900.000	3780.000	3200.000	4910.000	3800.000
MANGANESE	ppm	0.2	289.000	215.000	285.000	319.000	753.000	273.000	653.000	394.000	238.000	514.000	214.000	377.000
MERCURY	ppm	0.1	1.450	13.200	4.000	19.200	0.200	0.100	0.100	0.390	0.170	0.150	0.140	0.650
NICKEL	ppm	0.7	33.400	27.300	25.000	51.200	27.700	22.000	81.000	32.400	19.500	15.200	22.000	30.300
POTASSIUM	ppm	46.1	821.000	651.000	900.000	620.000	1160.000	1860.000	3550.000	1060.000	1250.000	764.000	1060.000	992.000
SELENIUM	ppm	0.1	0.130	0.640	0.120	1.300	0.110	0.110	0.110	0.110	0.140	0.110	0.100	0.160
SILVER	ppm	0.9	0.740	0.720	0.720	0.700	0.880	0.990	0.680	0.690	0.700	0.660	0.740	0.670
SODIUM	ppm	56.7	361.000	299.000	303.000	570.000	190.000	809.000	267.000	808.000	245.000	88.600	169.000	370.000
THALLIUM	ppm	0.5	0.380	0.370	0.370	0.360	0.310	0.560	0.350	0.350	0.330	0.340	0.260	0.340
VANADIUM	ppm	0.6	28.700	25.200	27.600	224.000	21.900	17.200	36.000	42.600	20.200	11.400	20.500	39.600
ZINC	ppm	0.3	458.000	514.000	190.000	291.000	350.000	104.000	446.000	137.000	144.000	34.600	404.000	341.000
CYANIDE	ppm	1.0	1.100	1.100	1.100	0.580	0.620	1.100	1.100	1.100	0.570	1.000	0.580	2.100

PCB														
DILUTION			1.1	1.1	1.1	5.7	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
		LLD												
AROCLOR-1248	ppm	0.5	U	U	3.900	U	U	U	U	0.620	U	U	U	U
AROCLOR-1254	ppm	1.0	0.670	4.200	2.400	6.500	U	U	0.280	U	U	U	U	40.000
AROCLOR-1260	ppm	1.0	U	U	U	U	U	U	U	U	U	U	U	U

SEMIVOL														
DILUTION			37.5	185.0	37.9	37.6	41.0	35.8	36.2	36.2	366.0	0.0	75.6	35.5
		LLD												
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	0.300	U
1,4-Dichlorobenzene	ppm	10	0.037	U	U	U	U	U	U	U	U	U	2.400	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	0.330	U	0.098	0.012	U	U	0.052	U	U	U	12.000	0.160
2-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	0.220	U
4-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U
Hexachloroethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	1.700	2.200	U	0.250	U	U	U	U	U	U	U	U
Isophorone	ppm	10	U	0.026	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	0.030	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	5.000	U	0.045	0.025	U	U	0.091	U	U	U	U	0.290

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-94	WS-95	WS-96	WS-97	WS-98	WS-99	WS-100	WS-101	WS-102	WS-103	WS-104	WS-105
		LOCATION:	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5
		DATE:	15-Sep	15-Sep	15-Sep	26-Sep	26-Sep	12-Sep	15-Sep	15-Sep	26-Sep	15-Sep	26-Sep	15-Sep
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	1	0	0	0	0	0	0	0	0	0	196	0
Naphthalene	ppm	10	0.570	3.300	0.130	0.084	0.091	U	0.200	U	U	U	U	0.690
4-Chloroanaline	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U
4-Chloro-3-Methylphenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	0.180	1.200	0.130	0.160	U	U	0.041	U	U	U	U	0.180
2-Chloronaphthalene	ppm	10	0.091	9.200	U	U	U	U	U	U	U	U	U	U
2-Nitroanaline	ppm	10	U	U	U	0.017	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	U	U	0.010	U	U	U	U	U	U	U	U
3-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	0.110	0.240	0.180	0.017	0.029	U	U	U	U	U	U	0.061
2,4-Dinitrophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10	0.110	1.800	0.120	0.011	0.021	U	0.034	U	U	U	U	0.120
Diethyl Phthalate	ppm	10	U	U	U	0.008	U	0.170	0.024	U	U	U	U	U
Flourene	ppm	10	0.120	U	0.220	U	0.033	U	U	U	U	U	U	0.049
4-Nitroanaline	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	200.000	1.700	0.074	2.500	0.220	U	U	U	U	U	0.110	0.240
Hexachlorobenzene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U
Pentachlorophenol	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10	1.100	1.400	1.700	0.120	0.240	0.051	0.190	U	U	U	U	0.480
Anthracene	ppm	10	U	0.380	0.470	0.030	0.048	U	U	U	U	U	U	U
di-n-Butyl Phthalate	ppm	10	0.065	0.080	U	0.110	0.019	0.084	0.043	U	U	U	0.099	0.052
Flouranthene	ppm	10	1.600	0.440	1.500	0.160	0.150	U	0.320	U	U	U	U	0.610
Pyrene	ppm	10	2.000	1.500	2.900	0.360	0.095	U	0.490	U	U	U	U	1.100
Butyl Benzyl Phthalate	ppm	10	U	U	U	0.059	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	8.700	1.500	0.450	0.520	U	0.310	2.200	0.290	U	U	0.610
Chrysene	ppm	10	U	0.540	1.100	0.190	0.240	U	0.290	U	U	U	U	0.520
bis(2-Ethylhexyl)Phthalate	ppm	10	U	U	U	0.660	0.260	U	U	U	0.290	U	0.490	U
di-n-OctylPhthalate	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10	1.300	U	0.860	0.110	0.040	U	0.240	U	U	U	U	0.370
Benzo(k)flouranthene	ppm	10	1.200	U	0.680	0.110	U	U	0.280	U	U	U	U	0.410
Benzo(a)pyrene	ppm	10	1.600	U	0.910	0.150	0.072	U	U	U	U	U	U	0.390
Indeno(1,2,3,c,d)pyrene	ppm	10	0.990	U	0.750	U	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10	1.000	U	0.820	U	U	U	U	U	U	U	U	U
VOLATILE DILUTION			1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1	14000.0	1.1
		LLD												
Chloromethane	ppm	10	U	U	U	U	U	U	U	U	U	U	U	0.012
Methylene Chloride	ppm	5	0.009	0.006	0.008	0.007	0.009	U	0.011	0.013	0.005	0.006	U	U
Acetone	ppm	10	U	U	U	0.180	0.014	U	U	0.013	0.059	U	U	U
Carbon Disulfide	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	0.007	U	U	U	U	U	U	U	U	U	U
Carbon Tetrachloride	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	80.000	U
Benzene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 7
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SURFACE SAMPLES IN WEST YARD

		FIELDID:	WS-94	WS-95	WS-96	WS-97	WS-98	WS-99	WS-100	WS-101	WS-102	WS-103	WS-104	WS-105
		LOCATION:	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-5
		DATE:	15-Sep	15-Sep	15-Sep	26-Sep	26-Sep	12-Sep	15-Sep	15-Sep	26-Sep	15-Sep	26-Sep	15-Sep
		DEPTH:	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
		HNU_PPM:	1	0	0	0	0	0	0	0	0	0	196	0
Bromoform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	0.011	U	0.006	0.019	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5	U	U	U	0.009	U	U	U	U	U	U	420.000	U
Chlorobenzene	ppm	5	U	U	U	0.018	U	U	U	U	U	U	52.000	U
Ethylbenzene	ppm	5	U	U	U	0.006	U	U	U	U	U	U	1500.000	U
Styrene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5	U	U	U	0.030	0.016	U	U	U	0.005	U	13000.0	U

TABLE 8

SUBSURFACE SAMPLES IN THE WEST YARD

TABLE 8
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

	units	MDL														
FIELDID:			WB-7A	WB-7B	WB-8A	WB-8B	WT10-1A	WT10-2A	WT10-2B	WT10-3A	WT10-4A	WT11-1A	WT11-2A	WT11-3A	WT11-4A	WT11-5A
LOCATION:			W-6	W-6	W-6	W-6	W-4	W-4	W-4	W-4	W-4	W-6	W-6	W-6	W-6	W-6
DATE:			10-Aug	10-Aug	11-Aug	11-Aug	12-Oct	12-Oct	12-Oct	12-Oct	12-Oct	10-Oct	10-Oct	10-Oct	10-Oct	10-Oct
DEPTH:			2-4	6-8	2-4	8-10	4-6	2-4	7-8	1-3	10-12	5.5-7.5	9.5-11.0	4-6	2-4	7-9
HNU_PPM:			0	0	400	40	1	0	4	0	220	30	24	60	20	10
INORGANIC																
ALUMINUM	ppm	11.2	8870	6890	31200	107000	921	2850	12000	3530	9560	9160	8330	19700	3940	30200
ANTIMONY	ppm	2.6	3.400	3.100	12.400	121.000	85.600	3.900	4.200	4.400	4.000	7.300	4.200	21.400	10.000	5.500
ARSENIC	ppm	0.5	14.400	0.370	33.800	4.900	26.700	3.400	1.900	36.100	5.500	71.400	2.600	44.300	32.100	82.300
BARIUM	ppm	0.7	101.000	52.000	107.000	14.800	13.000	71.800	60.400	1360.000	135.000	24.700	41.900	2960.000	299.000	314.000
BERYLLIUM	ppm	0.2	1.400	0.470	0.260	0.210	2.900	0.320	0.390	0.360	0.890	0.400	1.300	0.610	0.370	1.900
CADMIUM	ppm	0.2	0.510	0.280	4.200	5.100	0.580	0.510	0.280	0.500	0.270	1.100	0.280	23.300	1.800	63.600
CALCIUM	ppm	2.3	5300.000	746.000	4600.000	5080.000	859.000	2580.000	761.000	2120.000	2350.000	359.000	248.000	30500	8690.000	1240.000
CHROMIUM	ppm	0.8	21	13	130	38	214000	17	435	435	50	474	19	174	138	483
COBALT	ppm	0.7	9.500	3.400	13.300	85.300	21.400	3.300	6.000	14.900	11.200	53.000	6.000	34.000	26.800	40.100
COPPER	ppm	0.4	121	4	6260	164000	7400	111	200	3630	116	2890	25	3440	506	7590
IRON	ppm	5.3	26200	8850	28800	67300	108000	6900	21100	146000	24800	509000	23200	146000	132000	89700
LEAD	ppm	0.2	189.000	7.100	830.000	1710.000	212.000	9.400	15.700	443.000	30.000	288.000	18.700	3240.000	411.000	1830.000
MAGNESIUM	ppm	3.3	4140	2200	2970	895	167	204	2930	1200	3210	202	2710	5600	23300	2330
MANGANESE	ppm	0.2	373.000	84.500	873.000	6060.000	25.800	91.500	130.000	754.000	230.000	2040.000	169.000	1840.000	2300.000	437.000
MERCURY	ppm	0.1	0.750	0.100	5.100	0.100	0.220	0.680	0.100	7.400	0.110	0.440	0.100	20.100	1.000	0.530
NICKEL	ppm	0.7	22.700	8.800	596.000	5140.000	37.400	26.700	14.700	188.000	48.500	742.000	22.500	582.000	337.000	367.000
POTASSIUM	ppm	46.1	806.000	323.000	760.000	327.000	202.000	388.000	567.000	471.000	549.000	149.000	650.000	2160.000	621.000	468.000
SELENIUM	ppm	0.1	1.600	0.170	2.400	0.200	0.970	0.720	0.190	2.100	0.370	0.210	0.090	6.700	0.170	2.300
SILVER	ppm	0.9	1.200	1.100	2.400	15.400	3.700	0.740	0.790	0.830	0.750	0.920	0.790	2.600	0.840	1.000
SODIUM	ppm	56.7	151.000	114.000	535.000	434.000	194.000	196.000	183.000	262.000	144.000	1500.000	132.000	5480.000	824.000	368.000
THALLIUM	ppm	0.5	0.690	0.630	0.880	0.710	0.570	0.260	0.280	0.290	0.670	0.320	0.280	0.500	0.300	0.370
VANADIUM	ppm	0.6	19.900	11.100	70.600	12.500	180.000	12.000	30.800	67.200	52.900	95.800	19.100	74.200	29.600	25.200
ZINC	ppm	0.3	359.000	22.200	2630.000	9200.000	55.600	113.000	39.900	823.000	150.000	327.000	54.000	11600	1020.000	5500.000
CYANIDE	ppm	1.0	1.400	1.200	1.800	1.300	2.100	1.100	1.200	18.200	1.200	1.800	1.400	2.200	1.400	1.600
PCB																
DILUTION			1.35	1.18	1.75	1.33	2.12	1.14	1.25	65.00	1.18	1.78	1.39	2.22	1.45	1.64
AROCLOR-1242	ppm	0.500	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1248	ppm	0.500	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.000	U	U	1.200	U	U	0.730	U	U	U	U	U	U	U	U
SEMIVOL																
DILUTION			43.30	39.70	33300.00	220.00	70.90	37.90	41.70	43.30	39.20	59.50	46.30	74.10	48.30	54.60
Phenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	-	U	U
2-Chlorophenol	ppm	10.000	U	U	U	U	U	U	U	U	0.110	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10.000	U	U	U	0.600	U	0.021	U	0.042	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10.000	U	U	U	U	U	U	U	0.055	U	U	U	U	U	0.053
Benzyl Alcohol	ppm	10.000	U	U	U	U	U	0.049	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10.000	0.035	U	34.000	8.700	0.070	U	U	1.500	0.220	0.200	U	U	0.044	0.330
2-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10.000	0.110	U	U	U	U	0.020	U	13.000	0.044	U	U	U	U	U
Isophorone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

		FIELDID:	WB-7A	WB-7B	WB-8A	WB-8B	WT10-1A	WT10-2A	WT10-2B	WT10-3A	WT10-4A	WT11-1A	WT11-2A	WT11-3A	WT11-4A	WT11-5A
		LOCATION:	W-6	W-6	W-6	W-6	W-4	W-4	W-4	W-4	W-4	W-6	W-6	W-6	W-6	W-6
		DATE:	10-Aug	10-Aug	11-Aug	11-Aug	12-Oct	12-Oct	12-Oct	12-Oct	12-Oct	10-Oct	10-Oct	10-Oct	10-Oct	10-Oct
		DEPTH:	2-4	6-8	2-4	8-10	4-6	2-4	7-8	1-3	10-12	5.5-7.5	9.5-11.0	4-6	2-4	7-9
	units	HNU_PPM:	0	0	400	40	1	0	4	0	220	30	24	60	20	10
SEMIVOL		MDL														
Benzoic Acid	ppm	50.000	U	U	U	U	U	U	U	0.490	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10.000	0.031	U	U	U	U	U	U	0.410	U	U	U	U	U	U
Naphthalene	ppm	10.000	0.580	0.015	930.000	21.000	0.140	0.079	U	2.300	0.660	12.000	0.023	0.320	62.000	0.085
4-Chloroanaline	ppm	10.000	U	U	U	U	U	U	U	U	0.290	U	U	U	U	U
4-Chloro-3-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10.000	0.490	U	57.000	1.200	U	U	U	0.120	0.160	0.850	U	0.036	2.700	U
2-Chloronaphthalene	ppm	10.000	U	U	U	U	U	U	U	0.096	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	1.300	U	U	U	U	U	U
Acenaphthylene	ppm	10.000	0.035	U	U	1.200	U	U	U	U	U	U	U	U	0.130	U
2,6-Dinitrotoluene	ppm	10.000	0.190	U	U	U	U	0.044	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10.000	U	U	U	U	U	U	U	0.140	0.110	0.220	U	0.036	1.500	U
4-Nitrophenol	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10.000	0.380	U	U	0.370	U	U	U	0.140	0.160	0.170	U	U	1.400	U
Diethyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flourene	ppm	10.000	0.140	U	170.000	14.000	U	U	U	U	0.210	U	0.038	0.038	0.800	U
4-Nitroanaline	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10.000	U	U	U	U	U	0.048	0.150	64.000	0.990	0.930	0.023	0.220	0.310	U
Hexachlorobenzene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Pentachlorophenol	ppm	50.000	U	U	U	U	U	U	U	1.200	U	U	U	U	U	U
Phenanthrene	ppm	10.000	2.100	U	U	0.770	0.100	U	U	0.980	0.360	0.300	U	0.085	0.590	U
Anthracene	ppm	10.000	U	U	U	2.600	U	U	U	U	U	0.061	U	U	U	U
di-n-Butyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flouranthene	ppm	10.000	3.300	U	U	1.000	0.085	U	U	0.720	0.140	0.100	U	0.110	0.110	U
Pyrene	ppm	10.000	2.900	U	U	0.980	U	U	U	1.500	0.170	0.250	U	0.130	0.310	U
Butyl Benzyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10.000	1.600	U	U	U	U	U	U	U	U	0.130	U	0.072	0.150	U
Chrysene	ppm	10.000	1.900	U	U	U	U	U	U	U	U	0.072	U	U	0.180	U
bis(2-Ethylhexyl)Phthalate	ppm	10.000	0.160	U	U	U	U	U	U	7.400	U	U	U	U	0.041	U
di-n-OctylPhthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10.000	1.600	U	U	U	U	U	U	U	U	U	U	U	0.300	U
Benzo(k)flouranthene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)pyrene	ppm	10.000	1.200	U	U	U	U	U	U	U	U	U	U	U	0.085	U
Indeno(1,2,3,c,d)pyrene	ppm	10.000	0.930	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10.000	1.000	U	U	U	U	U	U	U	U	U	U	U	U	U
VOLATILE DILUTION			1.35	1.18	8770.00	167.00	2.12	1.13	1.25	1.29	148.00	224.00	11.90	278.00	180.00	1.64
Methylene Chloride	ppm	5.000	0.022	0.012	40.000	0.740	0.021	0.014	0.006	0.012	0.520	U	0.045	0.810	0.710	0.013
Acetone	ppm	10.000	0.036	0.036	U	U	0.017	0.006	0.031	0.005	U	U	0.160	U	0.730	0.033
Carbon Disulfide	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5.000	U	U	U	U	U	U	U	0.006	U	U	U	U	U	U
2-Butanone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

		FIELDID:	WB-7A	WB-7B	WB-8A	WB-8B	WT10-1A	WT10-2A	WT10-2B	WT10-3A	WT10-4A	WT11-1A	WT11-2A	WT11-3A	WT11-4A	WT11-5A
		LOCATION:	W-6	W-6	W-6	W-6	W-4	W-4	W-4	W-4	W-4	W-6	W-6	W-6	W-6	W-6
		DATE:	10-Aug	10-Aug	11-Aug	11-Aug	12-Oct	12-Oct	12-Oct	12-Oct	12-Oct	10-Oct	10-Oct	10-Oct	10-Oct	10-Oct
		DEPTH:	2-4	6-8	2-4	8-10	4-6	2-4	7-8	1-3	10-12	5.5-7.5	9.5-11.0	4-6	2-4	7-9
	units	HNU_PPM:	0	0	400	40	1	0	4	0	220	30	24	60	20	10
VOLATILE		MDL														
Dibromochloromethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5.000	0.006	U	580.000	0.360	0.065	U	0.038	0.005	0.150	1.500	0.019	0.490	1.500	0.100
Bromoform	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10.000	0.007	0.007	U	U	U	U	U	U	U	U	0.036	U	U	U
2-Hexanone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5.000	0.039	0.020	310.000	0.920	0.010	U	U	U	0.260	U	U	0.220	0.340	0.013
Chlorobenzene	ppm	5.000	U	0.005	U	U	U	U	0.023	U	31.000	0.770	0.100	U	U	U
Ethylbenzene	ppm	5.000	U	U	17.000	0.220	U	U	U	U	0.140	U	U	U	U	U
Styrene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5.000	0.015	0.017	230.000	0.820	0.007	U	U	U	0.920	1.600	0.007	1.200	U	U

TABLE 8

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN WEST YARD

	units	MDL														
FIELDID:			WT1-1A	WT12-1A	WT12-2A	WT12-3A	WT1-2A	WT13-1A	WT13-4A	WT13-5A	WT13-6A	WT14-1A	WT14-2A	WT14-3A	WT1-4A	WT15-1A
LOCATION:			W-1	W-6	W-6	W-6	W-1	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-1	W-5
DATE:			05-Oct	10-Oct	10-Oct	10-Oct	05-Oct	11-Oct	11-Oct	11-Oct	11-Oct	13-Oct	13-Oct	13-Oct	05-Oct	25-Sep
DEPTH:			4-6	5.5-7.0	3-5	2-4	8-10	5.5-7.0	3-5	3-5	5-6	4-6	2-4	2.5-3.5	6-8	1-2
HNU_PPM:			16	600	600	240	15	0	0	0	0	1	1	6	100	0
INORGANIC																
ALUMINUM	ppm	11.2	703	837	251	7700	13000	16400	7850	6570	6860	5760	7520	6320	1230	6320
ANTIMONY	ppm	2.6	7.400	6.000	4.200	3.800	4.300	5.100	3.700	4.000	4.100	4.100	3.900	4.200	28.000	3.900
ARSENIC	ppm	0.5	1.100	6.600	13.600	2.800	3.300	18.100	1.600	9.600	30.200	3.600	4.000	3.400	57.300	10.000
BARIUM	ppm	0.7	111.000	268.000	3.600	58.500	104.000	229.000	66.000	64.800	76.500	52.500	49.800	54.500	44.800	142.000
BERYLLIUM	ppm	0.2	0.610	0.500	0.350	0.610	0.360	3.800	0.440	0.800	1.100	0.590	0.320	0.360	0.390	2.200
CADMIUM	ppm	0.2	1.200	0.410	0.280	0.260	1.000	0.350	0.250	0.270	0.280	0.710	0.660	0.240	1.400	0.260
CALCIUM	ppm	2.3	23100.000	209.000	75.700	718.000	1560.000	3680.000	978.000	917.000	1730.000	392.000	554.000	451.000	11800.00	118.000
CHROMIUM	ppm	0.8	50	4	2	14	55	39	11	315	70	10	364	69	511	69
COBALT	ppm	0.7	2.500	1.200	0.820	8.400	9.200	12.600	7.600	6.100	8.300	8.500	5.900	6.900	30.000	11.900
COPPER	ppm	0.4	408	15	8	14	145	8	15	43900	144	1280	3960	260	40600	120
IRON	ppm	5.3	23300	253	1200	14200	33900	108000	12600	21800	32500	12700	15900	13100	232000	51000
LEAD	ppm	0.2	402.000	47.600	62.900	11.100	62.800	18.700	8.800	163.000	113.000	7.900	10.600	10.600	1780.000	18.400
MAGNESIUM	ppm	3.3	1820	111	67	4590	3020	2540	3560	2480	2620	3010	3830	3120	1980	2830
MANGANESE	ppm	0.2	246.000	8.700	108.000	210.000	327.000	1400.000	444.000	164.000	202.000	87.700	104.000	263.000	1470.000	884.000
MERCURY	ppm	0.1	0.830	0.160	0.280	0.100	0.180	0.100	0.100	0.980	1.400	0.100	0.100	0.100	65.400	0.100
NICKEL	ppm	0.7	63.500	1.200	2.200	21.700	34.900	14.200	16.600	48.700	34.700	20.800	18.200	16.300	1140.000	62.600
POTASSIUM	ppm	46.1	175.000	383.000	83.700	844.000	823.000	417.000	785.000	592.000	782.000	754.000	984.000	1100.000	176.000	780.000
SELENIUM	ppm	0.1	0.170	4.000	0.480	0.090	0.100	0.440	0.080	0.450	8.700	0.090	0.090	0.090	0.240	0.090
SILVER	ppm	0.9	1.400	1.100	0.790	0.720	0.810	0.970	0.700	0.830	0.770	0.780	0.740	0.790	5.500	0.740
SODIUM	ppm	56.7	915.000	392.000	31500.000	147.000	365.000	301.000	136.000	201.000	3990.000	153.000	120.000	809.000	1280.000	114.000
THALLIUM	ppm	0.5	0.520	0.400	0.280	0.290	0.290	0.340	0.250	0.270	0.270	0.280	0.260	0.280	0.320	0.260
VANADIUM	ppm	0.6	3.200	1.900	1.000	13.200	43.400	87.300	14.400	28.000	39.000	12.700	16.700	12.100	43.300	28.200
ZINC	ppm	0.3	1130.000	3.900	24.200	144.000	1890.000	47.800	36.200	383.000	192.000	754.000	540.000	66.200	1860.000	67.300
CYANIDE	ppm	1.0	7.200	1.600	1.200	1.100	3.500	1.400	1.100	1.100	1.200	1.200	1.200	1.200	4.200	0.600
PCB																
DILUTION			2.22	1.64	1.23	1.12	1.28	1.37	1.06	1.12	2.44	1.19	1.20	1.20	1.96	1.18
AROCLOR-1242	ppm	0.500	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1248	ppm	0.500	U	U	U	U	U	U	U	U	U	U	U	U	0.720	U
AROCLOR-1254	ppm	1.000	U	U	U	U	U	U	U	U	1.300	U	U	U	0.380	U
SEMIVOL																
DILUTION			741.00	54.60	8240.00	37.50	42.70	45.70	35.50	37.50	40.70	39.70	40.20	40.20	3270.00	39.00
Phenol	ppm	10.000	U	1.300	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10.000	U	U	U	U	U	U	U	0.051	U	U	U	U	9.000	U
1,4-Dichlorobenzene	ppm	10.000	U	0.210	U	U	U	U	U	0.240	U	U	U	U	32.000	U
Benzyl Alcohol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10.000	U	2.800	41.000	U	U	U	U	2.700	0.032	U	U	U	270.000	0.046
2-Methylphenol	ppm	10.000	U	0.360	U	U	0.150	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10.000	U	U	U	U	U	U	U	0.084	0.310	U	U	U	U	0.099
Isophorone	ppm	10.000	U	U	48.000	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10.000	U	0.480	U	U	0.270	U	U	U	U	U	U	U	U	U

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

	units	FIELDID:	WT1-1A	WT12-1A	WT12-2A	WT12-3A	WT1-2A	WT13-1A	WT13-4A	WT13-5A	WT13-6A	WT14-1A	WT14-2A	WT14-4A	WT1-4A	WT15-1A
		LOCATION:	W-1	W-6	W-6	W-6	W-1	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-1	W-5
		DATE:	05-Oct	10-Oct	10-Oct	10-Oct	05-Oct	11-Oct	11-Oct	11-Oct	11-Oct	13-Oct	13-Oct	13-Oct	05-Oct	25-Sep
		DEPTH:	4-6	5.5-7.0	3-5	2-4	8-10	5.5-7.0	3-5	3-5	5-6	4-6	2-4	2.5-3.5	6-8	1-2
	units	HNU_PPM:	16	600	600	240	15	0	0	0	0	1	1	6	100	0
SEMIVOL		MDL														
Benzoic Acid	ppm	50.000	U	6.900	U	U	U	U	U	U	U	U	U	U	U	0.062
1,2,4-Trichlorobenzene	ppm	10.000	U	U	U	U	U	U	U	0.053	0.096	U	U	U	U	U
Naphthalene	ppm	10.000	14.000	49.000	680.000	0.100	1.100	0.028	U	0.550	2.100	U	U	U	1300.000	1.200
4-Chloroanaline	ppm	10.000	13.000	U	U	U	0.053	U	U	0.130	U	U	U	U	120.000	U
4-Chloro-3-Methylphenol	ppm	10.000	U	1.400	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10.000	U	0.720	47.000	U	0.120	U	U	0.130	0.830	U	U	U	40.000	U
2-Chloronaphthalene	ppm	10.000	U	U	U	U	U	U	U	U	0.330	U	U	U	U	U
Dimethyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10.000	U	U	U	U	U	U	U	U	0.040	U	U	U	U	U
2,6-Dinitrotoluene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10.000	U	U	U	U	0.210	U	U	0.140	1.200	U	U	U	U	U
4-Nitrophenol	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10.000	U	U	U	U	0.140	U	U	0.083	0.730	U	U	U	U	U
Diethyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flourene	ppm	10.000	U	U	U	U	0.015	U	U	U	0.890	U	U	U	U	U
4-Nitroanaline	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiphenylamine(1)	ppm	10.000	U	U	U	U	1.900	U	U	0.350	2.900	U	U	U	19.000	U
Hexachlorobenzene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Pentachlorophenol	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10.000	U	U	U	U	U	U	U	1.100	3.200	U	U	U	U	U
Anthracene	ppm	10.000	U	U	U	U	U	U	U	0.410	0.960	U	U	U	U	U
di-n-Butyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flouranthene	ppm	10.000	U	U	U	U	U	U	U	1.100	3.200	U	U	U	U	U
Pyrene	ppm	10.000	U	U	U	0.031	U	U	U	2.200	6.600	U	U	U	U	U
Butyl Benzyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10.000	U	0.088	U	0.400	U	U	U	4.200	4.600	U	U	U	U	U
Chrysene	ppm	10.000	U	U	U	U	U	U	U	1.000	2.800	U	U	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	0.280
di-n-OctylPhthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10.000	U	U	U	U	U	U	U	0.610	2.700	U	U	U	U	U
Benzo(k)flouranthene	ppm	10.000	U	U	U	U	U	U	U	U	1.800	U	U	U	U	U
Benzo(a)pyrene	ppm	10.000	U	U	U	U	U	0.580	U	0.940	2.200	U	U	U	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10.000	U	U	U	U	U	U	U	0.570	1.600	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10.000	U	U	U	U	U	U	U	0.480	1.600	U	U	U	U	U
VOLATILE DILUTION			22.20	2050.00	309000.00	140.00	1.28	1.34	1.06	1.12	1.21	1.19	1.20	1.20	1230.00	1.15
Methylene Chloride	ppm	5.000	0.170	U	U	0.350	0.006	0.010	0.008	0.007	0.010	0.008	U	U	U	0.006
Acetone	ppm	10.000	0.200	U	U	U	0.037	0.110	0.022	0.013	0.016	0.046	0.022	0.017	U	0.005
Carbon Disulfide	ppm	5.000	0.035	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5.000	U	U	180.000	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 8

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AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN WEST YARD

		FIELDID:	WT1-1A	WT12-1A	WT12-2A	WT12-3A	WT1-2A	WT13-1A	WT13-4A	WT13-5A	WT13-6A	WT14-1A	WT14-2A	WT14-4A	WT1-4A	WT15-1A
		LOCATION:	W-1	W-6	W-6	W-6	W-1	W-5	W-5	W-5	W-5	W-5	W-5	W-5	W-1	W-5
		DATE:	05-Oct	10-Oct	10-Oct	10-Oct	05-Oct	11-Oct	11-Oct	11-Oct	11-Oct	13-Oct	13-Oct	13-Oct	05-Oct	25-Sep
		DEPTH:	4-6	5.5-7.0	3-5	2-4	8-10	5.5-7.0	3-5	3-5	5-6	4-6	2-4	2.5-3.5	6-8	1-2
	units	HNU_PPM:	16	600	600	240	15	0	0	0	0	1	1	6	100	0
VOLATILE		MDL														
Dibromochloromethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5.000	22.000	610.000	23000.000	2.300	0.033	U	U	0.013	0.005	0.005	U	0.006	13.000	U
Bromoform	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10.000	U	U	U	U	U	0.015	0.009	0.029	0.013	U	U	U	U	U
2-Hexanone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5.000	0.051	220.000	6400.000	0.600	0.009	U	U	0.010	U	U	U	U	2.300	U
Chlorobenzene	ppm	5.000	0.220	U	U	U	0.048	U	U	U	U	U	U	0.007	79.000	0.012
Ethylbenzene	ppm	5.000	U	5.900	330.000	0.190	U	U	U	U	U	U	U	U	7.000	U
Styrene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5.000	U	92.000	1900.000	0.300	U	U	U	U	0.006	U	U	U	40.000	U

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

	units	FIELDID:	WT15-2A	WT15-3A	WT1-6A	WT1-7A	WT21-1A	WT21-1B	WT21-2A	WT2-1A	WT23-1A	WT23-1B	WT23-2A	WT2-3A	WT2-4A	WT2-6A	WT2-7A
		LOCATION:	W-5	W-5	W-1	W-1	W-6	W-6	W-6	W-1	W-6	W-6	W-6	W-1	W-1	W-1	W-1
		DATE:	25-Sep	25-Sep	05-Oct	05-Oct	12-Oct	12-Oct	12-Oct	06-Oct	13-Oct	13-Oct	13-Oct	06-Oct	06-Oct	06-Oct	06-Oct
		DEPTH:	0-2	1.5-2.0	11-13	2-4	1-3	4-6	6.5-7.5	5.5-7.5	2-4	4.5-6.5	7.5-9.0	2-4	7.5-9.5	5.5-7.5	8-10
		HNU_PPM:	2	150	0	0	0	0	1	152	120	5	0	30	100	20	200
INORGANIC		MDL															
ALUMINUM	ppm	11.2	7680	11300	4470	2350	9200	8600	15400	2720	3820	150	16800	2330	13100	1990	26700
ANTIMONY	ppm	2.6	3.800	3.700	14.700	5.700	3.800	3.900	4.500	5.000	4.300	4.600	4.600	6.400	4.600	5.500	5.000
ARSENIC	ppm	0.5	19.900	4.700	16.700	8.000	5.600	2.300	3.000	46.800	81.900	116.000	5.800	4.900	4.000	17.000	0.510
BARIUM	ppm	0.7	130.000	117.000	163.000	444.000	45.400	30.000	125.000	332.000	11.400	8.300	123.000	8780.000	115.000	4830.000	335.000
BERYLLIUM	ppm	0.2	4.500	1.400	0.480	0.470	0.320	1.500	2.000	0.410	3.500	3.800	1.000	0.590	0.910	0.450	1.400
CADMIUM	ppm	0.2	0.250	0.250	5.300	0.610	0.260	0.260	0.300	1.200	0.290	0.310	0.310	2.100	0.310	0.370	0.340
CALCIUM	ppm	2.3	905.000	1130.000	9820.000	6280.000	621.000	469.000	1080.000	32700	25.300	77.700	763.000	7310.000	1430.000	14500	725.000
CHROMIUM	ppm	0.8	244	86	91	91	18	17	24	1980	610	658	27	1000	25	1930	45
COBALT	ppm	0.7	26.500	14.600	9.600	5.200	10.600	8.200	11.900	38.700	63.800	54.000	14.000	12.600	10.500	56.300	7.600
COPPER	ppm	0.4	664	190	1170	368	20	14	18	15800	1250	1350	28	359	17	1890	12
IRON	ppm	5.3	119000	46500	89700	60200	18800	18400	21200	238000	501000	536000	24900	18000	18100	338000	14000
LEAD	ppm	0.2	286.000	162.000	331.000	99.700	32.300	10.900	16.900	821.000	192.000	163.000	20.300	135.000	19.300	116.000	18.700
MAGNESIUM	ppm	3.3	3010	7020	4120	493	3080	3310	3890	2470	49	16	4010	1300	3160	4110	2870
MANGANESE	ppm	0.2	765.000	832.000	907.000	412.000	247.000	186.000	459.000	1640.000	1880.000	2700.000	325.000	328.000	175.000	2650.000	80.700
MERCURY	ppm	0.1	0.100	0.100	7.700	1.700	0.100	0.100	0.100	28.800	0.100	0.100	0.100	1.100	0.100	9.400	0.200
NICKEL	ppm	0.7	310.000	78.600	97.500	77.100	19.200	17.300	20.500	1490.000	705.000	607.000	32.800	128.000	17.400	3620.000	19.000
POTASSIUM	ppm	46.1	960.000	2430.000	478.000	134.000	861.000	722.000	782.000	324.000	101.000	112.000	868.000	316.000	750.000	261.000	2090.000
SELENIUM	ppm	0.1	0.300	0.080	0.990	1.000	0.100	0.090	0.150	0.560	0.130	0.340	0.360	0.150	0.260	0.120	0.410
SILVER	ppm	0.9	0.860	0.700	1.100	1.100	0.720	0.730	0.840	0.940	0.810	0.870	0.870	1.200	0.870	1.000	0.940
SODIUM	ppm	56.7	254.000	215.000	458.000	553.000	158.000	160.000	153.000	987.000	142.000	117.000	281.000	3670.000	1340.000	687.000	7090.000
THALLIUM	ppm	0.5	0.250	0.250	0.440	0.380	0.260	0.260	0.300	0.330	0.290	0.310	0.310	0.430	0.310	0.370	0.330
VANADIUM	ppm	0.6	34.100	28.100	56.400	16.600	23.200	25.400	32.200	54.800	179.000	219.000	33.200	21.300	31.700	45.900	43.100
ZINC	ppm	0.3	1050.000	113.000	7140.000	820.000	89.000	64.800	60.500	2380.000	62.600	50.500	88.400	28000	76.300	3700.000	50.200
CYANIDE	ppm	1.0	0.600	0.560	2.000	2.100	1.200	1.200	1.400	32.200	1.300	1.400	1.400	3.000	1.400	4.900	1.400
PCB DILUTION			1.12	1.09	1.47	2.08	1.16	1.22	1.37	1.51	1.32	1.35	1.37	1.89	1.37	1.69	1.42
AROCLOR-1242	ppm	0.500	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1248	ppm	0.500	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.000	0.700	U	U	U	U	U	U	U	U	U	U	U	U	U	U
SEMIVOL DILUTION			37.30	0.00	4900.00	4170.00	38.80	40.70	45.70	25300.00	43.90	45.00	45.70	1570.00	45.70	565.00	47.60
Phenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10.000	U	U	23.000	U	U	U	U	U	U	U	U	U	U	0.310	U
1,4-Dichlorobenzene	ppm	10.000	U	U	U	7.100	U	U	U	U	U	U	U	U	U	1.800	U
Benzyl Alcohol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10.000	U	U	180.000	70.000	U	U	U	U	U	U	U	U	0.061	20.000	0.290
2-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	0.110	U	U	U	U	0.340
4-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10.000	U	U	15.000	U	U	U	U	U	U	U	U	180.000	U	U	U
Isophorone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	1.400	0.220

TABLE 8
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

	units	FIELDID:	WT15-2A	WT15-3A	WT1-6A	WT1-7A	WT21-1A	WT21-1B	WT21-2A	WT2-1A	WT23-1A	WT23-1B	WT23-2A	WT2-3A	WT2-4A	WT2-6A	WT2-7A
		LOCATION:	W-5	W-5	W-1	W-1	W-6	W-6	W-6	W-1	W-6	W-6	W-6	W-1	W-1	W-1	W-1
		DATE:	25-Sep	25-Sep	05-Oct	05-Oct	12-Oct	12-Oct	12-Oct	06-Oct	13-Oct	13-Oct	13-Oct	06-Oct	06-Oct	06-Oct	06-Oct
		DEPTH:	0-2	1.5-2.0	11-13	2-4	1-3	4-6	6.5-7.5	5.5-7.5	2-4	4.5-6.5	7.5-9.0	2-4	7.5-9.5	5.5-7.5	8-10
		HNU_PPM:	2	150	0	0	0	0	1	152	120	5	0	30	100	20	200
SEMIVOL		MDL															
Benzoic Acid	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10.000	U	U	U	99.000	U	U	U	U	U	U	U	U	U	U	U
Naphthalene	ppm	10.000	U	U	2100.000	17.000	0.130	0.036	U	2700.000	0.043	U	U	37.000	3.400	50.000	0.350
4-Chloroanaline	ppm	10.000	U	U	U	28.000	U	U	U	U	U	0.500	U	U	0.042	2.000	0.041
4-Chloro-3-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10.000	U	U	300.000	U	0.087	U	U	77.000	U	U	U	1.300	0.350	1.600	U
2-Chloronaphthalene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10.000	U	0.021	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10.000	U	U	4.900	U	U	U	U	8.600	U	U	U	U	0.082	U	U
2,6-Dinitrotoluene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10.000	U	U	240.000	U	U	U	U	13.000	U	U	U	U	0.094	0.200	U
4-Nitrophenol	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10.000	U	U	140.000	U	0.043	U	U	11.000	U	U	U	U	0.170	U	U
Diethyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flourene	ppm	10.000	U	U	120.000	U	U	U	U	U	U	U	U	U	0.270	U	U
4-Nitroanaline	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiphenylamine(1)	ppm	10.000	U	U	25.000	U	U	U	U	U	7.600	1.100	U	6.700	0.650	88.000	U
Hexachlorobenzene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Pentachlorophenol	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10.000	0.017	U	150.000	U	0.083	0.036	U	13.000	0.560	0.240	U	1.200	0.720	U	U
Anthracene	ppm	10.000	U	U	45.000	U	U	U	U	U	U	U	U	U	0.180	U	U
di-n-Butyl Phthalate	ppm	10.000	0.018	0.028	U	U	U	U	U	U	U	U	U	U	U	U	U
Flouranthene	ppm	10.000	0.023	U	20.000	U	0.087	U	U	U	U	U	U	U	0.190	U	0.120
Pyrene	ppm	10.000	0.011	U	38.000	U	0.120	U	U	U	U	U	U	U	0.720	U	0.400
Butyl Benzyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	31.000	U	U	U
Chrysene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10.000	U	0.160	U	U	U	U	U	U	U	U	U	U	U	U	U
di-n-OctylPhthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10.000	0.021	U	U	U	0.096	U	U	U	U	U	U	U	U	U	U
Benzo(k)flouranthene	ppm	10.000	0.021	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)pyrene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.470
Indeno(1,2,3,c,d)pyrene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
VOLATILE DILUTION			1.15	139.00	184.00	20.80	1.16	1.22	2.76	189.00	1.32	1.35	1.36	236.00	1.37	211.00	179.00
Methylene Chloride	ppm	5.000	0.006	U	1.800	0.160	0.012	0.013	0.024	1.100	0.025	U	0.011	U	0.010	U	0.690
Acetone	ppm	10.000	0.310	U	U	0.320	0.016	0.012	0.100	U	U	0.051	0.230	0.850	0.014	U	U
Carbon Disulfide	ppm	5.000	U	U	U	U	U	U	0.007	U	U	U	0.005	U	U	U	U
Chloroform	ppm	5.000	U	U	U	0.140	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10.000	U	U	U	U	U	U	U	0.220	U	U	U	0.290	U	U	0.098
1,1,1-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5.000	U	U	U	0.068	U	U	U	U	U	U	U	U	U	U	U

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

		FIELDID:	WT15-2A	WT15-3A	WT1-6A	WT1-7A	WT21-1A	WT21-1B	WT21-2A	WT2-1A	WT23-1A	WT23-1B	WT23-2A	WT2-3A	WT2-4A	WT2-6A	WT2-7A
		LOCATION:	W-5	W-5	W-1	W-1	W-6	W-6	W-6	W-1	W-6	W-6	W-6	W-1	W-1	W-1	W-1
		DATE:	25-Sep	25-Sep	05-Oct	05-Oct	12-Oct	12-Oct	12-Oct	06-Oct	13-Oct	13-Oct	13-Oct	06-Oct	06-Oct	06-Oct	06-Oct
		DEPTH:	0-2	1.5-2.0	11-13	2-4	1-3	4-6	6.5-7.5	5.5-7.5	2-4	4.5-6.5	7.5-9.0	2-4	7.5-9.5	5.5-7.5	8-10
	units	HNU_PPM:	2	150	0	0	0	0	1	152	120	5	0	30	100	20	200
VOLATILE		MDL															
Dibromochloromethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5.000	0.005	U	U	0.400	U	U	0.005	5.300	U	0.006	0.006	0.440	0.063	9.900	2.600
Bromoform	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10.000	U	U	U	0.039	0.005	U	U	U	U	U	U	U	U	U	U
2-Hexanone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5.000	0.012	0.083	0.330	0.180	U	U	U	1.300	0.005	0.005	0.010	U	U	U	1.800
Chlorobenzene	ppm	5.000	0.066	2.800	3.400	U	U	U	U	9.500	U	U	U	U	0.029	6.200	0.330
Ethylbenzene	ppm	5.000	0.006	U	0.250	U	U	U	U	0.410	U	U	U	U	U	1.600	U
Styrene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5.000	0.044	U	0.470	U	U	U	U	3.300	U	U	U	U	U	11.000	1.100

TABLE 8

AMERICAN CYANAMID - BOUND BROOK FACILITY

SUBSURFACE SAMPLES IN WEST YARD

	units	FIELDID:	WT31-1A	WT31-2A	WT31-3A	WT3-1A	WT3-2A	WT3-2B	WT3-3A	WT3-5A	WT4-1A	WT4-2A	WT4-4A	WT4-5A	WT4-6A	WT5-1A	WT5-2A
		LOCATION:	W-3	W-3	W-3	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-3	W-3
		DATE:	29-Sep	29-Sep	29-Sep	04-Oct	04-Oct	04-Oct	04-Oct	04-Oct	27-Sep	27-Sep	27-Sep	27-Sep	27-Sep	28-Sep	29-Sep
		DEPTH:	2.5-4.5	6-8	3-5	2-4	6.0-7.5	11-13	3-5	9-11	4-5	5-7	3-5	5-7	2-4	2-4	3.5-5.5
		HNU_PPM:	2	1	290	0	0	0	0	0	12	0	0	340	62	0	10
INORGANIC		MDL															
ALUMINUM	ppm	11.2	4420	17300	9600	3120	11600	10800	3610	2460	3860	10900	8550	7010	8040	6810	11800
ANTIMONY	ppm	2.6	4.700	4.600	5.200	75.000	4.200	4.200	57.000	90.200	4.400	3.900	4.100	4.800	3.700	3.700	4.400
ARSENIC	ppm	0.5	22.800	3.800	39.000	22.100	4.900	2.900	13.400	14.000	28.100	3.500	7.200	17.600	7.700	4.000	9.000
BARIUM	ppm	0.7	396.000	144.000	283.000	637.000	75.000	114.000	142.000	21.300	67.000	203.000	91.800	174.000	105.000	63.600	195.000
BERYLLIUM	ppm	0.2	0.390	0.690	0.430	0.620	0.350	1.500	0.470	0.740	0.360	1.100	0.470	0.590	0.300	0.300	0.360
CADMIUM	ppm	0.2	6.000	0.310	2.200	1.600	0.280	0.290	0.380	0.940	32.200	0.270	0.500	0.730	0.940	0.380	1.800
CALCIUM	ppm	2.3	40200	2230.000	7700.000	891.000	3560.000	1090.000	10500	1470.000	1590.000	1460.000	1810.000	660.000	2400.000	1270.000	1990.000
CHROMIUM	ppm	0.8	395	27	367	6400	1570	66	141000	216000	650	27	94	1990	42	38	47
COBALT	ppm	0.7	16.800	13.000	12.700	10.400	12.300	7.000	10.300	10.500	20.900	10.200	9.400	9.100	10.100	7.900	13.800
COPPER	ppm	0.4	1190	21	709	1700	255	22	4680	13000	2100	13	46	895	208	61	71
IRON	ppm	5.3	113000	21400	82600	135000	36300	26800	75800	86800	173000	16000	32600	50000	22700	19000	25500
LEAD	ppm	0.2	721.000	22.200	335.000	922.000	85.800	31.300	1470.000	142.000	442.000	15.800	64.800	454.000	142.000	75.400	82.600
MAGNESIUM	ppm	3.3	3710	4550	3260	1410	5120	3080	1070	1420	1890	4470	3190	2050	3200	3510	3370
MANGANESE	ppm	0.2	703.000	488.000	446.000	295.000	277.000	180.000	151.000	53.100	904.000	548.000	676.000	280.000	425.000	301.000	229.000
MERCURY	ppm	0.1	13.400	0.100	4.100	2.200	0.700	0.100	1.600	0.100	2.300	0.100	0.480	8.500	1.200	0.100	0.330
NICKEL	ppm	0.7	225.000	22.800	150.000	146.000	44.500	18.000	98.400	59.800	263.000	22.100	23.500	74.000	27.700	22.400	27.200
POTASSIUM	ppm	46.1	518.000	857.000	636.000	765.000	1150.000	1100.000	362.000	836.000	419.000	930.000	863.000	750.000	522.000	766.000	616.000
SELENIUM	ppm	0.1	0.320	0.190	5.400	1.200	0.250	0.190	0.640	1.000	0.560	0.160	0.330	0.480	0.210	0.120	0.480
SILVER	ppm	0.9	0.890	0.860	0.990	1.400	0.790	0.800	1.100	1.700	0.840	0.740	0.760	0.900	0.690	0.690	0.830
SODIUM	ppm	56.7	572.000	641.000	1810.000	303.000	440.000	356.000	166.000	318.000	319.000	388.000	185.000	210.000	237.000	196.000	364.000
THALLIUM	ppm	0.5	0.320	0.310	0.380	0.500	0.280	0.280	0.380	0.600	0.300	0.260	0.320	0.320	0.240	0.240	0.300
VANADIUM	ppm	0.6	128.000	33.300	55.800	100.000	43.200	25.800	122.000	72.400	88.400	29.100	19.400	28.800	26.300	20.700	43.700
ZINC	ppm	0.3	2030.000	64.200	860.000	516.000	173.000	118.000	1420.000	196.000	38000	52.800	397.000	331.000	405.000	236.000	398.000
CYANIDE	ppm	1.0	18.600	0.720	2.200	2.000	1.200	1.200	1.700	2.800	0.000	0.610	0.620	3.100	0.600	0.510	0.600
PCB DILUTION			1.44	1.36	1.66	2.04	1.23	1.22	1.72	2.78	1.28	1.19	1.21	1.29	1.14	1.07	1.16
AROCLOR-1242	ppm	0.500	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1248	ppm	0.500	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.000	U	U	1.800	U	U	U	U	U	U	U	U	U	U	U	U
SEMIVOL DILUTION			485.00	44.90	1150.00	68.00	2060.00	40.70	57.50	92.60	21100.00	39.30	39.90	21400.00	189.00	70.00	192.00
Phenol	ppm	10.000	0.190	U	0.760	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10.000	U	U	U	U	U	U	U	0.051	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10.000	U	U	0.560	U	U	U	U	U	U	U	U	U	U	U	0.044
1,4-Dichlorobenzene	ppm	10.000	0.320	U	6.100	0.260	U	U	U	U	U	U	U	U	0.049	U	0.520
Benzyl Alcohol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10.000	1.700	0.013	72.000	1.000	U	0.580	U	0.071	U	U	U	21.000	0.320	U	9.700
2-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	0.530	U	U	U	U	U	U	U
4-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	0.033	U	U	U	U
Nitrobenzene	ppm	10.000	0.490	U	3.200	0.650	U	U	U	U	U	U	0.045	40.000	0.590	0.022	0.590
Isophorone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10.000	U	U	0.560	U	U	0.035	U	2.100	U	U	0.023	U	0.120	U	U

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

		FIELDID:	WT31-1A	WT31-2A	WT31-3A	WT3-1A	WT3-2A	WT3-2B	WT3-3A	WT3-5A	WT4-1A	WT4-2A	WT4-4A	WT4-5A	WT4-6A	WT5-1A	WT5-2A
		LOCATION:	W-3	W-3	W-3	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-3	W-3
		DATE:	29-Sep	29-Sep	29-Sep	04-Oct	04-Oct	04-Oct	04-Oct	04-Oct	27-Sep	27-Sep	27-Sep	27-Sep	27-Sep	28-Sep	29-Sep
		DEPTH:	2.5-4.5	6-8	3-5	2-4	6.0-7.5	11-13	3-5	9-11	4-5	5-7	3-5	5-7	2-4	2-4	3.5-5.5
	units	HNU_PPM:	2	1	290	0	0	0	0	0	12	0	0	340	62	0	10
SEMIVOL		MDL															
Benzoic Acid	ppm	50.000	U	0.074	U	0.450	U	U	U	U	U	0.048	0.180	U	U	0.250	U
1,2,4-Trichlorobenzene	ppm	10.000	0.830	U	U	0.490	U	U	U	U	U	U	0.110	U	U	U	U
Naphthalene	ppm	10.000	44.000	0.067	99.000	6.500	22.000	5.500	3.000	3.400	510.000	0.990	1.700	2800.000	13.000	0.120	22.000
4-Chloroanaline	ppm	10.000	0.290	U	U	U	U	0.044	0.140	45.000	U	U	U	U	U	U	0.270
4-Chloro-3-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10.000	1.400	U	9.500	0.580	U	0.100	0.390	U	68.000	0.150	0.220	300.000	2.800	0.044	0.740
2-Chloronaphthalene	ppm	10.000	U	U	0.330	U	U	U	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10.000	U	U	U	0.068	U	U	0.042	U	U	0.009	0.046	13.000	0.160	0.530	0.340
2,6-Dinitrotoluene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10.000	U	U	U	0.320	U	0.032	0.180	U	33.000	0.087	0.150	76.000	1.300	0.027	1.100
4-Nitrophenol	ppm	50.000	U	U	U	U	U	U	U	U	U	U	0.220	U	U	U	U
Dibenzofuran	ppm	10.000	U	U	3.200	0.300	U	U	0.170	U	28.000	0.080	U	67.000	U	0.040	2.100
Diethyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	0.011	U	U	U	0.010	U
Flourene	ppm	10.000	9.000	U	80.000	0.160	U	0.027	0.110	U	24.000	0.074	0.300	56.000	1.200	0.053	2.600
4-Nitroanaline	ppm	50.000	13.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10.000	15.000	0.130	23.000	1.200	6.600	0.400	1.400	1.300	4.600	U	0.130	9.700	U	0.052	1.200
Hexachlorobenzene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Pentachlorophenol	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10.000	U	U	8.500	0.790	U	0.033	0.500	0.062	49.000	0.150	0.660	56.000	2.100	0.190	5.600
Anthracene	ppm	10.000	0.190	U	U	0.270	U	U	0.170	0.020	20.000	0.062	0.370	34.000	0.980	0.330	2.400
di-n-Butyl Phthalate	ppm	10.000	U	0.028	U	U	U	U	U	U	U	0.044	0.049	6.100	0.090	0.038	0.047
Flouranthene	ppm	10.000	0.830	0.005	3.700	0.430	U	U	0.180	U	14.000	0.059	0.520	11.000	1.700	1.300	3.300
Pyrene	ppm	10.000	0.430	0.006	2.000	1.000	U	U	0.560	U	8.500	0.040	0.660	6.700	2.000	1.300	2.800
Butyl Benzyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10.000	U	U	U	11.000	19.000	U	0.440	U	U	U	2.900	U	7.400	1.800	2.000
Chrysene	ppm	10.000	U	U	1.000	0.690	U	U	0.220	U	U	U	0.200	U	0.580	1.500	1.600
bis(2-Ethylhexyl)Phthalate	ppm	10.000	U	0.100	U	U	U	U	0.330	U	4.400	0.400	0.410	7.900	0.590	0.098	0.150
di-n-OctylPhthalate	ppm	10.000	U	0.023	U	U	U	U	U	U	U	0.010	0.310	U	U	0.038	U
Benzo(b)flouranthene	ppm	10.000	0.800	0.017	1.700	0.920	U	U	U	U	U	0.027	0.310	2.700	U	3.700	1.200
Benzo(k)flouranthene	ppm	10.000	U	U	U	U	U	U	U	U	1.400	U	0.360	1.400	2.100	0.580	0.330
Benzo(a)pyrene	ppm	10.000	0.170	0.015	0.510	U	U	U	U	U	U	U	U	2.300	U	1.500	1.000
Indeno(1,2,3,c,d)pyrene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	0.180	0.210
Dibenzo(a,h)anthracene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	0.088	U
Benzo(g,h,i)perylene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	0.098	0.150
VOLATILE DILUTION			1.35	1.35	2084.00	2.04	6.15	1.23	1.72	2.78	0.00	1.12	1.24	4200.00	139.00	1.09	1.45
Methylene Chloride	ppm	5.000	0.011	0.006	U	0.009	0.062	0.015	0.011	0.031	0.730	U	0.005	4.800	U	U	0.010
Acetone	ppm	10.000	0.029	0.016	U	0.027	0.160	0.083	0.064	0.110	U	0.046	0.180	U	U	0.034	0.016
Carbon Disulfide	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 8
\\\\\\\\\\
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

	units	FIELDID:	WT31-1A	WT31-2A	WT31-3A	WT3-1A	WT3-2A	WT3-2B	WT3-3A	WT3-5A	WT4-1A	WT4-2A	WT4-4A	WT4-5A	WT4-6A	WT5-1A	WT5-2A
		LOCATION:	W-3	W-3	W-3	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-2	W-3	W-3
		DATE:	29-Sep	29-Sep	29-Sep	04-Oct	04-Oct	04-Oct	04-Oct	04-Oct	27-Sep	27-Sep	27-Sep	27-Sep	27-Sep	28-Sep	29-Sep
		DEPTH:	2.5-4.5	6-8	3-5	2-4	6.0-7.5	11-13	3-5	9-11	4-5	5-7	3-5	5-7	2-4	2-4	3.5-5.5
	units	HNU_PPM:	2	1	290	0	0	0	0	0	12	0	0	340	62	0	10
VOLATILE		MDL															
Dibromochloromethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	ppm	5.000	U	U	U	U	0.046	0.044	U	U	U	U	U	U	U	U	U
Benzene	ppm	5.000	0.025	U	200.000	0.008	U	U	0.025	0.040	0.490	U	U	220.000	U	U	U
Bromoform	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10.000	U	U	U	U	0.037	0.016	0.009	0.067	U	U	0.013	U	U	0.005	U
2-Hexanone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5.000	0.009	U	57.000	U	U	0.005	0.006	0.013	2.200	U	U	610.000	0.120	U	U
Chlorobenzene	ppm	5.000	U	U	3.800	U	U	0.092	U	0.043	3.200	U	U	740.000	U	U	0.058
Ethylbenzene	ppm	5.000	U	U	10.000	U	U	0.009	U	U	1.700	U	U	170.000	U	U	U
Styrene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5.000	U	U	89.000	U	U	0.023	U	U	14.000	U	U	1290.000	0.140	U	U

TABLE 8
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

	units	FIELDID:	WT5-3A	WT5-4A	WT5-5A	WT6-1A	WT6-2A	WT6-3A	WT6-4A	WT6-5A	WT7-1A	WT7-2A	WT7-3A	WT7-4A	WT7-5A	WT8-2A	WT8-3A
		LOCATION:	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-4	W-4
		DATE:	29-Sep	29-Sep	29-Sep	28-Sep	28-Sep	28-Sep	28-Sep	28-Sep	27-Sep	27-Sep	28-Sep	28-Sep	28-Sep	11-Oct	11-Oct
		DEPTH:	6-8	1-2	10-11	2-4	5-6	7-9	9-10	3-5	2-4	4-5	7-9	2-4	5-7	11.0-13.5	2-4
		HNU_PPM:	0	0	0	2	0	4	0	19	0	0	0	80	6	6	30
INORGANIC		MDL															
ALUMINUM	ppm	11.2	16300	1130	8990	13100	14100	18000	10700	6910	16800	6750	14400	2020	17600	13600	6500
ANTIMONY	ppm	2.6	4.600	3.900	4.100	4.200	4.500	4.500	4.000	4.000	4.100	3.900	4.300	7.500	4.900	5.200	6.400
ARSENIC	ppm	0.5	4.740	2.700	2.000	7.000	3.500	1.700	2.700	16.800	1.900	3.200	3.800	9.600	2.600	2.000	34.900
BARIUM	ppm	0.7	147.000	153.000	68.600	120.000	136.000	175.000	162.000	102.000	170.000	28.000	170.000	1910.000	195.000	182.000	115.000
BERYLLIUM	ppm	0.2	1.200	0.320	0.660	0.790	0.730	0.460	0.330	0.330	0.710	0.490	1.600	0.620	1.000	1.300	0.810
CADMIUM	ppm	0.2	0.310	0.260	0.280	0.420	0.300	0.300	0.270	0.510	0.280	0.260	0.420	224.000	0.330	0.350	0.870
CALCIUM	ppm	2.3	1460.000	304.000	1170.000	2470.000	826.000	917.000	1710.000	1710.000	1610.000	539.000	1860.000	23700	2990.000	2020.000	4350.000
CHROMIUM	ppm	0.8	25	16	21	1290	23	30	24	320	28	21	34	182	28	29	189
COBALT	ppm	0.7	12.400	0.760	6.100	13.400	11.300	7.600	10.500	9.000	11.100	6.600	10.500	10.300	13.100	4.800	5.000
COPPER	ppm	0.4	21	20	10	125	18	6	11	521	9	14	12	381	19	25	342
IRON	ppm	5.3	21800	4500	19700	28100	18800	18300	23500	30300	23300	12000	52500	50900	20400	11000	23400
LEAD	ppm	0.2	20.800	67.500	4.800	80.400	16.800	16.700	11.400	267.000	12.800	7.300	17.000	250.000	17.100	15.100	185.000
MAGNESIUM	ppm	3.3	4370	279	3040	3900	3730	2940	3570	3100	3360	2900	2900	2270	4290	2820	758
MANGANESE	ppm	0.2	860.000	21.800	471.000	512.000	568.000	383.000	881.000	300.000	291.000	81.700	771.000	453.000	251.000	371.000	213.000
MERCURY	ppm	0.1	0.100	0.180	0.100	4.400	0.100	0.100	0.100	5.400	0.100	0.100	0.100	1.000	0.100	0.100	29.700
NICKEL	ppm	0.7	20.800	2.400	16.100	28.200	20.400	16.400	16.900	29.500	16.800	16.500	17.300	142.000	23.300	14.600	43.500
POTASSIUM	ppm	46.1	907.000	626.000	702.000	756.000	671.000	505.000	341.000	672.000	393.000	682.000	360.000	349.000	927.000	750.000	272.000
SELENIUM	ppm	0.1	0.110	0.090	0.100	0.260	0.220	0.390	0.170	0.480	0.290	0.090	0.260	14.900	0.420	0.410	6.200
SILVER	ppm	0.9	0.860	0.740	0.780	0.800	0.840	0.850	0.750	0.760	0.780	0.720	0.810	1.400	0.920	0.970	1.200
SODIUM	ppm	56.7	341.000	269.000	179.000	218.000	1910.000	287.000	192.000	291.000	226.000	114.000	403.000	716.000	611.000	182.000	294.000
THALLIUM	ppm	0.5	0.310	0.260	0.280	0.280	0.300	0.300	0.270	0.270	0.520	0.250	0.290	0.500	0.330	0.340	1.500
VANADIUM	ppm	0.6	34.200	6.200	32.700	53.800	28.800	38.800	37.800	25.400	39.800	11.800	86.200	29.100	36.400	33.600	35.900
ZINC	ppm	0.3	63.600	13.100	45.700	919.000	121.000	43.000	44.400	2110.000	41.900	58.200	44.400	4450.000	89.900	38.600	199.000
CYANIDE	ppm	1.0	0.690	1.100	0.600	0.940	0.660	0.690	0.600	1.400	0.600	0.580	0.660	1.100	0.720	1.500	2.000
PCB DILUTION			1.35	1.11	1.20	1.19	1.31	1.35	1.16	1.20	1.23	1.14	1.26	2.08	1.42	1.52	1.96
AROCLOR-1242	ppm	0.500	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1248	ppm	0.500	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
AROCLOR-1254	ppm	1.000	U	U	U	U	U	U	U	0.910	U	U	U	2.900	U	U	U
SEMIVOL DILUTION			44.50	36.60	39.90	1960.00	41.20	44.50	38.30	393.00	37.60	37.60	41.60	13700.00	46.90	50.50	65.40
Phenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10.000	U	U	U	U	U	U	U	0.150	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10.000	U	U	U	U	U	U	U	1.500	U	U	U	U	U	U	0.210
Benzyl Alcohol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	3.300	U
1,2-Dichlorobenzene	ppm	10.000	U	0.030	U	U	U	U	U	28.000	0.025	U	U	U	0.080	0.110	1.300
2-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	0.017	U	0.220
4-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.730
Nitrobenzene	ppm	10.000	U	U	U	U	U	U	U	0.490	0.083	U	U	3.600	U	U	0.250
Isophorone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	0.016	U	0.660

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

	units	FIELDID:	WT5-3A	WT5-4A	WT5-5A	WT6-1A	WT6-2A	WT6-3A	WT6-4A	WT6-5A	WT7-1A	WT7-2A	WT7-3A	WT7-4A	WT7-5A	WT8-2A	WT8-3A
		LOCATION:	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-4	W-4
		DATE:	29-Sep	29-Sep	29-Sep	28-Sep	28-Sep	28-Sep	28-Sep	28-Sep	27-Sep	27-Sep	28-Sep	28-Sep	28-Sep	11-Oct	11-Oct
		DEPTH:	6-8	1-2	10-11	2-4	5-6	7-9	9-10	3-5	2-4	4-5	7-9	2-4	5-7	11.0-13.5	2-4
		HNU_PPM:	0	0	0	2	0	4	0	19	0	0	0	80	6	6	30
SEMIVOL		MDL															
Benzoic Acid	ppm	50.000	0.060	0.130	U	U	U	0.096	U	U	0.063	U	U	U	0.120	5.700	U
1,2,4-Trichlorobenzene	ppm	10.000	U	0.260	U	U	U	U	U	0.450	U	U	U	U	0.027	U	0.078
Naphthalene	ppm	10.000	0.250	0.060	U	240.000	1.300	0.260	0.018	8.800	3.200	0.041	0.010	1500.000	0.840	U	U
4-Chloroanaline	ppm	10.000	U	U	U	U	U	U	U	0.710	U	U	U	U	U	U	U
4-Chloro-3-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10.000	U	0.024	U	2.100	0.016	0.016	U	1.900	0.600	U	U	14.000	0.022	2.400	2.200
2-Chloronaphthalene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	0.009	U	U
Dimethyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10.000	U	0.044	U	U	U	U	U	0.240	0.032	U	U	U	U	U	0.210
2,6-Dinitrotoluene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10.000	U	0.071	U	3.100	U	U	U	0.810	0.190	U	U	12.000	0.074	U	5.400
4-Nitrophenol	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10.000	U	U	U	2.200	U	U	U	0.710	0.180	U	U	7.000	0.023	U	2.100
Diethyl Phthalate	ppm	10.000	0.007	0.008	U	U	U	0.007	0.007	U	U	0.061	0.009	U	0.008	U	U
Flourene	ppm	10.000	U	U	U	2.500	U	0.010	U	1.300	0.160	U	U	5.400	U	0.320	U
4-Nitroanaline	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10.000	U	U	U	U	U	U	0.031	4.300	0.026	U	U	36.000	0.170	0.910	13.000
Hexachlorobenzene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Pentachlorophenol	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10.000	0.009	0.160	U	4.200	0.010	0.040	U	4.900	0.180	0.030	U	7.700	0.018	0.790	3.800
Anthracene	ppm	10.000	U	0.079	U	1.400	U	0.012	U	1.100	0.100	0.007	U	U	U	0.098	U
di-n-Butyl Phthalate	ppm	10.000	0.028	U	0.018	0.670	0.032	0.035	0.027	0.150	0.062	0.032	0.039	4.000	0.026	U	U
Flouranthene	ppm	10.000	0.010	0.550	U	2.000	0.011	0.035	U	3.000	0.053	0.052	U	2.600	0.011	U	1.400
Pyrene	ppm	10.000	0.009	0.570	U	1.400	0.012	0.028	U	2.300	0.047	0.045	U	2.100	0.012	U	1.800
Butyl Benzyl Phthalate	ppm	10.000	U	U	U	U	U	0.007	0.005	U	0.011	U	U	U	0.006	U	U
Benzo(a)anthracene	ppm	10.000	U	0.320	U	U	U	U	U	U	U	U	U	U	U	U	1.800
Chrysene	ppm	10.000	U	0.310	U	0.810	U	0.017	U	1.200	0.022	0.028	U	U	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10.000	0.093	0.150	0.068	0.620	0.096	0.091	0.067	0.290	0.350	0.130	0.087	9.400	0.079	U	U
di-n-OctylPhthalate	ppm	10.000	0.021	0.028	0.016	U	0.008	0.005	0.022	U	0.016	0.011	0.011	U	0.015	U	U
Benzo(b)flouranthene	ppm	10.000	0.018	0.650	U	0.500	0.025	0.011	U	1.700	0.025	0.017	U	U	U	U	0.510
Benzo(k)flouranthene	ppm	10.000	U	0.067	U	0.410	0.006	U	U	0.220	U	U	U	U	0.027	U	0.590
Benzo(a)pyrene	ppm	10.000	U	0.300	U	U	0.019	0.018	U	U	U	0.026	U	U	U	U	0.610
Indeno(1,2,3,c,d)pyrene	ppm	10.000	U	0.110	U	U	U	U	U	0.200	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10.000	U	0.045	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10.000	U	0.087	U	U	U	U	U	U	U	U	U	U	U	U	U
VOLATILE DILUTION			1.35	1.18	1.20	1.22	1.33	1.35	1.19	166.00	1.28	1.28	1.27	284.00	1.45	1.52	245.00
Methylene Chloride	ppm	5.000	0.008	0.007	0.007	0.015	0.010	0.006	0.005	U	0.010	0.009	0.010	U	0.006	0.006	1.300
Acetone	ppm	10.000	0.019	0.025	0.016	0.150	0.096	0.110	0.031	U	0.099	0.064	0.083	U	0.330	0.033	0.920
Carbon Disulfide	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	0.370	U	U	U
Chloroform	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10.000	U	U	U	U	U	U	U	0.200	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

		FIELDID:	WT5-3A	WT5-4A	WT5-5A	WT6-1A	WT6-2A	WT6-3A	WT6-4A	WT6-5A	WT7-1A	WT7-2A	WT7-3A	WT7-4A	WT7-5A	WT8-2A	WT8-3A
		LOCATION:	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-3	W-4	W-4
		DATE:	29-Sep	29-Sep	29-Sep	28-Sep	28-Sep	28-Sep	28-Sep	28-Sep	27-Sep	27-Sep	28-Sep	28-Sep	28-Sep	11-Oct	11-Oct
		DEPTH:	6-8	1-2	10-11	2-4	5-6	7-9	9-10	3-5	2-4	4-5	7-9	2-4	5-7	11.0-13.5	2-4
	units	HNU_PPM:	0	0	0	2	0	4	0	19	0	0	0	80	6	6	30
VOLATILE																	
		MDL															
Dibromochloromethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5.000	U	U	U	U	U	U	U	0.260	U	U	U	U	0.008	U	0.710
Bromoform	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
4-Methyl-2-Pentanone	ppm	10.000	0.005	0.006	U	0.008	U	U	U	U	0.005	0.010	U	U	0.005	0.012	U
2-Hexanone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5.000	U	U	U	0.008	U	U	U	U	0.005	U	U	U	0.007	U	0.270
Chlorobenzene	ppm	5.000	U	U	U	0.013	0.009	0.140	U	14.000	0.008	U	U	28.000	0.054	U	10.000
Ethylbenzene	ppm	5.000	U	U	U	U	U	U	U	0.250	U	U	U	0.640	0.006	U	0.310
Styrene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5.000	U	U	U	0.009	U	U	U	0.380	U	U	U	0.460	U	U	0.510

TABLE 8
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

		FIELDID:	WT8-4A	WT8-5A	WT8-6A	WT9-1A	WT9-2A	WT9-4A	WT9-5A	WT9-6A	PBMW-4A	PBMW-4B	PBMW-9A	PBMW-9B	PBMW-10A	PBMW-29A	PBMW-29B
		LOCATION:	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-2	W-2	W-4	W-4	W-4	W-6	W-6
		DATE:	11-Oct	12-Oct	12-Oct	04-Oct	09-Oct	09-Oct	09-Oct	09-Oct	21-Sep	21-Sep	20-Sep	20-Sep	18-Sep	12-Sep	12-Sep
		DEPTH:	4-6	6-8	2-4	10-12	6-8	4-6	7.5-9.5	2-4	2-4	15-17	2-4	4-6	1-3	2-4	4-6
	units	HNU_PPM:	20	500	60	0	30	360	600	60	0	0	100	80	0	0	2
INORGANIC		MDL															
ALUMINUM	ppm	11.2	42100	12300	7320	3850	3140	2930	236	4430	12900	10700	3510	756	3040	17400	17900
ANTIMONY	ppm	2.6	9.800	10.900	4.500	4.400	4.300	6.100	5.600	4.800	3.900	3.800	4.000	5.600	4.200	2.800	3.400
ARSENIC	ppm	0.5	102.000	153.000	32.000	39.900	9.800	66.800	22.700	49.100	2.000	3.200	40.800	25.100	3.600	1.300	2.500
BARIUM	ppm	0.7	988.000	650.000	676.000	1540.000	510.000	9060.000	58.500	3610.000	78.300	101.000	493.000	80.000	55.500	150.000	134.000
BERYLLIUM	ppm	0.2	3.000	3.600	1.200	1.800	0.350	0.500	0.460	0.390	0.670	0.910	0.330	0.890	0.350	0.460	0.370
CADMIUM	ppm	0.2	6.400	47.000	5.900	1.300	0.730	3.300	0.380	1.100	0.260	0.260	0.660	2.400	0.440	0.250	0.310
CALCIUM	ppm	2.3	6480.000	9170.000	11300	10000	1710	11000	2270	10400	987	886	20400	5670	991	2590	1360
CHROMIUM	ppm	0.8	1880	1030	270	1160	1740	1220	15	714	21	38	732	390	29	51	27
COBALT	ppm	0.7	13.400	15.400	13.500	26.400	12.000	44.400	1.100	30.100	13.900	14.300	22.400	7.500	4.500	19.400	11.600
COPPER	ppm	0.4	1790	1380	1380	2420	2730	4270	76	3250	17	20	1830	306	24	82	17
IRON	ppm	5.3	77600	85500	85200	284000	93900	384000	5000	278000	18600	23000	266000	80800	5230	27100	20400
LEAD	ppm	0.2	1140.000	1200.000	1740.000	256.000	475.000	1800.000	436.000	1040.000	14.000	16.800	380.000	91.500	7.000	19.500	16.000
MAGNESIUM	ppm	3.3	6660	2920	4920	1780	822	2140	570	1100	5860	4290	1800	442	210	13000	4170
MANGANESE	ppm	0.2	561.000	603.000	807.000	1850.000	597.000	3220.000	78.300	2040.000	816.000	285.000	1760.000	759.000	107.000	443.000	652.000
MERCURY	ppm	0.1	137.000	4.500	93.900	5.400	0.490	4.400	0.350	0.980	0.100	0.100	3.000	0.310	0.100	0.100	0.100
NICKEL	ppm	0.7	119.000	144.000	194.000	263.000	105.000	333.000	5.700	253.000	25.200	19.800	223.000	70.900	10.900	47.700	19.300
POTASSIUM	ppm	46.1	642.000	862.000	502.000	812.000	452.000	363.000	325.000	540.000	1510.000	1470.000	272.000	362.000	427.000	3870.000	796.000
SELENIUM	ppm	0.1	0.880	14.300	0.950	1.300	0.410	1.200	32.300	1.200	0.130	0.120	0.130	2.500	1.300	0.110	0.140
SILVER	ppm	0.9	1.800	4.200	1.400	4.200	0.800	1.100	1.100	0.900	0.730	0.720	1.300	1.000	0.800	1.000	1.200
SODIUM	ppm	56.7	1270.000	5090.000	694.000	8290.000	388.000	458.000	12500	457.000	156.000	110.000	6170.000	5810.000	151.000	246.000	318.000
THALLIUM.	ppm	0.5	0.660	0.730	0.300	0.300	0.280	0.410	0.380	0.320	0.380	0.370	0.390	0.540	0.410	0.570	0.690
VANADIUM	ppm	0.6	50.600	165.000	45.200	108.000	38.900	190.000	1.400	137.000	23.000	38.400	125.000	271.000	45.500	34.100	33.000
ZINC	ppm	0.3	3340.000	2160.000	2730.000	14300	446.000	3330.000	37.000	1630.000	137.000	203.000	269.000	61.600	32.300	131.000	59.000
CYANIDE	ppm	1.0	26.500	1.900	3.400	37.000	1.700	31.500	1.700	3.600	1.200	1.200	1.900	1.300	1.100	1.100	1.300
PCB DILUTION			150.00	1.92	67.00	12.80	1.39	1.43	1.69	1.37	1.15	1.15	1.32	19.70	1.14	1.03	1.33
AROCLOR-1242	ppm	0.500	U	U	U	U	5.600	U	U	U	U	U	U	U	U	U	U
AROCLOR-1248	ppm	0.500	U	U	U	120.000	5.600	U	U	U	U	U	4.900	U	U	U	U
AROCLOR-1254	ppm	1.000	U	U	U	33.000	U	U	U	U	U	U	5.400	U	U	U	U
SEMIVOL DILUTION			1960.00	1280.00	44.40	4270.00	232.00	47.60	2830.00	1140.00	38.30	38.30	2350.00	2630.00	37.90	36.20	44.40
Phenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10.000	U	U	U	U	U	0.026	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10.000	U	6.300	0.160	U	U	0.620	2.800	U	U	U	U	2.600	U	U	U
1,4-Dichlorobenzene	ppm	10.000	U	68.000	1.800	10.000	1.500	0.750	28.000	0.660	U	U	U	30.000	U	U	U
Benzyl Alcohol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10.000	12.000	740.000	6.100	140.000	17.000	36.000	260.000	23.000	U	U	16.000	130.000	U	U	U
2-Methylphenol	ppm	10.000	U	U	0.700	U	U	0.097	U	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10.000	U	U	1.300	U	U	U	U	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10.000	1300.000	U	7.800	260.000	1.200	0.340	U	50.000	U	U	41.000	U	U	U	U
Isophorone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10.000	8.600	0.980	3.800	U	U	0.750	U	U	U	U	U	U	U	U	U

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

	units	MDL														
FIELDID:			WT8-4A	WT8-5A	WT8-6A	WT9-1A	WT9-2A	WT9-4A	WT9-5A	WT9-6A	PBMW-4A	PBMW-4B	PBMW-9A	PBMW-9B	PBMW-10A	PBMW-29A	PBMW-29B
LOCATION:			W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-2	W-2	W-4	W-4	W-4	W-6	W-6
DATE:			11-Oct	12-Oct	12-Oct	04-Oct	09-Oct	09-Oct	09-Oct	09-Oct	21-Sep	21-Sep	20-Sep	20-Sep	18-Sep	12-Sep	12-Sep
DEPTH:			4-6	6-8	2-4	10-12	6-8	4-6	7.5-9.5	2-4	2-4	15-17	2-4	4-6	1-3	2-4	4-6
HNU_PPM:			20	500	60	0	30	360	600	60	0	0	100	80	0	0	2
SEMIVOL																	
Benzoic Acid	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10.000	U	U	U	U	U	2.300	U	1.200	U	U	U	U	U	U	U
Naphthalene	ppm	10.000	160.000	620.000	U	200.000	24.000	38.000	230.000	14.000	0.019	U	10.000	210.000	0.042	0.007	U
4-Chloroanaline	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	11.000	U	U	U
4-Chloro-3-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10.000	180.000	62.000	28.000	12.000	1.400	0.830	8.100	1.500	U	U	U	27.000	U	U	U
2-Chloronaphthalene	ppm	10.000	U	U	0.340	U	U	0.190	U	1.000	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10.000	U	U	U	U	U	0.097	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10.000	U	U	0.360	U	U	U	U	U	U	U	U	U	U	U	U
2,6-Dinitrotoluene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10.000	66.000	U	7.400	U	U	U	U	3.700	U	U	U	U	U	U	U
4-Nitrophenol	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10.000	44.000	10.000	5.800	U	U	U	U	3.200	U	U	U	1.800	U	U	U
Diethyl Phthalate	ppm	10.000	U	U	0.076	U	U	0.510	U	U	U	U	U	U	U	0.017	U
Flourene	ppm	10.000	43.000	U	4.600	U	U	U	U	U	U	U	U	U	U	U	U
4-Nitroanaline	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10.000	390.000	31.000	66.000	U	5.100	28.000	U	41.000	U	U	56.000	380.000	U	U	U
Hexachlorobenzene	ppm	10.000	U	U	U	U	U	0.160	U	U	U	U	U	U	U	U	U
Pentachlorophenol	ppm	50.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10.000	53.000	U	12.000	U	U	0.450	U	6.700	U	U	U	U	U	U	U
Anthracene	ppm	10.000	16.000	U	2.600	U	U	0.140	U	1.200	U	U	U	U	U	U	U
di-n-Butyl Phthalate	ppm	10.000	U	U	0.130	U	U	0.110	U	U	U	U	U	U	U	U	U
Flouranthene	ppm	10.000	10.000	U	5.600	U	U	U	U	1.800	U	U	U	U	U	U	U
Pyrene	ppm	10.000	23.000	U	4.500	U	U	0.790	U	4.400	U	U	U	U	U	0.029	U
Butyl Benzyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10.000	U	U	3.400	U	U	U	U	U	U	U	U	U	U	U	U
Chrysene	ppm	10.000	2.300	U	U	U	U	U	U	U	U	U	U	U	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10.000	U	U	1.200	U	U	0.920	U	U	U	U	5.300	9.700	0.067	0.330	U
di-n-OctylPhthalate	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10.000	5.000	U	1.100	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(k)flouranthene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)pyrene	ppm	10.000	U	U	0.970	U	U	U	U	U	U	U	U	U	U	U	U
Indeno(1,2,3,c,d)pyrene	ppm	10.000	U	U	0.770	U	U	U	U	U	U	U	U	U	U	U	U
Dibenzo(a,h)anthracene	ppm	10.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10.000	U	U	0.910	U	U	U	U	U	U	U	U	U	U	U	U
VOLATILE DILUTION			738.00	9600.00	166.00	16000.00	174.00	1790.00	21100.00	685.00	1.15	1.15	148.00	3300.00	1.14	1.09	1.33
Methylene Chloride	ppm	5.000	3.300	28.000	0.590	U	U	U	U	U	0.006	0.006	0.285	45.000	0.007	U	U
Acetone	ppm	10.000	U	U	U	U	U	U	U	U	0.046	0.170	2.700	U	0.021	0.011	0.043
Carbon Disulfide	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5.000	3.400	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10.000	U	U	0.074	U	U	U	U	U	U	U	0.940	U	U	U	U
1,1,1-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.007
1,2-Dichloropropane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	0.220	U	U	U	U
cis-1,3-Dichloropropene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	0.120	U	U	U	U
Trichloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	0.230	U	U	U	U

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

		FIELDID:	WT8-4A	WT8-5A	WT8-6A	WT9-1A	WT9-2A	WT9-4A	WT9-5A	WT9-6A	PBMW-4A	PBMW-4B	PBMW-9A	PBMW-9B	PBMW-10A	PBMW-29A	PBMW-29B
		LOCATION:	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-4	W-2	W-2	W-4	W-4	W-4	W-6	W-6
		DATE:	11-Oct	12-Oct	12-Oct	04-Oct	09-Oct	09-Oct	09-Oct	09-Oct	21-Sep	21-Sep	20-Sep	20-Sep	18-Sep	12-Sep	12-Sep
		DEPTH:	4-6	6-8	2-4	10-12	6-8	4-6	7.5-9.5	2-4	2-4	15-17	2-4	4-6	1-3	2-4	4-6
	units	HNU_PPM:	20	500	60	0	30	360	600	60	0	0	100	80	0	0	2
VOLATILE		MDL															
Dibromochloromethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	0.200	U	U	U	U
1,1,2-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	0.360	U	U	U	U
Benzene	ppm	5.000	42.000	660.000	1.400	2500.000	U	13.000	270.000	2.000	U	U	9.200	190.000	0.020	U	U
Bromoform	ppm	5.000	U	U	U	U	U	U	U	U	U	U	0.320	0.310	U	U	U
4-Methyl-2-Pentanone	ppm	10.000	U	U	U	U	U	U	U	U	0.008	0.009	1.100	0.650	U	U	0.010
2-Hexanone	ppm	10.000	U	U	U	U	U	U	U	U	U	U	0.710	U	U	U	U
Tetrachloroethylene	ppm	5.000	U	U	U	U	U	U	U	1.700	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U	U	0.470	U	U	U	U
Toluene	ppm	5.000	24.000	130.000	1.200	730.000	U	8.100	410.000	3.800	U	U	7.600	33.000	0.015	U	U
Chlorobenzene	ppm	5.000	110.000	56.000	27.000	33.000	0.570	38.000	U	U	U	U	9.300	29.000	U	U	U
Ethylbenzene	ppm	5.000	1.300	41.000	U	25.000	0.220	54.000	U	1.600	U	U	0.690	U	U	U	U
Styrene	ppm	5.000	U	U	U	U	U	U	U	U	U	U	U	5.300	U	U	U
Total Xylenes	ppm	5.000	11.000	35.000	2.600	740.000	1.300	880.000	260.000	16.000	U	U	3.900	25.000	U	U	U

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

	units	FIELDID:	WBMW-1B	WBMW-2A	WBMW-5A	WBMW-6A	WBMW-7A	WBMW-8A	WBMW-12A	WBMW-12B	PBMW-13A
		LOCATION:	W-1	W-1	W-2	W-2	W-3	W-4	W-5	W-5	W-6
		DATE:	25-Sep	26-Sep	28-Sep	27-Sep	03-Oct	29-Sep	25-Sep	25-Sep	15-Sep
		DEPTH:	4-6	2-4	1-3	1-2	1-3	2-4	4-6	6-8	2.5-3.5
	units	HNU_PPM:	100	0	0	0	0	0	5	0	0
INORGANIC		MDL									
ALUMINUM	ppm	11.2	1340	4320	9680	10100	15300	4740	10800	12600	9540
ANTIMONY	ppm	2.6	3.800	4.600	3.800	3.600	4.600	5.500	3.800	4.200	3.800
ARSENIC	ppm	0.5	11.400	8.000	6.100	7.200	16.300	28.300	6.000	8.400	5.500
BARIUM	ppm	0.7	162.000	175.000	109.000	66.700	114.000	197.000	65.200	98.000	69.100
BERYLLIUM	ppm	0.2	0.310	0.820	0.310	0.340	1.400	0.350	0.680	0.890	0.320
CADMIUM	ppm	0.2	0.370	4.200	0.540	1.800	0.490	3.700	0.260	0.290	0.470
CALCIUM	ppm	2.3	2680	11200	961	3060	4180	2260	2910	1630	597
CHROMIUM	ppm	0.8	51	125	58	258	56	307	34	62	37
COBALT	ppm	0.7	2.300	5.000	9.600	13.200	13.800	22.100	9.400	9.800	10.900
COPPER	ppm	0.4	176	506	464	569	254	2480	53	59	63
IRON	ppm	5.3	14300	19000	20200	35100	33800	244000	17100	19700	32800
LEAD	ppm	0.2	303.000	471.000	0.740	620.000	178.000	313.000	30.500	39.900	17.700
MAGNESIUM	ppm	3.3	413	3500	3730	5780	3990	2570	5420	4080	4180
MANGANESE	ppm	0.2	79.500	274.000	544.000	500.000	483.000	1720.000	395.000	382.000	607.000
MERCURY	ppm	0.1	3.500	3.300	0.740	0.250	17.900	0.720	0.250	0.200	0.100
NICKEL	ppm	0.7	30.700	45.100	29.300	182.000	51.400	216.000	24.300	24.200	42.700
POTASSIUM	ppm	46.1	167.000	382.000	1030.000	731.000	719.000	496.000	842.000	789.000	1070.000
SELENIUM	ppm	0.1	0.460	0.210	0.110	0.080	0.400	0.140	0.250	0.270	0.120
SILVER	ppm	0.9	0.720	0.860	0.710	0.680	0.870	0.800	0.720	0.800	0.710
SODIUM	ppm	56.7	611.000	1190.000	273.000	242.000	248.000	275.000	718.000	810.000	138.000
THALLIUM	ppm	0.5	0.260	0.300	0.270	0.240	0.310	0.280	0.260	0.280	0.360
VANADIUM	ppm	0.6	5.400	14.900	22.600	33.100	35.400	58.000	25.600	29.000	27.900
ZINC	ppm	0.3	664.000	1270.000	360.000	247.000	317.000	1490.000	79.600	90.000	60.700
CYANIDE	ppm	1.0	5.700	4.300	0.600	0.000	1.900	68.500	0.580	0.670	1.100
PCB	DILUTION		1.33	1.15	11.11	5.43	1.32	1.23	1.11	1.33	1.11
AROCLOR-1242	ppm	0.500	U	U	U	U	U	U	U	U	U
AROCLOR-1248	ppm	0.500	U	U	U	1.600	U	U	U	U	U
AROCLOR-1254	ppm	1.000	U	U	U	6.400	U	0.600	U	U	U
SEMIVOL	DILUTION		4440.00	765.00	36.60	1790.00	43.90	203.00	37.00	44.30	37.00
Phenol	ppm	10.000	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10.000	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10.000	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10.000	U	U	U	U	0.033	0.120	U	U	U
Benzyl Alcohol	ppm	10.000	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10.000	U	U	0.077	U	0.590	0.340	U	U	U
2-Methylphenol	ppm	10.000	U	U	U	U	U	0.089	U	U	U
4-Methylphenol	ppm	10.000	U	U	U	U	U	0.190	U	U	U
Nitrobenzene	ppm	10.000	580.000	U	0.480	U	0.120	U	U	U	U
Isophorone	ppm	10.000	U	U	U	U	U	U	U	U	U
2-4-Dimethylphenol	ppm	10.000	U	U	U	U	U	0.300	U	U	U

TABLE 8
AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

	units	FIELDID:	WBMW-1B	WBMW-2A	WBMW-5A	WBMW-6A	WBMW-7A	WBMW-8A	WBMW-12A	WBMW-12B	PBMW-13A
		LOCATION:	W-1	W-1	W-2	W-2	W-3	W-4	W-5	W-5	W-6
		DATE:	25-Sep	26-Sep	28-Sep	27-Sep	03-Oct	29-Sep	25-Sep	25-Sep	15-Sep
		DEPTH:	4-6	2-4	1-3	1-2	1-3	2-4	4-6	6-8	2.5-3.5
	units	HNU_PPM:	100	0	0	0	0	0	5	0	0
SEMIVOL		MDL									
Benzoic Acid	ppm	50.000	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10.000	U	U	U	U	0.036	0.150	U	U	U
Naphthalene	ppm	10.000	400.000	9.700	1.100	1.300	0.860	5.500	5.100	0.040	0.023
4-Chloroanaline	ppm	10.000	U	U	0.056	U	U	0.220	U	U	U
4-Chloro-3-Methylphenol	ppm	10.000	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10.000	U	1.700	0.370	1.000	0.096	0.370	1.700	U	U
2-Chloronaphthalene	ppm	10.000	U	U	U	U	U	U	U	U	U
Dimethyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10.000	U	U	0.034	U	U	U	U	U	U
2,6-Dinitrotoluene	ppm	10.000	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10.000	U	U	0.090	11.000	0.150	0.170	1.400	U	U
4-Nitrophenol	ppm	50.000	U	U	U	U	U	U	U	U	U
Dibenzofuran	ppm	10.000	U	0.460	0.130	9.500	0.099	U	1.800	U	U
Diethyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U
Flourene	ppm	10.000	U	U	0.110	17.000	U	0.160	2.200	U	U
4-Nitroanaline	ppm	50.000	U	U	U	U	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10.000	170.000	60.000	0.380	U	0.400	0.480	U	U	0.075
Hexachlorobenzene	ppm	10.000	U	U	U	U	U	U	U	U	U
Pentachlorophenol	ppm	50.000	U	U	U	U	U	U	U	U	U
Phenanthrene	ppm	10.000	U	1.200	0.640	98.000	0.320	0.560	9.600	0.056	0.039
Anthracene	ppm	10.000	U	0.450	0.200	34.000	0.100	0.130	3.300	0.013	U
di-n-Butyl Phthalate	ppm	10.000	U	U	0.040	0.400	U	U	U	0.031	U
Flouranthene	ppm	10.000	U	0.520	0.700	98.000	0.110	0.510	6.400	0.060	U
Pyrene	ppm	10.000	U	U	0.810	71.000	0.550	0.330	5.800	0.026	U
Butyl Benzyl Phthalate	ppm	10.000	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10.000	U	7.300	0.700	37.000	0.400	U	3.600	U	U
Chrysene	ppm	10.000	U	U	0.340	36.000	0.130	U	3.500	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10.000	U	U	0.130	0.790	U	0.260	0.220	0.290	U
di-n-OctylPhthalate	ppm	10.000	U	U	0.097	U	U	U	U	U	U
Benzo(b)flouranthene	ppm	10.000	U	U	1.100	59.000	U	U	3.000	0.028	U
Benzo(k)flouranthene	ppm	10.000	U	U	0.160	6.900	U	0.093	2.400	U	U
Benzo(a)pyrene	ppm	10.000	U	U	0.370	32.000	U	U	3.200	0.028	U
Indeno(1,2,3,c,d)pyrene	ppm	10.000	U	U	U	9.100	U	U	1.200	U	U
Dibenzo(a,h)anthracene	ppm	10.000	U	U	U	3.800	U	U	U	U	U
Benzo(g,h,i)perylene	ppm	10.000	U	U	U	6.900	U	U	1.000	U	U
VOLATILE DILUTION			1405.00	179.00	1.14	1.11	1.16	136.00	1.14	13.20	5.55
Methylene Chloride	ppm	5.000	4.700	0.400	0.013	0.007	0.008	0.610	0.008	0.049	0.034
Acetone	ppm	10.000	5.300	U	0.040	0.030	0.098	U	0.047	1.300	0.310
Carbon Disulfide	ppm	5.000	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5.000	U	U	U	U	U	U	U	U	U
2-Butanone	ppm	10.000	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	ppm	5.000	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	ppm	5.000	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U

TABLE 8
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AMERICAN CYANAMID - BOUND BROOK FACILITY
SUBSURFACE SAMPLES IN WEST YARD

		FIELDID:	WBMW-1B	WBMW-2A	WBMW-5A	WBMW-6A	WBMW-7A	WBMW-8A	WBMW-12A	WBMW-12B	PBMW-13A
		LOCATION:	W-1	W-1	W-2	W-2	W-3	W-4	W-5	W-5	W-6
		DATE:	25-Sep	26-Sep	28-Sep	27-Sep	03-Oct	29-Sep	25-Sep	25-Sep	15-Sep
		DEPTH:	4-6	2-4	1-3	1-2	1-3	2-4	4-6	6-8	2.5-3.5
	units	HNU_PPM:	100	0	0	0	0	0	5	0	0
VOLATILE		MDL									
Dibromochloromethane	ppm	5.000	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U
Benzene	ppm	5.000	9.900	2.000	U	U	U	5.800	U	U	U
Bromoform	ppm	5.000	U	U	U	U	U	U	0.007	U	U
4-Methyl-2-Pentanone	ppm	10.000	U	U	U	0.007	0.005	U	U	U	U
2-Hexanone	ppm	10.000	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5.000	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ppm	5.000	U	U	U	U	U	U	U	U	U
Toluene	ppm	5.000	21.000	9.300	U	U	U	0.480	U	U	U
Chlorobenzene	ppm	5.000	210.000	3.900	U	U	0.045	0.350	0.062	U	U
Ethylbenzene	ppm	5.000	23.000	0.480	U	U	U	0.280	U	U	U
Styrene	ppm	5.000	U	U	U	U	U	U	U	U	U
Total Xylenes	ppm	5.000	38.000	4.000	U	U	U	1.600	0.015	U	U

TABLE 9

GROUND WATER SAMPLES FROM MONITORING WELLS

TABLE 9

AMERICAN CYANAMID - BOUND BROOK FACILITY

GROUND WATER SAMPLES

INORGANIC	units	MDL	MW-1A	MW-2	MW-3	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-12	MW-13	MW-15	MW-16	MW-17	MW-18A
ALUMINUM	ppm	11.2	0.660	2.480	1.360	1.300	0.942	0.708	0.260	0.379	0.200	9.310	2.800	0.557	0.820	0.200	2.920
ANTIMONY	ppm	2.6	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060
ARSENIC	ppm	0.5	0.011	0.021	0.010	0.010	0.010	0.120	0.010	0.013	0.010	0.017	0.010	0.010	0.010	0.048	0.010
BARIUM	ppm	0.7	0.042	0.072	0.054	0.062	0.046	0.042	0.118	0.116	0.937	0.343	0.070	0.102	0.042	0.416	0.158
BERYLLIUM	ppm	0.2	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
CADMIUM	ppm	0.2	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
CALCIUM	ppm	2.3	320.000	30.100	284.000	36.200	154.000	277.000	140.000	112.000	56.200	105.000	128.000	68.300	59.400	45.100	148.000
CHROMIUM	ppm	0.8	0.035	0.041	0.010	0.470	0.010	0.010	0.010	0.012	0.010	0.015	0.018	0.010	0.010	0.010	0.010
COBALT	ppm	0.7	0.009	0.012	0.008	0.005	0.013	0.007	0.011	0.010	0.005	0.011	0.028	0.005	0.007	0.005	0.008
COPPER	ppm	0.4	0.025	0.025	0.058	0.025	58.800	0.025	0.155	0.032	0.025	0.035	0.086	0.025	0.025	0.025	0.025
IRON	ppm	5.3	46.400	6.150	12.500	4.080	37.100	78.100	10.800	33.500	31.200	26.600	37.600	1.420	4.880	32.500	13.800
LEAD	ppm	0.2	0.005	0.008	0.005	0.005	0.008	0.005	0.005	0.006	0.005	0.010	0.010	0.013	0.005	0.005	0.005
MAGNESIUM	ppm	3.3	46.600	21.000	22.200	18.400	22.100	69.400	12.000	26.100	5.810	24.800	18.500	17.500	20.400	13.000	31.300
MANGANESE	ppm	0.2	3.870	0.304	1.840	0.575	2.940	10.700	1.860	1.720	0.475	6.000	10.200	1.070	0.564	7.870	7.210
NICKEL	ppm	0.7	0.040	0.097	0.040	0.040	0.268	0.040	0.510	0.040	0.040	0.040	0.134	0.040	0.040	0.040	0.040
POTASSIUM	ppm	46.1	28.300	57.700	12.800	12.600	7.130	5.910	4.720	62.700	4.750	3.370	7.190	12.300	2.900	6.750	21.800
SELENIUM	ppm	0.1	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.050	0.005
SILVER	ppm	0.9	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
SODIUM	ppm	56.7	643.000	1130.000	95.300	60.200	37.700	107.000	111.000	1230.000	12.200	333.000	67.200	25.100	21.700	83.500	153.000
THALLIUM	ppm	0.5	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
VANADIUM	ppm	0.6	0.086	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
ZINC	ppm	0.3	0.031	0.193	0.033	0.021	3.570	0.020	0.020	0.022	0.033	0.069	0.072	0.033	0.026	0.020	0.033
CYANIDE	ppm	1.0	0.068	0.032	0.093	0.010	0.010	0.010	0.200	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010

SEMIVOL	DILUTION	LLD	426.00	412.00	220.00	2.02	2.06	2.02	2.06	217.00	104.00	2.08	2.11	2.22	2.17	106.00	1060.00
Phenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	U	U	U	U	U	U	0.05	0.05	U	U	U	U	U	0.05	0.08
1,4-Dichlorobenzene	ppm	10	U	U	U	0.02	U	0.01	0.05	0.63	U	U	U	U	U	0.27	0.68
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	0.03	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	0.24	0.36	0.43	0.35	0.01	0.03	0.04	8.40	0.02	U	U	U	U	2.20	8.20
2-Methylphenol	ppm	10	0.26	U	U	U	U	U	0.09	U	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	U	0.22	U	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	26.00	U	U	U	U	U	U	U	U	U	U	U	U	U	88.00
2-4-Dimethylphenol	ppm	10	U	U	U	0.01	U	0.01	0.06	U	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	0.37	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	U	U	U	U	U	0.02	0.20	U	U	U	U	U	U	U	U
Naphthalene	ppm	10	6.40	6.20	4.10	0.07	0.32	0.03	0.30	1.20	0.04	U	U	U	U	0.67	0.15
4-Chloroanaline	ppm	10	1.40	1.30	0.13	0.10	U	0.01	0.01	0.44	U	0.01	U	U	U	U	U
2-Methylnaphthalene	ppm	10	U	0.33	U	U	0.01	U	U	U	U	U	U	U	U	0.04	U
2-Chloronaphthalene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthylene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Acenaphthene	ppm	10	U	U	U	U	0.01	0.01	0.02	U	U	U	U	U	U	U	U

TABLE 9
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AMERICAN CYANAMID - BOUND BROOK FACILITY
GROUND WATER SAMPLES

FIELDID:	units		MW-1A	MW-2	MW-3	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-12	MW-13	MW-15	MW-16	MW-17	MW-18A
Dibenzofuran	ppm	10	U	U	U	U	U	U	0.02	U	U	U	U	U	U	U	U
Flourene	ppm	10	U	U	U	U	0.01	U	0.01	U	U	U	U	U	U	U	U
N-Nitrosodiphenylamine(1)	ppm	10	0.97	U	0.59	0.02	0.02	0.03	0.03	U	0.14	U	U	U	U	U	1.20
Phenanthrene	ppm	10	U	U	U	U	0.01	U	U	U	0.00	U	U	U	U	U	U
Anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Flouranthene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Pyrene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chrysene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10	U	U	U	0.01	0.04	U	U	U	U	U	U	U	U	U	U

VOLATILE	DILUTION		50.00	10.00	10.00	10.00	1.00	5.00	1000.00	500.00	25.00	1.00	1.00	1.00	1.00	1000.00	1.00
\\		LLD	\\\														
Methylene Chloride	ppm	5	U	0.03	0.02	0.02	U	U	U	2.30	0.04	U	U	U	0.01	U	U
Acetone	ppm	10	1.80	0.51	0.43	U	0.02	U	U	18.00	0.32	0.28	0.37	0.09	U	U	U
Carbon Disulfide	ppm	5	U	0.02	0.03	0.03	U	U	4.80	U	0.07	U	U	U	U	U	U
1,1-Dichloroethene	ppm	5	U	0.04	0.04	0.04	0.01	0.02	4.90	1.50	0.11	U	U	U	U	U	U
1,1-Dichloroethane	ppm	5	U	U	U	U	0.04	U	U	U	U	U	U	U	U	U	U
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.31
Chloroform	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	0.13	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	0.02	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ppm	5	0.64	3.10	0.77	0.30	0.05	0.16	21.00	13.00	U	0.01	U	U	U	220.00	U
4-Methyl-2-Pentanone	ppm	10	U	0.10	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Hexanone	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U	33.00	U
Toluene	ppm	5	0.25	2.20	0.29	U	U	0.01	2.80	3.10	0.02	0.01	U	U	U	2.40	4.50
Chlorobenzene	ppm	5	2.10	0.20	0.43	2.10	0.04	0.40	U	U	1.00	0.06	U	U	U	1.90	U
Ethylbenzene	ppm	5	0.20	0.05	0.03	0.05	U	0.01	U	U	0.03	U	U	U	U	19.00	U
Total Xylenes	ppm	5	0.28	0.50	0.23	0.07	0.01	0.01	U	0.50	0.17	U	U	U	U	U	U

TABLE 9

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AMERICAN CYANAMID - BOUND BROOK FACILITY

GROUND WATER SAMPLES

INORGANIC	units	MDL	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26	MW-27	MW-28	MW-29	MW-30	MW-31
ALUMINUM	ppm	11.2	9.070	2.300	1.820	3.350	1.320	4.140	0.429	7.040	1.060	1.090	0.194	0.707	3.940
ANTIMONY	ppm	2.6	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060
ARSENIC	ppm	0.5	0.018	0.039	0.010	2.610	0.017	0.018	0.014	0.010	0.011	6.800	0.010	0.018	0.052
BARIUM	ppm	0.7	0.259	0.042	0.279	0.046	0.116	0.246	0.367	0.058	0.042	0.044	0.057	0.069	0.055
BERYLLIUM	ppm	0.2	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.010
CADMIUM	ppm	0.2	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
CALCIUM	ppm	2.3	47.700	3.400	59.400	46.400	30.700	24.900	62.800	123.000	223.000	157.000	19.800	200.000	13.800
CHROMIUM	ppm	0.8	0.014	0.110	0.010	0.010	0.010	0.010	0.014	0.010	0.010	0.010	0.032	0.010	0.010
COBALT	ppm	0.7	0.010	0.005	0.005	0.016	0.005	0.005	0.005	0.005	0.030	0.006	0.005	0.005	0.031
COPPER	ppm	0.4	0.025	0.078	0.025	0.062	0.025	0.025	0.025	0.025	0.025	0.025	0.027	0.025	0.069
IRON	ppm	5.3	33.000	1.450	48.200	203.000	24.000	41.500	26.800	51.800	394.000	159.000	0.244	18.600	453.000
LEAD	ppm	0.2	0.007	0.011	0.005	0.015	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.015
MAGNESIUM	ppm	3.3	17.400	0.310	16.100	8.750	8.510	3.440	13.700	24.500	59.200	22.800	3.400	30.000	41.400
MANGANESE	ppm	0.2	2.220	0.036	3.440	2.980	3.560	1.100	8.110	0.658	86.800	11.900	0.119	1.280	61.500
NICKEL	ppm	0.7	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040
POTASSIUM	ppm	46.1	9.600	8.470	5.230	3.840	1.930	3.550	3.930	36.400	5.800	3.130	2.800	7.020	5.580
SELENIUM	ppm	0.1	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
SILVER	ppm	0.9	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.018	0.010	0.010	0.010	0.017
SODIUM	ppm	56.7	100.000	970.000	91.400	25.300	8.330	29.500	47.300	184.000	105.000	39.600	9.360	20.500	95.900
THALLIUM	ppm	0.5	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
VANADIUM	ppm	0.6	0.050	0.178	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
ZINC	ppm	0.3	0.041	0.028	0.020	0.089	0.051	0.042	0.029	0.044	0.078	0.180	0.084	0.036	0.071
CYANIDE	ppm	1.0	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010

SEMIVOL	DILUTION	LLD	2.06	2.13	20.60	2.13	2.02	2.02	2.04	2.04	2.08	2.08	2.08	2.13	2.15
Phenol	ppm	10	U	U	U	U	0.05	U	U	U	U	U	U	U	U
2-Chlorophenol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	ppm	10	0.01	0.14	U	U	U	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	ppm	10	0.07	U	0.01	0.01	U	U	U	U	U	U	U	U	U
Benzyl Alcohol	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	ppm	10	0.75	0.64	0.01	0.05	U	U	U	U	0.01	U	U	U	U
2-Methylphenol	ppm	10	U	U	U	U	0.02	0.03	U	U	U	U	U	U	U
4-Methylphenol	ppm	10	U	U	U	U	U	0.08	U	U	U	U	U	U	U
Nitrobenzene	ppm	10	U	U	U	U	U	2.10	U	U	U	0.01	U	U	U
2-4-Dimethylphenol	ppm	10	U	U	U	U	U	0.12	U	U	U	U	U	U	U
Benzoic Acid	ppm	50	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	ppm	10	U	0.12	U	U	U	U	U	U	0.01	U	U	U	U
Naphthalene	ppm	10	U	0.22	0.63	0.04	1.20	1.80	0.16	U	U	U	U	U	U
4-Chloroanaline	ppm	10	U	0.02	0.02	U	U	U	U	U	U	U	U	U	U
2-Methylnaphthalene	ppm	10	1.50	0.01	0.01	U	0.14	0.16	U	U	U	U	U	U	U
2-Chloronaphthalene	ppm	10	U	U	U	0.01	U	U	U	0.01	0.01	U	U	U	U
Acenaphthylene	ppm	10	0.21	U	U	U	U	0.01	U	U	U	U	U	U	U
Acenaphthene	ppm	10	0.23	U	U	U	0.03	0.02	0.04	0.01	U	U	U	U	U

TABLE 9
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AMERICAN CYANAMID - BOUND BROOK FACILITY
GROUND WATER SAMPLES

	units	FIELDID:	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26	MW-27	MW-28	MW-29	MW-30	MW-31
Dibenzofuran	ppm	10	0.18	U	0.01	U	0.02	0.01	0.01	U	U	U	U	U	U
Flourene	ppm	10	0.11	U	0.01	U	0.01	0.01	0.01	0.02	U	U	U	U	U
N-Nitrosodiodiphenylamine(1)	ppm	10	U	0.01	0.02	0.04	0.01	0.07	1.50	U	U	U	U	U	U
Phenanthrene	ppm	10	0.06	U	U	U	0.01	U	U	U	U	U	U	U	U
Anthracene	ppm	10	0.02	U	U	U	U	U	U	U	U	U	U	U	U
Flouranthene	ppm	10	0.01	U	U	U	U	U	U	U	U	U	U	U	U
Pyrene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzo(a)anthracene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
Chrysene	ppm	10	U	U	U	U	U	U	U	U	U	U	U	U	U
bis(2-Ethylhexyl)Phthalate	ppm	10	U	0.01	U	U	U	U	U	U	U	U	U	U	U

VOLATILE	DILUTION	LLD	1.00	0.00	2.00	1.00	100000	20.00	5.00	1.00	100.00	1.00	1.00	1.00	1.00
Methylene Chloride	ppm	5	U	U	0.01	U	U	U	0.02	U	U	U	U	U	U
Acetone	ppm	10	0.20	U	U	0.01	U	U	0.12	U	U	0.01	0.01	0.03	U
Carbon Disulfide	ppm	5	U	U	U	U	U	0.01	0.02	U	U	U	U	U	U
1,1-Dichloroethene	ppm	5	U	U	U	U	390.00	U	0.03	U	U	U	U	U	U
1,1-Dichloroethane	ppm	5	U	U	U	U	U	U	U	U	0.02	U	U	U	0.01
trans-1,2-Dichloroethene	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroform	ppm	5	0.01	U	U	U	U	U	U	U	U	U	0.02	U	U
1,1,1-Trichloroethane	ppm	5	U	U	U	U	U	U	U	U	U	U	U	U	U
Trichloroethylene	ppm	5	U	U	U	U	U	U	0.02	U	U	U	U	U	U
1,1,2-Trichloroethane	ppm	5	U	U	U	U	U	U	0.01	U	U	U	U	U	U
Benzene	ppm	5	0.04	0.03	0.12	0.02	4800.00	0.05	0.85	0.01	15.00	0.01	U	U	0.01
4-Methyl-2-Pentanone	ppm	10	U	U	U	U	U	U	0.04	U	U	U	U	U	U
2-Hexanone	ppm	10	U	U	U	U	U	U	0.04	U	U	U	U	U	U
Tetrachloroethylene	ppm	5	0.02	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ppm	5	0.01	U	U	U	1800.00	0.15	0.28	U	U	U	U	U	U
Chlorobenzene	ppm	5	0.15	0.41	0.29	0.01	U	0.02	0.82	U	0.02	0.01	U	U	0.01
Ethylbenzene	ppm	5	0.07	U	0.13	U	U	1.10	0.06	U	0.17	U	U	U	U
Total Xylenes	ppm	5	0.15	0.01	0.38	U	300.00	5.30	0.09	U	0.02	U	U	U	U

TABLE 10

MAIN PLANT MONITORING WELLS - DETECTED COMPOUNDS
SUPPLEMENTAL SAMPLING (7/20/90)

TABLE 10
AMERICAN CYANAMID - BOUND BROOK FACILITY
MAIN PLANT MONITORING WELLS - DETECTED COMPOUNDS
SUPPLEMENTAL SAMPLING (7/20/90)

Well:	MW-7	MW-17	MW-23	MW-27
Constituent[1]				
Volatiles:				
Methylene Chloride	0.004J	0.039J	0.041J	0.075
Acetone	0.028	0.088J	0.15	0.11
Carbon Disulfide	0.001J	0.016J	0.86	0.028J
1,1 Dichloroethane	0.002J	U	U	0.023J
trans-1,2-Dichloroethene	U	U	U	U
Chloroform	U	U	0.31	U
1,1,1-Trichloroethane	0.005J	0.044J	U	U
Trichloroethylene	U	0.021J	U	U
1,1,2-Trichloroethane	U	U	U	0.032J
Benzene	0.26	400	340	1.4
Bromoform	U	U	U	0.012J
4-Methyl-2-Pentanone	U	U	U	0.031J
2-Hexanone	U	U	U	0.034J
Toluene	0.003J	38	50	0.5
Chlorobenzene	0.4	0.058	U	0.016J
Ethylbenzene	0.007	1.7	1.2	0.024J
Styrene	U	U	1.4	0.026J
Total Xylenes	0.01	16.0J	8.4E	0.13
TIC_s[2]	0.013	3.05	14.36	0.576

(1) All concentrations are reported in mg/l

(2) Sum of tentatively identified compounds

B Compound found in the sample and in the blank. Possible sample contamination has occurred.

U Undetected. Concentration is below the detection limit.

J Compound is present. Listed value is estimated and below the detection limit.

E Concentration exceeds the calibration range of the instrument. The reported value is estimated.

TABLE 10 (cont'd)
AMERICAN CYANAMID - BOUND BROOK FACILITY
MAIN PLANT MONITORING WELLS - DETECTED COMPOUNDS
SUPPLEMENTAL SAMPLING (7/20/90)

Well:	MW-7	MW-17	MW-27
Constituent[1]			
Semi-Volatiles:			
1,3-Dichlorobenzene	0.003J	U	U
1,4-Dichlorobenzene	0.010J	0.002J	U
Benzyl alcohol	--	0.003J	U
1,2-Dichlorobenzene	0.032	0.011	0.003J
Nitrobenzene	0.002J	0.520	U
1,2,4-Trichlorobenzene	0.021	U	0.003J
Napthalene	0.035	0.340	0.001J
4-Chloroaniline	0.016	U	U
2-Methylnapthalene	0.016	0.021	0.001J
2-Chloronapthalene	U	U	0.01J
Acenapthene	0.012	0.002J	U
Dibenzofuran	0.004J	0.001J	U
Diethyl phthalate	U	0.001J	U
N-nitrosodiphenylamine	0.028	0.001J	0.001J
Phenanthrene	0.001J	0.005J	U
Fluoranthene	U	0.001J	U
bis(2-ethylhexyl)phthalate	0.008JB	0.009JB	0.007JB
TIC_s[2]	0.672	0.445	0.588

(1) All concentrations are reported in mg/l

(2) Sum of tentatively identified compounds

B Compound found in the sample and in the blank. Possible sample contamination has occurred.

U Undetected. Concentration is below the detection limit.

J Compound is present. Listed value is estimated and below the detection limit.

TABLE 10 (cont'd)
AMERICAN CYANAMID - BOUND BROOK FACILITY
MAIN PLANT MONITORING WELLS - DETECTED COMPOUNDS
SUPPLEMENTAL SAMPLING (7/20/90)

Well:	MW-6	MW-22	MW-28	MW-31
Constituent[1]				
Metals:				
Aluminum	0.837	8.510	5.930	17.6
Arsenic	<0.01	6.3	7.44	0.316
Barium	0.0299	0.0642	0.069	0.111
Calcium	91.0	45.8	111.0	47.5
Chromium	0.012	<0.01	<0.01	<0.01
Copper	18.1	0.22	0.0684	0.31
Iron	10.1	175	90.5	152
Lead	0.0104	0.0217	0.0152	0.0251
Magnesium	11.9	10.9	18.0	17.9
Manganese	1.820	3.160	7.370	8.660
Nickel	0.132	0.0753	0.043	0.203
Potassium	5.09	4.41	3.05	6.75
Sodium	26.9	26.0	26.8	47.0
Vanadium	<0.050	<0.050	<0.050	0.055
Zinc	1.38	0.125	0.603	0.343

(1) All concentrations are reported in mg/l

TABLE 11A

RISK-BASED SOIL CLEANUP OBJECTIVES,
INCIDENTAL INGESTION AND DERMAL CONTACT EXPOSURE,
ON-SITE SURFACE SOILS

TABLE 11A
Risk-Based Soil Cleanup Objectives (SCO)

Incidental Ingestion and Dermal Contact Exposure
On-Site Surface Soils

American Cyanamid, Bound Brook, N.J.

Chemical	Oral CPF (mg/kg/day)$^{-1}$	Chronic Oral RfD (mg/kg/day)	SCO (Carcinogens) (mg/kg) Target* Risk 1×10^{-4}	Target Risk 1×10^{-5}	Target Risk 1×10^{-6}	SCO (Non-Carcinogen) (mg/kg) HI=1.0	SCO* (Non-Carcinogen) (mg/kg) HI=10.0
VOLATILES							
methylene chloride	7.50E-03	6.00E-02	2.10E+04	2.10E+03	2.10E+02	3.37E+04	3.37E+05
acetone	–	1.00E-01	–	–	–	5.62E+04	5.62E+05
1,1,1-trichloroethane	–	9.00E-02	–	–	–	5.05E+04	5.05E+05
benzene	2.90E-02	–	5.42E+03	5.42E+02	5.42E+01	–	–
tetrachloroethene	5.10E-02	1.00E-02	3.08E+03	3.08E+02	3.08E+01	5.62E+03	5.62E+04
toluene	–	2.00E-01	–	–	–	1.12E+05	1.12E+06
ethyl benzene	–	1.00E-01	–	–	–	5.62E+04	5.62E+05
chlorobenzene	–	2.00E-02	–	–	–	1.12E+04	1.12E+05
xylenes (total)	–	2.00E+00	–	–	–	1.12E+06	1.12E+07
SEMIVOLATILES							
1,4-dichlorobenzene	2.40E-02	–	8.46E+03	8.46E+02	8.46E+01	–	–
1,2-dichlorobenzene	–	9.00E-02	–	–	–	6.52E+04	6.52E+05
nitrobenzene	–	5.00E-04	–	–	–	3.62E+02	3.62E+03
1,2,4-trichlorobenzene	–	1.31E-03	–	–	–	9.50E+02	9.50E+03
hexachlorobenzene	1.60E+00	8.00E-04	1.27E+02	1.27E+01	1.27E+00	5.80E+02	5.80E+03
bis(2eh)phthalate	1.40E-02	2.00E-02	1.45E+04	1.45E+03	1.45E+02	1.45E+04	1.45E+05
diethylphthalate	–	8.00E-01	–	–	–	5.80E+05	5.80E+06
n-nitrosodiphenylamine	4.90E-03	2.50E-02	4.14E+04	4.14E+03	4.14E+02	1.81E+04	1.81E+05
naphthalene	–	4.00E-03	–	–	–	2.90E+03	2.90E+04
2-methylnaphthalene	–	4.00E-03	–	–	–	2.90E+03	2.90E+04
acenaphthene	–	6.00E-02	–	–	–	4.35E+04	4.35E+05
fluorene	–	4.00E-02	–	–	–	2.90E+04	2.90E+05
anthracene	–	3.00E-01	–	–	–	2.17E+05	2.17E+06
fluoranthene	–	4.00E-02	–	–	–	2.90E+04	2.90E+05
pyrene	–	3.00E-02	–	–	–	2.17E+04	2.17E+05
benzo(a)pyrene	1.15E+01	–	1.76E+01	1.76E+00	1.76E-01	–	–
dibenzo(a,h)anthracene	1.15E+01	–	1.76E+01	1.76E+00	1.76E-01	–	–
benzo(a)anthracene	1.15E+00	–	1.76E+02	1.76E+01	1.76E+00	–	–
benzo(b)fluoranthene	1.15E+00	–	1.76E+02	1.76E+01	1.76E+00	–	–
benzo(k)fluoranthene	1.15E+00	–	1.76E+02	1.76E+01	1.76E+00	–	–
indeno(123-cd)pyrene	1.15E+00	–	1.76E+02	1.76E+01	1.76E+00	–	–
chrysene	1.15E+00	–	1.76E+02	1.76E+01	1.76E+00	–	–
PCBs**	–	–	–	–	–	–	–

TABLE 11A (Cont'd.)
Risk-Based Soil Cleanup Objectives (SCO)

Incidental Ingestion and Dermal Contact Exposure
On-Site Surface Soils

American Cyanamid, Bound Brook, N.J.

Chemical	Oral CPF $(mg/kg/day)^{-1}$	Chronic Oral RfD (mg/kg/day)	SCO (Carcinogens) (mg/kg) Target* Risk 1×10^{-4}	Target Risk 1×10^{-5}	Target Risk 1×10^{-6}	SCO (Non-Carcinogen) (mg/kg) HI=1.0	SCO* (Non-Carcinogen) (mg/kg) HI=10.0
INORGANICS							
arsenic	–	3.00E-04	–	–	–	2.46E+02	2.46E+03
beryllium	4.30E+00	5.00E-03	5.34E+01	5.34E+00	5.34E-01	4.10E+03	4.10E+04
chromium (III)	–	1.00E+00	–	–	–	8.20E+05	8.20E+06
chromium (VI)	–	5.00E-03	–	–	–	4.10E+03	4.10E+04
chromium (total)	–	–	–	–	–	1.52E+05	1.52E+06
mercury	–	3.00E-04	–	–	–	2.46E+02	2.46E+03
nickel	–	2.00E-02	–	–	–	1.64E+04	1.64E+05
zinc	–	2.00E-01	–	–	–	1.64E+05	1.64E+06

* SCOs at 1×10^{-4} and/or HI=10 have been employed in the delineation of surface soil areas targeted for remediation based on their potential impact to worker health and safety.

** SCOs were not established for PCBs. Rather a cleanup goal of 20 mg/kg was established by NJDEPE.

TABLE 11B

RISK-BASED SOIL CLEANUP OBJECTIVES, INHALATION EXPOSURE TO DUST PARTICULATES, ON-SITE SURFACE SOILS

TABLE 11B
Risk-Based Soil Cleanup Objectives (SCO)

Inhalation Exposure to Dust Particulates
On-Site Surface Soils

American Cyanamid, Bound Brook, N.J.

Chemical	Inhalation CPF $(mg/kg/day)^{-1}$	RfD Chronic (mg/kg/day)	SCO (Carcinogens) (mg/kg) Target* Risk 1×10^{-4}	Target Risk 1×10^{-5}	Target Risk 1×10^{-6}	SCO (Non-Carcinogen) (mg/kg) HI=1.0	SCO* (Non-Carcinogens (mg/kg) HI=10.0
VOLATILES							
methylene chloride	1.65E-03	8.60E-01	5.1E+08	5.1E+07	5.1E+06	2.6E+09	2.6E+10
acetone	–	–	–	–	–	–	–
1,1,1-trichloroethane	–	3.00E-01	–	–	–	9.1E+08	9.1E+09
benzene	2.90E-02	–	2.9E+07	2.9E+06	2.9E+05	–	–
tetrachloroethene	1.82E-03	–	4.7E+08	4.7E+07	4.7E+06	–	–
toluene	–	5.71E-01	–	–	–	1.7E+09	1.7E+10
ethyl benzene	–	2.86E-01	–	–	–	8.7E+08	8.7E+09
chlorobenzene	–	5.00E-03	–	–	–	1.5E+07	1.5E+08
xylenes(total)	–	8.57E-02	–	–	–	2.6E+08	2.6E+09
SEMIVOLATILES							
1,4-dichlorobenzene	–	2.00E-01	–	–	–	6.1E+08	6.1E+09
1,2-dichlorobenzene	–	4.00E-02	–	–	–	1.2E+08	1.2E+09
nitrobenzene	–	5.70E-04	–	–	–	1.7E+06	1.7E+07
1,2,4-trichlorobenzene	–	3.00E-03	–	–	–	9.1E+06	9.1E+07
hexachlorobenzene	1.60E+00	–	5.3E+05	5.3E+04	5.3E+03	–	–
bis(2-eh)phthalate	–	–	–	–	–	–	–
diethylphthalate	–	–	–	–	–	–	–
n-nitrosodiphenylamine	–	–	–	–	–	–	–
naphthalene	–	–	–	–	–	–	–
2-methylnaphthalene	–	–	–	–	–	–	–
acenaphthene	–	–	–	–	–	–	–
fluorene	–	–	–	–	–	–	–
anthracene	–	–	–	–	–	–	–
fluoranthene	–	–	–	–	–	–	–
pyrene	–	–	–	–	–	–	–
benzo(a)pyrene	6.10E+00	–	1.4E+05	1.4E+04	1.4E+03	–	–
dibenzo(a,h)anthracene	6.10E+00	–	1.4E+05	1.4E+04	1.4E+03	–	–
benzo(a)anthracene	6.10E-01	–	1.4E+06	1.4E+05	1.4E+04	–	–
benzo(b)fluoranthene	6.10E-01	–	1.4E+06	1.4E+05	1.4E+04	–	–
benzo(k)fluoranthene	6.10E-01	–	1.4E+06	1.4E+05	1.4E+04	–	–
indeno(1,2,3-cd)pyrene	6.10E-01	–	1.4E+06	1.4E+05	1.4E+04	–	–
chrysene	6.10E-01	–	1.4E+06	1.4E+05	1.4E+04	–	–
PCBs**	–	–	–	–	–	–	–

TABLE 11B (Cont'd.)
Risk-Based Soil Cleanup Objectives (SCO)

Inhalation Exposure to Dust Particulates
On-Site Surface Soils

American Cyanamid, Bound Brook, N.J.

Chemical	Inhalation CPF (mg/kg/day)$^{-1}$	RfD Chronic (mg/kg/day)	SCO (Carcinogens) (mg/kg) Target* Risk 1×10^{-4}	Target Risk 1×10^{-5}	Target Risk 1×10^{-6}	SCO (Non-Carcinogen) (mg/kg) HI=1.0	SCO* (Non-Carcinogens (mg/kg) HI=10.0
INORGANICS							
arsenic	5.00E+01	–	1.7E+04	1.7E+03	1.7E+02	–	–
beryllium	8.40E+00	–	1.0E+05	1.0E+04	1.0E+03	–	–
chromium (III)	–	5.70E-07	–	–	–	1.7E+03	1.7E+04
chromium (VI)	4.10E+01	5.70E-07	2.1E+04	2.1E+03	2.1E+02	1.7E+03	1.7E+04
chromium (total)	–	–	7.8E+05	7.8E+04	7.8E+03	1.7E+03	1.7E+04
mercury	–	8.40E-05	–			2.5E+05	2.5E+06
nickel	1.70E+00	–	5.0E+05	5.0E+04	5.0E+03	–	–
zinc	–	–	–				

* SCOs at 1×10^{-4} and/or HI = 10 have been employed in the delineation of surface soil areas targeted for remediation based on their potential impact to worker health or safety.

** SCOs were not established for PCBs. Rather a cleanup goal of 20 mg/kg was established by the NJDEPE.

TABLE 12

RISK-BASED SOIL ACTION LEVELS (RBSAL) FOR ON-SITE SURFACE SOILS

TABLE 12
AMERICAN CYANAMID
RISK BASED SOIL ACTION LEVELS (RBSAL)
FOR ON-SITE SURFACE SOILS

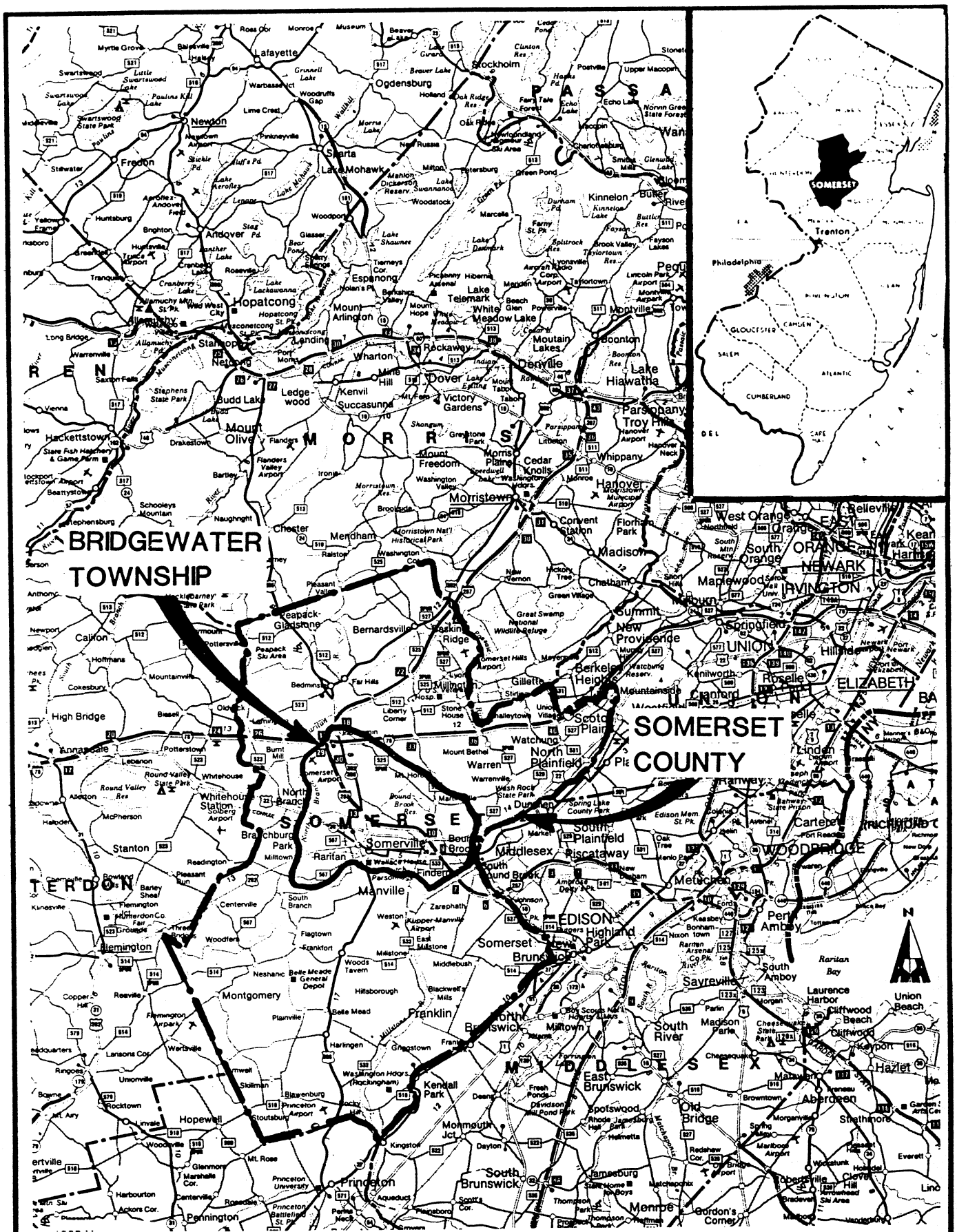
Chemicals-of-Interest Defined in EA	RBSAL Based on Incidental Ingestion and Dermal Contact (IDC) Exposure (mg/kg)		RBSAL Based on Inhalation Exposure (mg/kg)		Short-Term Threshold RBSAL* (mg/kg)
	10^{-4}	Non-carcinogen (HI=10.0)	10^{-4}	Non-carcinogen (HI=10.0)	
Volatiles					
Methylene Chloride	21,000	337,000	5.1 E+8	2.6 E+10	337,000
Acetone	-	562,000	-	-	562,000
1,1,1-Trichloroethane	-	505,000	-	9.1 E+9	505,000
Benzene	5,420	-	2.9 E+7	-	54,200
Tetrachloroethene	3,080	56,200	4.7 E+8	-	30,800
Toluene	-	1,120,000	-	1.7 E+10	1,120,000
Ethylbenzene	-	562,000	-	8.7 E+9	562,000
Chlorobenzene	-	112,000	-	1.5 E+8	112,000
Xylenes (total)	-	11,200,000	-	2.6 E+9	11,200,000
Semi-Volatiles					
1,4-Dichlorobenzene	8,460	-	-	6.0 E+9	84,600
1,2-Dichlorobenzene	-	652,000	-	1.2 E+9	652,000
Nitrobenzene	-	3,620	-	1.7 E+7	3,620
1,2,4-Trichlorobenzene	-	9,500	-	9.1 E+7	9,500
Hexachlorobenzene	127	5,800	5.3 E+5	-	5,800
Naphthalene	-	29,000	-	-	29,000

TABLE 12 (Cont'd)
AMERICAN CYANAMID
RISK BASED SOIL ACTION LEVELS (RSBAL)
FOR ON-SITE SURFACE SOILS

Chemicals-of-Interest Defined in EA	RBSAL Based on Incidental Ingestion and Dermal Contact (IDC) Exposure (mg/kg)		RBSAL Based on Inhalation Exposure (mg/kg)		Short-Term Threshold RBSAL* (mg/kg)
	10^{-4}	Non-carcinogen (HI=10.0)	10^{-4}	Non-carcinogen (HI=10.0)	
2-Methylnaphthalene	-	29,000	-	-	29,000
Acenaphthene	-	435,000	-	-	435,000
Fluorene	-	290,000	-	-	299,000
Anthracene	-	2170,000	-	-	2,170,000
Fluoranthene	-	290,000	-	-	290,000
Pyrene	-	217,000	-	-	217,000
Bis(2-ethylhexyl)phthalate	14,500	145,000	-	-	145,000
Diethylphthalate	-	5800,000	-	-	5,800,000
N-nitrosodiphenylamine	41,400	181,000	-	-	181,000
Benzo(a)Pyrene	18	-	1.4 E+5	-	18
Dibenzo(a,h)Anthracene	18	-	1.4 E+5	-	18
Benzo(a)Anthracene	176	-	1.4 E+6	-	176
Benzo(b)Fluoranthene	176	-	1.4 E+6	-	176
Indeno(1,2,3-cd)Pyrene	176	-	1.4 E+6	-	176
Chrysene	176	-	1.4 E+6	-	176
PCBs**					

Figures

FIGURE 1

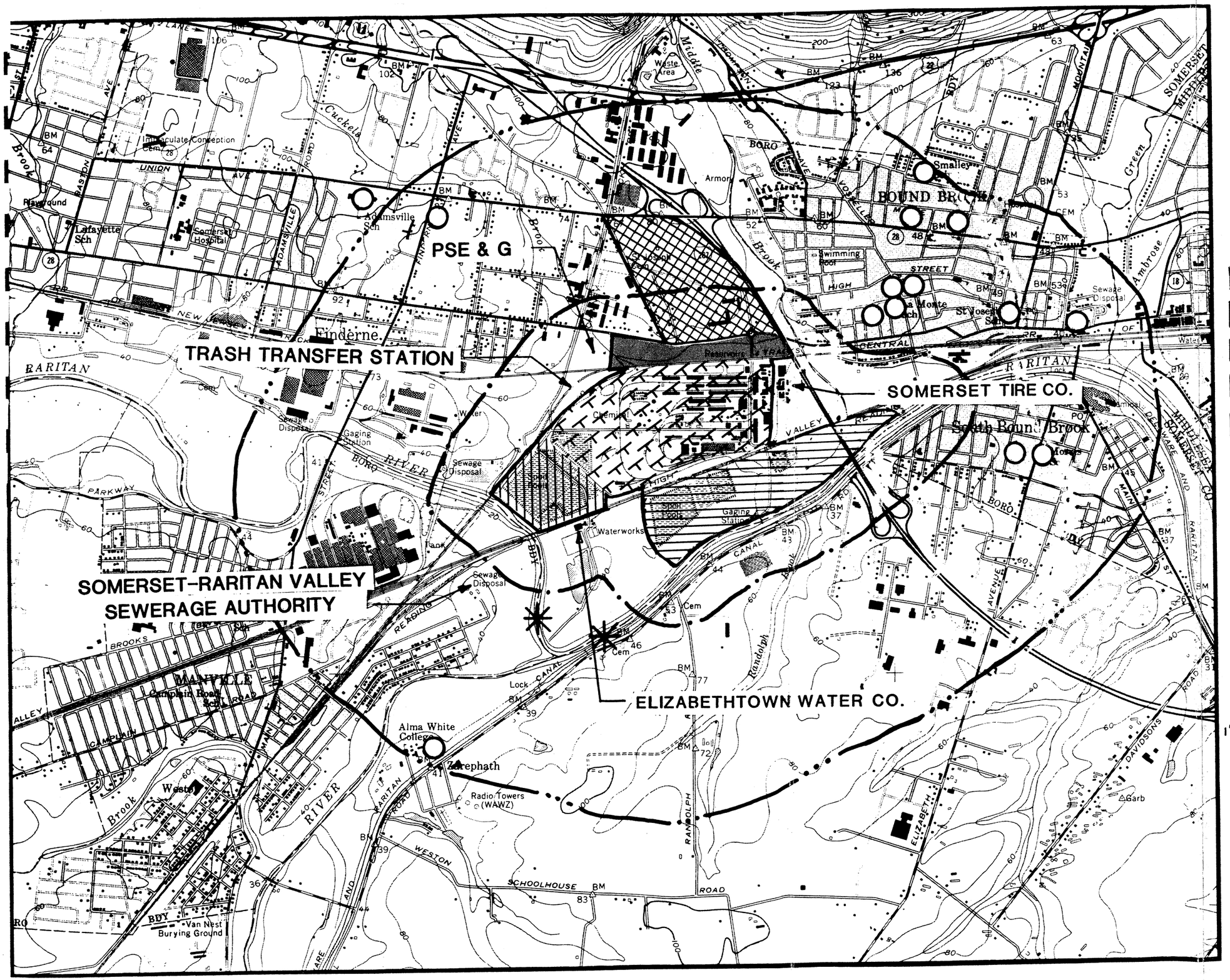


GENERAL AREA MAP

OCT 1990
356.08.10

BLASLAND, BOUCK & LEE
ENGINEERS & GEOSCIENTISTS

FIGURE 2



LEGEND

- MAIN PLANT
- NORTH OF CRNJ RAILROAD
- HILL PROPERTY
- LAGOON AREA
- SOUTH OF PRRR
- ELIZABETHTOWN WATER COMPANY RIVER WATER INTAKE
- SCHOOL
- 1/4 MILE DELINEATION FROM THE BOUNDRY OF CYANAMID PROPERTY EXCLUDING THE HILL PROPERTY AND AREA NORTH OF CRNJ
- 1 MILE DELINEATION FROM THE BOUNDRY OF CYANAMID PROPERTY EXCLUDING THE HILL PROPERTY AND AREA NORTH OF CRNJ

2000' 0 2000'
1" = 2000'

AMERICAN CYANAMID
BOUND BROOK, NEW JERSEY

SITE LOCATION

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FIGURE 3

TOWNSHIP OF BRIDGEWATER

SOMERSET COUNTY - NEW JERSEY

ZONING MAP

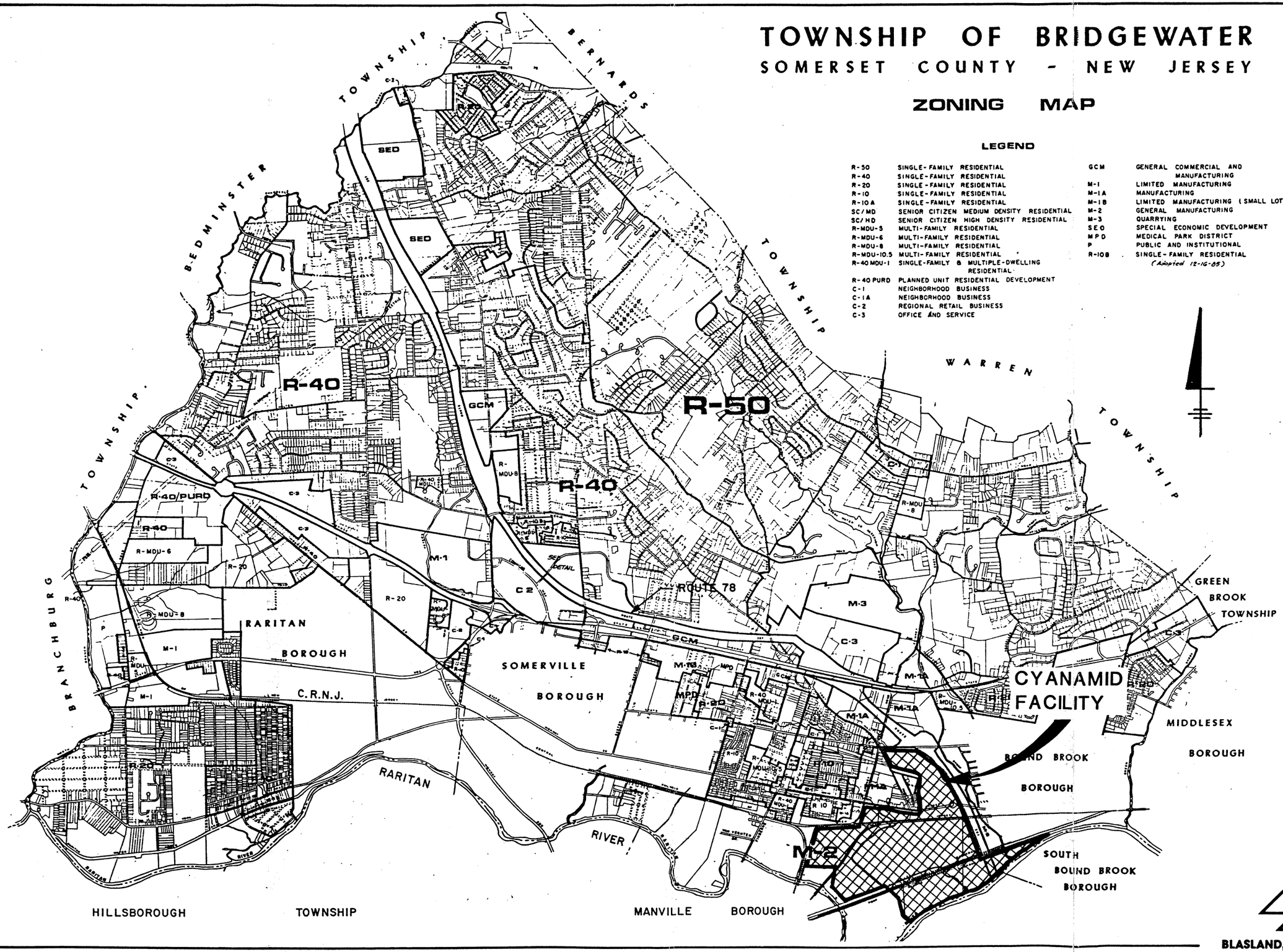

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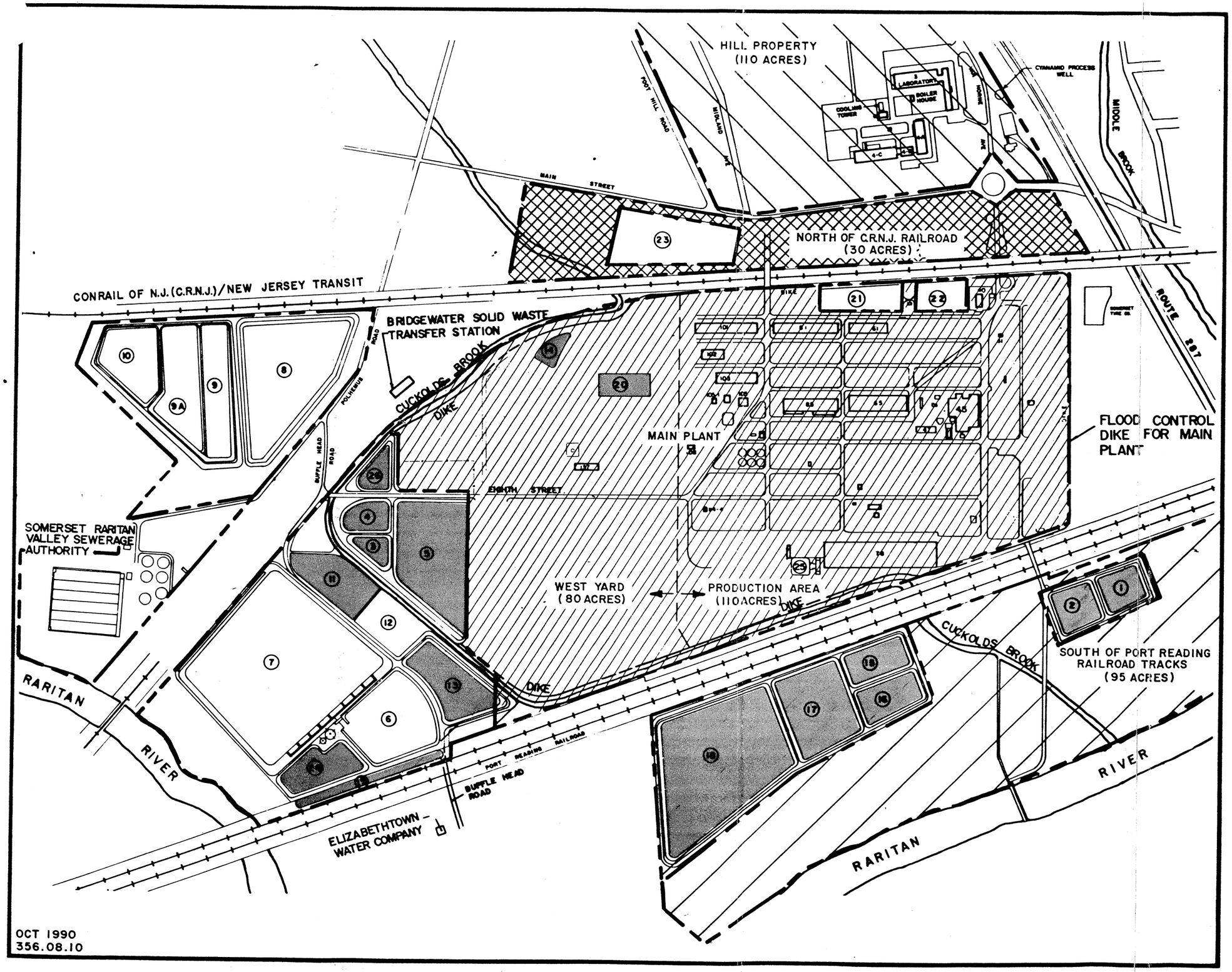
FIGURE 4



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LEGEND

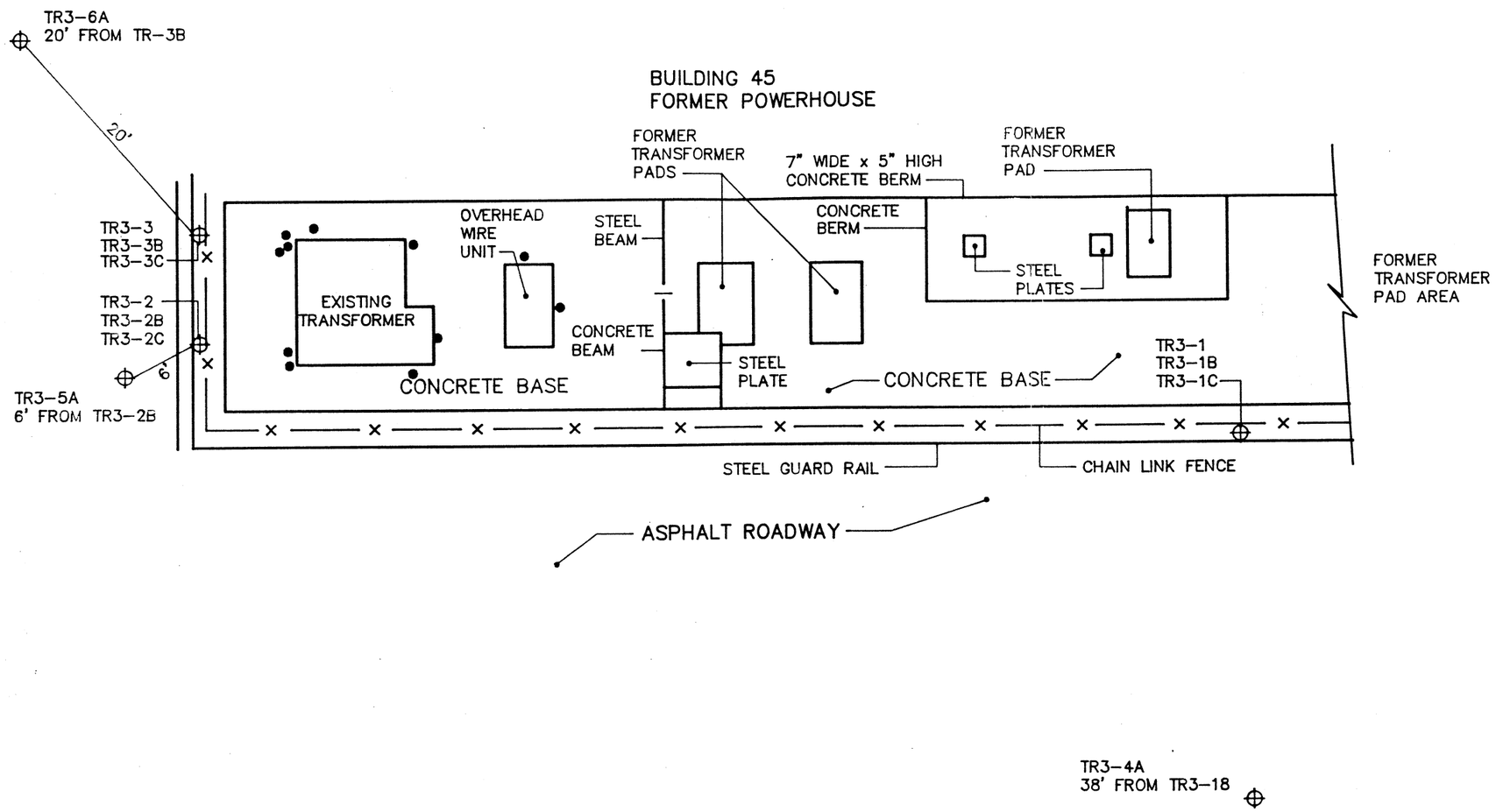
- FACILITY SEGMENT BOUNDARY
- MAIN PLANT
- HILL PROPERTY
- NORTH OF C.R.N.J. RAILROAD
- SOUTH OF PORT READING RAILROAD
- IMPOUNDMENT SUBJECT TO 1988 ACO

AMERICAN CYANAMID COMPANY
BOUND BROOK, NEW JERSEY

CYANAMID FACILITY

BLASLAND, BOUCK & LEE
ENGINEERS & GEOSCIENTISTS

FIGURE 10



LEGEND:

- ● CONCRETE SAMPLES AROUND EXISTING TRANSFORMER
- ⊕ SOIL SAMPLES

NOTES

ALL CONCRETE SAMPLES AROUND EXISTING TRANSFORMER WERE COMPOSITED INTO ONE SAMPLE (TR3-7).

SCALE(APPROX.)
1"= 10'

AMERICAN CYANAMID
BOUND BROOK, NEW JERSEY

SUPPLEMENTAL SAMPLING TRANSFORMER PAD 3

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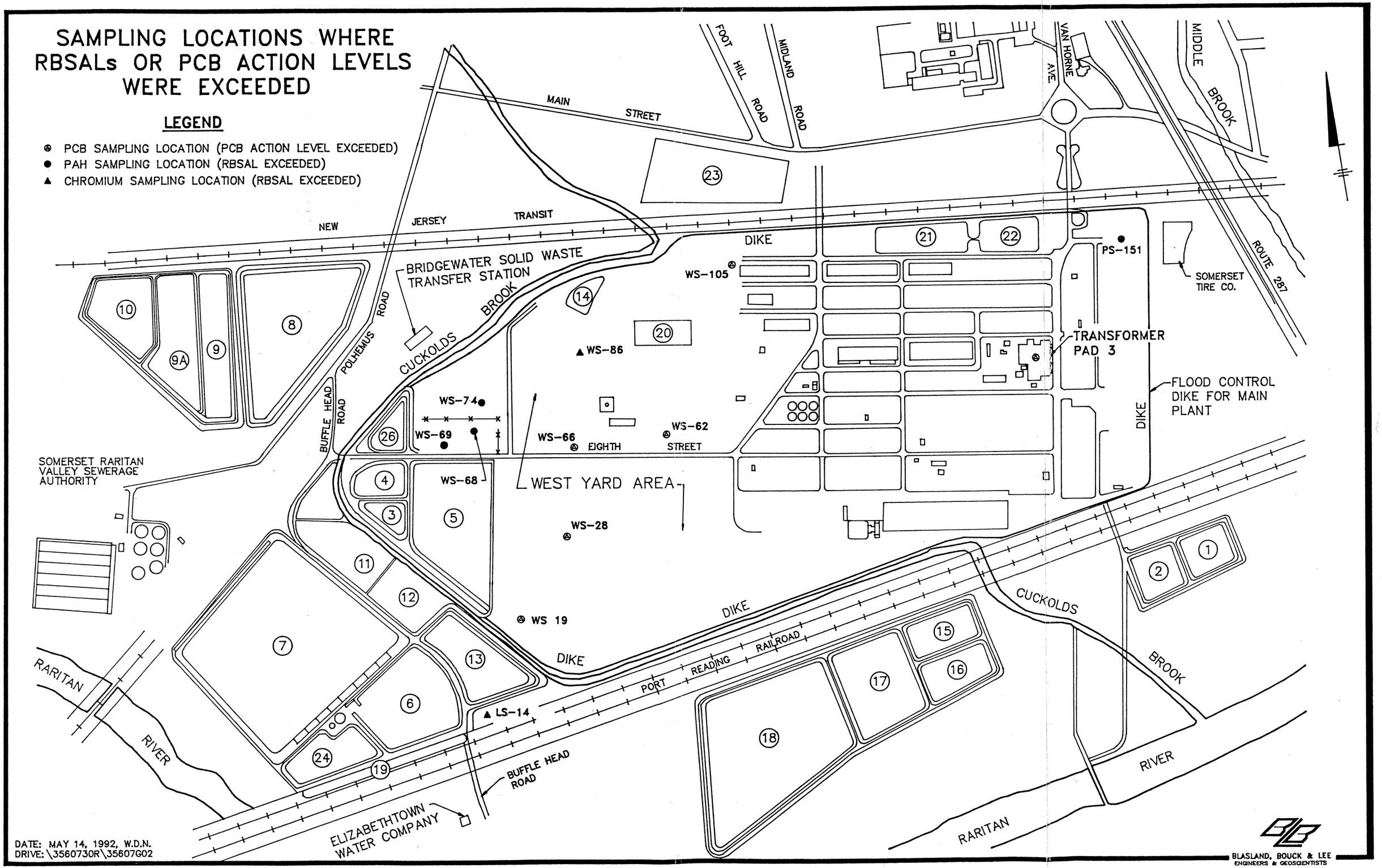
OCT.,1990 D.V.W.
E-D:\35607730P\35607G01

FIGURE 11


SAMPLING LOCATIONS WHERE RBSALs OR PCB ACTION LEVELS WERE EXCEEDED
LEGEND
PCB SAMPLING LOCATION (PCB ACTION LEVEL EXCEEDED)
PAH SAMPLING LOCATION (RBSAL EXCEEDED)
CHROMIUM SAMPLING LOCATION (RBSAL EXCEEDED)
MAIN STREET
FOOT HILL ROAD
MIDLAND ROAD
VAN HORNE AVE.
MIDDLE BROOK
ROUTE 287
NEW JERSEY TRANSIT
BRIDGEWATER SOLID WASTE TRANSFER STATION
CUCKOLDS BROOK
POLHEMUS ROAD
BUFFLE HEAD ROAD
DIKE
WS-105
PS-151
SOMERSET TIRE CO.
TRANSFORMER PAD 3
FLOOD CONTROL DIKE FOR MAIN PLANT
WS-86
WS-74
WS-69
WS-66
WS-62
EIGHTH STREET
WS-68
WEST YARD AREA
WS-28
WS 19
SOMERSET RARITAN VALLEY SEWERAGE AUTHORITY
PORT READING RAILROAD
LS-14
BUFFLE HEAD ROAD
ELIZABETHTOWN WATER COMPANY
RARITAN RIVER
CUCKOLDS BROOK
1
2
3
4
5
6
7
8
9
9A
10
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12
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14
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24
26
DATE: MAY 14, 1992, W.D.N.
DRIVE: \3560730R\35607G02
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