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Site ID (Document ID):	NCD003164464
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Description:	Preliminary Assessment
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DYNAMAC
CORPORATION
Environmental Services

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Suite 500
Atlanta, GA 30303

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Fax: 404-681-0894

DATE REPORT ACCEPTED 9-19-94
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SAM SIGNATURE Cynthia Gurley SEP 27 1994

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August 22, 1994

Mr. Narindar Kumar, Chief
Site Assessment Section
U.S. Environmental Protection Agency
345 Courtland Street, NE
Atlanta, Georgia 30338

Subject: Site Inspection Prioritization
Uniroyal, Inc. Uniroyal Chemical Company
Gastonia, Gaston County, North Carolina
EPA ID NCD003164464

Re: BVWS Contract № 68-W9-0055 - Task Order 6, Amendment 2
BVWS Project 52012.299
Document Control BVWS-SIP-RD-124

Dear Mr. Kumar:

Dynamac Corporation has been tasked by BLACK & VEATCH Waste Science, Inc., under U.S. Environmental Protection Agency (EPA) Contract № 68-W9-0055, to conduct a Site Inspection Prioritization for the Uniroyal Inc. Uniroyal Chemical Company facility (the facility) in Gastonia, Gaston County, North Carolina. In accordance with the scope of work for this task order, a preliminary Hazard Ranking System (HRS) score was prepared to determine the need for future activities at the facility.

The Uniroyal, Inc. Uniroyal Chemical Company facility is an active facility located in Gastonia, North Carolina. The facility is located on an 8.75-acre tract of property that is adjacent to the intersection of Catawba Creek and the Carolina and Northwestern Railroad line (Refs. 1; 2, p. 6). The facility property comprises approximately eight buildings and supporting facilities, parking areas, concrete and asphalt-lined detention basins and a railroad spur line (Ref. 2, p. 14). The facility, in operation since 1955, is primarily involved in the production of herbicides and pesticides. Additionally, fungicides, polyurethane prepolymers, rubber labels and plastic drum covers have also been produced at this facility. Wastes generated through facility operations include filtering and processing wastes, waste bags and raw material containers (Refs. 3; 4; 5; 6). In the past, hazardous laboratory waste was stored onsite in 55-gallon drums on a covered, diked concrete slab. An onsite waste pile was utilized for the storage of thiram, maleic hydrazide, and phthalic anhydride (Ref. 5). All wastes are now shipped offsite for disposal. In 1974, 24 gallons of dinitrobutylphenol were accidentally released from an onsite containment sump into a municipal sewer. A fish kill occurred when treated water contaminated with dinitrobutylphenol was released into

Catawba Creek. An investigation by the North Carolina Water Quality Section concluded that there were no lasting effects of this release (Ref. 4).

In August 1990, NUS Corporation conducted a Site Inspection (SI) on behalf of EPA at the facility, which included the collection of six onsite surface soil samples, two onsite subsurface samples as well as five sediment and two surface water samples. Background surface soil, subsurface soil, sediment and surface water samples were also collected (Ref. 2, pp. 13-16). Analyses of onsite surface soil samples indicated elevated levels of barium, beryllium, cadmium, chromium, cobalt, lead, nickel, manganese, silver, vanadium, zinc, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, bis(2-ethylhexyl)phthalate, benzo(b and/or k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, endosulfan (alpha) and a polychlorinated biphenyl (PCB) compound (Aroclor-1254) (Ref. 2, pp. 20-25). Analyses of onsite subsurface soil samples indicated elevated levels of cobalt, nickel and manganese (Ref. 2, pp. 20-23). Analysis of sediment samples collected from Catawba Creek indicated elevated levels of barium, chromium, cobalt, lead, manganese, silver, vanadium and zinc (Ref. 2, pp. 28-30). Analysis of the surface water sample collected from Catawba Creek indicated no elevated levels of inorganic or organic contaminants (Ref. 2, p. 31).

A preliminary HRS score for the facility was calculated using the Site Inspection Worksheets. Pathways evaluated include groundwater migration, surface water migration, soil exposure and air migration. The score reflects a Hazardous Waste Quantity value of 10 for all pathways, based on the total 8.75 acres of the facility, which were evaluated as contaminated soil. Waste characteristics values were highest for benzo(a)pyrene and PCB-1254 (Aroclor-1254).

Surface water is the primary source of potable water for residents within a 4-mile radius of the facility. The Gaston Utilities Department is the primary supplier of water to these residents (Refs. 1; 7). The Gaston Utilities Department, which serves approximately 43,000 connections, obtains water from an intake located approximately 6.5 miles northeast of the facility on the South Fork River. The City of Ranlo, located approximately 4 miles northeast of the facility, supplies water purchased from the Gaston Utilities Department (Ref. 2, p. 11). The remaining population within 4 miles of the facility not served by a municipal supply system relies on either community or private wells for potable water. There are 27 community wells within a 4-mile radius of the facility that serve 4,171 residents (Ref. 8). Residents not served by either a municipal water department or a community well are assumed to obtain potable water from private wells. Using this assumption, approximately 800 persons within a 4-mile radius of the facility were estimated to obtain potable water from private wells (Refs. 1; 9). The nearest well is approximately 1 mile southwest of the facility. No groundwater samples were collected during the SI. The groundwater pathway was evaluated on potential to release to the unconfined crystalline rock aquifer.

Surface water runoff migrates from the facility to drainage ditches located along the facility's northwest, north-central and northeast property boundaries (Ref. 2, p. 9). These ditches empty into Catawba Creek which flows along the northeastern boundary of the facility. Catawba Creek flows approximately 10 miles before it empties into Lake Wylie. The 15-mile surface water migration pathway ends in the confines of Lake Wylie (Ref. 1). No drinking water intakes were identified along the 15-mile surface water migration pathway (Ref. 2, p. 9). Surface water and sediment samples collected during the SI indicated an observed release of chromium, cobalt, lead, manganese, silver, vanadium and zinc to Catawba Creek. No elevated levels of organic compounds were detected. The ranges of several endangered species include Gaston County; however, the exact locations of these species have not been documented (Ref. 10). No wetland areas were identified on the topographic map within the surface water target distance limit (Ref. 1). The section of Catawba Creek within the city of Gastonia is not classified as a fishery (Ref. 11). Lake Wylie is classified as a fishery (Refs. 11; 12).

Land use within a 4-mile radius of the facility is primarily urban and commercial/industrial (Ref. 1). The soil exposure pathway was evaluated based on the presence of elevated levels of inorganic and organic constituents in the onsite surface samples collected during the SI (Ref. 2, pp. 20-25). The ranges of several endangered species include Gaston County; however, the exact locations of these species have not been documented. No wetland areas were identified on the topographic map within a 4-mile radius of the facility (Refs. 1; 10). The soil exposure pathway score was limited by low target values. The air pathway was scored based on potential to release; no air samples have been collected. A total of 67,584 people reside within 4 miles of the facility (Refs. 1; 13).

HRS SCORING SUMMARY

$$S_{gw} = 2.83$$
$$S_{sw} = 24.60$$
$$S_{soil} = 0.63$$
$$S_{air} = 2.51$$
$$\text{OVERALL SCORE} = 12.45$$

Based on available file material and the overall site score, no further action is recommended for Uniroyal, Inc. Uniroyal Chemical Company.

Attached are all references used during this evaluation. If you have any questions or comments, please contact Victor Blix at (404) 643-2320.

Sincerely,

DYNAMAC CORPORATION

David Kirby
Site Manager

Mary Jane Rigatti
Manager, Atlanta Office

Enclosure

cc: Lori C. Conway, Dynamac Site Assessment Project Manager
Victor Blix, BVWS SIP Project Manager
File

ND ECONOMIC RESOURCES
H CAROLINA

BESSEMER CITY QUADRANGLE
NORTH CAROLINA
7.5 MINUTE SERIES (TOPOGRAPHIC)
SE/4 LINCOLNTON 15' QUADRANGLE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF NORTH CAROLINA
DEPARTMENT OF CONSERVATION AND DEVELOPMENT
RALEIGH, NORTH CAROLINA

GASTONIA NORTH QUADRANGLE
NORTH CAROLINA—GASTON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW/4 GASTONIA 15' QUADRANGLE

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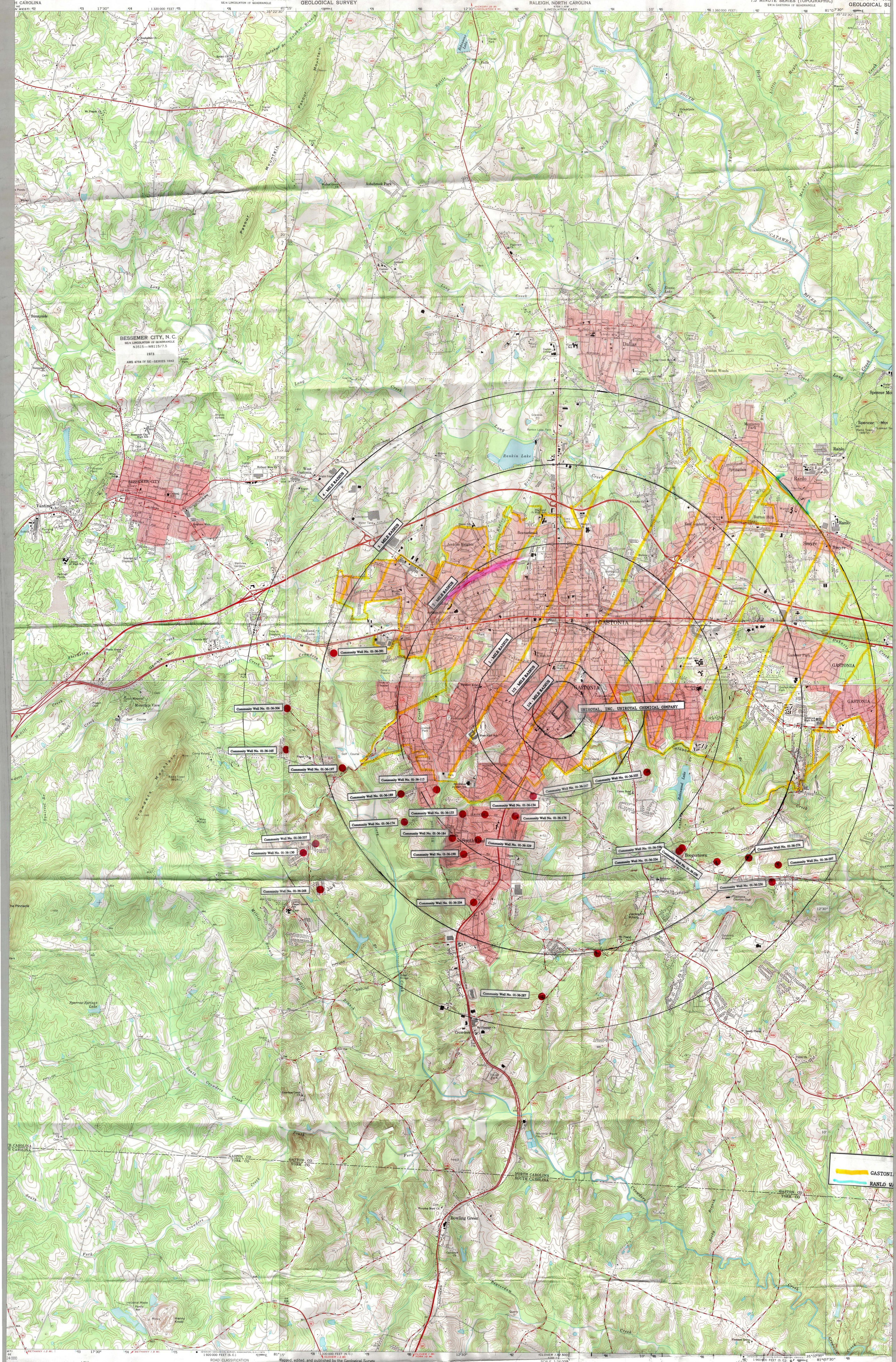

ROAD CLASSIFICATION
Primary highway, hard surface — Light-duty road, hard or improved surface
Secondary highway, hard surface — Unimproved road
Interstate Route — U. S. Route — State Route

QUADRANGLE LOCATION

KINGS MOUNTAIN, N.C.—S.C.
NE/4 KINGS MOUNTAIN 15' QUADRANGLE
N3507.5—W8115/7.5
1971
AMS 4754 III NE—SERIES V842

Mapped, edited, and published by the Geological Survey
Control by USGS and NOS/NOAA
Topography by photogrammetric methods from aerial photographs taken 1973. Field checked 1973
Projection: North Carolina coordinate system (Lambert conformal conic)
10,000-foot grid ticks based on North Carolina coordinate system and South Carolina coordinate system, north zone
1000-metre Universal Transverse Mercator grid ticks, zone 17, shown in blue. 1927 North American datum
Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked
Red tint indicates areas in which only landmark buildings are shown

UTM GRID AND 1973 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IAVAILABLE ON REQUEST

ROAD CLASSIFICATION
Primary highway, hard surface — Light-duty road, hard or improved surface
Secondary highway, hard surface — Unimproved road
Interstate Route — U. S. Route — State Route

QUADRANGLE LOCATION

GASTONIA SOUTH, N.C.—S.C.
NW/4 CLOVER 15' QUADRANGLE
N3507.5—W8107.5/7.5
1973
AMS 4754 II NW—SERIES V842

Mapped, edited, and published by the
Control by USGS, NOS/NOAA, and North C
Topography by photogrammetric methods fr taken 1973. Field checked 1973
Projection: North Carolina coordinate syste 10,000-foot grid ticks based on North Caro South Carolina coordinate system, north zo 1000-metre Universal Transverse Mercator zone 17, shown in blue. 1927 North Amer
Fine red dashed lines indicate selected fenc generally visible on aerial photographs. Th
Red tint indicates areas in which only landm
Underwater contours in Lake Wylie from D

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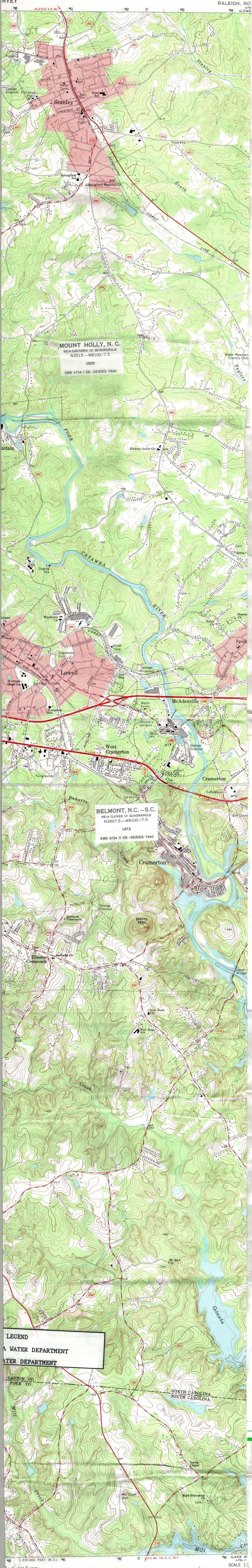

MOUNT HOLLY, N. C.
SE/4 GASTONIA 15' QUADRANGLE
N3515—W8100/7.5
1970
AMS 4754 I SE—SERIES V842

BELMONT, N.C.—S.C.
NE/4 CLOVER 15' QUADRANGLE
N3507.5—W8100/7.5
1973
AMS 4754 II NE—SERIES V842

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A WATER DEPARTMENT
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Geologcal Survey
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UTM GRID AND 1973 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

SCALE 1:
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FOR SALE BY U. S. GEOLOGICAL SU
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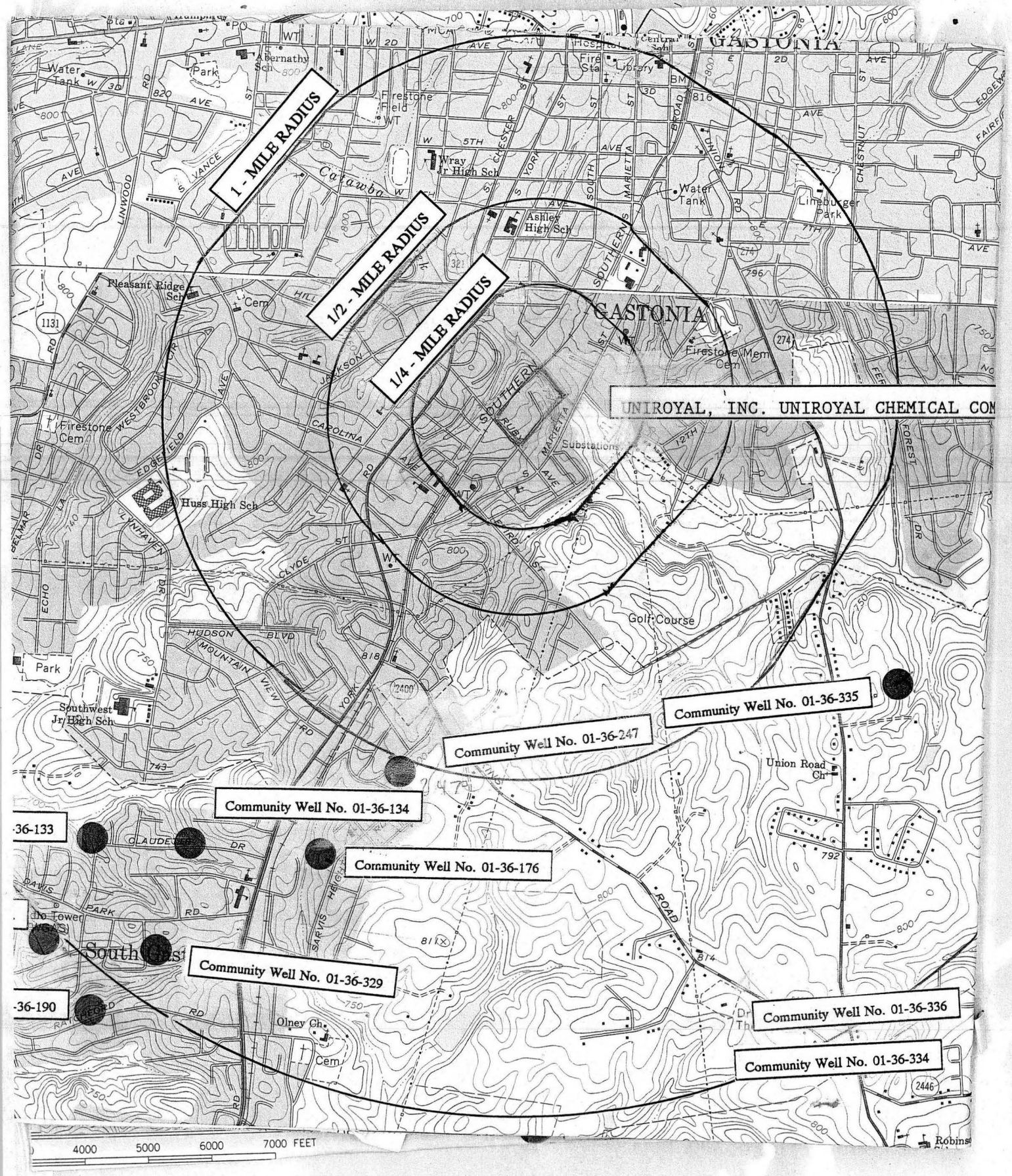
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1/2 - MILE RADIUS
1/4 - MILE RADIUS
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Community Well No. 01-36-335
Community Well No. 01-36-247
Community Well No. 01-36-134
Community Well No. 01-36-176
Community Well No. 01-36-329
Community Well No. 01-36-336
Community Well No. 01-36-334
GASTONIA
Water Tank
Abernathy Sch
Park
Firestone Field
Wray Jr High Sch
Ashley High Sch
Pleasant Ridge Sch
Cem
Firestone Cem
Huss High Sch
Substations
Golf Course
Southwest Jr High Sch
Union Road Ch
Olney Ch
Limeburger Park
Firestone Mem Cem
4000
5000
6000
7000 FEET

REFERENCES

1. U.S. Geological Survey, 7.5 minute series Topographic Quadrangle Maps of North Carolina and South Carolina: Bessemer City, 1973, Belmont, 1973, Gastonia North, 1970, Gastonia South, 1973, Kings Mountain, 1971, Mount Holly, 1970, scale 1:24,000.

2. NUS Corporation, Superfund Division, Final Site Inspection Report, for Uniroyal Inc. Uniroyal Chemical Company Gastonia, Gaston County, North Carolina, Prepared under TDD No. F4-9007-25 for the Waste Management Division of the EPA, June 18, 1991.

3. RCRA Inspection Form, Prepared by Larry Fox, North Carolina Department of Health Services (RCRA Section), November 12, 1986.

4. John Robinson, Environmental Engineer, Uniroyal Chemical, letter to Lenox Bramble, North Carolina Department of Health Services, October 25, 1984. Subject: Chemical spill.

5. Potential hazardous Waste Site Preliminary Assessment (Form 2070-12), Part 1-Site Information and Assessment for Uniroyal Chemical. Filed by O.W. Strickland, North Carolina Department of Health Services, Solid and Hazardous Waste Management Branch, November 27, 1986.

6. Cindy Extine, Uniroyal Inc., Uniroyal Chemical Company, Telephone conversation with Eric Corbin, NUS Corporation, March 8, 1991. Subject: Manufactured products

7. John Schuller. Assistant Director, Gastonia Water Department, Telephone conversation with Charlotte M. Boulind, Environmental Scientist, Dynamac Corporation, February 2, 1993. Subject: Service area and water sources of the Gastonia Water Department.

8. James Thompson, Environmental Health Specialist, Gaston County Health Department, letter with attachments to Charlotte M. Boulind. Subject: Community well systems in Gaston County.

9. U.S. Department of Commerce, Bureau of the Census, 1990 Census of Population and Housing: Summary Population and Housing Characteristics - North Carolina, 1990 CPH-1-35 (Washington, D.C.: GPO, 1991), excerpt, 2 pages.

10. U.S. Fish and Wildlife Service, Endangered and Threatened Species of the Southeastern United States (The Red Book), Vol. 1 (Washington, D.C.: GPO, 1992), excerpt, 5 pages.

11. Russell Byerly, County Wildlife Enforcement Officer, Gastonia, North Carolina, Conversation with David Kirby, Geologist, Dynamac Corporation, June 1, 1994. Subject: Recreational fishing along Catawba Creek and Lake Wylie.

12 Chris Gaudreau, Regional Fisheries Specialist, North Carolina Wildlife Resources Commission, Telephone Conversation with William E. Vasser, Dynamac Corporation June 1, 1994. Subject: Recreational fishing along Catawba Creek and Lake Wylie, Gaston County, North Carolina.

13. U.S. Environmental Protection Agency, Graphical Exposure Modeling System (GEMS) Data Base, compiled from U.S. Bureau of the Census data (1990).

R-586-6-1-23

Reference No. 2

FINAL REPORT

SITE INSPECTION
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA
EPA ID #: NCD003164464

Prepared Under
TDD No. F4-9007-25
Contract No. 68-01-7346

Revision 0

FOR THE

WASTE MANAGEMENT DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

JUNE 18, 1991

NUS CORPORATION
SUPERFUND DIVISION

Prepared By	Reviewed By	Approved By
Eric Corbin Project Manager	Greg Schank Assistant Regional Project Manager	Phil Blackwell Regional Project Manager

NOTICE

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EXECUTIVE SUMMARY

The Uniroyal, Inc. Uniroyal Chemical Company facility is located in the southeast section of Gastonia, North Carolina. The facility is situated on an 8.75-acre tract of property at 214 West Ruby Street. The facility began operating in 1955 under the ownership of Uniroyal, Incorporated, who is still the current owner. The facility is primarily involved in the production of herbicides and pesticides. Additionally, fungicides, polyurethane prepolymers, rubber labels, and plastic drum covers also have been produced. Wastes generated through facility operations include filtering and processing wastes, waste bags and raw material containers. Until 1983, an onsite waste pile was previously utilized for the storage of thiuram, maleic hydrazide, and phthalic anhydride. In 1974, an accidental spill involving 25 gallons of dinitrobutylphenol resulted in a release to the Gastonia municipal sewer system. A fish kill in Catawba Creek resulted from the spill, and Uniroyal Chemical was held responsible for the cost of an investigation and replacing the fish.

The facility is located in the Piedmont Physiographic Province and Piedmont and Blue Ridge hydrogeologic setting. The region is characterized by an underlying, relatively thick layer of residual soil and saprolite. Fractured and faulted igneous and metamorphic rock underlie the residual soil and saprolite of the Kings Mountain geologic belt. Groundwater is obtained from joints, fractures, and other secondary openings in the crystalline bedrock and primary pore spaces within the overlying residual soil material. These units comprise the unconfined, residual soil/fractured crystalline rock aquifer system.

The surface water pathway is of primary concern for this facility. Since a large portion of the property is covered with asphalt, most precipitation is directed into drainage basins located at topographical low points on the facility. These drainage basins collect and hold run-off before it is discharged to drainage ditches which drain to Catawba Creek. Recreational fishing is a common use of Catawba Creek, and recreational fishing, boating, and swimming are key uses of Lake Wylie, located downstream from Catawba Creek.

The groundwater pathway was also evaluated. Although there is no information available to indicate how long the facility has been covered in asphalt, there is believed to have been substantial containment over the facility for a number of years to preclude any substantial migration of contaminants into the groundwater table. Approximately 50 homes within 3 miles and 675 homes within 3 to 4 miles from the facility obtain potable water from private wells. The nearest potable well is located approximately 1.2 miles south of the facility.

Fifteen environmental samples were collected during the field investigation associated with this study. The downgradient surface water sample collected from Catawba Creek contained no organic or inorganic contaminants. Sediment samples collected from onsite drainage ditches and from Catawba Creek contained miscellaneous unidentified organic compounds and 10 metals detected at elevated concentrations. Seven elevated metals and no organic compounds were reported for the subsurface soil sample. Surface soil samples contained a total of 19 metals at elevated levels, 10 Target Compound List organic compounds at elevated levels, and 23 miscellaneous, extractable organic compounds.

Predominant heavy metals detected throughout the samples were arsenic, lead, chromium, and zinc. Salt-forming metals such as calcium, magnesium, and potassium were also reported at many times the background level. Heavy metals and salt-forming metals are used in polyurethane and fungicide production. Many polynuclear aromatic compounds were reported in surface soil samples. These compounds are released by asphalt which covers much of the facility. Two pesticides, Propargite and Endosulfan I (Alpha), were reported and are typical of products manufactured by Uniroyal. Sample results indicated the presence of bis (2-ethylhexyl) phthalate and phthalic anhydride, plasticizers. Other organic compounds may be related to solvents, chemical intermediates, or degradation products representative of the diverse activities at Uniroyal.

Based on the analysis of possible migration pathways, the results of the sampling investigation, and the information obtained from the references, FIT 4 recommends that this site be evaluated using the HRS (effective March 14, 1991).

1.0 INTRODUCTION

The HALLIBURTON NUS Environmental Corporation Region 4 Field Investigation Team (FIT) was tasked by the U.S. Environmental Protection Agency (EPA), Waste Management Division to conduct a Site Inspection (SI) at the Uniroyal, Inc. Uniroyal Chemical Company facility in Gastonia, Gaston County, North Carolina. The investigation was performed under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The task was performed to satisfy the requirements stated in Technical Directive Document (TDD) number F4-9007-25. The field investigation was conducted August 20-22, 1990.

1.1 OBJECTIVES

The objectives of this inspection were to determine the nature of contaminants present at the site and to determine if a release of these substances has occurred or may occur. Further, this inspection sought to determine the possible pathways by which contamination could migrate from the site and the populations and environments it would potentially affect. Through these objectives, a recommendation was made regarding future activities at the site.

1.2 SCOPE OF WORK

The objectives were achieved through the completion of a number of specific tasks. These activities were to:

- Obtain and review relevant background materials.
- Obtain information on local water systems.
- Evaluate potentially affected populations and environments associated with the groundwater, surface water, air, and onsite exposure pathways.
- Develop a site sketch.

- Collect environmental samples.
- Incorporate obtainable information into the site investigation form.

2.0 SITE CHARACTERIZATION

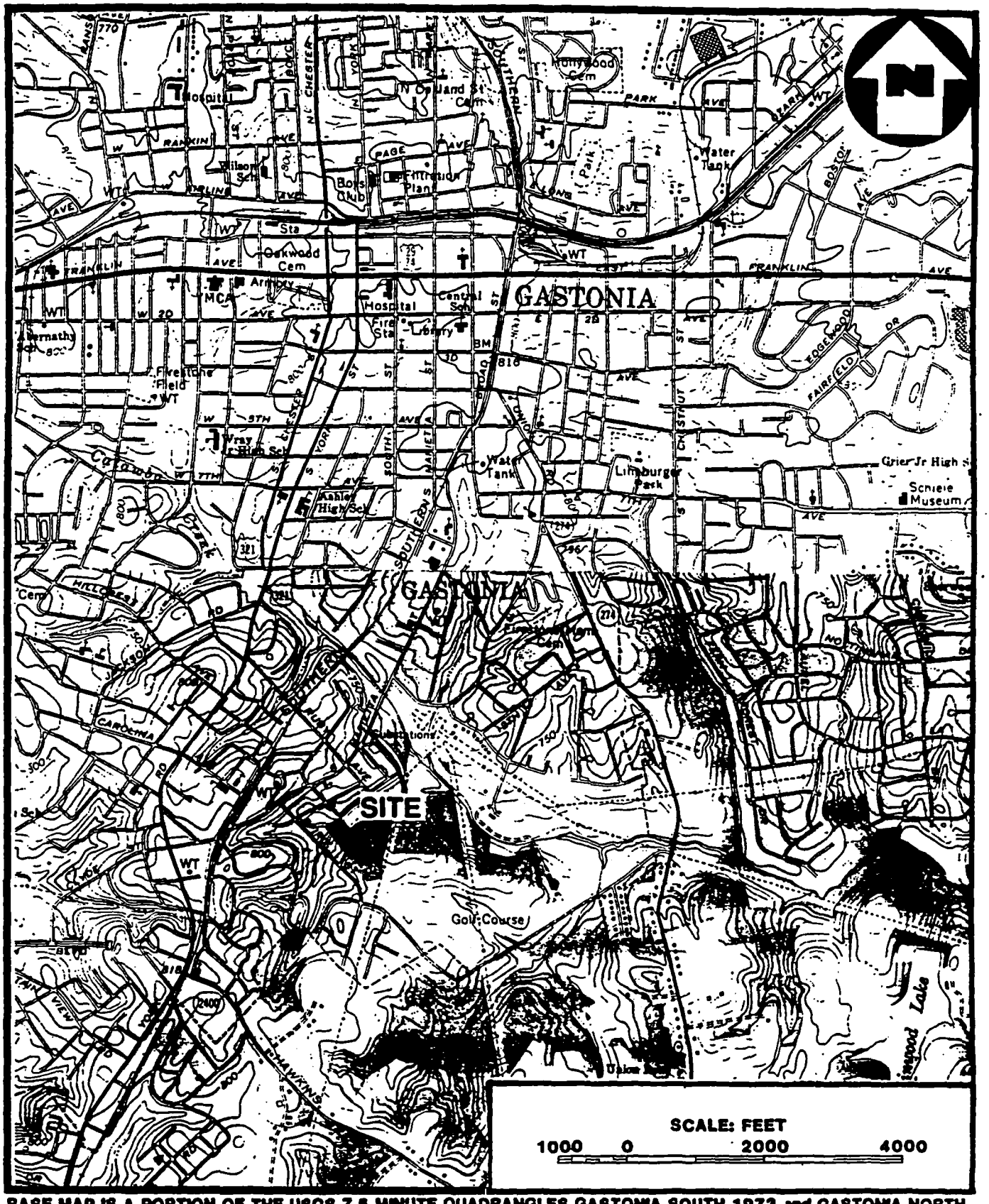
2.1 SITE BACKGROUND AND HISTORY

The Uniroyal, Inc. Uniroyal Chemical Company facility is located at 214 West Ruby Street in the southeast section of Gastonia, North Carolina (Ref. 1; Appendix A). The facility location is shown on Figure 1, and the facility layout is shown on Figure 2. Uniroyal, Incorporated has been the site owner and operator since the plant was built (Ref. 2). The facility first began operation in 1955 for the purpose of producing chemicals for agricultural usage (Ref. 3). Products manufactured in the past at the facility include pesticides, growth regulants, fungicides, rubber labels, and plastic drum covers (Refs. 2, 3, 4).

Currently, the facility manufactures agricultural products, polyurethane prepolymers and rubber labels (Ref. 5). Wastes generated from facility operations include filtering and processing wastes as well as wastes generated from the handling of waste bags and containers for raw materials (Ref. 1). Storage of hazardous waste on the plant premises in the past has been confined to laboratory waste, which was stored in 55-gallon, DOT 17-E drums, on a covered, diked, concrete slab (Ref. 2). Until 1983, an onsite waste pile was utilized for the storage of thiuram, maleic hydrazide, and phthalic anhydride (Ref. 4).

In 1974, 25 gallons of dinitrobutylphenol were accidentally released from a containment sump, resulting in a release to the Gastonia municipal sewer system. An investigation conducted by the North Carolina Water Quality Section concluded that there was no lasting effect of the release. A fish kill, however, in Catawba Creek resulted from the spill, and Uniroyal Chemical was held responsible for the cost of an investigation and replacing the fish (Ref. 2).

Uniroyal Chemical filed a Resource Conservation and Recovery Act (RCRA) Part A Hazardous Waste Permit application as a storage facility in November 1980 (Ref. 3). In 1983, Uniroyal, Inc. advised the North Carolina Solid and Hazardous Waste Management Branch that they had deleted all but one hazardous waste (ignitable and toxic waste) from the application for a permit to store hazardous waste (Ref. 6). Uniroyal Chemical asked to be deleted as a storage facility in September 1983 (Ref. 7). In December 1983, the company was deleted as a storage facility (Ref. 8). The state of North Carolina denied Uniroyal a permit as a TSD facility in September 1984 (Ref. 9). A RCRA compliance inspection

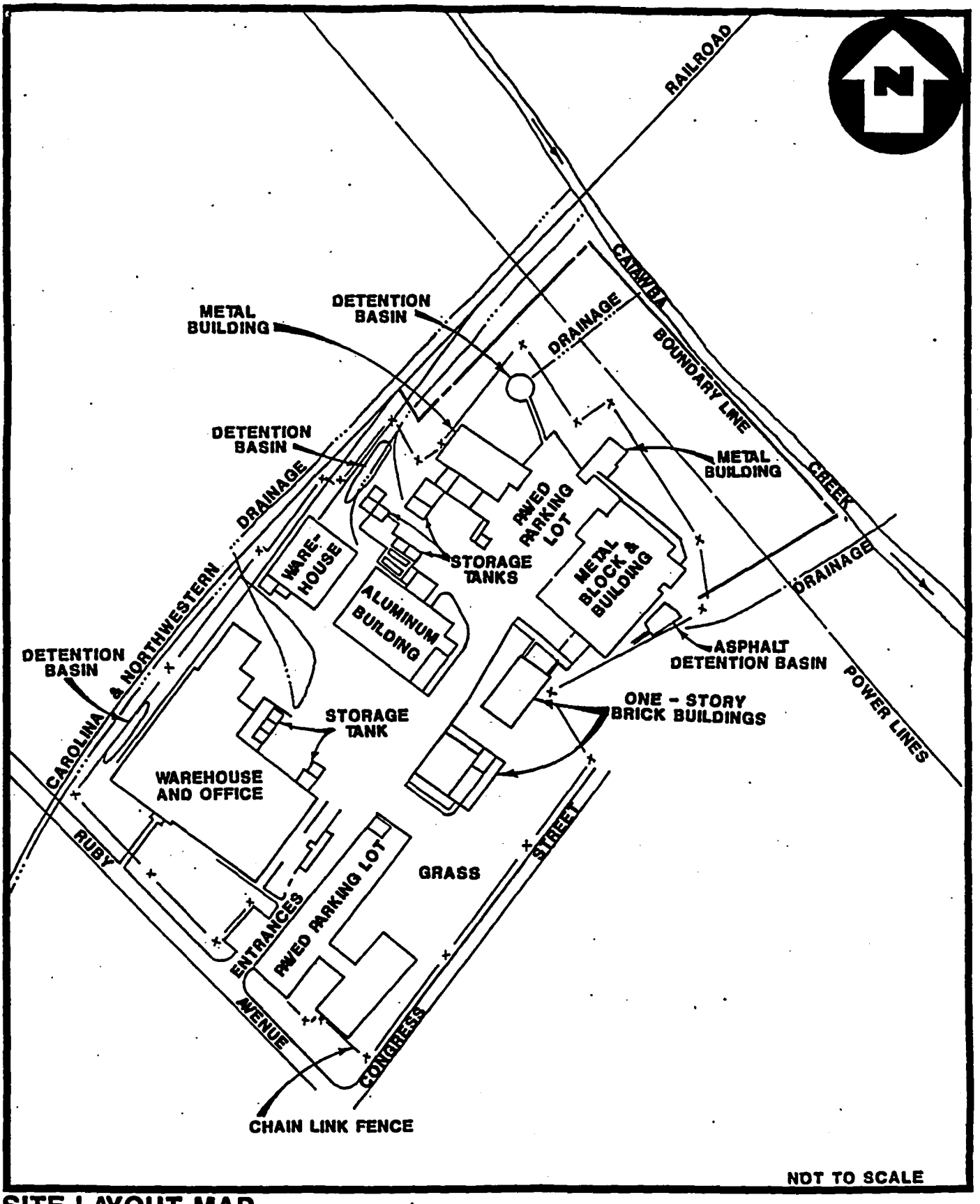


BASE MAP IS A PORTION OF THE USGS 7.5 MINUTE QUADRANGLES GASTONIA SOUTH 1973 and GASTONIA NORTH N.C., 1970.

SITE LOCATION MAP
UNIROYAL INC. UNIROYAL CHEMICAL CO.
GASTONIA, GASTON COUNTY, NORTH CAROLINA

FIGURE 1

NUS CORPORATION



SITE LAYOUT MAP
UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

FIGURE 2

NUS CORPORATION

conducted in November 1986, revealed that the facility was in compliance with applicable generator standards (Ref. 1). Uniroyal is currently listed as a RCRA generator (Ref. 10).

2.2 SITE DESCRIPTION

2.2.1 Site Features

Uniroyal, Inc. Uniroyal Chemical Company is an active, industrial facility located adjacent to the intersection of Catawba Creek and the Carolina and Northwestern Railroad (Ref. 11, Figure 1). The facility occupies the tract of property situated between Congress Street to the east, Ruby Avenue to the south, and a Carolina and Northwestern Railroad line to the west (Appendix A) (Figure 2). The topography of the plant area is characterized by gently rolling hills with topographic relief approaching approximately 150 feet (Appendix A). Drainage from the facility flows northeast and enters Catawba Creek (Appendix A) (Figure 2). The plant property is 8.75 acres in size and is comprised of approximately eight buildings and supporting facilities, parking areas, concrete and asphalt-lined detention basins, and a railroad spur line (Ref. 11, Appendix A) (Figure 2). Facility areas of greatest environmental concern include those near onsite storage tanks, detention basins, and a drum storage area (Ref. 11) (Figure 2).

There are four distinct drainage pathways which collect and channel surface water run-off generated at the facility into Catawba Creek. A drainage ditch originating southwest of the facility receives surface water run-off from the southwest portion of the facility and transports this run-off under and onto the western side of the Carolina and Northwestern Railroad line whereby it eventually drains to Catawba Creek. Three additional detention basins located in the northwest, north-central, and northeast corners of the facility also collect, store, and eventually discharge surface water run-off, generated primarily from asphalted driving and parking areas on the facility, into Catawba Creek (Figure 2).

The Uniroyal facility is accessible only through the facility entrance gate located on the southern property boundary. Direct access to the facility property is restricted by a 6-foot, chain-link fence which encompasses the property (Figure 2).

2.2.2 Waste Characteristics

Since 1955, Uniroyal has manufactured various products including herbicides, growth regulants, fungicides, polyurethane prepolymers, rubber labels, and plastic drum covers (Refs. 1, 2, 3, 4, 5). Hazardous wastes generated are from filtering and processing, as well as waste bags and containers

from raw materials (Ref. 1). Prior to 1983, thiram (common name: thiuram, a fungicide), maleic hydrazide (a herbicide), and phthalic anhydride (component of plasticizers and polyester resins) were stored in waste piles on plant property (Refs. 4, 6).

On May 29, 1974, there was a release of approximately 25 gallons of 2.4 dinitrobutylphenol (DNBP) (common name: dinoseb, herbicide) from a containment sump to the municipal sewer. An investigation conducted by the North Carolina Water Quality Section concluded that there was no lasting effect of the release. Uniroyal reimbursed the state for the cost of the investigation and the cost of replacing fish killed as a result of the municipal sewage treatment plant releasing treated water contaminated with DNBP. Immediately after this release the drain line from the containment sump to the sewer line was sealed with concrete (Ref. 2).

Storage of hazardous waste in the past has been confined to laboratory waste, which was stored in 55-gallon drums on a covered, diked, concrete slab (Ref. 2). Detention basins located at topographically downgradient locations on the property have been utilized to collect and contain surface water run-off or possible spills resulting from facility operations (Ref. 11). Wastes are now shipped off site for disposal (Ref. 11). All areas where spills or releases may occur are on slabs and diked. This includes manufacturing areas, storage areas, and truck loading and unloading stations (Ref. 2).

3.0 REGIONAL POPULATIONS AND ENVIRONMENTS

3.1 POPULATION AND LAND USE

3.1.1 Demography

The Uniroyal, Inc. Uniroyal Chemical Company facility is located in an industrial/residential portion of Gaston County, approximately 1.25 miles south of Gastonia, North Carolina, adjacent to Catawba Creek (Appendix A) (Figure 2). Most of the population of the area consists of full-time residents. Population densities increase sharply to the north, nearer the downtown Gastonia area (Appendix A). The population within a 1-mile radius is approximately 9,294; within a 4-mile radius, the population is estimated to be 65,243 (Ref. 12). The nearest residence is located approximately 500 feet east of the facility on Marietta Street (Appendix A). No day-care centers have been identified within a 1-mile site radius. The nearest school identified is located approximately 3,000 feet due north of the facility in Gastonia (Appendix A).

3.1.2 Land Use

The majority of the land area within a 1-mile radius of the facility is residential/commercial. Small towns in the study area include Ranlo, Dallas, Cramerton, and Bessemer City (Appendix A). Farming is mostly limited to valleys. The primary types of agricultural crops produced in the county include soybeans, small grains, and corn. There are no wells utilized for agricultural irrigation in the county. Beef and dairy cattle also are common in the county (Ref. 13). No sensitive natural areas are known to exist within 4 miles of the facility (Ref. 14). However, the milliped (Pachydesmus crassicutis incursus) is a state-listed, endangered species, and the milliped (Croatania catawba) and the nestronia (Nestronia umbellula) are state-listed, threatened species in Gaston County (Ref. 15).

3.2 SURFACE WATER

3.2.1 Climatology

The average annual rainfall in the Gaston County region is approximately 44 inches per year. Mean annual evaporation is approximately 41 inches per year. Net rainfall is, therefore, 3 inches per year. Rainfall in the area is fairly evenly dispersed throughout the year, with 3 to 5 inches of precipitation

being received each month (Ref. 16, pp. 43, 63). The 1-year, 24-hour rainfall is approximately 3.0 inches (Ref. 17, p. 93).

3.2.2 Overland Drainage

Surface water run-off from the facility enters drainage ditches located along the facility's northwest, north-central, and northeast property boundaries. These ditches transport run-off northeast to Catawba Creek (Figure 2) (Appendix A). Several detention basins located at topographically low areas on and around the facility collect and store some of the surface water run-off prior to its discharge to Catawba Creek (Ref. 11). Catawba Creek, located approximately 500 feet downslope of the facility, follows a meandering path southeast for approximately 9.5 miles and enters Lake Wylie. The 15-mile, surface water pathway ends within the confines of Lake Wylie (appendix A).

3.2.3 Potentially Affected Water Bodies

There are no surface water intakes on the 15-mile, surface water pathway (Refs. 11, 18). The Gaston County Utilities Department has a public water supply intake on the South Fork River, approximately 6.5 miles northeast of the facility and outside the area of potential site influence (Ref. 11, Appendix A). Catawba Creek is known to be used only for a small amount of recreational fishing; however, Lake Wylie is utilized extensively, primarily during the summer months, for swimming, boating, and fishing (Ref. 19). No known wetlands have been identified along the confines of Catawba Creek and Lake Wylie (Appendix A).

3.3 GROUNDWATER

3.3.1 Hydrogeology

The Uniroyal facility is located in central Gaston County approximately 9.2 miles west of the Catawba River (Appendix A). Gaston County lies within the Piedmont Physiographic Province and the Piedmont and Blue Ridge hydrogeologic setting, more specifically, in the Kings Mountain Geologic Belt (Refs. 20, pp. 251-52; 21). The Piedmont Province slopes gradually from the Blue Ridge to the Fall Lines, 73 miles east of the site, which marks the boundary between the sedimentary stratum of the Coastal Plain and the crystalline rocks of the Piedmont Physiographic Province (Refs. 20, pp. 251-52; 21). The Gastonia area is considered to be in the upland section of the province which is characterized by undulant topography, extensive dissection by streams, and a general dip direction to the southeast (Refs. 21; 22, pp. 1-5). Elevations in the site area range from 670 to 820 feet above mean sea level

(Appendix A). The geographic coordinates of the site are 35°14'37" N latitude and 81°11'8" W longitude (Appendix A).

The soil underlying the facility is of the Cecil-Urban Land Association (Ref. 23, plate 1). Soil is nearly level and well-drained. The specific soil type is the Cecil-Urban land complex. This soil has a yellowish-red sandy loam as a surficial layer and other characteristics such as 2 to 8 percent slopes, moderate permeability, strong acidity, and a subsoil depth of 60 inches (Ref. 23, Map No. 7, pp. 17, 18, 63, 64).

A relatively thick layer of residual soil and saprolite underlie the area of the facility. Saprolite is a clay-rich residual material formed by the in-place chemical weathering of the underlying bedrock. Saprolite retains the original primary and secondary textures and structures of the parent bedrock material (Ref. 24, p. 10). The residual soil and saprolite layer beneath the facility ranges from 0 to 150 feet thick (Ref. 25, p. 8).

The dominant crystalline bedrock beneath the facility is Pennsylvanian to Permian aged massive granitic rock (Ref. 21). This granite is megacrystic and pegmatitic and has been known to contain tourmaline, beryl, cassiterite, and spodomine, minerals not usually present in granite (Ref. 22, pp. 6-7).

Saprolite, slope wash deposits, and residual soil are collectively referred to as regolith. It is the saturated portion of the regolith and the water within the fractures of the granite that are hydrologically connected and together comprise the unconfined regolith/crystalline rock aquifer system (Ref. 26, p. 47). This is the aquifer of concern in the Gastonia, North Carolina, area. The mean-pool elevation depth to the water table is approximately 38 feet below land surface (bls) (Appendix A).

Well depths in the Piedmont range from 150 to 300 feet bls with yields ranging from 3 to 25 gallons per minute (gpm) (Ref. 25, pp. 2-5). More specifically, the average well depth in granite in Gaston County is 165 feet bls, and the average yield of these wells is 18 gpm (Ref. 27, p. V-1). The chemical quality of groundwater from Gaston County is good; however, iron has been noted in higher concentrations than average. Also, it has been estimated that the potential groundwater availability is 0.4 million gallons a day (Ref. 28, p. V-1).

Groundwater flow is generally toward streams and rivers. Under the Uniroyal facility, groundwater apparently flows in an easterly direction (Appendix A). Recharge to the aquifer results from infiltration of rainfall and melted snow through the unsaturated portion of the regolith to the

saturated regolith and fractures in the crystalline rocks. Water-bearing fractures rarely exceed a depth of 300 to 400 feet bls (Ref. 25, p. 5).

The clays within regolith represent the layer of lowest hydraulic conductivity between the surface and the aquifer. Hydraulic conductivity values of similar materials have typically been in the 1.0×10^{-7} to 1.0×10^{-5} cm/sec range (Ref. 28, p. 29).

3.3.2 Aquifer Use

Surface water is the primary source of drinking water for residents in the immediate area surrounding the facility. There are two municipal water systems that supply potable water to residents located in the study area. The Gaston Utilities Department is the primary supplier of water to these residents, with water obtained from a surface water intake located approximately 6.5 miles northeast of the facility on the South Fork River (Ref. 11, Appendix A). This intake is located outside the area of potential site influence. This system provides service to approximately 43,000 connections in the Gaston area (Ref. 11). The city of Ranlo purchases all its water supplies from the Gaston County Utilities Department and supplies a very small portion of the study area with potable water. This area is located approximately 3.75 miles northeast of the facility (Ref. 11, Appendix A).

The remaining population within 4 miles of the facility, not served by a municipal surface supply system relies on private wells for potable water. A house count using topographic maps of the area indicates that approximately 50 homes within 3 miles and 675 homes within 3 to 4 miles from the facility obtain potable water supplies from private wells (Ref. 11, Appendix A). The nearest well used for drinking water is located approximately 1.2 miles south of the facility (Appendix A).

3.4 SUMMARY OF POTENTIALLY AFFECTED POPULATIONS AND ENVIRONMENTS

There are two pathways of concern for the facility: groundwater and surface water. The air and onsite exposure pathways are not considered of concern because there is sufficient groundcover in the form of asphalt and dense grasses, as well as a lack of visible waste, to preclude an air release or onsite exposure threat.

Surface water is the primary migration pathway of concern at the facility. Surface water run-off from the facility primarily enters several detention basins situated along the facility's northern property boundary which collect and allow the eventual discharge of surface water run-off into drainage ditches which channel run-off to Catawba Creek (Ref. 11, Appendix A). Catawba Creek follows a meandering path southeast and enters Lake Wylie. Catawba Creek is only known to be used for

recreational fishing; however, Lake Wylie is used for recreational fishing, boating, and swimming (Appendix A).

Of secondary concern at the facility is the groundwater pathway. Rainfall is the primary method of recharge for the aquifer in the area. There is no information available that indicates how long the facility has been covered in asphalt; however, this form of containment over the facility is believed to have existed for a number of years and has precluded any substantial migration of contaminants into the groundwater table. Except where grass lawns are present, there is only a small likelihood of groundwater migration threat to the local groundwater resource (Figure 2). Groundwater is obtained from joints, fractures, and other secondary openings in crystalline bedrock and primary pore spaces within the overlying residual soil material. These units comprise the residual soil/fractured crystalline rock aquifer system. Groundwater is a sole source of potable water for local residents not served by a municipal system. A total of 2,755 people within 4 miles of the facility obtain their potable water supplies from the crystalline rock aquifer.

4.0 FIELD INVESTIGATION

4.1 SAMPLE COLLECTION

During the field investigation, conducted the week of August 20, 1990, FIT 4 attempted to identify and characterize contaminants which may be present in the environment as a result of activities that were conducted at Uniroyal, Inc. Uniroyal Chemical Company. To accomplish this, FIT 4 collected environmental surface and subsurface soil, sediment, and surface water samples from a number of strategic locations. These locations were selected based on historical information, hydrogeological data for the region and site area, and direct observation at the site.

4.1.1 Sample Collection Methodology

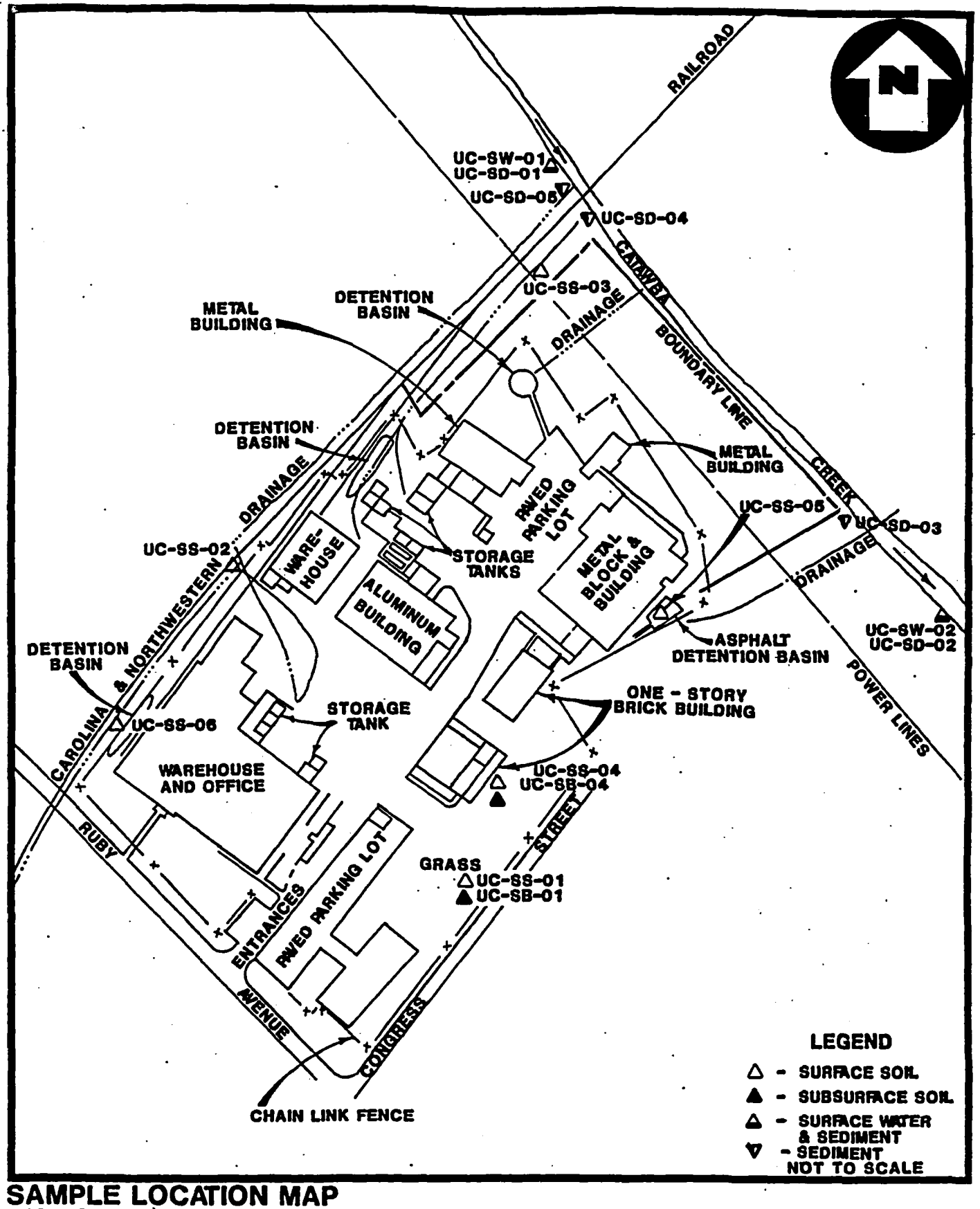
All sample collection, sample preservation, and chain-of-custody procedures used during this investigation were in accordance with the standard operating procedures as specified in Sections 3 and 4 of the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

4.1.2 Duplicate Samples

Duplicate samples were accepted by John Robinson, a designated representative of Uniroyal, Inc. Uniroyal Chemical Company. Receipt for sample forms are on file at FIT 4.

4.1.3 Description of Samples and Sample Locations

A total of 15 environmental samples were collected for this investigation. Background surface and subsurface soil samples were collected from a grassy area located near the southeast corner of the facility. A surface and subsurface soil sample were also collected near the facility's drum storage area. Additional surface soil samples were collected from drainage pathways located along the facility's eastern and western property boundary. Surface water and sediment samples were collected at upgradient and downgradient locations on Catawba Creek, as well as from locations where drainage ditches from the facility enter the creek. All sample locations are shown on Figure 3. Sample codes, descriptions, locations, and rationale are presented in Table 1.



SAMPLE LOCATION MAP
UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

FIGURE 3

NUS CORPORATION

TABLE 1

SAMPLE CODES, DESCRIPTIONS, LOCATIONS, AND RATIONALE
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

Sample Code	Description	Location	Rationale	Date (1990)	Time
UC-SS-01	Surface Soil	From a grassy area located in the southeast corner of the facility	To establish background conditions	8/21	1005
UC-SS-02	Surface Soil	Collected from the western property boundary	To determine presence or absence of contamination	8/21	1355
UC-SS-03	Surface Soil	Collected at the point where an onsite drainage ditch enters Catawba Creek	To determine presence or absence of contamination	8/21	1335
UC-SS-04	Surface Soil	Collected adjacent to the drum storage area	To determine presence or absence of contamination	8/21	1035
UC-SS-05	Surface Soil	Collected from a detention basin located in the northeast section of the property	To determine presence or absence of contamination	8/21	1145
UC-SS-06	Surface Soil	Collected from the southwest corner of the property in a drainage ditch	To determine presence or absence of contamination	8/21	1420
UC-SB-01	Subsurface Soil	From a grassy area located in the southeast corner of the facility at 4' below land surface (bls)	To establish background conditions	8/21	1015
UC-SB-04	Subsurface Soil	Collected adjacent to the drum storage area at 4' bls	To determine presence or absence of contamination	8/21	1055

UC - Uniroyal, Inc. Uniroyal Chemical Co.
SS - Surface Soil
SB - Subsurface Soil
SD - Sediment
SW - Surface Water

TABLE 1

SAMPLE CODES, DESCRIPTIONS, LOCATIONS, AND RATIONALE
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

Sample Code	Description	Location	Rationale	Date (1990)	Time
UC-SD-01	Sediment	Collected from Catawba Creek northwest of the facility, at an upstream location	To establish background conditions	8/21	1630
UC-SD-02	Sediment	Collected from Catawba Creek northeast of the facility at a downstream location	To establish downstream conditions	8/21	1510
UC-SD-03	Sediment	Collected from Catawba Creek north of the facility where a drainage ditch enters the creek	To determine presence or absence of contamination	8/21	1530
UC-SD-04	Sediment	Collected from Catawba Creek northwest of the facility where a drainage ditch enters the creek	To determine presence or absence of contamination	8/21	1555
UC-SD-05	Sediment	Collected from Catawba Creek northwest of the facility where a drainage ditch enters the creek	To determine presence or absence of contamination	8/21	1605
UC-SW-01	Surface Water	Collected from Catawba Creek northwest of the facility, at an upstream location	To establish background conditions	8/21	1610
UC-SW-02	Surface Water	Collected from Catawba Creek north of the facility, at a downstream location	To determine presence or absence of contamination	8/21	1500

UC - Uniroyal, Inc. Uniroyal Chemical Co.
SS - Surface Soil
SB - Subsurface Soil
SD - Sediment
SW - Surface Water

4.1.4 Field Measurements

Field measurements were performed on all water samples (Table 2). Parameters measured included temperature, pH, and conductivity of the sample at time of collection. No field measurements were performed on the soil samples during this investigation.

4.2 SAMPLE ANALYSIS

4.2.1 Analytical Support and Methodology

All samples collected were analyzed under the Contract Laboratory Program (CLP) and analyzed for all parameters listed in the Target Compound List (TCL). Organic and inorganic analysis of soil and water samples was performed by Compuchem, Research Triangle Park, North Carolina.

All laboratory analyses and laboratory quality assurance procedures used during this investigation were in accordance with standard procedures and protocols as specified in the Laboratory Operations and Quality Control Manual, United States Environmental Protection Agency, Region IV, Environmental Services Division, issued October 24, 1990; or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the CLP Statement of Work (SOW), as applicable.

4.2.2 Analytical Data Quality and Data Qualifiers

All analytical data were subjected to a quality assurance review as described in the EPA Environmental Services Division laboratory data evaluation guidelines. In the tables, some of the concentrations of the organic and inorganic parameters have been flagged with a "J". This indicates that the qualitative analysis was acceptable, but the quantitative value has been estimated. A few other compounds are flagged with an "N", indicating that they were detected based on the presumptive evidence of their presence. This means that the compound was tentatively identified, and its detection cannot be used as positive identification of its presence. Results for some background samples are reported with a "U" flag. This flag means that the material was analyzed for but not detected. The reported number is the laboratory-derived minimum quantitation limit (MQL) for the compound or element in that sample. At times, miscellaneous organic compounds that do not appear on the target compound list are reported with a data set. These compounds are labeled as "JN", indicating that they are tentatively identified at estimated quantities. Because these compounds are not routinely analyzed for or reported, background levels or MQL values are not generally available for comparison. The complete analytical data sheets and analytical data qualifier reports are presented in Appendix B.

TABLE 2

FIELD MEASUREMENTS
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

Sample Code	pH	Temp. (°C)	Conductivity (umhos/cm)
UC-SW-01	6.86	27	177
UC-SW-02	6.95	27	198

The soil trip blank, UC-TB-01S, contained 50 ug/kg of acetone. The preservative blank, UC-PB-01, contained 7 ug/l of copper and 700 ug/l of potassium. The water trip blank (also labeled UC-PB-01) contained 23 ug/l of acetone, and 10 ug/l of methyl ethyl ketone.

4.2.3 Presentation of Analytical Results

This section presents a discussion and interpretation of the analytical results from the environmental samples collected during the investigation at Uniroyal, Inc. Uniroyal Chemical Company. Results of subsurface soil, surface soil, sediment, and surface water samples are presented in Tables 3, 4, 5, 6, 7, and 8. Background samples have been designated for all media. Values for background sample results are presented as either a measured value or as the MQL. Samples containing concentrations of contaminants greater than three times the background level or MQL of these contaminants are considered to be elevated. These samples are noted in the text.

4.2.3.1 Summary of Analytical Results, Subsurface and Surface Soil Samples

Summaries of analytical results for subsurface and surface soil samples are presented in Tables 3 and 4. Samples UC-SB-01 and UC-SS-01, collected from an upgradient grassy area at the facility, were designated as background samples for these two media. Only one other subsurface sample was collected: UC-SB-04. It was collected near a drum storage area and contained seven metals at levels of 3 to 4 times background or MQL. These metals were barium, calcium, chromium, cobalt, magnesium, nickel, and potassium. Surface soil sample UC-SS-04, collected in conjunction with this subsurface soil sample, contained 15 metals at elevated levels ranging from 3 to 30 times background or MQL. One hundred mg/kg of zinc (11 times MQL), 11 mg/kg of chromium (5 times MQL), and 35 mg/kg of lead (3 times MQL) were detected.

Fourteen metals were detected at elevated levels ranging from 3 to 90 times background or MQL, in the surface soil sample collected from the asphalt detention basin, UC-SS-05. This sample contained 19 mg/kg of chromium (9 times background), 13 mg/kg of cobalt (8 times MQL), 48 mg/kg of lead (4 times MQL), 14J mg/kg of silver (8 times MQL), 62 mg/kg of vanadium (12 times background), and 380 mg/kg of zinc (42 times MQL). This detention basin received run-off from a majority of the facility.

Three surface soil samples were collected along the western boundary of the property from a drainage ditch that flows north toward Catawba Creek. The most upgradient sample, UC-SS-06, contained seven metals at elevated levels ranging from 3 to 55 times background or MQL. These metals included chromium (7.2 mg/kg, 3 times background), lead (30 mg/kg, 3 times MQL), and zinc

TABLE 3

SUMMARY OF INORGANIC ANALYTICAL RESULTS
SURFACE AND SUBSURFACE SOIL SAMPLES
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

	Subsurface Soil		Surface Soil					
	Background	Drum Storage Area	Background	Western Boundary	Drainage Ditch at Catawba Creek	Drum Storage Area	Detention Basin	Drainage Ditch SW Corner
PARAMETERS (mg/kg)	UC-SB-01	UC-SB-04	UC-SS-01	UC-SS-02	UC-SS-03	UC-SS-04	UC-SS-05	UC-SS-06
ALUMINUM	20,000J	28,000J	3400J	5800J	21,000J	20,000J	22,000J	3000J
ARSENIC	34JN	-	4UJ	16JN	16JN	15JN	28JN	-
BARIUM	41J	120J	16J	23J	91J	57J	130J	13J
BERYLLIUM	1.7	1.9	0.75U	-	1.4	1.2	2	-
CADMIUM	-	-	0.94U	-	-	-	1.6	-
CALCIUM	190U	560	560	9600	800	13,000	2200	31,000
CHROMIUM	8.2	24	2	21	14	11	19	7.2
COBALT	3.5	15	1.5U	4.3	6.6	6.1	13	-
COPPER	21	9.5	22	34	9.2	39	23	3.3
IRON	20,000J	35,000J	2500J	16,000J	22,000J	17,000J	26,000J	4900J
LEAD	26	30	10U	86	-	35	48	30
MAGNESIUM	2400J	8800J	440UJ	8300J	3300J	4600J	7700J	7500J
MANGANESE	120J	470J	26J	110J	180J	170J	280J	94J
NICKEL	5.2U	8.9	4.2U	9.7	6.1	7.3	12	-
POTASSIUM	3100	9000	80U	1900	3200	2500	7200	1200
SILVER	7.8J	16J	1.7UJ	3J	7.7J	6.2J	14J	3.3J

- Material analyzed for but not detected above minimum quantitation limit (MQL).
J Estimated value.
N Presumptive evidence of presence of material.
U Material was analyzed for but not detected. The number given is the MQL.

TABLE 3

SUMMARY OF INORGANIC ANALYTICAL RESULTS
SURFACE AND SUBSURFACE SOIL SAMPLES
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

	Subsurface Soil		Surface Soil					
	Background	Drum Storage Area	Background	Western Boundary	Drainage Ditch at Catawba Creek	Drum Storage Area	Detention Basin	Drainage Ditch SW Corner
PARAMETERS (mg/kg)	UC-SB-01	UC-SB-04	UC-SS-01	UC-SS-02	UC-SS-03	UC-SS-04	UC-SS-05	UC-SS-06
SODIUM	-	-	70U	-	-	1400	-	-
VANADIUM	40	76	4.7	25	48	35	62	11
ZINC	42	85	9U	570	90	100	380	71

- Material analyzed for but not detected above minimum quantitation limit (MQL).
J Estimated value.
N Presumptive evidence of presence of material.
U Material was analyzed for but not detected. The number given is the MQL.

TABLE 4

SUMMARY OF ORGANIC ANALYTICAL RESULTS
SURFACE AND SUBSURFACE SOIL SAMPLES
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

		Subsurface Soil		Surface Soil					
	Soil Trip Blank	Background	Drum Storage Area	Background	Western Boundary	Drainage Ditch at Catawba Creek	Drum Storage Area	Detention Basin	Drainage Ditch, SW Corne
PARAMETERS (ug/kg)	UC-TB-01S	UC-SB-01	UC-SB-04	UC-SS-01	UC-SS-02	UC-SS-03	UC-SS-04	UC-SS-05	UC-SS-06
PURGEABLE COMPOUNDS									
ACETONE	50	-	-	10U	-	-	-	-	-
EXTRACTABLE COMPOUNDS									
NAPHTHALENE	-	-	-	340U	-	-	120J	-	-
2-METHYLNAPHTHALENE	-	-	-	340U	-	-	77J	-	-
ACENAPHTHYLENE	-	-	-	340U	-	-	-	-	77J
ACENAPHTHENE	-	-	-	340U	-	-	260J	-	-
DIBENZOFURAN	-	-	-	340U	-	-	170J	-	-
FLUORENE	-	-	-	340U	-	-	350J	-	-
PHENANTHRENE	-	-	-	340U	-	85J	2000	-	260J
ANTHRACENE	-	-	-	340U	-	110J	620	-	110J
FLUORANTHENE	-	-	-	44J	78J	400J	2700	-	550
PYRENE	-	-	-	39J	-	470	2100	-	510

- Material analyzed for but not detected above minimum quantitation limit (MQL).
J Estimated value.
N Presumptive evidence of presence of material.
U Material was analyzed for but not detected. The number given is the MQL.
(1) Tentatively identified compound. This compound is not on Target Compound List and is reported only as detected in individual samples; MQL not determined.

TABLE 4

SUMMARY OF ORGANIC ANALYTICAL RESULTS
SURFACE AND SUBSURFACE SOIL SAMPLES
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

		Subsurface Soil		Surface Soil					
PARAMETERS (ug/kg)	Soil Trip Blank	Background	Drum Storage Area	Background	Western Boundary	Drainage Ditch at Catawba Creek	Drum Storage Area	Detention Basin	Drainage Ditch, SW Corner
	UC-TB-01S	UC-SB-01	UC-SB-04	UC-SS-01	UC-SS-02	UC-SS-03	UC-SS-04	UC-SS-05	UC-SS-06
BENZO(A)ANTHRACENE	-	-	-	340U	-	240J	1400	-	320J
CHRYSENE	-	-	-	340U	-	290J	1400	-	400
BIS(2-ETHYLHEXYL) PHTHALATE	-	-	-	340U	2200	-	-	1200	-
BENZO(B AND/OR K)FLUORANTHENE	-	-	-	340U	-	580J	2200	-	510
BENZO-A-PYRENE	-	-	-	340U	-	210J	1000	-	310J
INDENO (1,2,3-CD) PYRENE	-	-	-	340U	-	88J	350J	-	-
BENZO(GHI)PERYLENE	-	-	-	340U	-	71J	-	-	-
HEXADECANOIC ACID(1)				300JN	1000JN	400JN	600JN		1000JN
OCTAHYDRODIMETHYLMETHYLETHENYLNAPHTHALENE(1)				1000JN					
CHLOROISOCYANATOBENZENE(1)					200JN				
METHYLETHENYLMETHYLETHYLBENZENE(1)					400JN				
PHTHALIC ANHYDRIDE(1)					300JN	200JN			
DIISOCYANATOMETHYLBENZENE(1)					1000JN	300JN			

- Material analyzed for but not detected above minimum quantitation limit (MQL).
J Estimated value.
N Presumptive evidence of presence of material.
U Material was analyzed for but not detected. The number given is the MQL.
(1) Tentatively identified compound. This compound is not on Target Compound List and is reported only as detected in individual samples; MQL not determined.

TABLE 4

SUMMARY OF ORGANIC ANALYTICAL RESULTS
SURFACE AND SUBSURFACE SOIL SAMPLES
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

		Subsurface Soil		Surface Soil					
	Soil Trip Blank	Background	Drum Storage Area	Background	Western Boundary	Drainage Ditch at Catawba Creek	Drum Storage Area	Detention Basin	Drainage Ditch, SW Corner
PARAMETERS (ug/kg)	UC-TB-01S	UC-SB-01	UC-SB-04	UC-SS-01	UC-SS-02	UC-SS-03	UC-SS-04	UC-SS-05	UC-SS-06
PROPARGITE(1)						800JN		60,000JN	
NAPHTHALENYLISOINDOLEDIONE(1)						500JN			
CARBAZOLE(1)							400JN		
METHYLPHENANTHRENE(1)							300JN		
METHYLANTHRACENE(1)							300JN		
CYCLOPENTAPHENANTHRENE(1)							600JN		
BENZONAPHTHOTHIOPHENE(1)							300JN		
BENZONAPHTHOFURAN(1)							200JN		
METHYLPYRENE(1)							200JN		
BENZOPHENANTHRENE(1)							200JN		
METHYLBENZANTHRACENE(1)							300JN		
BENZOPYRENE (NOT A)(1)							400JN		
METHOXYPENTENONE(1)								900JN	

- Material analyzed for but not detected above minimum quantitation limit (MQL).
J Estimated value.
N Presumptive evidence of presence of material.
U Material was analyzed for but not detected. The number given is the MQL.
(1) Tentatively identified compound. This compound is not on Target Compound List and is reported only as detected in individual samples; MQL not determined.

TABLE 4

SUMMARY OF ORGANIC ANALYTICAL RESULTS
SURFACE AND SUBSURFACE SOIL SAMPLES
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

		Subsurface Soil		Surface Soil					
	Soil Trip Blank	Background	Drum Storage Area	Background	Western Boundary	Drainage Ditch at Catawba Creek	Drum Storage Area	Detention Basin	Drainage Ditch, SW Corner
PARAMETERS (ug/kg)	UC-TB-01S	UC-SB-01	UC-SB-04	UC-SS-01	UC-SS-02	UC-SS-03	UC-SS-04	UC-SS-05	UC-SS-06
DIMETHYLETHYLPHENOL(1)								20,000JN	
DICHLOROBENZONITRILE(1)								700JN	
BENZOFLUORENE (2 ISOMERS)(1)							1000JN		
PETROLEUM PRODUCT(1)					N				
UNIDENTIFIED COMPOUND/NO.(1)					10,000J/10	4000J/3	6000J/2	100,000J/7	4000J/4
PESTICIDE\PCB COMPOUNDS									
ENDOSULFAN I (ALPHA)	-	-	-	16U	90	-	-	-	-
PCB-1254 (AROCLOR 1254)	-	-	-	330U	740	-	420	-	-

- Material analyzed for but not detected above minimum quantitation limit (MQL).
J Estimated value.
N Presumptive evidence of presence of material.
U Material was analyzed for but not detected. The number given is the MQL.
(1) Tentatively identified compound. This compound is not on Target Compound List and is reported only as detected in individual samples; MQL not determined.

(71 mg/kg, 8 times MQL). Downgradient from this location, sample UC-SS-02 contained 11 metals at levels ranging from 3 to 63 times background or MQL. Most notable were 21 mg/kg of chromium (10 times background), 86 mg/kg of lead (8 times MQL), and 570 mg/kg of zinc (63 times MQL). Twelve metals were detected at elevated levels ranging from 4 to 40 times background or MQL in sample UC-SS-03 collected from the confluence of the drainage ditch and Catawba Creek. Chromium (14 mg/kg, 7 times background) and zinc (90 mg/kg, 10 times MQL) were detected. Arsenic was identified in four of the surface soil samples based on presumptive evidence of presence of the material at levels from 3 to 7 times MQL for arsenic.

Nineteen metallic contaminants were detected at Uniroyal in the soil samples. The contaminants are widely distributed over the facility and more pronounced in the detention basin and the drum storage area. Arsenic, chromium, lead, and zinc appear at elevated levels in most of these samples. Lead and zinc are used as catalysts in the production of urethane polymers (Ref. 29). Very high levels of calcium, magnesium, and potassium were detected throughout the samples. Salts of these metals are used as catalysts in the production of polyurethanes (Ref. 29). Uniroyal also manufactured fungicides, and metals are often used as the toxic component in fungicides (Ref. 30).

No organic compounds were detected in subsurface soil samples. Seven TCL organic compounds were detected at elevated levels along with 13 miscellaneous extractable compounds in the drum storage area sample (UC-SS-04). All of the TCL compounds were polyaromatic hydrocarbons, (PAHs). 2700 ug/kg of fluoranthene (61 times background, estimated value) and 2,100 ug/kg of pyrene (53 times background, estimated value) were reported. These two compounds were detected at levels from 9 to 13 times background in samples UC-SS-03 and UC-SS-06. PAHs are typically emitted by asphalt, and the PAHs at Uniroyal may be related to the asphalt that covers much of the facility. Unidentified extractable compounds at levels ranging from 4,000JN to 100,000JN ug/kg were detected throughout the surface soil samples. Because no unidentified compounds were reported for the background surface soil sample, areal, site-related, organic contamination was indicated.

Bis (2-ethylhexyl) phthalate, a common plasticizer, was reported in two samples: UC-SS-06, an upgradient drainage ditch sample (2,200 ug/kg, 6 times MQL) and UC-SS-04, the drum storage area sample (1,200 ug/kg, 3 times MQL). A variety of site-related compounds was tentatively identified in the surface soil samples. The presence of hexadecanoic acid, a fatty acid, was reported throughout the facility. Two isocyanate compounds (chloroisocyanatobenzene and diisocyanatomethylbenzene) were tentatively identified in sample UC-SS-02. Such compounds are used in the production of urethane polymers typical of Uniroyal products (Ref. 29). Phthalic anhydride, commonly used in plasticizers, polyester resins, alkyl resins, dyes, occurred in samples UC-SS-02 and UC-SS-03 (Ref. 31). Propargite was detected in the drainage ditch and detention basin (samples UC-SS-03 and UC-SS-05).

Propargite is a widely used acaricide, i.e., a chemical used in insect control (Ref. 32). Sample UC-SS-02 also contained 90 ug/kg (5 times MQL) of Endosulfan I (Alpha), a common pesticide. Besides PAH compounds, the following miscellaneous extractable compounds were tentatively identified: ketones, carbazole, a furan, a phenol, a nitrile, and petroleum product.

Although organic contaminants were reported throughout the facility, three surface soil samples, UC-SS-02 (upgradient ditch sample), UC-SS-04 (the drum storage area sample), and UC-SS-05 (the detention basin sample) were particularly contaminated. Many of the compounds can be directly correlated with Uniroyal products such as herbicides, pesticides, urethane polymers, and rubber products. Other organic compounds may be identified as starting materials, intermediates, degradation products or solvents used in the diverse chemical processes at Uniroyal.

4.2.3.2 Summary of Analytical Results, Sediment and Surface Water Samples

Summaries of analytical results for sediment and surface water samples are presented in Tables 5, 6, 7, and 8. Sediment sample UC-SD-01 was collected as an upgradient background sediment sample from Catawba Creek. Lead was detected at a concentration of 78 mg/kg (13 times MQL) in sample UC-SD-03. This sample was collected at a downgradient location on Catawba Creek at the confluence of the creek and an onsite drainage ditch. Three metals were detected at elevated levels in the upgradient Catawba Creek sediment sample UC-SD-05 collected from the creek above the railroad tracks. Chromium was reported at 8.4 mg/kg (3 times background) along with aluminum and vanadium.

Nine metals were detected in sample UC-SD-04, collected below the railroad tracks, at levels ranging from 3 to 17 times background or MQL: 7.5 mg/kg (3 times background) of chromium and 82 mg/kg (4 times MQL) of zinc were reported.

Drainage ditches that receive run-off from the Uniroyal facility flow into Catawba Creek. The ditches receive run-off from the entire property. The high lead concentration in sample UC-SD-03 indicated site-related contamination of Catawba Creek. The high incidence of metals in the downgradient railroad track sample (UC-SD-04) may be attributable to the facility because a similar pattern of metallic contamination occurred in the surface soil samples.

No TCL organic compounds above background or MQL were reported for the sediment samples. All the sediment samples, including the background, contained miscellaneous unidentified compounds. It does not appear that organic contaminants are migrating from the site into Catawba Creek.

TABLE 5

SUMMARY OF INORGANIC ANALYTICAL RESULTS
SEDIMENT SAMPLES
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

PARAMETERS (mg/kg)	Background Catawba Creek	Downgradient Catawba Creek	Catawba Creek at Drainage Ditch	Downgradient Catawba Creek, Below Railroad Tracks	Upgradient Catawba Creek Above Railroad Tracks
	UC-SD-01	UC-SD-02	UC-SD-03	UC-SD-04	UC-SD-05
ALUMINUM	750J	2700J	1700J	13,000J	3000J
BARIUM	11J	24J	15J	92J	20J
CHROMIUM	2.4	3.1	3.2	7.5	8.4
COBALT	3U	-	-	7.5	-
COPPER	4.5	3.1	2.2	6	6.2
IRON	1600J	3800J	2400J	14,000J	4400J
LEAD	6U	-	78	-	16
MAGNESIUM	370UJ	900J	650J	4000J	910J
MANGANESE	29J	48J	25J	200J	44J
POTASSIUM	440	830	400	4600	760
SILVER	2UJ	-	-	4.6J	-
VANADIUM	5.3	9.4	7.5	31	15
ZINC	20UJ	22	-	82	25

- Material analyzed for but not detected above minimum quantitation limit (MQL).
J Estimated value.
U Material was analyzed for but not detected. The number given is the MQL.

TABLE 6

SUMMARY OF ORGANIC ANALYTICAL RESULTS
SEDIMENT SAMPLES
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

PARAMETERS (ug/kg)	Background Catawba Creek	Downgradient Catawba Creek	Catawba Creek at Drainage Ditch	Downgradient Catawba Creek Below Railroad Tracks	Upgradient Catawba Creek Above Railroad Tracks
	UC-SD-01	UC-SD-02	UC-SD-03	UC-SD-04	UC-SD-05
PURGEABLE COMPOUNDS					
1,1-DICHLOROETHANE	7U	-	2J	-	-
EXTRACTABLE COMPOUNDS					
NAPHTHYLENE	440U	-	-	47J	-
PHENANTHRENE	440U	100J	51J	60J	110J
ANTHRACENE	440U	-	-	61J	-
FLUORANTHENE	440U	190J	95J	270J	220J
PYRENE	440U	180J	100J	310J	180J
BENZO(A)ANTHRACENE	440U	83J	-	170J	86J
CHRYSENE	440U	92J	-	230J	110J
BENZO(B AND/OR K)FLUORANTHENE	440U	81J	-	230J	82J
BENZO-A-PYRENE	440U	70J	-	170J	66J
INDENO (1,2,3-CD) PYRENE	440U	-	-	86J	-
BENZO(GHI)PERYLENE	440U	-	-	81J	-
HEXADECANOIC ACID(1)	200JN	300JN	300JN	300JN	300JN

- Material analyzed for but not detected above minimum quantitation limit (MQL).
J Estimated value.
N Presumptive evidence of presence of material.
U Material was analyzed for but not detected. The number given is the MQL.
(1) Tentatively identified compound. This compound is not on Target Compound List and is reported only as detected in individual samples; MQL not determined.

TABLE 6

SUMMARY OF ORGANIC ANALYTICAL RESULTS
SEDIMENT SAMPLES
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

PARAMETERS (ug/kg)	Background Catawba Creek	Downgradient Catawba Creek	Catawba Creek at Drainage Ditch	Downgradient Catawba Creek Below Railroad Tracks	Upgradient Catawba Creek Above Railroad Tracks
	UC-SD-01	UC-SD-02	UC-SD-03	UC-SD-04	UC-SD-05
BENZOFLUORANTHENE (NOT B OR K)(1)				200JN	
UNIDENTIFIED COMPOUND/NO.(1)	6000J/3	20,000J/3	7000J/3	2000J/1	20,000J/4

- Material analyzed for but not detected above minimum quantitation limit (MQL).
J Estimated value.
N Presumptive evidence of presence of material.
U Material was analyzed for but not detected. The number given is the MQL.
(1) Tentatively identified compound. This compound is not on Target Compound List and is reported only as detected in individual samples; MQL not determined.

TABLE 7

SUMMARY OF INORGANIC ANALYTICAL RESULTS
SURFACE WATER SAMPLES
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

PARAMETERS (ug/l)	Preservative Blank	Upgradient Catawa Creek	Downgradient Catawba Creek
	UC-PB-01	UC-SW-01	UC-SW-02
BARIUM	-	47	48
CALCIUM	-	14,000J	14,000J
COPPER	7	14	13
IRON	-	940J	690J
MAGNESIUM	-	2700	2700
MANGANESE	-	29	33
POTASSIUM	700	3400	3400
SODIUM	-	22,000	22,000

- Material analyzed for but not detected above minimum quantitation limit (MQL).

J Estimated value.

TABLE 8

SUMMARY OF ORGANIC ANALYTICAL RESULTS
SURFACE WATER SAMPLES
UNIROYAL, INC. UNIROYAL CHEMICAL COMPANY
GASTONIA, GASTON COUNTY, NORTH CAROLINA

PARAMETERS (ug/l)	Upgradient Catawba Creek	Downgradient Catawba Creek	Trip Blank
	UC-SW-01	UC-SW-02	UC-PB-01
PURGEABLE COMPOUNDS			
ACETONE	10U	-	23
METHYL ETHYL KETONE	10U	-	10
TETRACHLOROETHENE	1J	5U	-

- Material analyzed for but not detected above minimum quantitation limit (MQL).
J Estimated value.
U Material was analyzed for but not detected. The number given is the MQL.

One upgradient background sample (UC-SW-01) and one downgradient sample (UC-SW-02) were collected to assess contaminant migration from the facility to Catawba Creek via surface water run-off. No organic or inorganic compounds were reported above background levels.

5.0 SUMMARY

The surface water pathway is the primary migration pathway of concern from operations conducted at the Uniroyal, Inc. Uniroyal Chemical Company facility. Contaminants entrained in surface water run-off from the facility can enter Catawba Creek directly. Four distinct drainage basins situated around the facility collect and store surface water run-off generated on the facility property before releasing it to Catawba Creek via drainage ditches. Although the surface water pathway within 15 miles downstream of the facility is not utilized for drinking water purposes, recreational fishing occurs on Catawba Creek, and recreational fishing, boating, and swimming are the uses of Lake Wylie. The groundwater pathway is also of concern due to the use of the unconfined regolith/crystalline rock aquifer in the area. Within a 4-mile site radius, approximately 2,755 people utilize groundwater to supply their potable water needs.

The sampling investigation consisted of the collection of 15 environmental samples: six surface soil, two subsurface soil, five sediment, and two surface water. No inorganic contaminants were detected in the surface water of Catawba Creek. Surface soil samples were contaminated with 19 metals which appear to be widely distributed over the property. The drum storage area and the asphalt detention basin contained the most metals at the highest concentrations. Elevated levels of arsenic, chromium, lead, and zinc were recurrent throughout the surface soil samples. Subsurface soil sample UC-SB-04 contained seven metals including chromium. Due to drainage pathways at Uniroyal, a similar pattern of metallic contamination was observed in the sediment samples, in which a total of 10 metals, including chromium, lead, and zinc, were detected at elevated levels. Metals are used in the production of urethane polymers and in fungicides, both products of Uniroyal.

No organic compounds were detected in the subsurface soil or surface water samples at an elevated level. Surface soil samples contained many Target Compound List organic compounds at elevated levels including polyaromatic compounds such as fluoranthene and pyrene, bis (2-ethylhexyl) phthalate, and Endosulfan I (Alpha). Miscellaneous extractable organic compounds included hexadecanoic acid, propargite, phthalic anhydride, isocyanates, ketones, a phenolic compound, a furan, petroleum product, and polyaromatic compounds. Many of these compounds are directly related to Uniroyal products or indirectly related as starting materials, intermediates, degradation products, or solvents representative of activities at the facility. The most contaminated surface soil samples occurred in the upgradient drainage ditch, the drum storage area, and the asphalt detention basin. These contaminants have the potential to enter Catawba Creek or the crystalline rock aquifer.

Based on the analysis of possible migration pathways, the results of the sampling investigation, and the information obtained from the references, FIT 4 recommends that this site be evaluated using the HRS (effective March 14, 1991).

REFERENCES

1. RCRA Inspection Form, Prepared by Larry Fox, North Carolina Department of Health Services (RCRA Section), November 12, 1986.

2. John Robinson, Environmental Engineer, Uniroyal Chemical, letter to Lenox Bramble, North Carolina Department of Health Services, October 25, 1984. Subject: Chemical spill.

3. EPA Hazardous Waste Permit Application (EPA Form, 3510-1 and 3510-3) and attachment for Uniroyal Inc., Gastonia, North Carolina. Filed by Robert J. Mazaika, Director of Manufacturing and Engineering for Uniroyal Inc.

4. Potential Hazardous Waste Site Preliminary Assessment (Form 2070-12), Part 1-Site Information and Assessment for Uniroyal Chemical. Filed by O.W. Strickland, North Carolina Department of Health Services, Solid and Hazardous Waste Management Branch, November 27, 1986..

5. Cindy Extine, Uniroyal, Inc., Uniroyal Chemical Company, telephone conversation with Eric Corbin, NUS Corporation, March 8, 1991. Subject: Manufactured products.

6. John Robinson, Technical Supervisor, Uniroyal Chemical, letter to Jerry Rhodes, Environmental Chemist, North Carolina Solid and Hazardous Waste Management Branch, January 3, 1983. Subject: Change in Part A application.

7. RCRA Generator Inspection - Part 262, Form Prepared by Larry Fox, North Carolina Department of Health Services, November 22, 1983.

8. John Robinson, Technical Supervisor, Uniroyal Chemical, letter to O.W. Strickland, North Carolina Solid and Hazardous Waste Management Branch. Subject: Change in RCRA status.

9. EPA Region IV State Permitting Report Form for Uniroyal Chemical, EPA ID No. NCD003164464.

10. North Carolina Department of Environment, Health & Natural Resources, Hazardous Waste Section, Alphabetic List of Hazardous Waste Facilities, December 12, 1990.

11. NUS Corporation Field Logbook No. F4-2490 for Uniroyal, Inc. Uniroyal Chemical Company, TDD No. F4-9007-25. Documentation of screening site inspection, August 21, 1990.

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20. Linda Aller, et al., DRASTIC: A Standardized System for Evaluating Ground Water Pollution Potential Using Hydrogeologic Settings, EPA-600/2-87-035 (Ada, Oklahoma: EPA, April 1987), pp. 251-252.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM******

SISB/SAS
RECEIVED
OCT 16 1990
EPA - REGION IV
ATLANTA, GA.

DATE: 10/10/90

SUBJECT: Results of Specified Analysis;
90-699 UNIROYAL INC
GASTONIA NC
CASE NO: 14748

FROM: Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

cc:

INORGANIC DATA QUALIFIERS REPORT

Case Number: 14748
Project Number: 90-699
Site: Uniroyal Inc. Gastonia, NC

Element	Flag	Samples Affected	Reason
A. Water			
Ni, Mn, Tl	U	All positives > IDL but < CRDL	Baseline instability
Al, Ba, Ca, Fe, Hg, Mg, Na, Zn Pb, As	U	All positives > IDL but < 10x contaminant level	Positives in Blanks
Se	J	All	Matrix spike recovery - 35%
Pb	J	All	Blind spike recovery - 35.5%
Ag, Sb	JN	All positives with Fe concentrations in solution >200,000 ug/L	Suspected positive interference as noted in the blind and contractor ICS
As	JN	All positives with Al concentrations in solution >10,000 ug/L	Suspected positive interference as noted in the blind ICS
Ag	J	All	Matrix spike recovery - 32.8%
Zn	J	All	Matrix duplicate RPD - 97.9%
Ca	J	All	Serial dilution percent difference - 12.8%
Fe	J	All	Serial dilution percent difference - 32.3%
CN	J R	All positives All negatives	Technical holding time exceeded Blind spike recovery - 0%
B. Soils			
Ni, Mn, Tl	U	All positives > IDL but < CRDL	Baseline instability
Al, Ba, Ca, Fe, Hg, Mg, Na, Zn Pb, As	U	All positives > IDL but < 10x contaminant level	Positives in Blanks
Sb	J	All	Matrix spike recovery - 40.2%
As	J	All positives	Matrix spike recovery - 184.7%
Se	J R	All positives All negatives	Matrix spike recovery - 0%
Ag	J	All	Matrix spike recovery - 53%
Al	J	All	Serial dilution percent difference - 18.2%

INORGANIC DATA QUALIFIERS REPORT (continued)

Element	Flag	Samples Affected	Reason
Ba	J	All	Serial dilution percent difference = 29.4%
Fe	J	All	Serial dilution percent difference = 27.8%
Mg	J	All	Serial dilution percent difference = 15.2%
Mn	J	All	Serial dilution percent difference = 23.4%
Ag, Sb	JN	All positives with Al or Fe concentrations in solution >200,000 ug/L	Suspected positive interference as noted in the blind and contractor ICS
As	JN	All positives with Al concentrations in solution >10,000 ug/L	Suspected positive interference as noted in the blind ICS
CN	J R	All positives All negatives	Blind spike recovery = 0%

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.
10/09/90

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 90-699    SAMPLE NO. 49242  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: E CORBIN                       **
**   SOURCE: UNIROYAL INC                                             CITY: GASTONIA             ST: NC                             **
**   STATION ID: SS-01                                                COLLECTION START: 03/21/90  1005   STOP: 00/00/00             **
**   CASE.NO.: 14748           SAS NO.:                               D. NO.: W765               MD NO: W765                        **
**                                                                                                                                  **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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RESULTS	UNITS	PARAMETER
1.5UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49243 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SB-01
CASE.NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1015 STOP: 00/00/00
D. NO.: W766 MD NO: W766

RESULTS	UNITS	PARAMETER
1.5UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49244 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC	CITY: GASTONIA ST: NC
STATION ID: SS-02	COLLECTION START: 08/21/90 1355 STOP: 00/00/00
CASE.NO.: 14748 SAS NO.:	D. NO.: W772 MD NO: W772

RESULTS	UNITS	PARAMETER
1.5UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 90-699    SAMPLE NO. 49245  SAMPLE TYPE: SOIL        PROG ELEM: NSF   COLLECTED BY: E CORBIN                  **
**   SOURCE: UNIROYAL INC                                             CITY: GASTONIA               ST: NC                      **
**   STATION ID: SS-03                                                COLLECTION START: 08/21/90  1335   STOP: 00/00/00        **
**   CASE.NO.: 14748          SAS NO.:                                D. NO.: W774                MD NO: W774                  **
**                                                                                                                             **
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RESULTS	UNITS	PARAMETER
1.9UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

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** PROJECT NO. 90-699 SAMPLE NO. 49246 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN **
** SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC **
** STATION ID: SS-04 COLLECTION START: 08/21/90 1035 STOP: 00/00/00 **
** CASE.NO.: 14748 SAS NO.: D. NO.: W769 MD NO: W769 **
** **

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RESULTS	UNITS	PARAMETER
1.6UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49247 SAMPLE TYPE: SOIL
PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC
CITY: GASTONIA ST: NC
STATION ID: SB-04
COLLECTION START: 08/21/90 1055 STOP: 00/00/00
CASE.NO.: 14748 SAS NO.:
D. NO.: W770 MD NO: W770

RESULTS	UNITS	PARAMETER
1.7UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49248 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC	CITY: GASTONIA ST: NC
STATION ID: SS-05	COLLECTION START: 08/21/90 1145 STOP: 00/00/00
CASE.NO.: 14748 SAS NO.:	D. NO.: W771 MD NO: W771

RESULTS	UNITS	PARAMETER
2.1UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49249 SAMPLE TYPE: SOIL
PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC
CITY: GASTONIA ST: NC
STATION ID: SS-06
COLLECTION START: 08/21/90 1420 STOP: 00/00/00
CASE.NO.: 14748 SAS NO.:
D. NO.: W773 MD NO: W773

RESULTS	UNITS	PARAMETER
1.7UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 90-699   SAMPLE NO. 49250  SAMPLE TYPE: SOIL       PROG ELEM: NSF   COLLECTED BY: E CORBIN                **
**   SOURCE: UNIROYAL INC                                            CITY: GASTONIA               ST: NC                      **
**   STATION ID: SD-01                                               COLLECTION START: 08/21/90  1630   STOP: 00/00/00      **
**   CASE.NO.: 14748          SAS NO.:                               D. NO.: W776                MD NO: W776                 **
**                                                                                                                            **
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RESULTS	UNITS	PARAMETER
1.6UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49251 SAMPLE TYPE: SOIL
PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC
CITY: GASTONIA ST: NC
STATION ID: SD-02
COLLECTION START: 08/21/90 1510 STOP: 00/00/00
CASE.NO.: 14748 SAS NO.:
D. NO.: W779 MD NO: W779

RESULTS	UNITS	PARAMETER
1.8UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

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**   PROJECT NO. 90-699   SAMPLE NO. 49252  SAMPLE TYPE: SOIL      PROG ELEM: NSF   COLLECTED BY: E CORBIN          **
**   SOURCE: UNIROYAL INC                                          CITY: GASTONIA              ST: NC               **
**   STATION ID: SD-03                                             COLLECTION START: 08/21/90  1530   STOP: 00/00/00 **
**   CASE.NO.: 14748         SAS NO.:                              D. NO.: W778              MD NO: W778            **
**                                                                                                                   **
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RESULTS	UNITS	PARAMETER
1.6UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 90-699   SAMPLE NO. 49253   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC   CITY: GASTONIA   ST: NC
STATION ID: SD-04   COLLECTION START: 08/21/90 1555   STOP: 00/00/00
CASE NO.: 14748   SAS NO.:   D. NO.: W780   MD NO: W780

RESULTS	UNITS	PARAMETER
1.6UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49254 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-05
CASE.NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1605 STOP: 00/00/00
D. NO.: W781 MD NO: W781

RESULTS	UNITS	PARAMETER
1.7UR	MG/KG	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49256 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: PB-01 COLLECTION START: 08/21/90 0915 STOP: 00/00/00
CASE.NO.: 14748 SAS NO.: D. NO.: W768 MD NO: W768

RESULTS	UNITS	PARAMETER
10UR	UG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49257 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: SW-01 COLLECTION START: 08/21/90 1610 STOP: 00/00/00
CASE.NO.: 14748 SAS NO.: D. NO.: W775 MD NO: W775

RESULTS	UNITS	PARAMETER
10UR	UG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 90-699   SAMPLE NO. 49258   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC   CITY: GASTONIA   ST: NC
STATION ID: SW-02   COLLECTION START: 08/21/90 1500   STOP: 00/00/00
CASE.NO.: 14748   SAS NO.:   D. NO.: W777   MD NO: W777

RESULTS	UNITS	PARAMETER
10UR	UG/L	CYANIDE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

file code 1.2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

SISL/SAS
RECEIVED
OCT 10 1990
EPA - REGION IV
ATLANTA, GA.

*****MEMORANDUM******

DATE: 10/10/90

SUBJECT: Results of Metals Analysis;
90-699 UNIROYAL INC
GASTONIA NC
CASE NO: 14748

NCD003164464

FROM: Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

INORGANIC DATA QUALIFIERS REPORT

Case Number: 14748
Project Number: 90-699
Site: Uniroyal Inc. Gastonia, NC

Element	Flag	Samples Affected	Reason
A. Water			
Ni, Mn, Tl	U	All positives > IDL but < CRDL	Baseline instability
Al, Ba, Ca, Fe, Hg, Mg, Na, Zn Pb, As	U	All positives > IDL but < 10x contaminant level	Positives in Blanks
Se	J	All	Matrix spike recovery - 35%
Pb	J	All	Blind spike recovery - 35.5%
Ag, Sb	JN	All positives with Fe concentrations in solution >200,000 ug/L	Suspected positive interference as noted in the blind and contractor ICS
As	JN	All positives with Al concentrations in solution >10,000 ug/L	Suspected positive interference as noted in the blind ICS
Ag	J	All	Matrix spike recovery - 32.8%
Zn	J	All	Matrix duplicate RPD - 97.9%
Ca	J	All	Serial dilution percent difference - 12.8%
Fe	J	All	Serial dilution percent difference - 32.3%
CN	J R	All positives All negatives	Technical holding time exceeded Blind spike recovery - 0%
B. Soils			
Ni, Mn, Tl	U	All positives > IDL but < CRDL	Baseline instability
Al, Ba, Ca, Fe, Hg, Mg, Na, Zn Pb, As	U	All positives > IDL but < 10x contaminant level	Positives in Blanks
Sb	J	All	Matrix spike recovery - 40.2%
As	J	All positives	Matrix spike recovery - 184.7%
Se	J R	All positives All negatives	Matrix spike recovery - 0%
Ag	J	All	Matrix spike recovery - 53%
Al	J	All	Serial dilution percent difference - 18.2%

INORGANIC DATA QUALIFIERS REPORT (continued)

Element	Flag	Samples Affected	Reason
Ba	J	All	Serial dilution percent difference - 29.4%
Fe	J	All	Serial dilution percent difference - 27.8%
Mg	J	All	Serial dilution percent difference - 15.2%
Mn	J	All	Serial dilution percent difference - 23.4%
Ag, Sb	JN	All positives with Al or Fe concentrations in solution >200,000 ug/L	Suspected positive interference as noted in the blind and contractor ICS
As	JN	All positives with Al concentrations in solution >10,000 ug/L	Suspected positive interference as noted in the blind ICS
CN	J R	All positives All negatives	Blind spike recovery - 0%

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

METALS DATA REPORT

*** ***

** PROJECT NO. 90-699 SAMPLE NO. 49242 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN **
** SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC **
** STATION ID: SS-01 COLLECTION START: 08/21/90 1005 STOP: 00/00/00 **
** CASE NUMBER: 14748 SAS NUMBER: MD NUMBER: W765 **

*** ***

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
3400J	ALUMINUM	26J	MANGANESE
3.8UJ	ANTIMONY	0.08U	MERCURY
4UJ	ARSENIC	4.2U	NICKEL
16J	BARIUM	80U	POTASSIUM
0.75U	BERYLLIUM	0.38UR	SELENIUM
0.94U	CADMIUM	1.7UJ	SILVER
560	CALCIUM	70U	SODIUM
2	CHROMIUM	0.19U	THALLIUM
1.5U	COBALT	NA	TIN
22	COPPER	4.7	VANADIUM
2500J	IRON	9U	ZINC
10U	LEAD		PERCENT MOISTURE
440UJ	MAGNESIUM		

REMARKS

REMARKS

FOOTNOTES
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*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/09/90

** PROJECT NO. 90-699 SAMPLE NO. 49243 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN **
** SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC **
** STATION ID: SB-01 COLLECTION START: 08/21/90 1015 STOP: 00/00/00 **
** CASE NUMBER: 14748 SAS NUMBER: MD NUMBER: W766 **

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
20000J	ALUMINUM	120J	MANGANESE
4.7UJ	ANTIMONY	0.11U	MERCURY
34JN	ARSENIC	5.2U	NICKEL
41J	BARIUM	3100	POTASSIUM
1.7	BERYLLIUM	4.5UR	SELENIUM
1.2U	CADMIUM	7.8J	SILVER
190U	CALCIUM	90U	SODIUM
8.2	CHROMIUM	1U	THALLIUM
3.5	COBALT	NA	TIN
21	COPPER	40	VANADIUM
20000J	IRON	42	ZINC
26	LEAD	17	PERCENT MOISTURE
2400J	MAGNESIUM		

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

METALS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49244 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SS-02
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1355 STOP: 00/00/00
MD NUMBER: W772

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
5800J	ALUMINUM	110J	MANGANESE
20UJ	ANTIMONY	0.1U	MERCURY
16JN	ARSENIC	9.7	NICKEL
23J	BARIUM	1900	POTASSIUM
1U	BERYLLIUM	0.43UR	SELENIUM
2U	CADMIUM	3J	SILVER
9600	CALCIUM	90U	SODIUM
21	CHROMIUM	1U	THALLIUM
4.3	COBALT	NA	TIN
34	COPPER	25	VANADIUM
16000J	IRON	570	ZINC
86	LEAD	10	PERCENT MOISTURE
8300J	MAGNESIUM		

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

METALS DATA REPORT

*** ***
** PROJECT NO. 90-699 SAMPLE NO. 49245 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN **
** SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC **
** STATION ID: SS-03 COLLECTION START: 08/21/90 1335 STOP: 00/00/00 **
** CASE NUMBER: 14748 SAS NUMBER: MD NUMBER: W774 **
** **
*** ***

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
21000J	ALUMINUM	180J	MANGANESE
4.6UJ	ANTIMONY	0.3U	MERCURY
16JN	ARSENIC	6.1	NICKEL
91J	BARIUM	3200	POTASSIUM
1.4	BERYLLIUM	0.46UR	SELENIUM
1.1U	CADMIUM	7.7J	SILVER
800	CALCIUM	110U	SODIUM
14	CHROMIUM	1U	THALLIUM
6.6	COBALT	NA	TIN
9.2	COPPER	48	VANADIUM
22000J	IRON	90	ZINC
20U	LEAD	19	PERCENT MOISTURE
3300J	MAGNESIUM		

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/09/90

** PROJECT NO. 90-699 SAMPLE NO. 49246 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN **
** SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC **
** STATION ID: SS-04 COLLECTION START: 08/21/90 1035 STOP: 00/00/00 **
** CASE NUMBER: 14748 SAS NUMBER: MD NUMBER: W769 **

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
20000J	ALUMINUM	170J	MANGANESE
8UJ	ANTIMONY	0.10U	MERCURY
15JN	ARSENIC	7.3	NICKEL
57J	BARIUM	2500	POTASSIUM
1.2	BERYLLIUM	0.41UR	SELENIUM
1U	CADMIUM	6.2J	SILVER
13000	CALCIUM	1400	SODIUM
11	CHROMIUM	0.21U	THALLIUM
6.1	COBALT	NA	TIN
39	COPPER	35	VANADIUM
17000J	IRON	100	ZINC
35	LEAD	08	PERCENT MOISTURE
4600J	MAGNESIUM		

REMARKS ***REMARKS***

FOOTNOTES
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10/09/90

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

REPORT
NO. 90-699
UNIROYAL INC
N ID: SB-04
UMBER: 14748

SAMPLE NO. 49247 SAMPLE TYPE: SOIL
SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1055 STOP: 00/00/00
MD NUMBER: W770

ANALYTICAL RESULTS

ANALYTICAL RESULTS

	MG/KG
ALUMINUM	470J
ANTIMONY	0.09U
ARSENIC	8.9
BARIUM	9000
BERYLLIUM	0.47UR
CADMIUM	16J
CALCIUM	310U
CHROMIUM	1U
COBALT	NA
COPPER	76
IRON	85
LEAD	19
MAGNESIUM	
MANGANESE	
MERCURY	
NICKEL	
POTASSIUM	
SELENIUM	
SILVER	
SODIUM	
THALLIUM	
TIN	
VANADIUM	
ZINC	
PERCENT MOISTURE	

REMARKS

*J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
INTERFERENCES
*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
IS THE MINIMUM QUANTITATION LIMIT.
PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/09/90

PROJECT NO. 90-699 SAMPLE NO. 49248 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SS-05
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1145 STOP: 00/00/00
MD NUMBER: W771

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
22000J	ALUMINUM	280J	MANGANESE
5.6UJ	ANTIMONY	1U	MERCURY
28JN	ARSENIC	12	NICKEL
130J	BARIUM	7200	POTASSIUM
2	BERYLLIUM	0.57UR	SELENIUM
1.6	CADMIUM	14J	SILVER
2200	CALCIUM	110U	SODIUM
19	CHROMIUM	0.29U	THALLIUM
13	COBALT	NA	TIN
23	COPPER	62	VANADIUM
26000J	IRON	380	ZINC
48	LEAD	32	PERCENT MOISTURE
7700J	MAGNESIUM		

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

METALS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49249 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: SS-06 COLLECTION START: 08/21/90 1420 STOP: 00/00/00
CASE NUMBER: 14748 SAS NUMBER: MD NUMBER: W773

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
3000J	ALUMINUM	94J	MANGANESE
20UJ	ANTIMONY	0.08U	MERCURY
3UJ	ARSENIC	4.4U	NICKEL
13J	BARIUM	1200	POTASSIUM
0.80U	BERYLLIUM	0.41UR	SELENIUM
1U	CADMIUM	3.3J	SILVER
31000	CALCIUM	60U	SODIUM
7.2	CHROMIUM	1U	THALLIUM
1.6U	COBALT	NA	TIN
3.3	COPPER	11	VANADIUM
4900J	IRON	71	ZINC
30	LEAD	04	PERCENT MOISTURE
7500J	MAGNESIUM		

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/09/90

PROJECT NO. 90-699 SAMPLE NO. 49250 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-01
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1630 STOP: 00/00/00
MD NUMBER: W776

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
750J	ALUMINUM	29J	MANGANESE
4.5UJ	ANTIMONY	0.10U	MERCURY
7UJ	ARSENIC	5U	NICKEL
11J	BARIUM	440	POTASSIUM
0.91U	BERYLLIUM	0.38UR	SELENIUM
1.1U	CADMIUM	2UJ	SILVER
100U	CALCIUM	5.9U	SODIUM
2.4	CHROMIUM	1U	THALLIUM
3U	COBALT	NA	TIN
4.5	COPPER	5.3	VANADIUM
1600J	IRON	20U	ZINC
6U	LEAD	16	PERCENT MOISTURE
370UJ	MAGNESIUM		

REMARKS ***REMARKS***

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

METALS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49251 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: SD-02 COLLECTION START: 08/21/90 1510 STOP: 00/00/00
CASE NUMBER: 14748 SAS NUMBER: MD NUMBER: W779

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
2700J	ALUMINUM	48J	MANGANESE
4.3UJ	ANTIMONY	0.4U	MERCURY
4UJ	ARSENIC	4.8U	NICKEL
24J	BARIUM	830	POTASSIUM
0.87U	BERYLLIUM	0.41UR	SELENIUM
1.1U	CADMIUM	2UJ	SILVER
150U	CALCIUM	5.6U	SODIUM
3.1	CHROMIUM	0.20U	THALLIUM
3U	COBALT	NA	TIN
3.1	COPPER	9.4	VANADIUM
3800J	IRON	22	ZINC
20U	LEAD	21	PERCENT MOISTURE
900J	MAGNESIUM		

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/09/90

PROJECT NO. 90-699 SAMPLE NO. 49252 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-03
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1530 STOP: 00/00/00
MD NUMBER: W778

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
1700J	ALUMINUM	25J	MANGANESE
5UJ	ANTIMONY	0.6U	MERCURY
3UJ	ARSENIC	5.5U	NICKEL
15J	BARIUM	400	POTASSIUM
1U	BERYLLIUM	0.48UR	SELENIUM
1.3U	CADMIUM	2.3UJ	SILVER
200U	CALCIUM	6.5U	SODIUM
3.2	CHROMIUM	1U	THALLIUM
2U	COBALT	NA	TIN
2.2	COPPER	7.5	VANADIUM
2400J	IRON	20U	ZINC
78	LEAD	20	PERCENT MOISTURE
650J	MAGNESIUM		

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/09/90

PROJECT NO. 90-699 SAMPLE NO. 49253 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-04
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1555 STOP: 00/00/00
MD NUMBER: W780

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
13000J	ALUMINUM	200J	MANGANESE
5.3UJ	ANTIMONY	0.12U	MERCURY
9UJ	ARSENIC	5.9U	NICKEL
92J	BARIUM	4600	POTASSIUM
1.1U	BERYLLIUM	0.51UR	SELENIUM
1.3U	CADMIUM	4.6J	SILVER
230U	CALCIUM	10U	SODIUM
7.5	CHROMIUM	1U	THALLIUM
7.5	COBALT	NA	TIN
6	COPPER	31	VANADIUM
14000J	IRON	82	ZINC
8U	LEAD	27	PERCENT MOISTURE
4000J	MAGNESIUM		

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

METALS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49254 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-05
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1605 STOP: 00/00/00
MD NUMBER: W781

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
3000J	ALUMINUM	44J	MANGANESE
5.4UJ	ANTIMONY	0.11U	MERCURY
2UJ	ARSENIC	6U	NICKEL
20J	BARIUM	760	POTASSIUM
1.1U	BERYLLIUM	0.54UR	SELENIUM
1.4U	CADMIUM	2.5UJ	SILVER
180U	CALCIUM	7.1U	SODIUM
8.4	CHROMIUM	1U	THALLIUM
2.2U	COBALT	NA	TIN
6.2	COPPER	15	VANADIUM
4400J	IRON	25	ZINC
16	LEAD	28	PERCENT MOISTURE
910J	MAGNESIUM		

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

METALS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49256 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: E CORBIN **
** SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC **
** STATION ID: PB-01 COLLECTION START: 08/21/90 0915 STOP: 00/00/00 **
** CASE NUMBER: 14748 SAS NUMBER: MD NUMBER: W768 **

UG/L	ANALYTICAL RESULTS
80U	ALUMINUM
20U	ANTIMONY
4U	ARSENIC
20U	BARIUM
4U	BERYLLIUM
5U	CADMIUM
730UJ	CALCIUM
6U	CHROMIUM
10U	COBALT
7	COPPER
90UJ	IRON
2UJ	LEAD
410U	MAGNESIUM

UG/L	ANALYTICAL RESULTS
5U	MANGANESE
0.20U	MERCURY
22U	NICKEL
700	POTASSIUM
2UJ	SELENIUM
9UJ	SILVER
810U	SODIUM
1U	THALLIUM
NA	TIN
4U	VANADIUM
50UJ	ZINC

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

METALS DATA REPORT 10/09/90

PROJECT NO. 90-699 SAMPLE NO. 49257 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: SW-01 COLLECTION START: 08/21/90 1610 STOP: 00/00/00
CASE NUMBER: 14748 SAS NUMBER: MD NUMBER: W775

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
480U	ALUMINUM	29	MANGANESE
20U	ANTIMONY	0.20U	MERCURY
6U	ARSENIC	22U	NICKEL
47	BARIUM	3400	POTASSIUM
4U	BERYLLIUM	20UJ	SELENIUM
5U	CADMIUM	9UJ	SILVER
14000J	CALCIUM	22000	SODIUM
6U	CHROMIUM	1U	THALLIUM
8U	COBALT	NA	TIN
14	COPPER	4U	VANADIUM
940J	IRON	40UJ	ZINC
2UJ	LEAD		
2700	MAGNESIUM		

REMARKS ***REMARKS***

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

10/09/90

METALS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49258 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: SW-02 COLLECTION START: 08/21/90 1500 STOP: 00/00/00
CASE NUMBER: 14748 SAS NUMBER: MD NUMBER: W777

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
300U	ALUMINUM	33	MANGANESE
20U	ANTIMONY	0.20U	MERCURY
2U	ARSENIC	22U	NICKEL
48	BARIUM	3400	POTASSIUM
4U	BERYLLIUM	20UJ	SELENIUM
5U	CADMIUM	9UJ	SILVER
14000J	CALCIUM	22000	SODIUM
6U	CHROMIUM	1U	THALLIUM
8U	COBALT	NA	TIN
13	COPPER	4U	VANADIUM
690J	IRON	60UJ	ZINC
1UJ	LEAD		
2700	MAGNESIUM		

REMARKS

REMARKS

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

SISB/SAS
RECEIVED
JAN 09 1991
EPA - REGION IV
ATLANTA GA

*****MEMORANDUM******

DATE: 01/02/91

SUBJECT: Results of Pesticide/PCB Analysis;
90-699 UNIROYAL INC
GASTONIA NC
CASE NO: 14748

FROM: Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

ORGANIC DATA QUALIFIER REPORT

Case Number 14748 Project Number 90-699 SAS Number

Site ID. Uniroyal Inc., Gastonia, NC.

Affected Samples	Compound or Fraction	Flag Used	Reason
Volatiles			
DW778,775	all positives	J	<quantitation limit
Extractables			
all soil samples	bis(2-chloroethyl)ether	R	unacceptable recovery blind spike
	hexachloroethane	R	unacceptable recovery blind spike
all samples	dimethylphthalate	R	unacceptable recovery blind spike
DW765,778-781	all positives	J	<quantitation limit
DW772	fluoranthene	J	<quantitation limit
	di-n-octylphthalate	J	internal standard out of criteria
	benzo(b/k)fluoranthene	J	internal satndard out of criteria
	benzo(a)pyrene	J	internal standard out of criteria
	indeno(1,2,3-cd)pyrene	J	internal standard out of criteria
	dibenz(a,h)anthracene	J	internal standard out of criteria
	benzo(g,h,i)perylene	J	internal standard out of criteria
DW774	all positives except pyrene	J	<quantitation limit
DW769	naphthalene	J	<quantitation limit
	2-methylnaphthalene	J	<quantitation limit
	acenaphthene	J	<quantitation limit
	dibenzofuran	J	<quantitation limit
	fluorene	J	<quantitation limit
	indeno(1,2,3-cd)pyrene	J	<quantitation limit
DW773	acenaphthylene	J	<quantitation limit
	phenanthrene	J	<quantitation limit
	anthracene	J	<quantitation limit
	benzo(a)anthracene	J	<quantitation limit
	benzo(a)pyrene	J	<quantitation limit
Pesticides			
all soil samples	endosulfan II	R	unacceptable recovery blind spike
	alpha-BHC	J	low recovery blind spike

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49242 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: SS-01 COLLECTION START: 08/21/90 1005 STOP: 00/00/00
CASE NUMBER: 14748 SAS NUMBER: D. NUMBER: W765

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
16UJ	ALPHA-BHC	160U	METHOXYCHLOR
16U	BETA-BHC	33U	ENDRIN KETONE
16U	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
16U	GAMMA-BHC (LINDANE)	160U	GAMMA-CHLORDANE /2
16U	HEPTACHLOR	160U	ALPHA-CHLORDANE /2
16U	ALDRIN	330U	TOXAPHENE
16U	HEPTACHLOR EPOXIDE	160U	PCB-1016 (AROCLOR 1016)
16U	ENDOSULFAN I (ALPHA)	160U	PCB-1221 (AROCLOR 1221)
33U	DIELDRIN	160U	PCB-1232 (AROCLOR 1232)
33U	4,4'-DDE (P,P'-DDE)	160U	PCB-1242 (AROCLOR 1242)
33U	ENDRIN	160U	PCB-1248 (AROCLOR 1248)
33UR	ENDOSULFAN II (BETA)	330U	PCB-1254 (AROCLOR 1254)
33U	4,4'-DDD (P,P'-DDD)	330U	PCB-1260 (AROCLOR 1260)
33U	ENDOSULFAN SULFATE	3	PERCENT MOISTURE
33U	4,4'-DDT (P,P'-DDT)		

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
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*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 01/01/91

** PROJECT NO. 90-699 SAMPLE NO. 49243 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SB-01
** CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1015 STOP: 00/00/00
D. NUMBER: W766

UG/KG	ANALYTICAL RESULTS
20UJ	ALPHA-BHC
20U	BETA-BHC
20U	DELTA-BHC
20U	GAMMA-BHC (LINDANE)
20U	HEPTACHLOR
20U	ALDRIN
20U	HEPTACHLOR EPOXIDE
20U	ENDOSULFAN I (ALPHA)
39U	DIELDRIN
39U	4,4'-DDE (P,P'-DDE)
39U	ENDRIN
39UR	ENDOSULFAN II (BETA)
39U	4,4'-DDD (P,P'-DDD)
39U	ENDOSULFAN SULFATE
39U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
200U	METHOXYCHLOR
39U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
200U	GAMMA-CHLORDANE /2
200U	ALPHA-CHLORDANE /2
390U	TOXAPHENE
200U	PCB-1016 (AROCLOR 1016)
200U	PCB-1221 (AROCLOR 1221)
200U	PCB-1232 (AROCLOR 1232)
200U	PCB-1242 (AROCLOR 1242)
200U	PCB-1248 (AROCLOR 1248)
390U	PCB-1254 (AROCLOR 1254)
390U	PCB-1260 (AROCLOR 1260)
19	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 01/01/91

PROJECT NO. 90-699 SAMPLE NO. 49244 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SS-02
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1355 STOP: 00/00/00
D. NUMBER: W772

UG/KG	ANALYTICAL RESULTS
20UJ	ALPHA-BHC
20U	BETA-BHC
20U	DELTA-BHC
20U	GAMMA-BHC (LINDANE)
20U	HEPTACHLOR
20U	ALDRIN
20U	HEPTACHLOR EPOXIDE
90	ENDOSULFAN I (ALPHA)
39U	DIELDRIN
39U	4,4'-DDE (P,P'-DDE)
39U	ENDRIN
39UR	ENDOSULFAN II (BETA)
39U	4,4'-DDD (P,P'-DDD)
39U	ENDOSULFAN SULFATE
39U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
200U	METHOXYCHLOR
39U	ENDRIN KETONE
	CHLORDANE (TECH. MIXTURE) /1
200U	GAMMA-CHLORDANE /2
200U	ALPHA-CHLORDANE /2
390U	TOXAPHENE
200U	PCB-1016 (AROCLOR 1016)
200U	PCB-1221 (AROCLOR 1221)
200U	PCB-1232 (AROCLOR 1232)
200U	PCB-1242 (AROCLOR 1242)
200U	PCB-1248 (AROCLOR 1248)
740	PCB-1254 (AROCLOR 1254)
390U	PCB-1260 (AROCLOR 1260)
18	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 01/01/91

PROJECT NO. 90-699 SAMPLE NO. 49245 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SS-03
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1335 STOP: 00/00/00
D. NUMBER: W774

UG/KG	ANALYTICAL RESULTS
21UJ	ALPHA-BHC
21U	BETA-BHC
21U	DELTA-BHC
21U	GAMMA-BHC (LINDANE)
21U	HEPTACHLOR
21U	ALDRIN
21U	HEPTACHLOR EPOXIDE
21U	ENDOSULFAN I (ALPHA)
41U	DIELDRIN
41U	4,4'-DDE (P,P'-DDE)
41U	ENDRIN
41UR	ENDOSULFAN II (BETA)
41U	4,4'-DDD (P,P'-DDD)
41U	ENDOSULFAN SULFATE
41U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
210U	METHOXYCHLOR
41U	ENDRIN KETONE
	CHLORDANE (TECH. MIXTURE) /1
210U	GAMMA-CHLORDANE /2
210U	ALPHA-CHLORDANE /2
410U	TOXAPHENE
210U	PCB-1016 (AROCLOR 1016)
210U	PCB-1221 (AROCLOR 1221)
210U	PCB-1232 (AROCLOR 1232)
210U	PCB-1242 (AROCLOR 1242)
210U	PCB-1248 (AROCLOR 1248)
410U	PCB-1254 (AROCLOR 1254)
410U	PCB-1260 (AROCLOR 1260)
23	PERCENT MOISTURE

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 01/01/91

PROJECT NO. 90-699 SAMPLE NO. 49246 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SS-04
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1035 STOP: 00/00/00
D. NUMBER: W769

UG/KG	ANALYTICAL RESULTS
18UJ	ALPHA-BHC
18U	BETA-BHC
18U	DELTA-BHC
18U	GAMMA-BHC (LINDANE)
18U	HEPTACHLOR
18U	ALDRIN
18U	HEPTACHLOR EPOXIDE
18U	ENDOSULFAN I (ALPHA)
36U	DIELDRIN
36U	4,4'-DDE (P,P'-DDE)
36U	ENDRIN
36UR	ENDOSULFAN II (BETA)
36U	4,4'-DDD (P,P'-DDD)
36U	ENDOSULFAN SULFATE
36U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
180U	METHOXYCHLOR
36U	ENDRIN KETONE
	CHLORDANE (TECH. MIXTURE) /1
180U	GAMMA-CHLORDANE /2
180U	ALPHA-CHLORDANE /2
360U	TOXAPHENE
180U	PCB-1016 (AROCLOR 1016)
180U	PCB-1221 (AROCLOR 1221)
180U	PCB-1232 (AROCLOR 1232)
180U	PCB-1242 (AROCLOR 1242)
180U	PCB-1248 (AROCLOR 1248)
420	PCB-1254 (AROCLOR 1254)
360U	PCB-1260 (AROCLOR 1260)
11	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 01/01/91

PROJECT NO. 90-699 SAMPLE NO. 49247 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SB-04
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1055 STOP: 00/00/00
D. NUMBER: W770

UG/KG	ANALYTICAL RESULTS
20UJ	ALPHA-BHC
20U	BETA-BHC
20U	DELTA-BHC
20U	GAMMA-BHC (LINDANE)
20U	HEPTACHLOR
20U	ALDRIN
20U	HEPTACHLOR EPOXIDE
20U	ENDOSULFAN I (ALPHA)
40U	DIELDRIN
40U	4,4'-DDE (P,P'-DDE)
40U	ENDRIN
40UR	ENDOSULFAN II (BETA)
40U	4,4'-DDD (P,P'-DDD)
40U	ENDOSULFAN SULFATE
40U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
200U	METHOXYCHLOR
40U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
200U	GAMMA-CHLORDANE /2
200U	ALPHA-CHLORDANE /2
400U	TOXAPHENE
200U	PCB-1016 (AROCLOR 1016)
200U	PCB-1221 (AROCLOR 1221)
200U	PCB-1232 (AROCLOR 1232)
200U	PCB-1242 (AROCLOR 1242)
200U	PCB-1248 (AROCLOR 1248)
400U	PCB-1254 (AROCLOR 1254)
400U	PCB-1260 (AROCLOR 1260)
20	PERCENT MOISTURE

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PESTICIDES/PCB'S DATA REPORT

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** PROJECT NO. 90-699    SAMPLE NO. 49248  SAMPLE TYPE: SOIL      PROG ELEM: NSF   COLLECTED BY: E CORBIN          **
** SOURCE: UNIROYAL INC                                           CITY: GASTONIA            ST: NC                 **
** STATION ID: SS-05                                              COLLECTION START: 08/21/90  1145   STOP: 00/00/00 **
** CASE NUMBER: 14748          SAS NUMBER:                         D. NUMBER: W771                               **
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UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
240UJ	ALPHA-BHC	2400U	METHOXYCHLOR
240U	BETA-BHC	480U	ENDRIN KETONE
240U	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
240U	GAMMA-BHC (LINDANE)	2400U	GAMMA-CHLORDANE /2
240U	HEPTACHLOR	2400U	ALPHA-CHLORDANE /2
240U	ALDRIN	4800U	TOXAPHENE
240U	HEPTACHLOR EPOXIDE	2400U	PCB-1016 (AROCLOR 1016)
240U	ENDOSULFAN I (ALPHA)	2400U	PCB-1221 (AROCLOR 1221)
480U	DIELDRIN	2400U	PCB-1232 (AROCLOR 1232)
480U	4,4'-DDE (P,P'-DDE)	2400U	PCB-1242 (AROCLOR 1242)
480U	ENDRIN	2400U	PCB-1248 (AROCLOR 1248)
480UR	ENDOSULFAN II (BETA)	4800U	PCB-1254 (AROCLOR 1254)
480U	4,4'-DDD (P,P'-DDD)	4800U	PCB-1260 (AROCLOR 1260)
480U	ENDOSULFAN SULFATE	34	PERCENT MOISTURE
480U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 01/01/91

PROJECT NO. 90-699 SAMPLE NO. 49249 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SS-06
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1420 STOP: 00/00/00
D. NUMBER: W773

UG/KG	ANALYTICAL RESULTS
17UJ	ALPHA-BHC
17U	BETA-BHC
17U	DELTA-BHC
17U	GAMMA-BHC (LINDANE)
17U	HEPTACHLOR
17U	ALDRIN
17U	HEPTACHLOR EPOXIDE
17U	ENDOSULFAN I (ALPHA)
34U	DIELDRIN
34U	4,4'-DDE (P,P'-DDE)
34U	ENDRIN
34UR	ENDOSULFAN II (BETA)
34U	4,4'-DDD (P,P'-DDD)
34U	ENDOSULFAN SULFATE
34U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
170U	METHOXYCHLOR
34U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
170U	GAMMA-CHLORDANE /2
170U	ALPHA-CHLORDANE /2
340U	TOXAPHENE
170U	PCB-1016 (AROCLOR 1016)
170U	PCB-1221 (AROCLOR 1221)
170U	PCB-1232 (AROCLOR 1232)
170U	PCB-1242 (AROCLOR 1242)
170U	PCB-1248 (AROCLOR 1248)
340U	PCB-1254 (AROCLOR 1254)
340U	PCB-1260 (AROCLOR 1260)
6	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

)ES/PCB'S DATA REPORT 01/01/91

.OJECT NO. 90-699 SAMPLE NO. 49250 SAMPLE TYPE: SOIL
)URCE: UNIROYAL INC
TATION ID: SD-01
ASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1630 STOP: 00/00/00
D. NUMBER: W776

;/KG	ANALYTICAL RESULTS
1UJ	ALPHA-BHC
21U	BETA-BHC
21U	DELTA-BHC
21U	GAMMA-BHC (LINDANE)
21U	HEPTACHLOR
21U	ALDRIN
21U	HEPTACHLOR EPOXIDE
21U	ENDOSULFAN I (ALPHA)
42U	DIELDRIN
42U	4,4'-DDE (P,P'-DDE)
42U	ENDRIN
42UR	ENDOSULFAN II (BETA)
42U	4,4'-DDD (P,P'-DDD)
42U	ENDOSULFAN SULFATE
42U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
210U	METHOXYCHLOR
42U	ENDRIN KETONE
	CHLORDANE (TECH. MIXTURE) /1
210U	GAMMA-CHLORDANE /2
210U	ALPHA-CHLORDANE /2
420U	TOXAPHENE
210U	PCB-1016 (AROCLOR 1016)
210U	PCB-1221 (AROCLOR 1221)
210U	PCB-1232 (AROCLOR 1232)
210U	PCB-1242 (AROCLOR 1242)
210U	PCB-1248 (AROCLOR 1248)
420U	PCB-1254 (AROCLOR 1254)
420U	PCB-1260 (AROCLOR 1260)
25	PERCENT MOISTURE

REMARKS*

REMARKS

FOOTNOTES*
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 01/01/91

PROJECT NO. 90-699 SAMPLE NO. 49251 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-02
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1510 STOP: 00/00/00
D. NUMBER: W779

UG/KG	ANALYTICAL RESULTS
21UJ	ALPHA-BHC
21U	BETA-BHC
21U	DELTA-BHC
21U	GAMMA-BHC (LINDANE)
21U	HEPTACHLOR
21U	ALDRIN
21U	HEPTACHLOR EPOXIDE
21U	ENDOSULFAN I (ALPHA)
42U	DIELDRIN
42U	4,4'-DDE (P,P'-DDE)
42U	ENDRIN
42UR	ENDOSULFAN II (BETA)
42U	4,4'-DDD (P,P'-DDD)
42U	ENDOSULFAN SULFATE
42U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
210U	METHOXYCHLOR
42U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
210U	GAMMA-CHLORDANE /2
210U	ALPHA-CHLORDANE /2
420U	TOXAPHENE
210U	PCB-1016 (AROCLOR 1016)
210U	PCB-1221 (AROCLOR 1221)
210U	PCB-1232 (AROCLOR 1232)
210U	PCB-1242 (AROCLOR 1242)
210U	PCB-1248 (AROCLOR 1248)
420U	PCB-1254 (AROCLOR 1254)
420U	PCB-1260 (AROCLOR 1260)
23	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.   01/01/91

PESTICIDES/PCB'S DATA REPORT

*** ***
** PROJECT NO. 90-699   SAMPLE NO. 49252   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: E CORBIN **
** SOURCE: UNIROYAL INC   CITY: GASTONIA   ST: NC **
** STATION ID: SD-03   COLLECTION START: 08/21/90 1530   STOP: 00/00/00 **
** CASE NUMBER: 14748   SAS NUMBER: D. NUMBER: W778 **
**   **
*** ***

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
20UJ	ALPHA-BHC	200U	METHOXYCHLOR
20U	BETA-BHC	41U	ENDRIN KETONE
20U	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
20U	GAMMA-BHC (LINDANE)	200U	GAMMA-CHLORDANE /2
20U	HEPTACHLOR	200U	ALPHA-CHLORDANE /2
20U	ALDRIN	410U	TOXAPHENE
20U	HEPTACHLOR EPOXIDE	200U	PCB-1016 (AROCLOR 1016)
20U	ENDOSULFAN I (ALPHA)	200U	PCB-1221 (AROCLOR 1221)
41U	DIELDRIN	200U	PCB-1232 (AROCLOR 1232)
41U	4,4'-DDE (P,P'-DDE)	200U	PCB-1242 (AROCLOR 1242)
41U	ENDRIN	200U	PCB-1248 (AROCLOR 1248)
41UR	ENDOSULFAN II (BETA)	410U	PCB-1254 (AROCLOR 1254)
41U	4,4'-DDD (P,P'-DDD)	410U	PCB-1260 (AROCLOR 1260)
41U	ENDOSULFAN SULFATE	22	PERCENT MOISTURE
41U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.
*C-CONFIRMED BY GCMS   1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49253 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-04
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1555 STOP: 00/00/00
D. NUMBER: W780

UG/KG	ANALYTICAL RESULTS
22UJ	ALPHA-BHC
22U	BETA-BHC
22U	DELTA-BHC
22U	GAMMA-BHC (LINDANE)
22U	HEPTACHLOR
22U	ALDRIN
22U	HEPTACHLOR EPOXIDE
22U	ENDOSULFAN I (ALPHA)
44U	DIELDRIN
44U	4,4'-DDE (P,P'-DDE)
44U	ENDRIN
44UR	ENDOSULFAN II (BETA)
44U	4,4'-DDD (P,P'-DDD)
44U	ENDOSULFAN SULFATE
44U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
220U	METHOXYCHLOR
44U	ENDRIN KETONE
—	CHLORDANE (TECH. MIXTURE) /1
220U	GAMMA-CHLORDANE /2
220U	ALPHA-CHLORDANE /2
440U	TOXAPHENE
220U	PCB-1016 (AROCLOR 1016)
220U	PCB-1221 (AROCLOR 1221)
220U	PCB-1232 (AROCLOR 1232)
220U	PCB-1242 (AROCLOR 1242)
220U	PCB-1248 (AROCLOR 1248)
440U	PCB-1254 (AROCLOR 1254)
440U	PCB-1260 (AROCLOR 1260)
28	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 01/01/91

PROJECT NO. 90-699 SAMPLE NO. 49254 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-05
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1605 STOP: 00/00/00
D. NUMBER: W781

UG/KG	ANALYTICAL RESULTS
21UJ	ALPHA-BHC
21U	BETA-BHC
21U	DELTA-BHC
21U	GAMMA-BHC (LINDANE)
21U	HEPTACHLOR
21U	ALDRIN
21U	HEPTACHLOR EPOXIDE
21U	ENDOSULFAN I (ALPHA)
42U	DIELDRIN
42U	4,4'-DDE (P,P'-DDE)
42U	ENDRIN
42UR	ENDOSULFAN II (BETA)
42U	4,4'-DDD (P,P'-DDD)
42U	ENDOSULFAN SULFATE
42U	4,4'-DDT (P,P'-DDT)

UG/KG	ANALYTICAL RESULTS
210U	METHOXYCHLOR
42U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
210U	GAMMA-CHLORDANE /2
210U	ALPHA-CHLORDANE /2
420U	TOXAPHENE
210U	PCB-1016 (AROCLOR 1016)
210U	PCB-1221 (AROCLOR 1221)
210U	PCB-1232 (AROCLOR 1232)
210U	PCB-1242 (AROCLOR 1242)
210U	PCB-1248 (AROCLOR 1248)
420U	PCB-1254 (AROCLOR 1254)
420U	PCB-1260 (AROCLOR 1260)
24	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 01/01/91

PROJECT NO. 90-699 SAMPLE NO. 49256 SAMPLE TYPE: SURFACEWA
SOURCE: UNIROYAL INC
STATION ID: PB-01
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 0915 STOP: 00/00/00
D. NUMBER: W768

UG/L	ANALYTICAL RESULTS
0.052U	ALPHA-BHC
0.052U	BETA-BHC
0.052U	DELTA-BHC
0.052U	GAMMA-BHC (LINDANE)
0.052U	HEPTACHLOR
0.052U	ALDRIN
0.052U	HEPTACHLOR EPOXIDE
0.052U	ENDOSULFAN I (ALPHA)
0.10U	DIELDRIN
0.10U	4,4'-DDE (P,P'-DDE)
0.10U	ENDRIN
0.10U	ENDOSULFAN II (BETA)
0.10U	4,4'-DDD (P,P'-DDD)
0.10U	ENDOSULFAN SULFATE
0.10U	4,4'-DDT (P,P'-DDT)

UG/L	ANALYTICAL RESULTS
0.52U	METHOXYCHLOR
0.10U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
0.52U	GAMMA-CHLORDANE /2
0.52U	ALPHA-CHLORDANE /2
1.0U	TOXAPHENE
0.52U	PCB-1016 (AROCLOR 1016)
0.52U	PCB-1221 (AROCLOR 1221)
0.52U	PCB-1232 (AROCLOR 1232)
0.52U	PCB-1242 (AROCLOR 1242)
0.52U	PCB-1248 (AROCLOR 1248)
1.0U	PCB-1254 (AROCLOR 1254)
1.0U	PCB-1260 (AROCLOR 1260)

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PESTICIDES/PCB'S DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49257 SAMPLE TYPE: SURFACEWA
SOURCE: UNIROYAL INC
STATION ID: SW-01
CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1610 STOP: 00/00/00
D. NUMBER: W775

UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC
0.050U	BETA-BHC
0.050U	DELTA-BHC
0.050U	GAMMA-BHC (LINDANE)
0.050U	HEPTACHLOR
0.050U	ALDRIN
0.050U	HEPTACHLOR EPOXIDE
0.050U	ENDOSULFAN I (ALPHA)
0.10U	DIELDRIN
0.10U	4,4'-DDE (P,P'-DDE)
0.10U	ENDRIN
0.10U	ENDOSULFAN II (BETA)
0.10U	4,4'-DDD (P,P'-DDD)
0.10U	ENDOSULFAN SULFATE
0.10U	4,4'-DDT (P,P'-DDT)

UG/L	ANALYTICAL RESULTS
0.50U	METHOXYCHLOR
0.10U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
0.50U	GAMMA-CHLORDANE /2
0.50U	ALPHA-CHLORDANE /2
1.0U	TOXAPHENE
0.50U	PCB-1016 (AROCLOR 1016)
0.50U	PCB-1221 (AROCLOR 1221)
0.50U	PCB-1232 (AROCLOR 1232)
0.50U	PCB-1242 (AROCLOR 1242)
0.50U	PCB-1248 (AROCLOR 1248)
1.0U	PCB-1254 (AROCLOR 1254)
1.0U	PCB-1260 (AROCLOR 1260)

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPORT 01/01/91

** PROJECT NO. 90-699 SAMPLE NO. 49258 SAMPLE TYPE:
** SOURCE:
** STATION ID: SW-02
** CASE NUMBER: 14748 SAS NUMBER:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1500 STOP: 00/00/00
D. NUMBER: W777

UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC
0.050U	BETA-BHC
0.050U	DELTA-BHC
0.050U	GAMMA-BHC (LINDANE)
0.050U	HEPTACHLOR
0.050U	ALDRIN
0.050U	HEPTACHLOR EPOXIDE
0.050U	ENDOSULFAN I (ALPHA)
0.10U	DIELDRIN
0.10U	4,4'-DDE (P,P'-DDE)
0.10U	ENDRIN
0.10U	ENDOSULFAN II (BETA)
0.10U	4,4'-DDD (P,P'-DDD)
0.10U	ENDOSULFAN SULFATE
0.10U	4,4'-DDT (P,P'-DDT)

UG/L	ANALYTICAL RESULTS
0.50U	METHOXYCHLOR
0.10U	ENDRIN KETONE
--	CHLORDANE (TECH. MIXTURE) /1
0.50U	GAMMA-CHLORDANE /2
0.50U	ALPHA-CHLORDANE /2
1.0U	TOXAPHENE
0.50U	PCB-1016 (AROCLOR 1016)
0.50U	PCB-1221 (AROCLOR 1221)
0.50U	PCB-1232 (AROCLOR 1232)
0.50U	PCB-1242 (AROCLOR 1242)
0.50U	PCB-1248 (AROCLOR 1248)
1.0U	PCB-1254 (AROCLOR 1254)
1.0U	PCB-1260 (AROCLOR 1260)

REMARKS

REMARKS

FOOTNOTES
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

SISB/SAS
RECEIVED
JAN 09 1991
EPA - REGION IV
ATLANTA GA

*****MEMORANDUM******

DATE: 01/02/91

SUBJECT: Results of Extractable Organic Analysis;
90-699 UNIROYAL INC
GASTONIA NC
CASE NO: 14748

FROM: Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

ORGANIC DATA QUALIFIER REPORT

Case Number 14748 Project Number 90-699 SAS Number

Site ID. Uniroyal Inc., Gastonia, NC.

Affected Samples	Compound or Fraction	Flag Used	Reason
Volatiles			
DW778,775	all positives	J	<quantitation limit
Extractables			
all soil samples	bis(2-chloroethyl)ether	R	unacceptable recovery blind spike
	hexachloroethane	R	unacceptable recovery blind spike
all samples	dimethylphthalate	R	unacceptable recovery blind spike
DW765,778-781	all positives	J	<quantitation limit
DW772	fluoranthene	J	<quantitation limit
	di-n-octylphthalate	J	internal standard out of criteria
	benzo(b/k)fluoranthene	J	internal satndard out of criteria
	benzo(a)pyrene	J	internal standard out of criteria
	indeno(1,2,3-cd)pyrene	J	internal standard out of criteria
	dibenz(a,h)anthracene	J	internal standard out of criteria
	benzo(g,h,i)perylene	J	internal standard out of criteria
DW774	all positives except pyrene	J	<quantitation limit
DW769	naphthalene	J	<quantitation limit
	2-methylnaphthalene	J	<quantitation limit
	acenaphthene	J	<quantitation limit
	dibenzofuran	J	<quantitation limit
	fluorene	J	<quantitation limit
	indeno(1,2,3-cd)pyrene	J	<quantitation limit
DW773	acenaphthylene	J	<quantitation limit
	phenanthrene	J	<quantitation limit
	anthracene	J	<quantitation limit
	benzo(a)anthracene	J	<quantitation limit
	benzo(a)pyrene	J	<quantitation limit
Pesticides			
all soil samples	endosulfan II	R	unacceptable recovery blind spike
	alpha-BHC	J	low recovery blind spike

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49242 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SS-01

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1005 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W765

UG/KG	ANALYTICAL RESULTS
340U	PHENOL
340UR	BIS(2-CHLOROETHYL) ETHER
340U	2-CHLOROPHENOL
340U	1,3-DICHLOROBENZENE
340U	1,4-DICHLOROBENZENE
340U	BENZYL ALCOHOL
340U	1,2-DICHLOROBENZENE
340U	2-METHYLPHENOL
340U	BIS(2-CHLOROISOPROPYL) ETHER
340U	(3-AND/OR 4-)METHYLPHENOL
340U	N-NITROSODI-N-PROPYLAMINE
340UR	HEXACHLOROETHANE
340U	NITROBENZENE
340U	ISOPHORONE
340U	2-NITROPHENOL
340U	2,4-DIMETHYLPHENOL
1600U	BENZOIC ACID
340U	BIS(2-CHLOROETHOXY) METHANE
340U	2,4-DICHLOROPHENOL
340U	1,2,4-TRICHLOROBENZENE
340U	NAPHTHALENE
340U	4-CHLOROANILINE
340U	HEXACHLOROBUTADIENE
340U	4-CHLORO-3-METHYLPHENOL
340U	2-METHYLNAPHTHALENE
340U	HEXACHLOROCYCLOPENTADIENE (HCCP)
340U	2,4,6-TRICHLOROPHENOL
1600U	2,4,5-TRICHLOROPHENOL
340U	2-CHLORONAPHTHALENE
1600U	2-NITROANILINE
340UR	DIMETHYL PHTHALATE
340U	ACENAPHTHYLENE
340U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
1600U	3-NITROANILINE
340U	ACENAPHTHENE
1600U	2,4-DINITROPHENOL
1600U	4-NITROPHENOL
340U	DIBENZOFURAN
340U	2,4-DINITROTOLUENE
340U	DIETHYL PHTHALATE
340U	4-CHLOROPHENYL PHENYL ETHER
340U	FLUORENE
1600U	4-NITROANILINE
1600U	2-METHYL-4,6-DINITROPHENOL
340U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
340U	4-BROMOPHENYL PHENYL ETHER
340U	HEXACHLOROBENZENE (HCB)
1600U	PENTACHLOROPHENOL
340U	PHENANTHRENE
340U	ANTHRACENE
340U	DI-N-BUTYLPHTHALATE
44J	FLUORANTHENE
39J	PYRENE
340U	BENZYL BUTYL PHTHALATE
680U	3,3'-DICHLOROBENZIDINE
340U	BENZO(A)ANTHRACENE
340U	CHRYSENE
340U	BIS(2-ETHYLHEXYL) PHTHALATE
340U	DI-N-OCTYLPHTHALATE
340U	BENZO(B AND/OR K)FLUORANTHENE
340U	BENZO-A-PYRENE
340U	INDENO (1,2,3-CD) PYRENE
340U	DIBENZO(A,H)ANTHRACENE
340U	BENZO(GHI)PERYLENE
3	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49243 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SB-01

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1015 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W766

UG/KG	ANALYTICAL RESULTS
410U	PHENOL
410UR	BIS(2-CHLOROETHYL) ETHER
410U	2-CHLOROPHENOL
410U	1,3-DICHLOROBENZENE
410U	1,4-DICHLOROBENZENE
410U	BENZYL ALCOHOL
410U	1,2-DICHLOROBENZENE
410U	2-METHYLPHENOL
410U	BIS(2-CHLOROISOPROPYL) ETHER
410U	(3-AND/OR 4-)METHYLPHENOL
410U	N-NITROSODI-N-PROPYLAMINE
410UR	HEXACHLOROETHANE
410U	NITROBENZENE
410U	ISOPHORONE
410U	2-NITROPHENOL
410U	2,4-DIMETHYLPHENOL
2000U	BENZOIC ACID
410U	BIS(2-CHLOROETHOXY) METHANE
410U	2,4-DICHLOROPHENOL
410U	1,2,4-TRICHLOROBENZENE
410U	NAPHTHALENE
410U	4-CHLOROANILINE
410U	HEXACHLOROBUTADIENE
410U	4-CHLORO-3-METHYLPHENOL
410U	2-METHYLNAPHTHALENE
410U	HEXACHLOROCYCLOPENTADIENE (HCCP)
410U	2,4,6-TRICHLOROPHENOL
2000U	2,4,5-TRICHLOROPHENOL
410U	2-CHLORONAPHTHALENE
2000U	2-NITROANILINE
410UR	DIMETHYL PHTHALATE
410U	ACENAPHTHYLENE
410U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
2000U	3-NITROANILINE
410U	ACENAPHTHENE
2000U	2,4-DINITROPHENOL
2000U	4-NITROPHENOL
410U	DIBENZOFURAN
410U	2,4-DINITROTOLUENE
410U	DIETHYL PHTHALATE
410U	4-CHLOROPHENYL PHENYL ETHER
410U	FLUORENE
2000U	4-NITROANILINE
2000U	2-METHYL-4,6-DINITROPHENOL
410U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
410U	4-BROMOPHENYL PHENYL ETHER
410U	HEXACHLOROBENZENE (HCB)
2000U	PENTACHLOROPHENOL
410U	PHENANTHRENE
410U	ANTHRACENE
410U	DI-N-BUTYLPHTHALATE
410U	FLUORANTHENE
410U	PYRENE
410U	BENZYL BUTYL PHTHALATE
820U	3,3'-DICHLOROBENZIDINE
410U	BENZO(A)ANTHRACENE
410U	CHRYSENE
410U	BIS(2-ETHYLHEXYL) PHTHALATE
410U	DI-N-OCTYLPHTHALATE
410U	BENZO(B AND/OR K)FLUORANTHENE
410U	BENZO-A-PYRENE
410U	INDENO (1,2,3-CD) PYRENE
410U	DIBENZO(A,H)ANTHRACENE
410U	BENZO(GHI)PERYLENE
19	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49244 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SS-02
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1355 STOP: 00/00/00
D. NO.: W772

UG/KG	ANALYTICAL RESULTS
390U	PHENOL
390UR	BIS(2-CHLOROETHYL) ETHER
390U	2-CHLOROPHENOL
390U	1,3-DICHLOROBENZENE
390U	1,4-DICHLOROBENZENE
390U	BENZYL ALCOHOL
390U	1,2-DICHLOROBENZENE
390U	2-METHYLPHENOL
390U	BIS(2-CHLOROISOPROPYL) ETHER
390U	(3-AND/OR 4-)METHYLPHENOL
390U	N-NITROSODI-N-PROPYLAMINE
390UR	HEXACHLOROETHANE
390U	NITROBENZENE
390U	ISOPHORONE
390U	2-NITROPHENOL
390U	2,4-DIMETHYLPHENOL
1900U	BENZOIC ACID
390U	BIS(2-CHLOROETHOXY) METHANE
390U	2,4-DICHLOROPHENOL
390U	1,2,4-TRICHLOROBENZENE
390U	NAPHTHALENE
390U	4-CHLOROANILINE
390U	HEXACHLOROBUTADIENE
390U	4-CHLORO-3-METHYLPHENOL
390U	2-METHYLNAPHTHALENE
390U	HEXACHLOROCYCLOPENTADIENE (HCCP)
390U	2,4,6-TRICHLOROPHENOL
1900U	2,4,5-TRICHLOROPHENOL
390U	2-CHLORONAPHTHALENE
1900U	2-NITROANILINE
390UR	DIMETHYL PHTHALATE
390U	ACENAPHTHYLENE
390U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
1900U	3-NITROANILINE
390U	ACENAPHTHENE
1900U	2,4-DINITROPHENOL
1900U	4-NITROPHENOL
390U	DIBENZOFURAN
390U	2,4-DINITROTOLUENE
390U	DIETHYL PHTHALATE
390U	4-CHLOROPHENYL PHENYL ETHER
390U	FLUORENE
1900U	4-NITROANILINE
1900U	2-METHYL-4,6-DINITROPHENOL
390U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
390U	4-BROMOPHENYL PHENYL ETHER
390U	HEXACHLOROBENZENE (HCB)
1900U	PENTACHLOROPHENOL
390U	PHENANTHRENE
390U	ANTHRACENE
390U	DI-N-BUTYLPHTHALATE
78J	FLUORANTHENE
390U	PYRENE
390U	BENZYL BUTYL PHTHALATE
780U	3,3'-DICHLOROBENZIDINE
390U	BENZO(A)ANTHRACENE
390U	CHRYSENE
2200	BIS(2-ETHYLHEXYL) PHTHALATE
390UJ	DI-N-OCTYLPHTHALATE
390UJ	BENZO(B AND/OR K)FLUORANTHENE
390UJ	BENZO-A-PYRENE
390UJ	INDENO (1,2,3-CD) PYRENE
390UJ	DIBENZO(A,H)ANTHRACENE
390UJ	BENZO(GHI)PERYLENE
18	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49245 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SS-03
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1335 STOP: 00/00/00
D. NO.: W774

UG/KG	ANALYTICAL RESULTS
420U	PHENOL
420UR	BIS(2-CHLOROETHYL) ETHER
420U	2-CHLOROPHENOL
420U	1,3-DICHLOROBENZENE
420U	1,4-DICHLOROBENZENE
420U	BENZYL ALCOHOL
420U	1,2-DICHLOROBENZENE
420U	2-METHYLPHENOL
420U	BIS(2-CHLOROISOPROPYL) ETHER
420U	(3-AND/OR 4-)METHYLPHENOL
420U	N-NITROSODI-N-PROPYLAMINE
420UR	HEXACHLOROETHANE
420U	NITROBENZENE
420U	ISOPHORONE
420U	2-NITROPHENOL
420U	2,4-DIMETHYLPHENOL
2100U	BENZOIC ACID
420U	BIS(2-CHLOROETHOXY) METHANE
420U	2,4-DICHLOROPHENOL
420U	1,2,4-TRICHLOROBENZENE
420U	NAPHTHALENE
420U	4-CHLOROANILINE
420U	HEXACHLOROBUTADIENE
420U	4-CHLORO-3-METHYLPHENOL
420U	2-METHYLNAPHTHALENE
420U	HEXACHLOROCYCLOPENTADIENE (HCCP)
420U	2,4,6-TRICHLOROPHENOL
2100U	2,4,5-TRICHLOROPHENOL
420U	2-CHLORONAPHTHALENE
2100U	2-NITROANILINE
420UR	DIMETHYL PHTHALATE
84J	ACENAPHTHYLENE
420U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
2100U	3-NITROANILINE
420U	ACENAPHTHENE
2100U	2,4-DINITROPHENOL
2100U	4-NITROPHENOL
420U	DIBENZOFURAN
420U	2,4-DINITROTOLUENE
420U	DIETHYL PHTHALATE
420U	4-CHLOROPHENYL PHENYL ETHER
420U	FLUORENE
2100U	4-NITROANILINE
2100U	2-METHYL-4,6-DINITROPHENOL
420U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
420U	4-BROMOPHENYL PHENYL ETHER
420U	HEXACHLOROBENZENE (HCB)
2100U	PENTACHLOROPHENOL
85J	PHENANTHRENE
110J	ANTHRACENE
420U	DI-N-BUTYLPHTHALATE
400J	FLUORANTHENE
470	PYRENE
420U	BENZYL BUTYL PHTHALATE
850U	3,3'-DICHLOROBENZIDINE
240J	BENZO(A)ANTHRACENE
290J	CHRYSENE
420U	BIS(2-ETHYLHEXYL) PHTHALATE
420U	DI-N-OCTYLPHTHALATE
580J	BENZO(B AND/OR K)FLUORANTHENE
210J	BENZO-A-PYRENE
88J	INDENO (1,2,3-CD) PYRENE
420U	DIBENZO(A,H)ANTHRACENE
71J	BENZO(GHI)PERYLENE
22	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49246 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SS-04
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1035 STOP: 00/00/00

D. NO.: W769

UG/KG	ANALYTICAL RESULTS
370U	PHENOL
370UR	BIS(2-CHLOROETHYL) ETHER
370U	2-CHLOROPHENOL
370U	1,3-DICHLOROBENZENE
370U	1,4-DICHLOROBENZENE
370U	BENZYL ALCOHOL
370U	1,2-DICHLOROBENZENE
370U	2-METHYLPHENOL
370U	BIS(2-CHLOROISOPROPYL) ETHER
370U	(3-AND/OR 4-)METHYLPHENOL
370U	N-NITROSODI-N-PROPYLAMINE
370UR	HEXACHLOROETHANE
370U	NITROBENZENE
370U	ISOPHORONE
370U	2-NITROPHENOL
370U	2,4-DIMETHYLPHENOL
1800U	BENZOIC ACID
370U	BIS(2-CHLOROETHOXY) METHANE
370U	2,4-DICHLOROPHENOL
370U	1,2,4-TRICHLOROBENZENE
120J	NAPHTHALENE
370U	4-CHLOROANILINE
370U	HEXACHLOROBUTADIENE
370U	4-CHLORO-3-METHYLPHENOL
77J	2-METHYLNAPHTHALENE
370U	HEXACHLOROCYCLOPENTADIENE (HCCP)
370U	2,4,6-TRICHLOROPHENOL
1800U	2,4,5-TRICHLOROPHENOL
370U	2-CHLORONAPHTHALENE
1800U	2-NITROANILINE
370UR	DIMETHYL PHTHALATE
370U	ACENAPHTHYLENE
370U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
1800U	3-NITROANILINE
260J	ACENAPHTHENE
1800U	2,4-DINITROPHENOL
1800U	4-NITROPHENOL
170J	DIBENZOFURAN
370U	2,4-DINITROTOLUENE
370U	DIETHYL PHTHALATE
370U	4-CHLOROPHENYL PHENYL ETHER
350J	FLUORENE
1800U	4-NITROANILINE
1800U	2-METHYL-4,6-DINITROPHENOL
370U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
370U	4-BROMOPHENYL PHENYL ETHER
370U	HEXACHLOROBENZENE (HCB)
1800U	PENTACHLOROPHENOL
2000	PHENANTHRENE
620	ANTHRACENE
370U	DI-N-BUTYLPHTHALATE
2700	FLUORANTHENE
2100	PYRENE
370U	BENZYL BUTYL PHTHALATE
740U	3,3'-DICHLOROBENZIDINE
1400	BENZO(A)ANTHRACENE
1400	CHRYSENE
370U	BIS(2-ETHYLHEXYL) PHTHALATE
370U	DI-N-OCTYLPHTHALATE
2200	BENZO(B AND/OR K)FLUORANTHENE
1000	BENZO-A-PYRENE
350J	INDENO (1,2,3-CD) PYRENE
370U	DIBENZO(A,H)ANTHRACENE
370U	BENZO(GHI)PERYLENE
11	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49247 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SB-04

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1055 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W770

UG/KG	ANALYTICAL RESULTS
400U	PHENOL
400UR	BIS(2-CHLOROETHYL) ETHER
400U	2-CHLOROPHENOL
400U	1,3-DICHLOROBENZENE
400U	1,4-DICHLOROBENZENE
400U	BENZYL ALCOHOL
400U	1,2-DICHLOROBENZENE
400U	2-METHYLPHENOL
400U	BIS(2-CHLOROISOPROPYL) ETHER
400U	(3-AND/OR 4-)METHYLPHENOL
400U	N-NITROSODI-N-PROPYLAMINE
400UR	HEXACHLOROETHANE
400U	NITROBENZENE
400U	ISOPHORONE
400U	2-NITROPHENOL
400U	2,4-DIMETHYLPHENOL
2000U	BENZOIC ACID
400U	BIS(2-CHLOROETHOXY) METHANE
400U	2,4-DICHLOROPHENOL
400U	1,2,4-TRICHLOROBENZENE
400U	NAPHTHALENE
400U	4-CHLOROANILINE
400U	HEXACHLOROBUTADIENE
400U	4-CHLORO-3-METHYLPHENOL
400U	2-METHYLNAPHTHALENE
400U	HEXACHLOROCYCLOPENTADIENE (HCCP)
400U	2,4,6-TRICHLOROPHENOL
2000U	2,4,5-TRICHLOROPHENOL
400U	2-CHLORONAPHTHALENE
2000U	2-NITROANILINE
400UR	DIMETHYL PHTHALATE
400U	ACENAPHTHYLENE
400U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
2000U	3-NITROANILINE
400U	ACENAPHTHENE
2000U	2,4-DINITROPHENOL
2000U	4-NITROPHENOL
400U	DIBENZOFURAN
400U	2,4-DINITROTOLUENE
400U	DIETHYL PHTHALATE
400U	4-CHLOROPHENYL PHENYL ETHER
400U	FLUORENE
2000U	4-NITROANILINE
2000U	2-METHYL-4,6-DINITROPHENOL
400U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
400U	4-BROMOPHENYL PHENYL ETHER
400U	HEXACHLOROBENZENE (HCB)
2000U	PENTACHLOROPHENOL
400U	PHENANTHRENE
400U	ANTHRACENE
400U	DI-N-BUTYLPHTHALATE
400U	FLUORANTHENE
400U	PYRENE
400U	BENZYL BUTYL PHTHALATE
810U	3,3'-DICHLOROBENZIDINE
400U	BENZO(A)ANTHRACENE
400U	CHRYSENE
400U	BIS(2-ETHYLHEXYL) PHTHALATE
400U	DI-N-OCTYLPHTHALATE
400U	BENZO(B AND/OR K)FLUORANTHENE
400U	BENZO-A-PYRENE
400U	INDENO (1,2,3-CD) PYRENE
400U	DIBENZO(A,H)ANTHRACENE
400U	BENZO(GHI)PERYLENE
20	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49248 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SS-05
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1145 STOP: 00/00/00
D. NO.: W771

UG/KG	ANALYTICAL RESULTS
500U	PHENOL
500UR	BIS(2-CHLOROETHYL) ETHER
500U	2-CHLOROPHENOL
500U	1,3-DICHLOROBENZENE
500U	1,4-DICHLOROBENZENE
500U	BENZYL ALCOHOL
500U	1,2-DICHLOROBENZENE
500U	2-METHYLPHENOL
500U	BIS(2-CHLOROISOPROPYL) ETHER
500U	(3-AND/OR 4-)METHYLPHENOL
500U	N-NITROSODI-N-PROPYLAMINE
500UR	HEXACHLOROETHANE
500U	NITROBENZENE
500U	ISOPHORONE
500U	2-NITROPHENOL
500U	2,4-DIMETHYLPHENOL
2400U	BENZOIC ACID
500U	BIS(2-CHLOROETHOXY) METHANE
500U	2,4-DICHLOROPHENOL
500U	1,2,4-TRICHLOROBENZENE
500U	NAPHTHALENE
500U	4-CHLOROANILINE
500U	HEXACHLOROBUTADIENE
500U	4-CHLORO-3-METHYLPHENOL
500U	2-METHYLNAPHTHALENE
500U	HEXACHLOROCYCLOPENTADIENE (HCCP)
500U	2,4,6-TRICHLOROPHENOL
2400U	2,4,5-TRICHLOROPHENOL
500U	2-CHLORONAPHTHALENE
2400U	2-NITROANILINE
500UR	DIMETHYL PHTHALATE
500U	ACENAPHTHYLENE
500U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
2400U	3-NITROANILINE
500U	ACENAPHTHENE
2400U	2,4-DINITROPHENOL
2400U	4-NITROPHENOL
500U	DIBENZOFURAN
500U	2,4-DINITROTOLUENE
500U	DIETHYL PHTHALATE
500U	4-CHLOROPHENYL PHENYL ETHER
500U	FLUORENE
2400U	4-NITROANILINE
2400U	2-METHYL-4,6-DINITROPHENOL
500U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
500U	4-BROMOPHENYL PHENYL ETHER
500U	HEXACHLOROBENZENE (HCB)
2400U	PENTACHLOROPHENOL
500U	PHENANTHRENE
500U	ANTHRACENE
500U	DI-N-BUTYLPHTHALATE
500U	FLUORANTHENE
500U	PYRENE
500U	BENZYL BUTYL PHTHALATE
1000U	3,3'-DICHLOROBENZIDINE
500U	BENZO(A)ANTHRACENE
500U	CHRYSENE
1200	BIS(2-ETHYLHEXYL) PHTHALATE
500U	DI-N-OCTYLPHTHALATE
500U	BENZO(B AND/OR K)FLUORANTHENE
500U	BENZO-A-PYRENE
500U	INDENO (1,2,3-CD) PYRENE
500U	DIBENZO(A,H)ANTHRACENE
500U	BENZO(GHI)PERYLENE
34	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49249 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SS-06

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1420 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W773

UG/KG	ANALYTICAL RESULTS
350U	PHENOL
350UR	BIS(2-CHLOROETHYL) ETHER
350U	2-CHLOROPHENOL
350U	1,3-DICHLOROBENZENE
350U	1,4-DICHLOROBENZENE
350U	BENZYL ALCOHOL
350U	1,2-DICHLOROBENZENE
350U	2-METHYLPHENOL
350U	BIS(2-CHLOROISOPROPYL) ETHER
350U	(3-AND/OR 4-)METHYLPHENOL
350U	N-NITROSODI-N-PROPYLAMINE
350UR	HEXACHLOROETHANE
350U	NITROBENZENE
350U	ISOPHORONE
350U	2-NITROPHENOL
350U	2,4-DIMETHYLPHENOL
1700U	BENZOIC ACID
350U	BIS(2-CHLOROETHOXY) METHANE
350U	2,4-DICHLOROPHENOL
350U	1,2,4-TRICHLOROBENZENE
350U	NAPHTHALENE
350U	4-CHLOROANILINE
350U	HEXACHLOROBUTADIENE
350U	4-CHLORO-3-METHYLPHENOL
350U	2-METHYLNAPHTHALENE
350U	HEXACHLOROCYCLOPENTADIENE (HCCP)
350U	2,4,6-TRICHLOROPHENOL
1700U	2,4,5-TRICHLOROPHENOL
350U	2-CHLORONAPHTHALENE
1700U	2-NITROANILINE
350UR	DIMETHYL PHTHALATE
77J	ACENAPHTHYLENE
350U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
1700U	3-NITROANILINE
350U	ACENAPHTHENE
1700U	2,4-DINITROPHENOL
1700U	4-NITROPHENOL
350U	DIBENZOFURAN
350U	2,4-DINITROTOLUENE
350U	DIETHYL PHTHALATE
350U	4-CHLOROPHENYL PHENYL ETHER
350U	FLUORENE
1700U	4-NITROANILINE
1700U	2-METHYL-4,6-DINITROPHENOL
350U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
350U	4-BROMOPHENYL PHENYL ETHER
350U	HEXACHLOROBENZENE (HCB)
1700U	PENTACHLOROPHENOL
260J	PHENANTHRENE
110J	ANTHRACENE
350U	DI-N-BUTYLPHTHALATE
550	FLUORANTHENE
510	PYRENE
350U	BENZYL BUTYL PHTHALATE
700U	3,3'-DICHLOROBENZIDINE
320J	BENZO(A)ANTHRACENE
400	CHRYSENE
350U	BIS(2-ETHYLHEXYL) PHTHALATE
350U	DI-N-OCTYLPHTHALATE
510	BENZO(B AND/OR K)FLUORANTHENE
310J	BENZO-A-PYRENE
350U	INDENO (1,2,3-CD) PYRENE
350U	DIBENZO(A,H)ANTHRACENE
350U	BENZO(GHI)PERYLENE
6	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49250 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-01

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1630 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W776

UG/KG	ANALYTICAL RESULTS
440U	PHENOL
440UR	BIS(2-CHLOROETHYL) ETHER
440U	2-CHLOROPHENOL
440U	1,3-DICHLOROBENZENE
440U	1,4-DICHLOROBENZENE
440U	BENZYL ALCOHOL
440U	1,2-DICHLOROBENZENE
440U	2-METHYLPHENOL
440U	BIS(2-CHLOROISOPROPYL) ETHER
440U	(3-AND/OR 4-)METHYLPHENOL
440U	N-NITROSODI-N-PROPYLAMINE
440UR	HEXACHLOROETHANE
440U	NITROBENZENE
440U	ISOPHORONE
440U	2-NITROPHENOL
440U	2,4-DIMETHYLPHENOL
2100U	BENZOIC ACID
440U	BIS(2-CHLOROETHOXY) METHANE
440U	2,4-DICHLOROPHENOL
440U	1,2,4-TRICHLOROBENZENE
440U	NAPHTHALENE
440U	4-CHLOROANILINE
440U	HEXACHLOROBUTADIENE
440U	4-CHLORO-3-METHYLPHENOL
440U	2-METHYLNAPHTHALENE
440U	HEXACHLOROCYCLOPENTADIENE (HCCP)
440U	2,4,6-TRICHLOROPHENOL
2100U	2,4,5-TRICHLOROPHENOL
440U	2-CHLORONAPHTHALENE
2100U	2-NITROANILINE
440UR	DIMETHYL PHTHALATE
440U	ACENAPHTHYLENE
440U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
2100U	3-NITROANILINE
440U	ACENAPHTHENE
2100U	2,4-DINITROPHENOL
2100U	4-NITROPHENOL
440U	DIBENZOFURAN
440U	2,4-DINITROTOLUENE
440U	DIETHYL PHTHALATE
440U	4-CHLOROPHENYL PHENYL ETHER
440U	FLUORENE
2100U	4-NITROANILINE
2100U	2-METHYL-4,6-DINITROPHENOL
440U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
440U	4-BROMOPHENYL PHENYL ETHER
440U	HEXACHLOROBENZENE (HCB)
2100U	PENTACHLOROPHENOL
440U	PHENANTHRENE
440U	ANTHRACENE
440U	DI-N-BUTYLPHTHALATE
440U	FLUORANTHENE
440U	PYRENE
440U	BENZYL BUTYL PHTHALATE
880U	3,3'-DICHLOROBENZIDINE
440U	BENZO(A)ANTHRACENE
440U	CHRYSENE
440U	BIS(2-ETHYLHEXYL) PHTHALATE
440U	DI-N-OCTYLPHTHALATE
440U	BENZO(B AND/OR K)FLUORANTHENE
440U	BENZO-A-PYRENE
440U	INDENO (1,2,3-CD) PYRENE
440U	DIBENZO(A,H)ANTHRACENE
440U	BENZO(GHI)PERYLENE
25	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49251 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SD-02
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1510 STOP: 00/00/00

D. NO.: W779

UG/KG	ANALYTICAL RESULTS
430U	PHENOL
430UR	BIS(2-CHLOROETHYL) ETHER
430U	2-CHLOROPHENOL
430U	1,3-DICHLOROBENZENE
430U	1,4-DICHLOROBENZENE
430U	BENZYL ALCOHOL
430U	1,2-DICHLOROBENZENE
430U	2-METHYLPHENOL
430U	BIS(2-CHLOROISOPROPYL) ETHER
430U	(3-AND/OR 4-)METHYLPHENOL
430U	N-NITROSODI-N-PROPYLAMINE
430UR	HEXACHLOROETHANE
430U	NITROBENZENE
430U	ISOPHORONE
430U	2-NITROPHENOL
430U	2,4-DIMETHYLPHENOL
2100U	BENZOIC ACID
430U	BIS(2-CHLOROETHOXY) METHANE
430U	2,4-DICHLOROPHENOL
430U	1,2,4-TRICHLOROBENZENE
430U	NAPHTHALENE
430U	4-CHLOROANILINE
430U	HEXACHLOROBUTADIENE
430U	4-CHLORO-3-METHYLPHENOL
430U	2-METHYLNAPHTHALENE
430U	HEXACHLOROCYCLOPENTADIENE (HCCP)
430U	2,4,6-TRICHLOROPHENOL
2100U	2,4,5-TRICHLOROPHENOL
430U	2-CHLORONAPHTHALENE
2100U	2-NITROANILINE
430UR	DIMETHYL PHTHALATE
430U	ACENAPHTHYLENE
430U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
2100U	3-NITROANILINE
430U	ACENAPHTHENE
2100U	2,4-DINITROPHENOL
2100U	4-NITROPHENOL
430U	DIBENZOFURAN
430U	2,4-DINITROTOLUENE
430U	DIETHYL PHTHALATE
430U	4-CHLOROPHENYL PHENYL ETHER
430U	FLUORENE
2100U	4-NITROANILINE
2100U	2-METHYL-4,6-DINITROPHENOL
430U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
430U	4-BROMOPHENYL PHENYL ETHER
430U	HEXACHLOROBENZENE (HCB)
2100U	PENTACHLOROPHENOL
100J	PHENANTHRENE
430U	ANTHRACENE
430U	DI-N-BUTYLPHTHALATE
190J	FLUORANTHENE
180J	PYRENE
430U	BENZYL BUTYL PHTHALATE
860U	3,3'-DICHLOROBENZIDINE
83J	BENZO(A)ANTHRACENE
92J	CHRYSENE
430U	BIS(2-ETHYLHEXYL) PHTHALATE
430U	DI-N-OCTYLPHTHALATE
81J	BENZO(B AND/OR K)FLUORANTHENE
70J	BENZO-A-PYRENE
430U	INDENO (1,2,3-CD) PYRENE
430U	DIBENZO(A,H)ANTHRACENE
430U	BENZO(GHI)PERYLENE
23	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49252 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-03

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1530 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W778

UG/KG	ANALYTICAL RESULTS
420U	PHENOL
420UR	BIS(2-CHLOROETHYL) ETHER
420U	2-CHLOROPHENOL
420U	1,3-DICHLOROBENZENE
420U	1,4-DICHLOROBENZENE
420U	BENZYL ALCOHOL
420U	1,2-DICHLOROBENZENE
420U	2-METHYLPHENOL
420U	BIS(2-CHLOROISOPROPYL) ETHER
420U	(3-AND/OR 4-)METHYLPHENOL
420U	N-NITROSODI-N-PROPYLAMINE
420UR	HEXACHLOROETHANE
420U	NITROBENZENE
420U	ISOPHORONE
420U	2-NITROPHENOL
420U	2,4-DIMETHYLPHENOL
2100U	BENZOIC ACID
420U	BIS(2-CHLOROETHOXY) METHANE
420U	2,4-DICHLOROPHENOL
420U	1,2,4-TRICHLOROBENZENE
420U	NAPHTHALENE
420U	4-CHLOROANILINE
420U	HEXACHLOROBUTADIENE
420U	4-CHLORO-3-METHYLPHENOL
420U	2-METHYLNAPHTHALENE
420U	HEXACHLOROCYCLOPENTADIENE (HCCP)
420U	2,4,6-TRICHLOROPHENOL
2100U	2,4,5-TRICHLOROPHENOL
420U	2-CHLORONAPHTHALENE
2100U	2-NITROANILINE
420UR	DIMETHYL PHTHALATE
420U	ACENAPHTHYLENE
420U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
2100U	3-NITROANILINE
420U	ACENAPHTHENE
2100U	2,4-DINITROPHENOL
2100U	4-NITROPHENOL
420U	DIBENZOFURAN
420U	2,4-DINITROTOLUENE
420U	DIETHYL PHTHALATE
420U	4-CHLOROPHENYL PHENYL ETHER
420U	FLUORENE
2100U	4-NITROANILINE
2100U	2-METHYL-4,6-DINITROPHENOL
420U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
420U	4-BROMOPHENYL PHENYL ETHER
420U	HEXACHLOROBENZENE (HCB)
2100U	PENTACHLOROPHENOL
51J	PHENANTHRENE
420U	ANTHRACENE
420U	DI-N-BUTYLPHTHALATE
95J	FLUORANTHENE
100J	PYRENE
420U	BENZYL BUTYL PHTHALATE
850U	3,3'-DICHLOROBENZIDINE
420U	BENZO(A)ANTHRACENE
420U	CHRYSENE
420U	BIS(2-ETHYLHEXYL) PHTHALATE
420U	DI-N-OCTYLPHTHALATE
420U	BENZO(B AND/OR K)FLUORANTHENE
420U	BENZO-A-PYRENE
420U	INDENO (1,2,3-CD) PYRENE
420U	DIBENZO(A,H)ANTHRACENE
420U	BENZO(GHI)PERYLENE
22	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49253 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SD-04
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1555 STOP: 00/00/00
D. NO.: W780

UG/KG	ANALYTICAL RESULTS
460U	PHENOL
460UR	BIS(2-CHLOROETHYL) ETHER
460U	2-CHLOROPHENOL
460U	1,3-DICHLOROBENZENE
460U	1,4-DICHLOROBENZENE
460U	BENZYL ALCOHOL
460U	1,2-DICHLOROBENZENE
460U	2-METHYLPHENOL
460U	BIS(2-CHLOROISOPROPYL) ETHER
460U	(3-AND/OR 4-)METHYLPHENOL
460U	N-NITROSODI-N-PROPYLAMINE
460UR	HEXACHLOROETHANE
460U	NITROBENZENE
460U	ISOPHORONE
460U	2-NITROPHENOL
460U	2,4-DIMETHYLPHENOL
2200U	BENZOIC ACID
460U	BIS(2-CHLOROETHOXY) METHANE
460U	2,4-DICHLOROPHENOL
460U	1,2,4-TRICHLOROBENZENE
460U	NAPHTHALENE
460U	4-CHLOROANILINE
460U	HEXACHLOROBUTADIENE
460U	4-CHLORO-3-METHYLPHENOL
460U	2-METHYLNAPHTHALENE
460U	HEXACHLOROCYCLOPENTADIENE (HCCP)
460U	2,4,6-TRICHLOROPHENOL
2200U	2,4,5-TRICHLOROPHENOL
460U	2-CHLORONAPHTHALENE
2200U	2-NITROANILINE
460UR	DIMETHYL PHTHALATE
47J	ACENAPHTHYLENE
460U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
2200U	3-NITROANILINE
460U	ACENAPHTHENE
2200U	2,4-DINITROPHENOL
2200U	4-NITROPHENOL
460U	DIBENZOFURAN
460U	2,4-DINITROTOLUENE
460U	DIETHYL PHTHALATE
460U	4-CHLOROPHENYL PHENYL ETHER
460U	FLUORENE
2200U	4-NITROANILINE
2200U	2-METHYL-4,6-DINITROPHENOL
460U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
460U	4-BROMOPHENYL PHENYL ETHER
460U	HEXACHLOROBENZENE (HCB)
2200U	PENTACHLOROPHENOL
60J	PHENANTHRENE
61J	ANTHRACENE
460U	DI-N-BUTYLPHTHALATE
270J	FLUORANTHENE
310J	PYRENE
460U	BENZYL BUTYL PHTHALATE
920U	3,3'-DICHLOROBENZIDINE
170J	BENZO(A)ANTHRACENE
230J	CHRYSENE
460U	BIS(2-ETHYLHEXYL) PHTHALATE
460U	DI-N-OCTYLPHTHALATE
230J	BENZO(B AND/OR K)FLUORANTHENE
170J	BENZO-A-PYRENE
86J	INDENO (1,2,3-CD) PYRENE
460U	DIBENZO(A,H)ANTHRACENE
81J	BENZO(GHI)PERYLENE
28	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49254 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SD-05
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1605 STOP: 00/00/00

D. NO.: W781

UG/KG	ANALYTICAL RESULTS
430U	PHENOL
430UR	BIS(2-CHLOROETHYL) ETHER
430U	2-CHLOROPHENOL
430U	1,3-DICHLOROBENZENE
430U	1,4-DICHLOROBENZENE
430U	BENZYL ALCOHOL
430U	1,2-DICHLOROBENZENE
430U	2-METHYLPHENOL
430U	BIS(2-CHLOROISOPROPYL) ETHER
430U	(3-AND/OR 4-)METHYLPHENOL
430U	N-NITROSODI-N-PROPYLAMINE
430UR	HEXACHLOROETHANE
430U	NITROBENZENE
430U	ISOPHORONE
430U	2-NITROPHENOL
430U	2,4-DIMETHYLPHENOL
2100U	BENZOIC ACID
430U	BIS(2-CHLOROETHOXY) METHANE
430U	2,4-DICHLOROPHENOL
430U	1,2,4-TRICHLOROBENZENE
430U	NAPHTHALENE
430U	4-CHLOROANILINE
430U	HEXACHLOROBUTADIENE
430U	4-CHLORO-3-METHYLPHENOL
430U	2-METHYLNAPHTHALENE
430U	HEXACHLOROCYCLOPENTADIENE (HCCP)
430U	2,4,6-TRICHLOROPHENOL
2100U	2,4,5-TRICHLOROPHENOL
430U	2-CHLORONAPHTHALENE
2100U	2-NITROANILINE
430UR	DIMETHYL PHTHALATE
430U	ACENAPHTHYLENE
430U	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
2100U	3-NITROANILINE
430U	ACENAPHTHENE
2100U	2,4-DINITROPHENOL
2100U	4-NITROPHENOL
430U	DIBENZOFURAN
430U	2,4-DINITROTOLUENE
430U	DIETHYL PHTHALATE
430U	4-CHLOROPHENYL PHENYL ETHER
430U	FLUORENE
2100U	4-NITROANILINE
2100U	2-METHYL-4,6-DINITROPHENOL
430U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
430U	4-BROMOPHENYL PHENYL ETHER
430U	HEXACHLOROBENZENE (HCB)
2100U	PENTACHLOROPHENOL
110J	PHENANTHRENE
430U	ANTHRACENE
430U	DI-N-BUTYLPHTHALATE
220J	FLUORANTHENE
180J	PYRENE
430U	BENZYL BUTYL PHTHALATE
870U	3,3'-DICHLOROBENZIDINE
86J	BENZO(A)ANTHRACENE
110J	CHRYSENE
430U	BIS(2-ETHYLHEXYL) PHTHALATE
430U	DI-N-OCTYLPHTHALATE
82J	BENZO(B AND/OR K)FLUORANTHENE
66J	BENZO-A-PYRENE
430U	INDENO (1,2,3-CD) PYRENE
430U	DIBENZO(A,H)ANTHRACENE
430U	BENZO(GHI)PERYLENE
24	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

EXTRACTABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49256 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: PB-01 COLLECTION START: 08/21/90 0915 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W768

UG/L	ANALYTICAL RESULTS
10U	PHENOL
10U	BIS(2-CHLOROETHYL) ETHER
10U	2-CHLOROPHENOL
10U	1,3-DICHLOROBENZENE
10U	1,4-DICHLOROBENZENE
10U	BENZYL ALCOHOL
10U	1,2-DICHLOROBENZENE
10U	2-METHYLPHENOL
10U	BIS(2-CHLOROISOPROPYL) ETHER
10U	(3-AND/OR 4-)METHYLPHENOL
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
49U	BENZOIC ACID
10U	BIS(2-CHLOROETHOXY) METHANE
10U	2,4-DICHLOROPHENOL
10U	1,2,4-TRICHLOROBENZENE
10U	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	4-CHLORO-3-METHYLPHENOL
10U	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2,4,6-TRICHLOROPHENOL
49U	2,4,5-TRICHLOROPHENOL
10U	2-CHLORONAPHTHALENE
49U	2-NITROANILINE
10UR	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE

UG/L	ANALYTICAL RESULTS
49U	3-NITROANILINE
10U	ACENAPHTHENE
49U	2,4-DINITROPHENOL
49U	4-NITROPHENOL
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	FLUORENE
49U	4-NITROANILINE
49U	2-METHYL-4,6-DINITROPHENOL
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
49U	PENTACHLOROPHENOL
10U	PHENANTHRENE
10U	ANTHRACENE
10U	DI-N-BUTYLPHTHALATE
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
20U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
20U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

EXTRACTABLE ORGANICS DATA REPORT 01/01/91

** PROJECT NO. 90-699 SAMPLE NO. 49257 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: E CORBIN **
** SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC **
** STATION ID: SW-01 COLLECTION START: 08/21/90 1610 STOP: 00/00/00 **
**
** CASE NO.: 14748 SAS NO.: D. NO.: W775 **

UG/L	ANALYTICAL RESULTS
10U	PHENOL
10U	BIS(2-CHLOROETHYL) ETHER
10U	2-CHLOROPHENOL
10U	1,3-DICHLOROBENZENE
10U	1,4-DICHLOROBENZENE
10U	BENZYL ALCOHOL
10U	1,2-DICHLOROBENZENE
10U	2-METHYLPHENOL
10U	BIS(2-CHLOROISOPROPYL) ETHER
10U	(3-AND/OR 4-)METHYLPHENOL
10U	N-NITROSODI-N-PROPYLAMINE
10U	HEXACHLOROETHANE
10U	NITROBENZENE
10U	ISOPHORONE
10U	2-NITROPHENOL
10U	2,4-DIMETHYLPHENOL
49U	BENZOIC ACID
10U	BIS(2-CHLOROETHOXY) METHANE
10U	2,4-DICHLOROPHENOL
10U	1,2,4-TRICHLOROBENZENE
10U	NAPHTHALENE
10U	4-CHLOROANILINE
10U	HEXACHLOROBUTADIENE
10U	4-CHLORO-3-METHYLPHENOL
10U	2-METHYLNAPHTHALENE
10U	HEXACHLOROCYCLOPENTADIENE (HCCP)
10U	2,4,6-TRICHLOROPHENOL
49U	2,4,5-TRICHLOROPHENOL
10U	2-CHLORONAPHTHALENE
49U	2-NITROANILINE
10UR	DIMETHYL PHTHALATE
10U	ACENAPHTHYLENE
10U	2,6-DINITROTOLUENE

UG/L	ANALYTICAL RESULTS
49U	3-NITROANILINE
10U	ACENAPHTHENE
49U	2,4-DINITROPHENOL
49U	4-NITROPHENOL
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	FLUORENE
49U	4-NITROANILINE
49U	2-METHYL-4,6-DINITROPHENOL
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
49U	PENTACHLOROPHENOL
10U	PHENANTHRENE
10U	ANTHRACENE
10U	DI-N-BUTYLPHTHALATE
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
20U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

01/01/91

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1500 STOP: 00/00/00

D. NO.: W777

ORGANICS DATA REPORT
NO. 90-699 SAMPLE NO. 49258 SAMPLE TYPE:

SAS NO.:

N ID: SW-02

D.: 14748

ANALYTICAL RESULTS

ANALYTICAL RESULTS

UG/L

	PHENOL
	BIS(2-CHLOROETHYL) ETHER
	2-CHLOROPHENOL
	1,3-DICHLOROBENZENE
	1,4-DICHLOROBENZENE
	BENZYL ALCOHOL
	1,2-DICHLOROBENZENE
	2-METHYLPHENOL
	BIS(2-CHLOROISOPROPYL) ETHER
	(3-AND/OR 4-)METHYLPHENOL
	N-NITROSODI-N-PROPYLAMINE
	HEXACHLOROETHANE
	NITROBENZENE
	ISOPHORONE
	2-NITROPHENOL
	2,4-DIMETHYLPHENOL
	BENZOIC ACID
	BIS(2-CHLOROETHOXY) METHANE
	2,4-DICHLOROPHENOL
	2,4-TRICHLOROBENZENE
	1,2,4-TRICHLOROBENZENE
	NAPHTHALENE
	4-CHLOROANILINE
	HEXACHLOROBUTADIENE
	4-CHLORO-3-METHYLPHENOL
	2-METHYLNAPHTHALENE
	HEXACHLOROCYCLOPENTADIENE (HCCP)
	2,4,6-TRICHLOROPHENOL
	2,4,5-TRICHLOROPHENOL
	2-CHLORONAPHTHALENE
	2-NITROANILINE
	DIMETHYL PHTHALATE
	ACENAPHTHYLENE
	2,6-DINITROTOLUENE
49U	3-NITROANILINE
10U	ACENAPHTHENE
49U	2,4-DINITROPHENOL
49U	4-NITROPHENOL
10U	DIBENZOFURAN
10U	2,4-DINITROTOLUENE
10U	DIETHYL PHTHALATE
10U	4-CHLOROPHENYL PHENYL ETHER
10U	FLUORENE
49U	4-NITROANILINE
49U	2-METHYL-4,6-DINITROPHENOL
10U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U	4-BROMOPHENYL PHENYL ETHER
10U	HEXACHLOROBENZENE (HCB)
49U	PENTACHLOROPHENOL
10U	PHENANTHRENE
10U	ANTHRACENE
10U	DI-N-BUTYLPHTHALATE
10U	FLUORANTHENE
10U	PYRENE
10U	BENZYL BUTYL PHTHALATE
20U	3,3'-DICHLOROBENZIDINE
10U	BENZO(A)ANTHRACENE
10U	CHRYSENE
10U	BIS(2-ETHYLHEXYL) PHTHALATE
10U	DI-N-OCTYLPHTHALATE
10U	BENZO(B AND/OR K)FLUORANTHENE
10U	BENZO-A-PYRENE
10U	INDENO (1,2,3-CD) PYRENE
10U	DIBENZO(A,H)ANTHRACENE
10U	BENZO(GHI)PERYLENE

REMARKS

...I-INTERFERENCES *J-ESTIMATED VALUE. *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
...IVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
...ER IS THE MINIMUM QUANTITATION LIMIT.
...PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

...RKS***

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49242 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: SS-01 COLLECTION START: 08/21/90 1005 STOP: 00/00/00
CASE NO.: 14748 SAS NO.: D. NO.: W765 MD NO: W765

ANALYTICAL RESULTS UG/KG

300JN	HEXADECANOIC ACID
1000JN	OCTAHYDRODIMETHYLMETHYLETHENYLNAPHTHALENE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49244 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: SS-02 COLLECTION START: 08/21/90 1355 STOP: 00/00/00
CASE.NO.: 14748 SAS NO.: D. NO.: W772 MD NO: W772

ANALYTICAL RESULTS UG/KG

N	PETROLEUM PRODUCT
10000J	10 UNIDENTIFIED COMPOUNDS
200JN	CHLOROISOCYANATOBENZENE
400JN	METHYLETHENYLMETHYLETHYLBENZENE (2 ISOMERS)
300JN	PHTHALIC ANHYDRIDE
1000JN	DIISOCYANATOMETHYLBENZENE
1000JN	HEXADECANOIC ACID

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.   01/01/91

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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**   PROJECT NO. 90-699   SAMPLE NO. 49245  SAMPLE TYPE: SOIL       PROG ELEM: NSF   COLLECTED BY: E CORBIN               **
**   SOURCE: UNIROYAL INC                                           CITY: GASTONIA              ST: NC                     **
**   STATION ID: SS-03                                              COLLECTION START: 08/21/90  1335   STOP: 00/00/00      **
**   CASE.NO.: 14748          SAS NO.:                              D. NO.: W774                MD NO: W774                **
**                                                                                                                          **
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ANALYTICAL RESULTS UG/KG

4000J	3 UNIDENTIFIED COMPOUNDS
200JN	PHTHALIC ANHYDRIDE
300JN	DIISOCYANATOMETHYLBENZENE
400JN	HEXADECANOIC ACID
800JN	PROPARGITE
500JN	NAPHTHALENYLISOINDOLEDIONE

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49246 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC	CITY: GASTONIA ST: NC
STATION ID: SS-04	COLLECTION START: 08/21/90 1035 STOP: 00/00/00
CASE.NO.: 14748 SAS NO.:	D. NO.: W769 MD NO: W769

ANALYTICAL RESULTS UG/KG

6000J	2 UNIDENTIFIED COMPOUNDS
400JN	CARBAZOLE
300JN	METHYLPHENANTHRENE
300JN	METHYLANTHRACENE
600JN	CYCLOPENTAPHENANTHRENE
600JN	HEXADECANOIC ACID
200JN	BENZONAPHTHOFURAN
200JN	METHYLPYRENE
300JN	BENZONAPHTHOTHIOPHENE
200JN	BENZOPHENANTHRENE
300JN	METHYLBENZANTHRACENE
400JN	BENZOPYRENE (NOT A)
1000JN	BENZOFLUORENE (2 ISOMERS)

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.
01/01/91

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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**  PROJECT NO. 90-699   SAMPLE NO. 49248  SAMPLE TYPE: SOIL      PROG ELEM: NSF   COLLECTED BY: E CORBIN         **
**  SOURCE: UNIROYAL INC                                          CITY: GASTONIA            ST: NC                **
**  STATION ID: SS-05                                             COLLECTION START: 08/21/90  1145   STOP: 00/00/00  **
**  CASE.NO.: 14748           SAS NO.:                            D. NO.: W771               MD NO: W771          **
**                                                                                                                **
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ANALYTICAL RESULTS UG/KG

100000J	7 UNIDENTIFIED COMPOUNDS
60000JN	PROPARGITE
900JN	METHOXYPENTENONE
20000JN	DIMETHYLETHYLPHENOL
700JN	DICHLOROBENZONITRILE

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49249 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC	CITY: GASTONIA ST: NC
STATION ID: SS-06	COLLECTION START: 08/21/90 1420 STOP: 00/00/00
CASE.NO.: 14748 SAS NO.:	D. NO.: W773 MD NO: W773

ANALYTICAL RESULTS UG/KG

4000J	4 UNIDENTIFIED COMPOUNDS
1000JN	HEXADECANOIC ACID

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 90-699 SAMPLE NO. 49250 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN **
** SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC **
** STATION ID: SD-01 COLLECTION START: 08/21/90 1630 STOP: 00/00/00 **
** CASE.NO.: 14748 SAS NO.: D. NO.: W776 MD NO: W776 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

200JN	HEXADECANOIC ACID
6000J	3 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ***
** PROJECT NO. 90-699 SAMPLE NO. 49251 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN **
** SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC **
** STATION ID: SD-02 COLLECTION START: 08/21/90 1510 STOP: 00/00/00 **
** CASE.NO.: 14748 SAS NO.: D. NO.: W779 MD NO: W779 **
** **
*** ***

ANALYTICAL RESULTS UG/KG

300JN	HEXADECANOIC ACID
20000J	3 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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**  PROJECT NO. 90-699   SAMPLE NO. 49252  SAMPLE TYPE: SOIL       PROG ELEM: NSF   COLLECTED BY: E CORBIN          **
**  SOURCE: UNIROYAL INC                                           CITY: GASTONIA               ST: NC              **
**  STATION ID: SD-03                                              COLLECTION START: 08/21/90  1530   STOP: 00/00/00 **
**  CASE.NO.: 14748          SAS NO.:                              D. NO.: W778                 MD NO: W778         **
**                                                                                                                  **
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ANALYTICAL RESULTS UG/KG

7000J	3 UNIDENTIFIED COMPOUNDS
300JN	HEXADECANOIC ACID

FOOTNOTES
*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49253 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC	CITY: GASTONIA ST: NC
STATION ID: SD-04	COLLECTION START: 08/21/90 1555 STOP: 00/00/00
CASE.NO.: 14748 SAS NO.:	D. NO.: W780 MD NO: W780

ANALYTICAL RESULTS UG/KG

2000J	1 UNIDENTIFIED COMPOUND
300JN	HEXADECANOIC ACID
200JN	BENZOFLUORANTHENE (NOT B OR K)

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA. 01/01/91

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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**   PROJECT NO. 90-699    SAMPLE NO. 49254  SAMPLE TYPE: SOIL        PROG ELEM: NSF    COLLECTED BY: E CORBIN              **
**   SOURCE: UNIROYAL INC                                             CITY: GASTONIA              ST: NC                    **
**   STATION ID: SD-05                                                COLLECTION START: 08/21/90  1605   STOP: 00/00/00     **
**   CASE.NO.: 14748          SAS NO.:                                D. NO.: W781                MD NO: W781               **
**                                                                                                                          **
*** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ***
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ANALYTICAL RESULTS UG/KG

300JN	HEXADECANOIC ACID
20000J	4 UNIDENTIFIED COMPOUNDS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

NCD003164464

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM******

SISB/SAS
RECEIVED
JAN 09 1991
EPA - REGION IV
ATLANTA, GA

DATE: 01/02/91

SUBJECT: Results of Purgeable Organic Analysis;
90-699 UNIROYAL INC
GASTONIA NC Gaston
CASE NO: 14748

FROM: Robert W. Knight
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

cc:

ORGANIC DATA QUALIFIER REPORT

Case Number 14748 Project Number 90-699 SAS Number

Site ID. Uniroyal Inc., Gastonia, NC.

Affected Samples	Compound or Fraction	Flag Used	Reason
Volatiles			
DW778,775	all positives	J	<quantitation limit
Extractables			
all soil samples	bis(2-chloroethyl)ether	R	unacceptable recovery blind spike
	hexachloroethane	R	unacceptable recovery blind spike
all samples	dimethylphthalate	R	unacceptable recovery blind spike
DW765,778-781	all positives	J	<quantitation limit
DW772	fluoranthene	J	<quantitation limit
	di-n-octylphthalate	J	internal standard out of criteria
	benzo(b/k)fluoranthene	J	internal satndard out of criteria
	benzo(a)pyrene	J	internal standard out of criteria
	indeno(1,2,3-cd)pyrene	J	internal standard out of criteria
	dibenz(a,h)anthracene	J	internal standard out of criteria
	benzo(g,h,i)perylene	J	internal standard out of criteria
DW774	all positives except pyrene	J	<quantitation limit
DW769	naphthalene	J	<quantitation limit
	2-methylnaphthalene	J	<quantitation limit
	acenaphthene	J	<quantitation limit
	dibenzofuran	J	<quantitation limit
	fluorene	J	<quantitation limit
	indeno(1,2,3-cd)pyrene	J	<quantitation limit
DW773	acenaphthylene	J	<quantitation limit
	phenanthrene	J	<quantitation limit
	anthracene	J	<quantitation limit
	benzo(a)anthracene	J	<quantitation limit
	benzo(a)pyrene	J	<quantitation limit
Pesticides			
all soil samples	endosulfan II	R	unacceptable recovery blind spike
	alpha-BHC	J	low recovery blind spike

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 01/01/91

PROJECT NO. 90-699 SAMPLE NO. 49242 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SS-01

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1005 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W765

UG/KG	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
5U	METHYLENE CHLORIDE
10U	ACETONE
5U	CARBON DISULFIDE
5U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
5U	1,1-DICHLOROETHANE
5U	1,2-DICHLOROETHENE (TOTAL)
5U	CHLOROFORM
5U	1,2-DICHLOROETHANE
10U	METHYL ETHYL KETONE
5U	1,1,1-TRICHLOROETHANE
5U	CARBON TETRACHLORIDE
10U	VINYL ACETATE
5U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
5U	1,2-DICHLOROPROPANE
5U	CIS-1,3-DICHLOROPROPENE
5U	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	DIBROMOCHLOROMETHANE
5U	1,1,2-TRICHLOROETHANE
5U	BENZENE
5U	TRANS-1,3-DICHLOROPROPENE
5U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
5U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5U	1,1,2,2-TETRACHLOROETHANE
30U	TOLUENE
5U	CHLOROBENZENE
5U	ETHYL BENZENE
5U	STYRENE
5U	TOTAL XYLENES
3	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49243 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SB-01

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1015 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W766

UG/KG	ANALYTICAL RESULTS
12U	CHLOROMETHANE
12U	BROMOMETHANE
12U	VINYL CHLORIDE
12U	CHLOROETHANE
6U	METHYLENE CHLORIDE
12U	ACETONE
6U	CARBON DISULFIDE
6U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
6U	1,1-DICHLOROETHANE
6U	1,2-DICHLOROETHENE (TOTAL)
6U	CHLOROFORM
6U	1,2-DICHLOROETHANE
12U	METHYL ETHYL KETONE
6U	1,1,1-TRICHLOROETHANE
6U	CARBON TETRACHLORIDE
12U	VINYL ACETATE
6U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
6U	1,2-DICHLOROPROPANE
6U	CIS-1,3-DICHLOROPROPENE
6U	TRICHLOROETHENE(TRICHLOROETHYLENE)
6U	DIBROMOCHLOROMETHANE
6U	1,1,2-TRICHLOROETHANE
6U	BENZENE
6U	TRANS-1,3-DICHLOROPROPENE
6U	BROMOFORM
12U	METHYL ISOBUTYL KETONE
12U	METHYL BUTYL KETONE
6U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
6U	1,1,2,2-TETRACHLOROETHANE
6U	TOLUENE
6U	CHLOROBENZENE
6U	ETHYL BENZENE
6U	STYRENE
6U	TOTAL XYLENES
19	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49244 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: SS-02 COLLECTION START: 08/21/90 1355 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W772

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
12U	CHLOROMETHANE	6U	1,2-DICHLOROPROPANE
12U	BROMOMETHANE	6U	CIS-1,3-DICHLOROPROPENE
12U	VINYL CHLORIDE	6U	TRICHLOROETHENE(TRICHLOROETHYLENE)
12U	CHLOROETHANE	6U	DIBROMOCHLOROMETHANE
6U	METHYLENE CHLORIDE	6U	1,1,2-TRICHLOROETHANE
12U	ACETONE	6U	BENZENE
6U	CARBON DISULFIDE	6U	TRANS-1,3-DICHLOROPROPENE
6U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	6U	BROMOFORM
6U	1,1-DICHLOROETHANE	12U	METHYL ISOBUTYL KETONE
6U	1,2-DICHLOROETHENE (TOTAL)	12U	METHYL BUTYL KETONE
6U	CHLOROFORM	6U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
6U	1,2-DICHLOROETHANE	6U	1,1,2,2-TETRACHLOROETHANE
12U	METHYL ETHYL KETONE	6U	TOLUENE
6U	1,1,1-TRICHLOROETHANE	6U	CHLOROBENZENE
6U	CARBON TETRACHLORIDE	6U	ETHYL BENZENE
12U	VINYL ACETATE	6U	STYRENE
6U	BROMODICHLOROMETHANE	6U	TOTAL XYLENES
		18	PERCENT MOISTURE

REMARKS ***REMARKS***

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49245 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SS-03

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1335 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W774

UG/KG	ANALYTICAL RESULTS
13U	CHLOROMETHANE
13U	BROMOMETHANE
13U	VINYL CHLORIDE
13U	CHLOROETHANE
6U	METHYLENE CHLORIDE
13U	ACETONE
6U	CARBON DISULFIDE
6U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
6U	1,1-DICHLOROETHANE
6U	1,2-DICHLOROETHENE (TOTAL)
6U	CHLOROFORM
6U	1,2-DICHLOROETHANE
13U	METHYL ETHYL KETONE
6U	1,1,1-TRICHLOROETHANE
6U	CARBON TETRACHLORIDE
13U	VINYL ACETATE
6U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
6U	1,2-DICHLOROPROPANE
6U	CIS-1,3-DICHLOROPROPENE
6U	TRICHLOROETHENE(TRICHLOROETHYLENE)
6U	DIBROMOCHLOROMETHANE
6U	1,1,2-TRICHLOROETHANE
6U	BENZENE
6U	TRANS-1,3-DICHLOROPROPENE
6U	BROMOFORM
13U	METHYL ISOBUTYL KETONE
13U	METHYL BUTYL KETONE
6U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
6U	1,1,2,2-TETRACHLOROETHANE
6U	TOLUENE
6U	CHLOROBENZENE
6U	ETHYL BENZENE
6U	STYRENE
6U	TOTAL XYLENES
22	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 01/01/91

** PROJECT NO. 90-699 SAMPLE NO. 49246 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SS-04
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1035 STOP: 00/00/00
D. NO.: W769

UG/KG	ANALYTICAL RESULTS
11U	CHLOROMETHANE
11U	BROMOMETHANE
11U	VINYL CHLORIDE
11U	CHLOROETHANE
6U	METHYLENE CHLORIDE
11U	ACETONE
6U	CARBON DISULFIDE
6U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
6U	1,1-DICHLOROETHANE
6U	1,2-DICHLOROETHENE (TOTAL)
6U	CHLOROFORM
6U	1,2-DICHLOROETHANE
11U	METHYL ETHYL KETONE
6U	1,1,1-TRICHLOROETHANE
6U	CARBON TETRACHLORIDE
11U	VINYL ACETATE
6U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
6U	1,2-DICHLOROPROPANE
6U	CIS-1,3-DICHLOROPROPENE
6U	TRICHLOROETHENE(TRICHLOROETHYLENE)
6U	DIBROMOCHLOROMETHANE
6U	1,1,2-TRICHLOROETHANE
6U	BENZENE
6U	TRANS-1,3-DICHLOROPROPENE
6U	BROMOFORM
11U	METHYL ISOBUTYL KETONE
11U	METHYL BUTYL KETONE
6U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
6U	1,1,2,2-TETRACHLOROETHANE
6U	TOLUENE
6U	CHLOROBENZENE
6U	ETHYL BENZENE
6U	STYRENE
6U	TOTAL XYLENES
11	PERCENT MOISTURE

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49247 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SB-04
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1055 STOP: 00/00/00

D. NO.: W770

UG/KG	ANALYTICAL RESULTS
12U	CHLOROMETHANE
12U	BROMOMETHANE
12U	VINYL CHLORIDE
12U	CHLOROETHANE
6U	METHYLENE CHLORIDE
12U	ACETONE
6U	CARBON DISULFIDE
6U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
6U	1,1-DICHLOROETHANE
6U	1,2-DICHLOROETHENE (TOTAL)
6U	CHLOROFORM
6U	1,2-DICHLOROETHANE
12U	METHYL ETHYL KETONE
6U	1,1,1-TRICHLOROETHANE
6U	CARBON TETRACHLORIDE
12U	VINYL ACETATE
6U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
6U	1,2-DICHLOROPROPANE
6U	CIS-1,3-DICHLOROPROPENE
6U	TRICHLOROETHENE(TRICHLOROETHYLENE)
6U	DIBROMOCHLOROMETHANE
6U	1,1,2-TRICHLOROETHANE
6U	BENZENE
6U	TRANS-1,3-DICHLOROPROPENE
6U	BROMOFORM
12U	METHYL ISOBUTYL KETONE
12U	METHYL BUTYL KETONE
6U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
6U	1,1,2,2-TETRACHLOROETHANE
6U	TOLUENE
6U	CHLOROBENZENE
6U	ETHYL BENZENE
6U	STYRENE
6U	TOTAL XYLENES
20	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49248 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: SS-05 COLLECTION START: 08/21/90 1145 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W771

UG/KG	ANALYTICAL RESULTS
15U	CHLOROMETHANE
15U	BROMOMETHANE
15U	VINYL CHLORIDE
15U	CHLOROETHANE
8U	METHYLENE CHLORIDE
15U	ACETONE
8U	CARBON DISULFIDE
8U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
8U	1,1-DICHLOROETHANE
8U	1,2-DICHLOROETHENE (TOTAL)
8U	CHLOROFORM
8U	1,2-DICHLOROETHANE
15U	METHYL ETHYL KETONE
8U	1,1,1-TRICHLOROETHANE
8U	CARBON TETRACHLORIDE
15U	VINYL ACETATE
8U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
8U	1,2-DICHLOROPROPANE
8U	CIS-1,3-DICHLOROPROPENE
8U	TRICHLOROETHENE(TRICHLOROETHYLENE)
8U	DIBROMOCHLOROMETHANE
8U	1,1,2-TRICHLOROETHANE
8U	BENZENE
8U	TRANS-1,3-DICHLOROPROPENE
8U	BROMOFORM
15U	METHYL ISOBUTYL KETONE
15U	METHYL BUTYL KETONE
8U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
8U	1,1,2,2-TETRACHLOROETHANE
8U	TOLUENE
8U	CHLOROBENZENE
8U	ETHYL BENZENE
8U	STYRENE
8U	TOTAL XYLENES
34	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49249 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: E CORBIN **
** SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC **
** STATION ID: SS-06 COLLECTION START: 08/21/90 1420 STOP: 00/00/00 **
**
** CASE NO.: 14748 SAS NO.: D. NO.: W773 **

UG/KG	ANALYTICAL RESULTS
11U	CHLOROMETHANE
11U	BROMOMETHANE
11U	VINYL CHLORIDE
11U	CHLOROETHANE
5U	METHYLENE CHLORIDE
11U	ACETONE
5U	CARBON DISULFIDE
5U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
5U	1,1-DICHLOROETHANE
5U	1,2-DICHLOROETHENE (TOTAL)
5U	CHLOROFORM
5U	1,2-DICHLOROETHANE
11U	METHYL ETHYL KETONE
5U	1,1,1-TRICHLOROETHANE
5U	CARBON TETRACHLORIDE
11U	VINYL ACETATE
5U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
5U	1,2-DICHLOROPROPANE
5U	CIS-1,3-DICHLOROPROPENE
5U	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	DIBROMOCHLOROMETHANE
5U	1,1,2-TRICHLOROETHANE
5U	BENZENE
5U	TRANS-1,3-DICHLOROPROPENE
5U	BROMOFORM
11U	METHYL ISOBUTYL KETONE
11U	METHYL BUTYL KETONE
5U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5U	1,1,2,2-TETRACHLOROETHANE
5U	TOLUENE
5U	CHLOROBENZENE
5U	ETHYL BENZENE
5U	STYRENE
5U	TOTAL XYLENES
6	PERCENT MOISTURE

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49250 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-01

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1630 STOP: 00/00/00

CASE NO.: 14748. SAS NO.: D. NO.: W776

UG/KG	ANALYTICAL RESULTS
13U	CHLOROMETHANE
13U	BROMOMETHANE
13U	VINYL CHLORIDE
13U	CHLOROETHANE
7U	METHYLENE CHLORIDE
13U	ACETONE
7U	CARBON DISULFIDE
7U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
7U	1,1-DICHLOROETHANE
7U	1,2-DICHLOROETHENE (TOTAL)
7U	CHLOROFORM
7U	1,2-DICHLOROETHANE
13U	METHYL ETHYL KETONE
7U	1,1,1-TRICHLOROETHANE
7U	CARBON TETRACHLORIDE
13U	VINYL ACETATE
7U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
7U	1,2-DICHLOROPROPANE
7U	CIS-1,3-DICHLOROPROPENE
7U	TRICHLOROETHENE(TRICHLOROETHYLENE)
7U	DIBROMOCHLOROMETHANE
7U	1,1,2-TRICHLOROETHANE
7U	BENZENE
7U	TRANS-1,3-DICHLOROPROPENE
7U	BROMOFORM
13U	METHYL ISOBUTYL KETONE
13U	METHYL BUTYL KETONE
7U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
7U	1,1,2,2-TETRACHLOROETHANE
7U	TOLUENE
7U	CHLOROBENZENE
7U	ETHYL BENZENE
7U	STYRENE
7U	TOTAL XYLENES
25	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49251 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: SD-02

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1510 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W779

UG/KG	ANALYTICAL RESULTS
13U	CHLOROMETHANE
13U	BROMOMETHANE
13U	VINYL CHLORIDE
13U	CHLOROETHANE
9U	METHYLENE CHLORIDE
13U	ACETONE
6U	CARBON DISULFIDE
6U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
6U	1,1-DICHLOROETHANE
6U	1,2-DICHLOROETHENE (TOTAL)
6U	CHLOROFORM
6U	1,2-DICHLOROETHANE
13U	METHYL ETHYL KETONE
6U	1,1,1-TRICHLOROETHANE
6U	CARBON TETRACHLORIDE
13U	VINYL ACETATE
6U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
6U	1,2-DICHLOROPROPANE
6U	CIS-1,3-DICHLOROPROPENE
6U	TRICHLOROETHENE(TRICHLOROETHYLENE)
6U	DIBROMOCHLOROMETHANE
6U	1,1,2-TRICHLOROETHANE
6U	BENZENE
6U	TRANS-1,3-DICHLOROPROPENE
6U	BROMOFORM
13U	METHYL ISOBUTYL KETONE
13U	METHYL BUTYL KETONE
6U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
6U	1,1,2,2-TETRACHLOROETHANE
6U	TOLUENE
6U	CHLOROBENZENE
6U	ETHYL BENZENE
6U	STYRENE
6U	TOTAL XYLENES
23	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49252 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SD-03
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1530 STOP: 00/00/00

D. NO.: W778

UG/KG	ANALYTICAL RESULTS
13U	CHLOROMETHANE
13U	BROMOMETHANE
13U	VINYL CHLORIDE
13U	CHLOROETHANE
10U	METHYLENE CHLORIDE
13U	ACETONE
6U	CARBON DISULFIDE
6U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
2J	1,1-DICHLOROETHANE
6U	1,2-DICHLOROETHENE (TOTAL)
6U	CHLOROFORM
6U	1,2-DICHLOROETHANE
13U	METHYL ETHYL KETONE
6U	1,1,1-TRICHLOROETHANE
6U	CARBON TETRACHLORIDE
13U	VINYL ACETATE
6U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
6U	1,2-DICHLOROPROPANE
6U	CIS-1,3-DICHLOROPROPENE
6U	TRICHLOROETHENE(TRICHLOROETHYLENE)
6U	DIBROMOCHLOROMETHANE
6U	1,1,2-TRICHLOROETHANE
6U	BENZENE
6U	TRANS-1,3-DICHLOROPROPENE
6U	BROMOFORM
13U	METHYL ISOBUTYL KETONE
13U	METHYL BUTYL KETONE
6U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
6U	1,1,2,2-TETRACHLOROETHANE
6U	TOLUENE
6U	CHLOROBENZENE
6U	ETHYL BENZENE
6U	STYRENE
6U	TOTAL XYLENES
22	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

** PROJECT NO. 90-699 SAMPLE NO. 49253 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SD-04
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1555 STOP: 00/00/00
D. NO.: W780

UG/KG	ANALYTICAL RESULTS
14U	CHLOROMETHANE
14U	BROMOMETHANE
14U	VINYL CHLORIDE
14U	CHLOROETHANE
8U	METHYLENE CHLORIDE
14U	ACETONE
7U	CARBON DISULFIDE
7U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
7U	1,1-DICHLOROETHANE
7U	1,2-DICHLOROETHENE (TOTAL)
7U	CHLOROFORM
7U	1,2-DICHLOROETHANE
14U	METHYL ETHYL KETONE
7U	1,1,1-TRICHLOROETHANE
7U	CARBON TETRACHLORIDE
14U	VINYL ACETATE
7U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
7U	1,2-DICHLOROPROPANE
7U	CIS-1,3-DICHLOROPROPENE
7U	TRICHLOROETHENE(TRICHLOROETHYLENE)
7U	DIBROMOCHLOROMETHANE
7U	1,1,2-TRICHLOROETHANE
7U	BENZENE
7U	TRANS-1,3-DICHLOROPROPENE
7U	BROMOFORM
14U	METHYL ISOBUTYL KETONE
14U	METHYL BUTYL KETONE
7U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
7U	1,1,2,2-TETRACHLOROETHANE
7U	TOLUENE
7U	CHLOROBENZENE
7U	ETHYL BENZENE
7U	STYRENE
7U	TOTAL XYLENES
28	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 01/01/91

** PROJECT NO. 90-699 SAMPLE NO. 49254 SAMPLE TYPE: SOIL
** SOURCE: UNIROYAL INC
** STATION ID: SD-05
**
** CASE NO.: 14748 SAS NO.:

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1605 STOP: 00/00/00
D. NO.: W781

UG/KG	ANALYTICAL RESULTS
13U	CHLOROMETHANE
13U	BROMOMETHANE
13U	VINYL CHLORIDE
13U	CHLOROETHANE
7U	METHYLENE CHLORIDE
13U	ACETONE
7U	CARBON DISULFIDE
7U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
7U	1,1-DICHLOROETHANE
7U	1,2-DICHLOROETHENE (TOTAL)
7U	CHLOROFORM
7U	1,2-DICHLOROETHANE
13U	METHYL ETHYL KETONE
7U	1,1,1-TRICHLOROETHANE
7U	CARBON TETRACHLORIDE
13U	VINYL ACETATE
7U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
7U	1,2-DICHLOROPROPANE
7U	CIS-1,3-DICHLOROPROPENE
7U	TRICHLOROETHENE(TRICHLOROETHYLENE)
7U	DIBROMOCHLOROMETHANE
7U	1,1,2-TRICHLOROETHANE
7U	BENZENE
7U	TRANS-1,3-DICHLOROPROPENE
7U	BROMOFORM
13U	METHYL ISOBUTYL KETONE
13U	METHYL BUTYL KETONE
7U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
7U	1,1,2,2-TETRACHLOROETHANE
7U	TOLUENE
7U	CHLOROBENZENE
7U	ETHYL BENZENE
7U	STYRENE
7U	TOTAL XYLENES
24	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

PURGEABLE ORGANICS DATA REPORT 01/01/91

PROJECT NO. 90-699 SAMPLE NO. 49256 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: PB-01 COLLECTION START: 08/21/90 0915 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W768

UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE
10U	BROMOMETHANE
10U	VINYL CHLORIDE
10U	CHLOROETHANE
5U	METHYLENE CHLORIDE
23	ACETONE
5U	CARBON DISULFIDE
5U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
5U	1,1-DICHLOROETHANE
5U	1,2-DICHLOROETHENE (TOTAL)
5U	CHLOROFORM
5U	1,2-DICHLOROETHANE
10	METHYL ETHYL KETONE
5U	1,1,1-TRICHLOROETHANE
5U	CARBON TETRACHLORIDE
10U	VINYL ACETATE
5U	BROMODICHLOROMETHANE

UG/L	ANALYTICAL RESULTS
5U	1,2-DICHLOROPROPANE
5U	CIS-1,3-DICHLOROPROPENE
5U	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	DIBROMOCHLOROMETHANE
5U	1,1,2-TRICHLOROETHANE
5U	BENZENE
5U	TRANS-1,3-DICHLOROPROPENE
5U	BROMOFORM
10U	METHYL ISOBUTYL KETONE
10U	METHYL BUTYL KETONE
5U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5U	1,1,2,2-TETRACHLOROETHANE
5U	TOLUENE
5U	CHLOROBENZENE
5U	ETHYL BENZENE
5U	STYRENE
5U	TOTAL XYLENES

REMARKS ***REMARKS***

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49257 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: E CORBIN
SOURCE: UNIROYAL INC CITY: GASTONIA ST: NC
STATION ID: SW-01 COLLECTION START: 08/21/90 1610 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W775

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE	5U	1,2-DICHLOROPROPANE
10U	BROMOMETHANE	5U	CIS-1,3-DICHLOROPROPENE
10U	VINYL CHLORIDE	5U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	CHLOROETHANE	5U	DIBROMOCHLOROMETHANE
5U	METHYLENE CHLORIDE	5U	1,1,2-TRICHLOROETHANE
10U	ACETONE	5U	BENZENE
5U	CARBON DISULFIDE	5U	TRANS-1,3-DICHLOROPROPENE
5U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	5U	BROMOFORM
5U	1,1-DICHLOROETHANE	10U	METHYL ISOBUTYL KETONE
5U	1,2-DICHLOROETHENE (TOTAL)	10U	METHYL BUTYL KETONE
5U	CHLOROFORM	1J	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5U	1,2-DICHLOROETHANE	5U	1,1,2,2-TETRACHLOROETHANE
10U	METHYL ETHYL KETONE	5U	TOLUENE
5U	1,1,1-TRICHLOROETHANE	5U	CHLOROBENZENE
5U	CARBON TETRACHLORIDE	5U	ETHYL BENZENE
10U	VINYL ACETATE	5U	STYRENE
5U	BROMODICHLOROMETHANE	5U	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49258 SAMPLE TYPE:
SOURCE:
STATION ID: SW-02

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/21/90 1500 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W777

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
10U	CHLOROMETHANE	5U	1,2-DICHLOROPROPANE
10U	BROMOMETHANE	5U	CIS-1,3-DICHLOROPROPENE
10U	VINYL CHLORIDE	5U	TRICHLOROETHENE(TRICHLOROETHYLENE)
10U	CHLOROETHANE	5U	DIBROMOCHLOROMETHANE
5U	METHYLENE CHLORIDE	5U	1,1,2-TRICHLOROETHANE
10U	ACETONE	5U	BENZENE
5U	CARBON DISULFIDE	5U	TRANS-1,3-DICHLOROPROPENE
5U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	5U	BROMOFORM
5U	1,1-DICHLOROETHANE	10U	METHYL ISOBUTYL KETONE
5U	1,2-DICHLOROETHENE (TOTAL)	10U	METHYL BUTYL KETONE
5U	CHLOROFORM	5U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5U	1,2-DICHLOROETHANE	5U	1,1,2,2-TETRACHLOROETHANE
10U	METHYL ETHYL KETONE	5U	TOLUENE
5U	1,1,1-TRICHLOROETHANE	5U	CHLOROBENZENE
5U	CARBON TETRACHLORIDE	5U	ETHYL BENZENE
10U	VINYL ACETATE	5U	STYRENE
5U	BROMODICHLOROMETHANE	5U	TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

01/01/91

PURGEABLE ORGANICS DATA REPORT

PROJECT NO. 90-699 SAMPLE NO. 49262 SAMPLE TYPE: SOIL
SOURCE: UNIROYAL INC
STATION ID: TB-01S

PROG ELEM: NSF COLLECTED BY: E CORBIN
CITY: GASTONIA ST: NC
COLLECTION START: 08/17/90 1220 STOP: 00/00/00

CASE NO.: 14748 SAS NO.: D. NO.: W767

UG/KG	ANALYTICAL RESULTS
11U	CHLOROMETHANE
11U	BROMOMETHANE
11U	VINYL CHLORIDE
11U	CHLOROETHANE
5U	METHYLENE CHLORIDE
5O	ACETONE
5U	CARBON DISULFIDE
5U	1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
5U	1,1-DICHLOROETHANE
5U	1,2-DICHLOROETHENE (TOTAL)
5U	CHLOROFORM
5U	1,2-DICHLOROETHANE
11U	METHYL ETHYL KETONE
5U	1,1,1-TRICHLOROETHANE
5U	CARBON TETRACHLORIDE
11U	VINYL ACETATE
5U	BROMODICHLOROMETHANE

UG/KG	ANALYTICAL RESULTS
5U	1,2-DICHLOROPROPANE
5U	CIS-1,3-DICHLOROPROPENE
5U	TRICHLOROETHENE(TRICHLOROETHYLENE)
5U	DIBROMOCHLOROMETHANE
5U	1,1,2-TRICHLOROETHANE
5U	BENZENE
5U	TRANS-1,3-DICHLOROPROPENE
5U	BROMOFORM
11U	METHYL ISOBUTYL KETONE
11U	METHYL BUTYL KETONE
5U	TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5U	1,1,2,2-TETRACHLOROETHANE
5U	TOLUENE
5U	CHLOROBENZENE
5U	ETHYL BENZENE
5U	STYRENE
5U	TOTAL XYLENES
8	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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Reference No. 4

UNIROYAL

UNIROYAL CHEMICAL
Division of Uniroyal, Inc.
214 West Ruby Avenue
P.O. Box 2337
Gastonia, North Carolina 28053-2337

704-864-3411

RECEIVED
OCT 26 1984
SOLID & HAZARDOUS WASTE MANAGEMENT BRANCH

October 25, 1984

Mr. Lenox E. Bramble
Environmental Engineer
Solid & Hazardous Waste Management Branch
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602-2091

Dear Mr. Bramble:

In answer to your letter of September 28, 1984, I will provide the information in the same numerical order as presented in your request.

1. Waste storage, treatment, and disposal practices of RCRA hazardous wastes. Include types, amounts, transporters, and disposal locations and dates for each waste.
   (A) RCRA Hazardous Waste.
   3/23/79 laboratory waste and oil, 37,810 pounds, flammable liquid.
   transporter: Roebuck Systems.
   disposer: Roebuck Systems, Roebuck, South Carolina
   10/16/80 laboratory waste and oil, 15,660 pounds, flammable liquid.
   transporter: A-1 Pumping Service
   disposer: ABCO Industries, Roebuck, South Carolina
   3/25/83 laboratory waste and oil, 18,350 pounds, flammable liquid.
   transporter: A-1 Pumping Service
   disposer: ABCO Industries, Roebuck, South Carolina
   11/1/83 (a) DNBP - P020, 18,800 pounds, poison B
   (b) Alpha-Naphthylamine U-167, 392 pounds, poison B
   transporter: Bryson Industrial Services, Inc.
   disposer: SC-SCA Services, Pinewood, South Carolina
   11/2/83 laboratory waste and oil, 7,175 pounds, flammable liquid.
   transporter: A-1 Pumping Service
   disposer: ABCO Industries, Roebuck, South Carolina

Other waste we have disposed are not RCRA hazardous waste. Storage of hazardous waste in the past on our Plant premises has been confined to laboratory waste, which was stored in 55 gallon DOT 17-E drums, on a covered, diked concrete slab. At the present time, we do not store RCRA hazardous waste.

2. Waste storage, treatment, and disposal practices for other toxic or hazardous substances not regulated by RCRA but designated as a hazardous substance under CERCLA (example PCBs). Include types, amounts, transporters, and disposal locations and dates for each waste.
(A) None.

3. Information concerning releases of CERCLA hazardous substances at your plant site such as spills of feedstocks, waste waters, materials at transfer areas, leaking storage tanks, and other waste handling and/or recovery areas with descriptions of any remedial actions undertaken.
On May 29, 1974 there was a release of approximately 25 gallons of 2.4 dinitro butyl phenol from a containment sump to the municipal sewer. There was an investigation by the North Carolina Water Quality Section. Their report is on file with the Water Quality Section, Division of Environmental Management. The investigation concluded that there was no lasting effect of the release. Uniroyal reimbursed the State for the cost of the investigation and the cost of replacing fish killed as a result of the municipal sewage treatment plant releasing treated water contaminated with DNBP.
Immediately after this release the drain line from the containment sump to the sewer line was sealed with concrete.

4. Any chemical analysis results indicating soil, groundwater, or surface water contamination as a result of hazardous substance releases that have occurred. Identify locations of any groundwater monitoring wells or other sampling points used to monitor areas of potential concern.
Analysis of the above is included in the investigator's report.

5. Provide a chronological history of site owners and/or operators where applicable.
Uniroyal, Incorporated has been the site owner and operator since the Plant was built.

6. Include copies of any notifications of correspondence made to the United States Environmental Protection Agency or the State of North Carolina in reference to possible CERCLA site activities and/or releases.
   No reports made.

7. Provide a general description of plant operations and processes.
   The Uniroyal Chemical Plant in Gastonia, North Carolina manufactures urethane pre-polymers, formulates agriculture chemicals (pesticides), manufactures surface active agents and fabricated products (plastic drum covers and rubber labels).

The Plant has an excellent spill prevention plan. All areas where spills or releases may occur are on slabs and diked. This includes manufacturing areas, storage areas, and truck loading and unloading stations.

Sincerely,

John W. Robinson, Jr.

John W. Robinson, Jr.
Technical Supervisor

JWR/dm

Reference No. 3

RCRA Inspect Report #1

Facility Information
Uniroyal Chemical Co. Inc.
214 W. Ruby Ave., P.O. Box 2337
Gastonia, N.C. 28053
Gaston County
NCD 003164464 - EPA I.D Number

Facility Contact
John Robinson

Survey Participants
John Robinson, Larry Fox

Date of Inspection
November 12, 1986

Applicable Regulations
Generator Standards - 40 CFR Part 262

Scope of Survey
To determine compliance with Generator Standards, 40 CFR Part 262

Facility Description
Uniroyal Chemical Co. Inc. is located on 214 W. Ruby Ave., Gastonia, N.C., Gaston County. This facility produces chemicals for agriculture

(continued from Page 1) #2

Uniroyal Chemical Co. Inc.
Gastonia, N.C.

usuage such as herbicides and pesticides.
Hazardous wastes generated are from filtering, processing and waste bags and containers from raw materials.
Hazardous Wastes generated are as follows:
Waste poison B Solid UN 2811 (U-167)
Substituted Nitrophenol pesticide Solid (P-020
goes to GSX Services of South Carolina, Inc
Route # 1, Box 255, Pinewood, S.C. 29125
SCD070375989
Transported by A-1 Pumping Service
SCD000640896

Site Deficiencies
None

Compliance Schedule/Recommendations
None

Reference No. 5

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NC	D003164464

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Uniroyal Inc./Uniroyal Chemical Div.	214 W. Ruby Ave; P.O. Box 2337

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Gastonia	NC	28052	Gaston	36	10

09 COORDINATES LATITUDE	LONGITUDE
35 14 38._	_81 11 15._

10 DIRECTIONS TO SITE (Starting from nearest public road)

In Gastonia at intersection of US 321 and US 29/US 74, take US 321 South approximately 1.1 miles. Turn left on Ruby Street. Uniroyal will be on left side approximately 1/4 mile down Ruby Street.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
Uniroyal, Inc. World Headquarters	

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Middlebury	CT	06749	(203) 573-3837

07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
			( )

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☒ A. RCRA 3001 DATE RECEIVED: 7 / 80 (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: / / (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

☒ YES DATE 9 / 1 / 81 (MONTH DAY YEAR)
☐ NO

BY (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR ☒ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)

CONTRACTOR NAME(S): RCRA compliance inspection

02 SITE STATUS (Check one)

☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION

1955 (BEGINNING YEAR) | ____ (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

This company has used various solvents and organic compounds including growth regulants, fungicides, and solvents such as acetone and xylene.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Possible groundwater and/or soil contamination. Area around location of discontinued waste piles and handling of hazardous substances prior to 1980 require further attention. Catawba Creek at rear of property should intercept surface and subsurface contamination.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☒ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
John W. Robinson, Jr.	Uniroyal Chemical	(704) 864-3411

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
O.W. Strickland	NC DHS	Solid & Haz Waste Mgt. Br	(919) 733-2178	11 27 84 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NC	D003164464

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

From storage of Thiram, Maleic Hydrazide, and Phthalic Anhydride in waste piles (discontinued 1-3-83). Any resulting groundwater contamination should be intercepted by Catawba Creek at Extreme back of property.

01 ☒ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Overland runoff to Catawba Creek, particularly from previous waste piles

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Not suspected at this time.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Not suspected at this time.

01 ☒ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

In area of previous waste pile

01 ☒ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ (Acres) — 04 NARRATIVE DESCRIPTION

In area of previous waste pile and downgradient of same

01 ☐ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Not suspected at this time

01 ☒ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

In area of previous waste pile

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Not suspected at this time.

Reference No. 6

NUS CORPORATION AND SUBSIDIAR ... **ON NOTE**

CONTROL NO:	DATE: 03-08-91	TIME: 1400

DISTRIBUTION:

BETWEEN:	OF:	PHONE:
Cindy Eptine	Uniroyal Sec./Uniroyal Chem. Co.	(704) 864-3411

AND: Eric Corlin, NUS Corp.

DISCUSSION:

Contacted Mrs Eptine in an effort to determine products currently manufactured at the facility. The facility currently manufactures Agricultural Chemicals, fungicides and turf herbicides.

Eric Corlin

~~03-08~~ 03-08-91

ACTION ITEMS:

NUS 067 REVISED 0685

Reference No. 7

TELEPHONE CONVERSATION SUMMARY

CALL MADE BY: Charlotte M. Boulind, Environmental Scientist, Dynamac Corporation

Charlotte M Boulind
02.02.93

DATE: February 2, 1993 SITE: AMP, Incorporated

TIME: 10:07 a.m. EPA ID NO.: NCD000615872

PERSON CONTACTED:

NAME	John Schuller
TITLE	Assitant Director
PHONE NO.	(704) 866-6821
ORGANIZATION	Gastonia Water Department
ADDRESS	Gastonia, NC

GENERAL SUBJECT: Service area and water sources of the Gastonia Water Department

CONVERSATION SUMMARY:

I told Mr. Schuller that I was trying to update information of his water company that was compiled about two years ago. He said that the service area has not changed much since that time. He reported that the water company serves within the city limits of Gastonia and a few areas outside such as Lowell. He said that I would have to contact the county health department for information about the community water well systems in the area. He stated that the water company has not taken over any of the community water well systems. He said that they do not serve Bessemer City and Dallas, rather they serve themselves. Mr. Schuller advised me to call the city hall for each city to find out more information about them.

Reference No. 8

Received
9/9/93
Charlotte H Pauling
Environmental
Scientist
Dynamac Corporation

Charlotte

I showed all the community water system to the Northwest & Southwest of 321. There are plenty of community water systems to the Northeast and SouthEast of 321 and I did not map these. I've included a list for all the wells we currently have in Gaston County that are community water systems. Also I have highlighted those wells that were marked on the map you provided me. At this time we have not researched all the well files for the depths, but we should have a completed list on our GIS by the end of October. Hope that this has helped you some. If I can be of further help, please contact me.

Thanks

"Doc" Thayer RS/EHS

P.S. - The upper portion of the map is cut off. There are at least 5 systems further Northwest near Cherryville that I did not map.

JAMES THOMPSON, R.S.
ENVIRONMENTAL HEALTH SPECIALIST
GASTON COUNTY HEALTH DEPARTMENT

PHONE
704/853-5204
8 A.M. - 9 A.M.

1991 W. HUDSON BLVD.
GASTONIA, NC 28052

GASTON COUNTY
Community Well Systems
(15 or more connections / serving 25 or more people)

SOURCECODE: G groundwater
AVAILABILITY: E emergency

MAP NO	PWSID#	NAME	LONG			LAT			USER TYPE	HOOK UPS	SRC CODE	SOURCE	POP SERVED
	01-36-045-2	McAdenville	81	5	15	35	16	30	31	220	G	Wells (2)	0
	01-36-050	Spencer Mt. System	81	5	60	35	18	30	31	[illegible]	G	Well	169
	01-36-055	Ragan Village Water Assoc.	81	6	29	35	13	0	31	152	G	Well	128
	01-36-101-1	Parkdale Mill Plant 12 & 14	81	2	39	35	16	15			G	Well #1	450
	01-36-101-2	Parkdale Mill 12 &14	81	2	49	35	16	1			G	Well #2	0
	01-36-101-3	Parkdale Mill 12&14	81	2	49	35	16	0			G	Well #3	0
	01-36-101-4	Parkdale Mill 12&14	81	2	44	35	16	15			G	Well #4	0
	01-36-101-5	Parkdale Mill 12&14	81	2	49	35	16	15			G	Well #5	0
153	01-36-102	Alan Acres S/D	81	15	0	35	15	15	31	36	G	Well #1	114
	01-36-103	Allen MHP	81	20	30	35	20	10	34	36	G	Well #1	2) 114
16	01-36-104	Ashebrook Park	81	16	59	35	17	30	31	37	G	Well	148
	01-36-105	Mary's Groves Water Assoc.	81	23	2	35	21	15	31	16	G	Well #1	48
	01-36-106	Beechbrook S/D	81	10	0	35	17	60	31	22	G	Wells (2)	132
	01-36-107	Belmont Abbey	81	2	39	35	15	12	32	1	G	Well	700
	01-36-108	Beverly Acres	81	12	10	35	20	10	31	58	G	Well	200
151	01-36-111	Chapel Grove MHP	81	12	15	35	20	15	34	17	G	Wells (2)	68
	01-36-112	Carmel Park	81	1	9	35	10	60	31	44	G	Wells (3)	176
134	01-36-113	Cedar Oak S/D	81	12	29	35	11	10	31	27	G	Well	128
	01-36-114	Cedarwood Acres	81	2	30	35	11	30	31	71	G	Wells (3)	284
148	01-36-115	Chapelwood Acres S/D	81	12	39	35	20	20	31	14	G	Well	56
	01-36-116	Charleston Park	81	12	34	35	20	30	31	72	G	Wells (2)	288
	01-36-118	Country Club Estate I	81	2	60	35	10	53	31	21	G	Well	120
	01-36-119	Craig Gardens Water Sys	81	8	44	35	11	45	31	60	G	Wells 1&2	(180
	01-36-122-1	Dalewood-Monterray Water Sys	e 81	8	42	35	17	24	31	56	G	Well #1	224
	01-36-122-2	Dalewood-Monterray WS	81	8	42	35	17	23			G	Well #2	0
13	01-36-124	Donna-Lynn MHP	81	16	59	35	19	50		15	G	Well	60
	01-36-125	Dotsun MHP	81	16	50	35	19	45	34	73	G	Wells (2)	219
28	01-36-126	Drive-In TP	81	17	60	35	16	60	34	22	G	Well	66
	01-36-127	Eagle Yarn Mills Inc.	81	4	0	35	19	40	31	65	G	Wells (3)	260
26	01-36-128	Edgewood Acres (Brindle)	81	17	15	35	17	30	31	41	G	Well	164
27	01-36-129	Edgewood Acres (Hensley)	81	17	17	35	17	15	31	90	G	Wells (3)	360
146	01-36-130	Fallscrest S/D #1	81	15	29	35	10	15	31	100	G	Wells (2)	400
165	01-36-131	Tablerock Subdivision	81	10	0	35	11	30	31	40	W	Raintree	/D 160
138	01-36-133	Fleetwood Acres (Falls)	81	17	16	35	18	18	31	67	G	Wells (2)	268
137	01-36-134	Fleetwood Acres (Weber)	81	16	17	35	18	17	31	34	G	Well	156
24	01-36-135	Fontain Village	81	15	15	35	17	16	31	110	G	Wells (3)	440
	01-36-138	Green Meadows S/D	81	5	60	35	9	50	31	22	G	Well	88
	01-36-139	Green Rd WS	81	6	45	35	22	60	31	13	G	Well	52
	01-36-141	Harden Mfg. Co.	81	12	0	35	22	0	31	31	G	Well	93
	01-36-147	Hollandale S/D	81	12	10	35	22	10	31	27	G	Well	108
	01-36-148	Holly Acres	81	2	60	35	16	60	[illegible]	44	G	Wells (2)	176
154	01-36-149	Hollywood Acres S/D	81	15	2	35	10	9	31/34	27	G	Well	200
	01-36-150	Hovis Rd WS	81	6	45	35	23	5	31	16	G	Well	64
	01-36-152	Ken's MHP	81	5	6	35	15	7	34	24	G	Well	72
	01-36-153	Kiser, CL WS#2	81	10	9	35	17	16	31	10	G	Well	40
	01-36-155	Lakewood S/D	81	9	36	35	13	6	31	35	G	Well 1B	144
	01-36-157	Parkdale Mills Plant 8 & 9	81	2	2	35	14	18	31	82	G	Wells (2)	378
	01-36-159	Neighborhood Water Corp.	81	22	22	35	24	24	31	19	G	Well	76
	01-36-160	McKee TP	81	4	5	35	11	11	34	31	G	Well	56
	01-36-161	Monk MHP	81	5	8	35	12	13	34	17	G	Well	45
	01-36-164	Morningside Park	81	3	6	35	15	1	[illegible]	39	G	Well	156
130	01-36-165	Mountain Brook S/D	81	17	18	35	12	15	[illegible]	39	G	Wells (2)	156
	01-36-166	Hidden Valley Water System	81	7	0	35	21	30	34	32	G	Well	96
	01-36-167	Country Meadows	81	5	15	35	13	45	31	30	G	Well	120
	01-36-169	Oakgrove MHP	81	5	4	35	13	35	34	49	G	Well	147
	01-36-170-1	Paradise Pt. S/D	81	3	14	35	11	13	31	66	G	Well	264
	01-36-170-2	Paradise Pt. S/D	81	3	14	35	11	12			G	Well	0
171	01-36-171	Pharham Trailer Park	81	7	14	35	14	18	34	15	G	Well	45
	01-36-172	Peach Orchard - Hand	81	3	15	35	15	0	31/34	14	G	Well	56
135	01-36-174	Penny Pk Dr WS	81	13	30	35	14	10	31	18	G	Well	54
	01-36-175	Parkdale Mills #8-Belmont Di	81	13	40	35	14	16	31	83	G	Wells (2)	332
141	01-36-176-1	Pines MHP	81	7	50	35	16	20	34	61	P	Gastonia	244
	01-36-176-2	Pines MHP	81	12	10	35	11	11			G	Well	0
	01-36-182-1	Country Acres	81	8	39	35	11	55	31	50	G	Well #1	200
	01-36-182-2	Country Acres	81	8	35	35	11	35			G	Well #2	0
	01-36-185	Robinbrook Place	81	10	0	35	12	0	31	22	G	Well	88
30	01-36-187	Sante MHP	81	15	0	35	15	30	34	18	G	Well	44
133	01-36-189	Skyland Drive	81	13	9	35	13	50	31	20	G	Well	80
142	01-36-190	Skyview Park	81	3	15	35	11	11	31	39	G	Wells (2)	196
	01-36-193	Southwood S/D	81	1	0	35	11	18	31	75	G	Wells (2)	300
	01-36-194	Starbrook Park	81	8	15	35	13	45	31	12	G	Well	48
155	01-36-195	Starrland Community Supply	81	13	21	35	14	28	31	20	G	Well	80
	01-36-196	Stowe Spinning Co.	81	12	57	35	10	57	31	111	G	Well	444
132	01-36-197	Suburban Hghts S/D	81	12	57	35	10	57	31	58	G	Well	200
	01-36-198-1	Sunset Park S/D	81	15	0	35	15	0	31	86	G	Well	344
	01-36-198-2	Sunset Park S/D	81	15	0	35	15	0			P	Ranlo (to	n) 0
	01-36-199	Valleydale S/D Comm Supply	81	13	21	35	13	40	[illegible]	[illegible]	G	Wells (2)	160

	01-36-203	Winningfield S/D	81	15	56	35	23	23	31	12	G	Well	52
148	01-36-204-1	Yorkwood S/D	81	12	20	35	12	45	31	78	G	Well	276
113	01-36-204-2	Yorkwood S/D	81	12	39	35	12	42			G	Well	0
	01-36-205	Forestbrook S/D	81	12	20	35	13	10	31	147	G	Well	400
160	01-36-206	Lamar Acres S/D	81	13	24	35	12	0	31	53	G	Wells (2)	212
	01-36-207	Park Place	81	12	0	35	12	0	31	45	G	Well	180
	01-36-208	Quail Ridge S/D	81	6	45	35	13	60	31	62	G	Well #2	189
	01-36-210	Duncan Water Co.	81	3	15	35	14	56	49	14	G	Well	28
	01-36-211	Kings Grant S/D	81	13	0	35	15	0	31	55	G	Well	400
17	01-36-213	Hester Park	81	12	29	35	20	45	31	18	G	Well #1	44
19	01-36-214	College Park	81	12	0	35	19	0	31	62	G	Wells (2)	248
7	01-36-216	Mauney (Coy) MHP	81	12	10	35	19	10	34	28	G	Well	84
	01-36-219	Oakhill S/D	81	12	5	35	18	20	31	13	G	Well	39
	01-36-220	Maplecrest S/D	81	15	15	35	14	55	31	60	G	Well	240
	01-36-221	Maria Park	81	13	12	35	14	14	31	28	G	Wells (2)	25
	01-36-222	Mar-Lynn Forest S/D	81	6	15	35	19	60	31	34	G	Wells (2)	144
	01-36-225	Hickory Village MHP	81	15	29	35	14	18	34	57	G	Well	25
	01-36-227	Holly Faye MHP	81	16	32	35	24	1	34	37	G	Well	101
21	01-36-231	Knollwood	81	12	50	35	18	15	31	23	G	Well	88
	01-36-232	Dunns Trailer Park	81	4	59	35	19	60	34	17	G	Well	51
15	01-36-233	Carpenter MHP	81	14	4	35	17	60	34	23	G	Well	69
129	01-36-235	Brentwood MHP	81	14	15	35	15	30	49	40	G	Well	120
	01-36-236	Biltmore Estates S/D	81	9	1	35	13	0	31	27	G	Well	71
	01-36-237	Good Will Acres	81	13	59	35	23	45	31	35	G	Well	80
	01-36-239	Helms Water System	81	8	4	35	23	10	31	30	G	Wells (2)	120
	01-36-240	Hickory Grove MHP	81	4	50	35	18	30	34	45	G	Well	180
126	01-36-241	Mountain Village MHP	81	14	49	35	14	50	34	96	G	Well	300
	01-36-242	Fairfax S/D	81	10	40	35	12	0	31	60	G	Well	240
	01-36-243	E. Gaston MHP	81	4	59	35	18	55	34	50	G	Well	200
	01-36-244-1	Gallagher Trails S/D	81	13	9	35	23	60	31	40	G	Well	160
	01-36-244-2	Gallagher Trails	81	13	0	35	23	60			G	Wells (2)	0
166	01-36-247	Brimer (Lewis) Rental Property	81	11	30	35	13	0	31	11	G	Well	33
	01-36-249	Cedar Grove S/D	81	10	40	35	10	60	31	154	G	Wells (2)	616
	01-36-250	Cedar Valley S/D	81	9	45	35	20	50	31	23	G	Well	72
32	01-36-252	Tryon Trailer Park	81	18	29	35	21	15	34	30	G	Well	90
	01-36-256	Country Club Estates II	81	8	20	35	12	50	49	22	G	Well	88
	01-36-261	Fox Run S/D	81	9	10	35	10	11	31	165	G	Wells (3)	660
	01-36-264	Jim Longs Apts	81	5	25	35	12	0	31	11	G	Well	44
	01-36-265	Magnolia MHP	81	5	60	35	10	5	34	20	G	Well	60
33	01-36-266	Northwood MHP	81	15	0	35	16	0	49	21	G	Well	63
155	01-36-267	Oakley Park #2	81	15	0	35	13	10	31	50	G	Wells (2)	200
147	01-36-268	Old Providence	81	14	4	35	14	15	31	10	G	Well	30
150	01-36-271	Raby's MHP	81	50	60	35	12	30	34	28	G	Wells (3)	84
	01-36-274	Rein Apts Inc	81	1	45	35	14	5	31	18	G	Well	54
	01-36-275	Rocky Knoll Acres	81	12	39	35	19	0	49	49	G	Wells (2)	196
	01-36-277	Rolling Hill S/D	81	3	10	35	19	0	31/49	26	G	Well	78
	01-36-278	Shangri La S/D	81	2	56	35	11	35	31	12	G	Well	36
131	01-36-279	Silverstone S/D	81	14	4	35	14	15	49	40	G	Well	160
	01-36-280	South Lane S/D	81	10	55	35	13	12	31	12	G	Well	48
34	01-36-282	Stinnett Acres	81	19	0	35	16	0	31/49	47	G	Well	141
139	01-36-283	Suburban MHP	81	15	29	35	14	30	34	62	G	Wells (2)	186
22	01-36-284	Thorne's MHP	81	17	49	35	19	0	34/49	18	G	Well	54
	01-36-285	Toomey's MHP	81	4	0	35	16	60	49	17	G	Well	41
	01-36-286	Turner Town MHP	81	4	24	35	17	5	49	40	G	Well	160
	01-36-287	Wesley Acres	81	11	9	35	11	30	31/49	34	G	Well	136
105	01-36-289	Woodland Acres	81	15	29	35	15	15	34	32	G	Well	128
	01-36-290	Farmwood S/D	81	15	39	35	10	0	31	43	G	Well	25
	01-36-291	Forest Acres	81	15	20	35	10	45	31	22	G	Well	88
	01-36-292	Ballad Apts	81	9	0	35	19	50	31	21	G	Well	63
	01-36-293	Wells McConnell Water System	81	9	10	35	19	40	31	30	G	Well	126
	01-36-294	Autumn Acres	81	4	59	35	10	60	31	50	G	Wells (2)	200
	01-36-295	Gates WSI	81	7	59	35	13	60	31	30	G	Well	126
	01-36-296	Fairview MHP	81	16	31	35	23	3	34	9	G	Well	26
	01-36-297	Fairways S/D	81	8	15	35	13	0	31	9	G	Well	27
	01-36-298	Fallsdale TP	81	11	25	35	11	15	33/34	19	G	Well	54
7	01-36-300	Glennburn S/D	81	7	35	35	17	35	31	15	G	Well	60
128	01-36-304	Laurel Woods S/D	81	15	0	35	14	45	31	58	G	Well	230
	01-36-305	Oak Ridge MHP	81	4	59	35	21	21	34	9	G	Well	26
	01-36-309-1	Southgate S/D#2	81	8	4	35	11	50	31	165	G	Well #2	126
	01-36-309-2	Southgate S/D#2	81	8	30	35	12	1			G	Well #3	0
	01-36-310	South Hill S/D	81	6	6	35	11	27	31	12	G	Well	48
	01-36-311	Spensers MH Estates	81	15	10	35	14	35	34	7	G	Well	26
31	01-36-312	Winwood Acres S/D	81	16	15	35	14	11	31	22	G	Well	88
14	01-36-313	Wimbledon Acres S/D	81	13	30	35	21	30	—	30	G	Well	126
	01-36-316	W. Palm Acres	81	6	9	35	11	28	31	25	G	Wells (2)	100
	01-36-320-1	E. Chestnut St. Ext. S/D	81	5	9	35	21	40	31	80	G	Well #2	320
	01-36-320-2	E. Chestnut St. Ext. S/D	81	4	59	35	21	45			G	Well #3	0
	01-36-320-3	E. Chestnut St. Ext. S/D	81	5	4	35	21	39			G	Well #4	0
	01-36-322	Union Acres MHP	81	7	30	35	12	31	—	23	G	Well	69
154	01-36-324-1	Raintree S/D	81	13	30	35	11	36	31	64	G	Wells (4)	256

164	01-36-325	Woodvale Acres S/D	81	17	30	35	11	33	34	17	G	Well	68
140	01-36-329	Pineview S/D	81	12	10	35	13	15	31	14	G	Well	50
	01-36-330	Clubview Estates I	81	6	15	35	15	30	31	20	G	Well	25
	01-36-331	Country Woods S/D	81	6	14	35	15	34	31	36	G	Well	164
	01-36-332	MacGregor Downs S/D	81	6	16	35	15	35	31	30	G	Well	90
	01-36-333	Saddlewood S/D I	81	2	17	35	11	14	31	22	G	Well	88
	01-36-334-1	Southampton S/D	81	9	45	35	13	0	31	35	G	Well #1	140
	01-36-334-2	Southampton S/D	81	9	46	35	13	0			G	Well #2	0
	01-36-335	South Hill Estates II	81	9	52	35	14	6	31	19	G	Well	76
	01-36-336	Woodleigh S/D	81	9	45	35	13	1	31	161	G	Wells (3)	483
146	01-36-337	Fallscrest S/D #2	81	12	0	35	12	6	31	60	G	Wells (2)	240
	01-36-338	U.S. Forest S/D	81	15	0	35	12	10	31	31	G	Well	124
	01-36-339	Amy Acres S/D	81	11	44	35	11	45	31	15	G	Well	60
	01-36-340	Brookforest Estates S/D	81	1	59	35	12	0	31	10	G	Well	25
144	01-36-341	Branding Iron S/D	81	15	0	35	12	30	31	23	G	Well	80
	01-36-342	Saddlewood Section 2	81	11	11	35	18	58	31	6	G	Well	25
	01-36-343	J & M Properties Belmont	81	2	60	35	16	60	34	43	G	Wells (2)	160
	01-36-345	Castlewood S/D	81	15	15	35	14	36	31	38	G	Well	39
	01-36-346-1	Windsor Heights	81	13	0	35	19	0	34	70	G	Wells (2)	210
	01-36-346-2	Windsor Heights	81	13	0	35	19	0			G	Well	0
	01-36-347	Watts S/D	81	13	0	35	21	0	31	14	G	Well	35
	01-36-348	Weather Acres	81	5	9	35	13	10	31	10	G	Well	40
	01-36-352	Olde Lamp Place	81	13	59	35	16	0	31	47	G	Well	141
	01-36-353	Riverton Place	81	5	60	35	10	30	31	29	G	Well	116
	01-36-354	Rustic Trails S/D	81	1	59	35	13	0	31	40	G	Wells (2)	160
	01-36-355	Copperfield S/D	81	4	9	35	12	10	31	17	G	Well	68
158	01-36-356	Stoney Oaks S/D	81	15	45	35	11	45	31	12	G	Well	36
	01-36-359	Forest Hills MHP	81	7	12	35	22	0	34	35	G	Well	105
163	01-36-360	Bethany MHP	81	10	0	35	12	0	34	20	G	Well	60
6	01-36-362-1	Creekside MHP	81	19	19	35	20	15	34	160	G	Well #1	480
	01-36-362-2	Creekside MHP	81	19	21	35	20	15			G	Well #2	0
	01-36-363	Magnolia Springs S/D	81	5	60	35	21	0	31	9	G	Well	25
	01-36-364	Bayberry S/D	81	2	60	35	12	15	31	20	G	Well	80
	01-36-367	Providence Acres	81	5	42	35	12	48	31	35	G	Well #1	140
	01-36-368	Landau MHP	81	7	0	35	22	60	34	37	G	Well #2	111
170	01-36-369	Country Time Rest Home	81	17	30	35	13	60	—	2	G	Well	25
144	01-36-371	Crowder Ridge MHP	81	17	30	35	13	30	34	19	G	Well	56
	01-36-372	Forest Cove Section II	81	2	30	35	9	55	31	15	G	Well	45
	01-36-374	Northampton S/D	81	8	39	35	13	10	31	22	G	Well #1	44
	01-36-407	Gaston Co. Wildlife Club	81	1	14	35	10	0	33/49	36	G	Well	108
18	01-36-449	Clark (Miles) TPJ	81	14	58	35	20	45	34	26	G	Well	78
	01-36-516	Charles Venn TP	81	5	2	35	18	50	34	21	G	Well	78
	01-36-519	Windy Hill MHP	81	4	59	35	19	60	34	20	G	Well	55
X	01-36-131-1	Idlewild Park	not given						31	34	G	well	136
	01-36-131-2												
162	01-36-279	Jack-A-Shelle MHP	81	14	55	35	11	30	34	39	G	well	156
160	01-36-384	WAHKers Heights	To be Determined Later & Long.								G	2(wells)	250
34	01-36-391	Patterson MHP	At later Date							28	G	well	75
174	01-36-383	Henry Moore MHP	using Global							26	G	Well	75
172	01-36-381	Sparrow MHP	Positioning							30	G	Well	100
173	01-36-373	Shady Rest	system.							32	G	Well	120
156	01-36-380	Chapel Gr Acres								70	2 wells		200
168	01-36-386	Hickory Creek								150	2 wells		400
169	01-36-379	Snowshoe								18	1 well		40
167	01-36-?	Fox Fire								10	1 well		30
139	01-36-184	Ridgeview								22	1 well		50
134	01-36-113	Cedar Oaks								35	1 well		80
161	01-36-121	Crowders Crest								15	1 well		45

Reference No. 9

1990 CPH-1-35

1990 Census of Population and Housing

Summary Population and Housing Characteristics

North Carolina

Issued August 1991

U.S. Department of Commerce
Robert A. Mosbacher, Secretary
Rockwell A. Schnabel, Deputy Secretary

Economics and Statistics Administration
Michael R. Darby, Under Secretary
for Economic Affairs and Administrator

BUREAU OF THE CENSUS
Barbara Everitt Bryant, Director

Table 6. Household, Family, and Group Quarters Characteristics: 1990

[For definitions of terms and meanings of symbols, see text]

State County Place and [In Selected States] County Subdivision	Persons in households	All households	Family households: Total	Family households: Married-couple family	Family households: Female householder, no husband present	Nonfamily households: Total	Nonfamily households: Householder living alone: Total	Nonfamily households: Householder living alone: 65 years and over: Total	Nonfamily households: Householder living alone: 65 years and over: Female	Persons per— Household	Persons per— Family	Persons in group quarters: Total	Persons in group quarters: Institutionalized persons	Persons in group quarters: Other persons in group quarters
The State	6 404 167	2 517 026	1 812 053	1 424 206	309 876	704 973	596 959	226 384	182 329	2.54	3.03	224 470	83 400	141 070
COUNTY														
Alamance County	105 327	42 652	30 745	24 295	5 130	11 907	10 467	4 598	3 748	2.47	2.94	2 886	1 173	1 713
Alexander County	27 245	10 331	8 049	6 715	952	2 282	2 022	839	651	2.64	3.02	299	299	-
Alleghany County	9 381	3 894	2 829	2 421	303	1 065	990	539	433	2.41	2.88	209	193	16
Anson County	23 117	8 531	6 359	4 552	1 475	2 172	2 042	1 075	860	2.71	3.23	357	344	13
Ashe County	21 965	8 848	6 748	5 643	816	2 100	1 935	1 014	809	2.48	2.89	244	220	24
Avery County	13 918	5 520	4 162	3 500	480	1 358	1 229	549	420	2.52	2.95	949	320	629
Beaufort County	41 704	16 157	11 840	9 140	2 186	4 317	3 915	1 974	1 605	2.58	3.07	579	441	138
Bertie County	20 321	7 412	5 501	3 831	1 419	1 911	1 797	957	755	2.74	3.28	67	67	-
Bladen County	28 150	10 760	8 017	5 854	1 762	2 743	2 579	1 243	1 000	2.62	3.11	513	509	4
Brunswick County	50 497	20 069	15 291	12 636	2 031	4 778	4 227	1 640	1 194	2.52	2.91	488	307	181
Buncombe County	169 713	70 802	49 335	39 637	7 684	21 467	18 868	8 174	6 642	2.40	2.90	5 108	2 966	2 142
Burke County	73 281	29 184	21 711	17 462	3 148	7 473	6 589	2 706	2 228	2.51	2.93	2 463	2 410	53
Cabarrus County	97 255	37 515	28 367	23 279	3 972	9 148	8 038	3 599	2 971	2.59	3.02	1 680	1 223	457
Caldwell County	69 917	27 172	20 656	16 653	2 944	6 516	5 660	2 287	1 846	2.57	2.97	792	735	57
Camden County	5 875	2 180	1 692	1 385	225	488	437	234	169	2.69	3.11	29	-	29
Carteret County	51 554	21 238	15 276	12 681	2 021	5 962	5 081	1 901	1 431	2.43	2.88	1 002	750	252
Caswell County	20 053	7 468	5 781	4 454	1 024	1 687	1 593	727	573	2.69	3.13	640	624	16
Catawba County	116 387	45 700	33 773	27 418	4 841	11 927	10 270	3 844	3 115	2.55	2.99	2 025	1 134	891
Chatham County	38 315	15 293	11 227	9 115	1 605	4 066	3 445	1 412	1 141	2.51	2.95	444	377	67
Cherokee County	19 899	7 966	6 069	5 065	765	1 897	1 764	975	759	2.50	2.91	271	196	75
Chowan County	13 233	5 113	3 775	2 842	767	1 338	1 238	641	499	2.59	3.07	273	273	-
Clay County	7 150	2 928	2 177	1 894	203	751	699	418	314	2.44	2.90	5	4	1
Cleveland County	83 012	32 037	24 282	19 011	4 168	7 755	7 011	3 202	2 624	2.59	3.02	1 702	915	787
Columbus County	48 953	18 459	13 754	10 381	2 757	4 705	4 351	2 152	1 695	2.65	3.15	634	624	10
Craven County	78 014	29 542	22 481	18 189	3 511	7 061	6 121	2 436	1 930	2.64	3.07	3 599	811	2 788
Cumberland County	253 362	91 500	69 966	54 433	12 883	21 534	17 718	4 724	3 752	2.77	3.19	21 204	1 499	19 705
Currituck County	13 486	5 038	3 854	3 272	407	1 184	984	419	312	2.68	3.08	250	217	33
Dare County	22 542	9 349	6 425	5 498	682	2 924	2 264	714	522	2.41	2.88	204	140	64
Davidson County	125 358	48 944	37 176	30 410	5 120	11 768	10 262	4 189	3 319	2.56	2.96	1 319	1 277	42
Davie County	27 541	10 785	8 270	6 999	953	2 515	2 246	1 025	817	2.55	2.95	318	288	30
Duplin County	39 368	14 925	11 036	8 376	2 099	3 889	3 553	1 779	1 439	2.64	3.12	627	560	67
Durham County	173 310	72 297	45 985	33 614	10 321	26 312	20 860	5 553	4 471	2.40	2.99	8 525	2 175	6 350
Edgecombe County	55 856	20 319	15 085	10 000	4 293	5 234	4 703	2 124	1 717	2.75	3.25	702	657	45
Forsyth County	257 466	107 419	72 621	55 715	14 052	34 798	29 870	9 779	7 975	2.40	2.94	8 412	3 493	4 919
Franklin County	35 237	13 503	10 047	7 640	1 865	3 456	3 120	1 384	1 126	2.61	3.07	1 177	568	609
Gaston County	172 791	65 347	49 754	38 905	8 439	15 593	13 580	5 720	4 720	2.64	3.07	2 302	1 458	844
Gates County	9 202	3 352	2 593	2 040	404	759	705	394	288	2.75	3.19	103	102	1
Graham County	7 176	2 772	2 166	1 839	246	606	562	294	225	2.59	2.98	20	18	2
Granville County	35 191	13 134	9 883	7 501	1 857	3 251	2 889	1 236	978	2.68	3.13	3 154	3 079	75
Greene County	14 665	5 395	4 066	3 003	875	1 329	1 189	574	481	2.72	3.18	719	704	15
Guilford County	335 348	137 706	92 891	71 195	17 570	44 815	36 578	12 180	9 951	2.44	2.97	12 072	3 084	8 988
Halifax County	54 122	20 335	14 874	10 092	4 018	5 461	5 005	2 398	1 897	2.66	3.18	1 394	1 356	38
Harnett County	65 340	25 150	18 529	14 489	3 154	6 621	5 773	2 438	1 962	2.60	3.06	2 482	1 240	1 242
Haywood County	46 152	19 211	14 120	11 831	1 774	5 091	4 601	2 337	1 886	2.40	2.83	790	751	39
Henderson County	68 206	28 709	21 169	18 113	2 344	7 540	6 838	3 531	2 859	2.38	2.80	1 079	967	112
Hertford County	21 612	8 150	5 921	4 164	1 473	2 229	2 063	977	766	2.65	3.19	911	279	632
Hoke County	21 612	7 405	5 794	3 847	1 605	1 611	1 419	523	420	2.92	3.34	1 244	1 244	-
Hyde County	5 383	2 094	1 533	1 151	321	561	516	269	191	2.57	3.07	28	19	9
Iredell County	92 082	35 573	26 869	21 726	4 023	8 704	7 646	3 271	2 682	2.59	3.02	849	814	35
Jackson County	23 834	9 683	6 970	5 749	981	2 713	2 242	966	745	2.46	2.91	3 012	280	2 732
Johnston County	80 341	31 566	23 217	18 566	3 634	8 349	7 441	3 380	2 750	2.55	3.01	965	893	72
Jones County	9 412	3 492	2 639	2 034	482	853	774	406	311	2.70	3.17	2	2	-
Lee County	40 651	15 689	11 739	9 087	2 135	3 950	3 482	1 369	1 107	2.59	3.03	723	672	51
Lenoir County	55 652	21 938	15 611	11 131	3 798	6 327	5 706	2 580	2 073	2.54	3.06	1 622	1 559	63
Lincoln County	49 802	18 764	14 661	12 207	1 827	4 103	3 580	1 467	1 173	2.65	3.03	517	517	-
McDowell County	35 064	13 680	10 366	8 576	1 363	3 314	2 996	1 399	1 135	2.56	2.99	617	416	201
Macon County	22 992	9 834	7 235	6 236	773	2 599	2 388	1 307	1 021	2.34	2.76	507	233	274
Madison County	16 104	6 488	4 806	4 058	516	1 682	1 510	789	581	2.48	2.92	849	104	745
Martin County	24 813	9 317	6 900	5 087	1 518	2 417	2 213	1 100	906	2.66	3.17	265	257	8
Mecklenburg County	499 886	200 219	134 361	103 211	25 013	65 858	52 037	12 990	10 610	2.50	3.05	11 547	3 578	7 969
Mitchell County	14 288	5 779	4 420	3 777	479	1 359	1 265	669	539	2.47	2.88	145	130	15
Montgomery County	22 279	8 290	6 274	4 823	1 119	2 016	1 838	876	690	2.69	3.14	1 067	997	70
Moore County	58 010	23 827	17 483	14 312	2 473	6 344	5 662	2 744	2 201	2.43	2.87	1 003	970	33
Nash County	75 450	29 041	21 224	16 322	3 968	7 817	6 926	2 880	2 316	2.60	3.09	1 227	807	420
New Hanover County	116 999	48 139	32 400	24 723	6 383	15 739	12 434	4 372	3 512	2.43	2.95	3 285	1 321	1 964
Northampton County	20 055	7 591	5 644	3 958	1 436	1 947	1 816	968	704	2.64	3.13	743	742	1
Onslow County	115 274	40 658	32 971	28 037	3 343	7 687	6 271	1 752	1 384	2.84	3.16	34 564	954	33 610
Orange County	84 627	36 104	21 123	16 854	3 380	14 981	10 110	2 257	1 839	2.34	2.93	9 224	770	8 454
Pamlico County	11 247	4 523	3 382	2 717	547	1 141	1 055	528	410	2.49	2.93	125	112	13
Pasquotank County	29 884	11 384	8 326	6 356	1 681	3 058	2 725	1 342	1 065	2.63	3.13	1 414	383	1 031
Pender County	28 497	11 112	8 420	6 707	1 371	2 692	2 388	1 055	796	2.56	2.99	358	348	10
Perquimans County	10 303	3 988	3 038	2 444	468	950	862	443	342	2.58	3.02	144	144	-
Person County	29 830	11 423	8 570	6 607	1 547	2 853	2 608	1 209	994	2.61	3.07	350	304	46
Pitt County	102 400	40 491	26 434	19 369	5 857	14 057	10 412	3 104	2 511	2.53	3.10	5 524	946	4 578
Polk County	14 187	6 110	4 346	3 693	511	1 764	1 599	952	768	2.32	2.79	229	227	2
Randolph County	105 440	41 096	31 363	26 135	3 957	9 733	8 590	3 435	2 789	2.57	2.97	1 106	1 050	56
Richmond County	43 534	16 793	12 270	9 126	2 551	4 523	4 174	2 011	1 600	2.59	3.11	984	875	109
Robeson County	103 186	36 154	27 429	18 451	7 353	8 725	7 891	3 355	2 651	2.85	3.34	1 993	1 280	713
Rockingham County	85 242	33 446	24 671	19 351	4 193	8 775	7 959	3 669	2 982	2.55	3.02	822	781	41
Rowan County	107 079	42 512	31 055	25 100	4 618	11 457	10 236	4 748	3 815	2.52	2.99	3 526	2 408	1 118
Rutherford County	56 197	22 198	16 480	13 191	2 551	5 718	5 255	2 556	2 050	2.53	2.99	721	721	-
Sampson County	46 754	17 526	13 191	10 058	2 525	4 335	3 975	2 032	1 610	2.67	3.14	543	490	53
Scotland County	32 679	11 837	8 971	6 225	2 338	2 866	2 618	1 173	935	2.76	3.25	1 075	401	674
Stanly County	50 734	19 747	14 967	12 451	1 975	4 780	4 396	2 164	1 785	2.57	3.01	1 031	470	561
Stokes County	36 862	14 123	11 022	9 341	1 273	3 101	2 825	1 246	1 016	2.61	3.00	361	361	-
Surry County	60 950	24 252	18 252	15 253	2 341	6 000	5 474	2 732	2 256	2.51	2.94	754	650	104
Swain County	10 653	4 173	3 083	2 382	550	1 090	985	467	369	2.55	3.01	615	215	400
Transylvania County	24 283	9 924	7 496	6 442	797	2 428	2 224	1 131	912	2.45	2.86	1 237	178	1 059
Tyrrell County	3 852	1 471	1 078	810	213	393	359	208	148	2.62	3.13	4	4	-
Union County	82 633	29 307	23 530	19 607	3 063	5 777	5 018	2 148	1 755	2.82	3.18	1 578	455	1 123

Table 6. Household, Family, and Group Quarters Characteristics: 1990—Con.

[For definitions of terms and meanings of symbols, see text]

State County Place and [In Selected States] County Subdivision	Persons in households	All households	Family households: Total	Family households: Married-couple family	Family households: Female householder, no husband present	Nonfamily households: Total	Nonfamily households: Householder living alone: Total	Nonfamily households: Householder living alone: 65 years and over: Total	Nonfamily households: Householder living alone: 65 years and over: Female	Persons per—: Household	Persons per—: Family	Persons in group quarters: Total	Persons in group quarters: Institutionalized persons	Persons in group quarters: Other persons in group quarters
COUNTY—Con.														
Vance County	38 080	14 166	10 502	7 408	2 584	3 664	3 238	1 440	1 137	2.69	3.16	812	517	295
Wake County	408 267	165 743	109 543	88 567	16 581	56 200	42 662	9 449	7 828	2.46	3.01	15 113	6 571	8 542
Warren County	16 918	6 305	4 762	3 357	1 127	1 543	1 422	742	559	2.68	3.15	347	332	15
Washington County	13 762	5 052	3 839	2 826	833	1 213	1 151	584	454	2.72	3.21	235	234	1
Watauga County	32 476	13 693	8 415	7 121	975	5 278	3 437	1 041	833	2.37	2.88	4 476	279	4 197
Wayne County	97 572	36 889	27 577	21 107	5 320	9 312	8 263	3 258	2 642	2.65	3.11	7 094	2 488	4 606
Wilkes County	58 787	23 021	17 586	14 634	2 274	5 435	4 855	2 182	1 723	2.55	2.96	606	586	20
Wilson County	64 414	25 093	18 031	12 986	4 180	7 062	6 277	2 679	2 184	2.57	3.08	1 647	876	771
Yadkin County	30 053	12 068	9 173	7 720	1 124	2 895	2 669	1 333	1 059	2.49	2.90	435	424	11
Yancey County	15 235	6 124	4 683	4 010	510	1 441	1 354	729	586	2.49	2.90	184	184	–
PLACE AND COUNTY SUBDIVISION														
Aberdeen town, Moore County	2 679	1 154	773	587	150	381	336	188	162	2.32	2.87	21	–	21
Ahoskie town, Hertford County	4 258	1 769	1 164	770	356	605	576	272	229	2.41	3.07	133	130	3
Alamance village, Alamance County	258	112	80	67	11	32	30	17	13	2.30	2.76	–	–	–
Albemarle city, Stanly County	14 403	6 054	4 169	3 205	812	1 885	1 746	913	762	2.38	2.92	536	459	77
Alexander Mills town, Rutherford County	662	279	176	111	55	103	93	59	50	2.37	2.97	–	–	–
Alliance town, Pamlico County	583	232	182	150	28	50	49	29	23	2.51	2.91	–	–	–
Altamahaw-Ossipee CDP, Alamance County	1 076	424	307	233	57	117	113	56	44	2.54	3.06	–	–	–
Andrews town, Cherokee County	2 520	1 065	738	566	139	327	302	191	153	2.37	2.88	31	31	–
Angier town, Harnett County	2 230	901	637	449	154	264	236	97	86	2.48	2.98	5	–	5
Anson town, Anson County	614	203	165	106	47	38	36	20	16	3.02	3.45	–	–	–
Apex town, Wake County	4 898	1 752	1 378	1 132	196	374	318	115	106	2.80	3.19	70	67	3
Arapahoe town, Pamlico County	430	175	129	108	15	46	44	26	21	2.46	2.93	–	–	–
Archdale city	6 913	2 803	2 085	1 758	248	718	643	183	155	2.47	2.90	–	–	–
Guilford County	234	82	72	66	5	10	8	3	3	2.85	3.07	–	–	–
Randolph County	6 679	2 721	2 013	1 692	243	708	635	180	152	2.45	2.89	–	–	–
Arlington town, Yadkin County	795	333	239	170	57	94	91	52	41	2.39	2.86	–	–	–
Asheboro city, Randolph County	15 682	6 977	4 455	3 357	930	2 522	2 256	979	820	2.25	2.84	680	636	44
Asheville city, Buncombe County	59 322	27 027	16 218	11 717	3 759	10 809	9 511	4 233	3 509	2.19	2.84	2 285	1 269	1 016
Askewville town, Bertie County	201	81	60	56	4	21	21	15	14	2.48	3.00	–	–	–
Atkinson town, Pender County	275	119	85	67	13	34	31	21	20	2.31	2.79	–	–	–
Atlantic Beach town, Carteret County	1 887	935	516	434	63	419	335	56	37	2.02	2.62	51	–	51
Aulander town, Bertie County	1 209	454	320	213	98	134	123	76	58	2.66	3.29	–	–	–
Aurora town, Beaufort County	654	260	181	119	53	79	73	51	40	2.52	3.11	–	–	–
Autryville town, Sampson County	166	73	55	40	9	18	16	8	7	2.27	2.58	–	–	–
Avery Creek CDP, Buncombe County	1 144	408	341	304	27	67	60	15	11	2.80	3.13	–	–	–
Ayden town, Pitt County	4 735	1 795	1 305	854	386	490	445	230	199	2.64	3.13	5	5	–
Badin CDP, Stanly County	1 481	616	420	315	87	196	183	119	103	2.40	2.97	–	–	–
Bailey town, Nash County	553	245	151	118	26	94	89	55	42	2.26	2.97	–	–	–
Bakersville town, Mitchell County	326	148	99	71	17	49	44	21	15	2.20	2.71	6	6	–
Bald Head Island village, Brunswick County	78	39	32	31	1	7	7	–	–	2.00	2.22	–	–	–
Balfour CDP, Henderson County	1 118	494	344	280	51	150	132	58	47	2.26	2.72	–	–	–
Banner Elk town, Avery County	339	163	89	67	18	74	64	24	19	2.08	2.80	594	–	594
Barker Heights CDP, Henderson County	1 137	468	345	248	84	123	107	47	33	2.43	2.83	–	–	–
Barker Ten Mile CDP, Robeson County	1 087	372	329	292	26	43	34	12	10	2.92	3.12	–	–	–
Belhaven town, Beaufort County	154	81	41	29	12	40	36	25	20	1.90	2.66	–	–	–
Bethel town	447	176	127	87	30	49	46	23	19	2.54	3.06	–	–	–
Edgecombe County	280	100	73	39	26	27	25	9	6	2.80	3.34	–	–	–
Nash County	167	76	54	48	4	22	21	14	13	2.20	2.67	–	–	–
Biscoe town, Pamlico County	720	283	201	130	63	82	75	31	29	2.54	3.10	13	13	–
Bishopshore CDP, New Hanover County	1 661	605	517	471	30	88	80	26	22	2.75	3.00	–	–	–
Bivingsgrass town, Martin County	77	35	24	19	4	11	11	6	6	2.20	2.75	–	–	–
Beaufort town, Carteret County	3 795	1 721	1 075	741	292	646	581	255	197	2.21	2.83	13	13	–
Beech Mountain town	239	109	78	75	1	31	25	6	4	2.19	2.55	–	–	–
Avery County	7	3	2	2	–	1	1	–	–	2.33	3.00	–	–	–
Watauga County	232	106	76	73	1	30	24	6	4	2.19	2.54	–	–	–
Belhaven town, Beaufort County	2 241	840	588	359	192	252	233	138	110	2.67	3.29	28	28	–
Belmont city, Gaston County	7 774	3 049	2 149	1 603	407	900	811	354	296	2.55	3.09	660	–	660
Belville town, Brunswick County	66	28	12	7	5	16	11	4	2	2.36	3.75	–	–	–
Belwood town, Cleveland County	631	259	193	164	19	66	59	29	21	2.44	2.87	–	–	–
Benson town, Johnston County	2 728	1 137	718	456	207	419	388	202	176	2.40	3.08	82	67	15
Bent Creek CDP, Buncombe County	1 487	532	452	397	45	80	71	27	18	2.80	3.06	–	–	–
Bessemer City city, Gaston County	4 698	1 762	1 337	975	288	425	386	176	146	2.67	3.10	–	–	–
Bethel town, Pitt County	1 842	709	505	329	159	204	188	101	86	2.60	3.15	–	–	–
Bethlehem CDP, Alexander County	3 186	1 186	966	848	85	220	191	47	35	2.69	2.99	–	–	–
Beulaville town, Duplin County	921	411	274	194	67	137	122	63	52	2.24	2.77	12	12	–
Biltmore Forest town, Buncombe County	1 327	540	420	387	26	120	116	72	58	2.46	2.84	–	–	–
Biscoe town, Montgomery County	1 478	513	389	281	88	124	103	52	38	2.88	3.34	6	6	–
Black Creek town, Wilson County	615	243	192	167	24	51	46	27	24	2.53	2.89	–	–	–
Black Mountain town, Buncombe County	5 032	2 256	1 462	1 168	241	794	722	441	366	2.23	2.81	386	331	55
Blenheim town, Bladen County	1 768	758	521	358	143	237	228	120	101	2.33	2.91	53	53	–
Blowing Rock town	1 179	570	333	286	34	237	213	85	68	2.07	2.73	78	76	2
Caldwell County	44	21	14	12	2	7	6	3	2	2.10	2.57	–	–	–
Watauga County	1 135	549	319	274	32	230	207	82	66	2.07	2.74	78	76	2
Boger City CDP, Lincoln County	1 373	569	414	341	60	155	143	56	42	2.41	2.89	–	–	–
Boiling Spring Lakes city, Brunswick County	1 650	666	523	447	53	143	122	54	38	2.48	2.79	–	–	–
Boiling Springs town, Cleveland County	1 675	668	493	380	89	175	148	59	55	2.51	2.94	770	44	726
Bolivia town, Brunswick County	228	87	64	50	12	23	21	15	13	2.62	3.13	–	–	–
Bolton town, Columbus County	531	206	148	96	43	58	56	34	22	2.58	3.16	–	–	–
Boone Doone CDP, Cumberland County	3 888	1 590	1 009	637	315	581	431	41	24	2.45	2.98	5	–	5
Boone town, Watauga County	8 607	4 053	1 470	1 141	248	2 583	1 305	275	238	2.12	2.71	4 308	127	4 181
Boonville town, Yadkin County	998	403	299	247	49	104	97	62	54	2.48	2.93	11	–	11
Bostic town, Rutherford County	371	137	111	92	15	26	22	11	8	2.71	3.04	–	–	–
Brevard city, Transylvania County	4 609	2 072	1 331	1 026	272	741	693	421	365	2.22	2.82	779	168	611
Bridgeton town, Craven County	453	193	130	103	16	63	57	20	17	2.35	2.88	–	–	–
Broadway town	973	362	286	247	32	76	71	37	28	2.69	3.08	–	–	–
Harnett County	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lee County	973	362	286	247	32	76	71	37	28	2.69	3.08	–	–	–
Brogden CDP, Wayne County	3 246	1 059	851	624	182	208	162	33	25	3.07	3.44	–	–	–
Brookford town, Catawba County	451	189	133	93	27	56	52	31	21	2.39	2.85	–	–	–
Brunswick town, Columbus County	302	106	81	62	15	25	24	8	7	2.85	3.37	–	–	–
Bryson City town, Swain County	1 063	491	303	233	57	188	171	100	84	2.16	2.73	82	82	–

Reference No. 10

ENDANGERED & THREATENED SPECIES

of the SOUTHEAST UNITED STATES

U.S. FISH & WILDLIFE SERVICE

"The Red Book"

REGION 4

ATLANTA

GEORGIA

9300991

ENDANGERED AND THREATENED SPECIES

OF THE

SOUTHEASTERN UNITED STATES

(THE RED BOOK)

Introduction Section, Volume 1

Prepared by:

U.S. Fish and Wildlife Service
Southeast Region
Atlanta, Georgia

January 1992

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Federally Listed Species by State

NORTH CAROLINA

(E = Endangered; T = Threatened; CH = Critical Habitat determined

Mammals	General Distribution
Bat, gray (Myotis grisescens) - E	Extreme Southwest
Bat, Indiana (Myotis sodalis) - E	West
Bat, Virginia big-eared (Plecotus townsendii virginianus) - E	Avery County
Cougar, eastern (Felis concolor couguar) - E	Entire State
Manatee, West Indian (Trichechus manatus) - E	Coastal waters
Shrew, Dismal Swamp southeastern (Sorex longirostris fisheri) - T	Dismal Swamp; Camden, Gates, Pasquotank, and Perquimans Counties
Squirrel, Carolina northern flying (Glaucomys sabrinus coloratus) - E	Western mountains (Yancy, Buncombe, Haywood, Swain, and Mitchell Counties)
Whale, finback (Balaenoptera physalus) - E	Coastal waters
Whale, humpback (Megaptera novaeangliae) - E	Coastal waters
Whale, right (Balaena glacialis) - E	Coastal waters
Whale, sei (Balaenoptera borealis) - E	Coastal waters
Whale, sperm (Physeter catodon) - E	Coastal waters
Wolf, red (Canis rufus) - E	Dare, Tyrrell Counties (Alligator River National Wildlife Refuge), Great Smoky Mountains National Park

Birds	
Eagle, bald (Haliaeetus leucocephalus) - E	Entire State
Falcon, American peregrine (Falco peregrinus anatum) - E	Western mountains
Falcon, Arctic peregrine (Falco peregrinus tundrius) - T	Entire State
Plover, piping (Charadrius melodus) - T	Coast
Stork, wood (Mycteria americana) - E	Coast
Tern roseate (Sterna dougallii dougallii) - E	Coast
Warbler, Bachman's (Vermivora bachmanii) - E	East
Warbler, Kirtland's (Dendroica kirtlandii) - E	Northwest, Central, Southeast
Woodpecker, ivory-billed (Campephilus principalis) - E	Southeast
Woodpecker, red-cockaded (Picoides [=Dendrocopos] borealis) - E	East

Reptiles	General Distribution
Alligator, American (Alligator mississippiensis) - T (S/A)*	Coastal plain
Turtle, Kemp's (Atlantic) ridley (Lepidochelys kempii) - E	Coastal waters
Turtle, green (Chelonia mydas) - T	Coastal waters
Turtle, hawksbill (Eretmochelys imbricata) - E	Coastal waters
Turtle, leatherback (Dermochelys coriacea) - E	Coastal waters
Turtle, loggerhead (Caretta caretta) - T	Coastal waters

Fishes	
Chub, spotfin (Hybopsis monacha) - T,CH	Little Tennessee River, Swain and Macon Counties
Shiner, Cape Fear (Notropis mekistocholas) - E,CH	Randolph, Moore, Lee, Harnett, and Chatham Counties
Silverside, Waccamaw (Menidia extensa) - T	Lake Waccamaw and Upper Waccamaw R., Columbus County
Sturgeon, shortnose (Acipenser brevirostrum) - E	Coastal rivers

Mollusks	
Mussel, Carolina heelsplitter (Lasmigona decorata) - E	Catawba River System, Waxhaw Creek, Union County; Goose Creek, Rocky River, in the Pee Dee River System, Union County
Mussel, dwarf wedge (Alasmidonta heterodon) - E	Little River, Johnston County; Tar River and two of its tributaries, Granville and Franklin Counties
Mussel, Tar River spiny (Elliptio [Canthyria] steinstansana) - E	Tar River, Edgecombe County; Sandy Creek, Franklin County; Swift Creek, Nash County
Snail, noonday (Mesodon clarki nantahala) - T	Swain County

*Alligators are biologically neither endangered nor threatened. For law enforcement purposes they are classified as "Threatened due to Similarity of Appearance." Alligator hunting is regulated in accordance with State law.

Plants	General Distribution
Amaranthus pumilus Seabeach amaranth - T	Atlantic coastal plain beaches
Echinacea laevigata (smooth coneflower) - E	Durham, Granville Counties
Cardamine micranthera (Small-anthered bittercress) - E	Stokes and Forsyth Counties
Geum radiatum (Spreading avens) - E	Ashe, Avery, Transylvania Watauga, Buncombe, and Yancey Counties
Hedyotis purpurea var. montana (Roan Mountain bluet) - E	Ashe, Watauga, Avery, and Mitchell Counties
Helianthus schweinitzii (Schweinitz's sunflower) - (E)	Stanly, Cabarrus, Union Mecklenberg, Rowan Counties
Helonias bullata (Swamp pink) - T	Jackson, Transylvania, Henderson Counties
Hexastylis maniflora (Dwarf-flowered heartleaf) - T	Cleveland, Catawba, Burke, Rutherford, and Lincoln Counties
Hudsonia montana (mountain golden heather) - T,CH	Burke and McDowell Counties
Isotria medeoloides (small whorled pogonia) - E	Macon and Henderson Counties
Liatris helleri (Heller's blazing star) - T	Ashe, Avery, Caldwell, Burke Counties
Lindera melissifolia (pondberry) - E	Bladen County
Lysimachia asperulaefolia (rough-leaved loosestrife) - E	Carteret, Scotland, Cumberland, Bladen, Brunswick, Pender, and Hoke, and Onslow Counties
Oxypolis canbyi (Canby's dropwort) - E	Scotland County
Ptilimnium nodosom (harperella) - E	Granville and Chatham Counties
Rhus michauxii (Michaux's sumac) - E	Davie, Durham, Franklin, Hoke, Johnston, Lincoln, Mecklenberg, Moore, Orange, Richmond, Robeson, Scotland, Wake, Wilson Counties
Sagittaria fasiculata (bunched arrowhead) - E	Henderson County

	General Distribution
Sarracenia oreophila (green pitcher plant) - E	Clay County
Sarracenia rubra ssp. jonesii (mountain sweet pitcher plant) - E	Henderson and Transylvania Counties
Schwalbea americana (American chaffseed) - E	Fort Bragg in Hoke County
Sisyrinchium dichotomum (white irisette) - E	Polk, Henderson, and Rutherford Counties
Solidago spithamaea (Blue Ridge goldenrod) - T	Avery and Mitchell Counties
Spirea virginiana (Virginia spiraea) - T	South Fork of the New River, Ashe County; Little Tennessee River, Macon County; Nolichucky River, Mitchell and Yancey Counties; South Toe and Cane Rivers, Yancey County
Thalictrum cooleyi (Cooley's meadowrue) - E	Columbus, Brunswick, Onslow Pender Counties

TELEPHONE CONVERSATION DOCUMENTATION RECORD
DYNAMAC CORPORATION

Call made by	David Kirby Geologist	Person contacted/Title	Russell Byerly, County Wildlife Enforcement Officer
Signature/Date	David Kirby 06/01/94	Organization	North Carolina Wildlife Resources Commission
Date	June 1, 1994	Address	Gastonia, North Carolina
Time	1500	Telephone number	(704) 827-2615
Facility	Uniroyal Chemical Company, Inc.	EPA ID Number	NCD003164464

General subject: Recreational fishing along Catawba Creek and Lake Wylie, Gaston County, North Carolina.

Summary of conversation: Mr. Byerly stated that Catawba Creek is used for recreational fishing from Lake Wylie to approximately 3 miles upstream of the backwaters of Lake Wylie. Lake Wylie is a popular fishery for largemouth bass. Catawba Creek (including the section of the creek within the city of Gastonia) is too shallow to support edible fish beyond approximately 3 miles upstream of Lake Wylie.

TELEPHONE CONVERSATION DOCUMENTATION RECORD
DYNAMAC CORPORATION

Call made by	William E. Vasser Staff Scientist	Person contacted/Title	Chris Gaudreau, Regional Fisheries Specialist
Signature/Date	William E. Vasser 06/01/1994	Organization	North Carolina Wildlife Resources Commission
Date	June 1, 1994	Address	Marion, North Carolina
Time	1440	Telephone number	(704) 652-4360
Facility	Uniroyal Chemical Company, Inc.	EPA ID Number	NCD003164464

General subject: Recreational fishing along Catawba Creek and Lake Wylie, Gaston County, North Carolina.

Summary of conversation: Mr. Gaudrau said that he was not familiar with the fishery status of Catawba Creek near its headwaters in the city of Gastonia. Mr. Gaudrau did say that Lake Wylie, including the backwaters of the lake where Catawba Creek enters the lake, is a major fishery. Largemouth bass and crappie are the most popular species caught from Lake Wylie.

Press RETURN key to continue ...

CENSUS DATA

UNIROYAL INC. CHEMICAL COMPANY
LATITUDE 35:14:39 LONGITUDE 81:11:15 1990 POPULATION

RE	0.00-.400	.400-.810	.810-1.60	1.60-3.20	3.20-4.80	4.80-6.40	SECTOR TOTALS
S 1	0	0	2536	4225	3873	3360	13994
S 2	0	0	2253	4556	6059	4355	17223
S 3	0	938	0	1746	872	62	3618
S 4	0	0	1407	449	1135	3889	6880
S 5	712	0	894	3932	2036	2321	9895
S 6	0	0	1203	4393	4381	5997	15974
RING TOTALS	712	938	8293	19301	18356	19984	67584

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