48127

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF WATER RESOURCES
89 KINGS HIGHWAY, P.O. BOX 1401
DOVER, DELAWARE 19903

SURFACE WATER MANAGEMENT
SECTION

TELEPHONE (302) 736-573

February 2, 1989

Mr. Thomas Henry
Region III 304(l) Coordinator
U.S. Environmental Protection Agency
841 Chestnut Building
Philadelphia, PA 19107

Dear Mr. Henry:

This letter and supporting materials are submitted in satisfaction of section 304(l) of the Clean Water Act, as added by the Water Quality Act of 1987. In accordance with section 304(l), this transmittal identifies those surface waters in the State of Delaware affected by toxic, conventional, and nonconventional pollutants, and also presents individual control strategies (ICSs) intended to control point source discharges of toxic pollutants. This information is provided to the U.S. Environmental Protection Agency prior to the statutory deadline of February 4, 1989.

For clarity, our transmittal has been organized to correspond to the specific paragraphs of section 304(l)(1).

I. Paragraph (A)(i)

TABLE A1 of ATTACHMENT A is submitted in fulfillment of the Paragraph (A)(i) requirement. As a basis for placing a waterbody on the (A)(i) List, the DNREC used the 16 screening categories appearing as ATTACHMENT B.

II. Paragraph (A)(ii)

TABLE 2A of ATTACHMENT A is submitted in fulfillment of the Paragraph A(ii) requirement. We have used the screening categories presented in ATTACHMENT B as the basis for our Paragraph (A)(ii) List.

III. Paragraph (B)

TABLE A3 of ATTACHMENT A is submitted in fulfillment of the Paragraph (B) requirement. Again, we have used the 16 screening categories presented in ATTACHMENT B as the basis for our Paragraph (B) List.

AR202374

For the purposes of listing waters under Paragraph (B), we have used U.S. EPA water quality criteria in lieu of State adopted numeric Standards for 307(a) Toxic Pollutants. We request that EPA forgo approval of our lists and Individual Control Strategies (ICSs) until which time the State has adopted numeric standards for section 307(a) Toxic Pollutants pursuant to section 303(c)(2)(B) of the CWA. A target date for adoption of State Water Quality Standards appears under paragraph V. of this letter. Delaware also reserves the right to delete waterbodies and/or facilities requiring ICSs as proposed herein following adoption of State Water Quality Standards.

IV. Paragraph (C)

TABLE AA of ATTACHMENT A is submitted in fulfillment of the point source identification requirement.

V. Paragraph (D)

Individual Control Strategies (ICSs) proposed for the facilities appearing on Delaware's 304(l)(C) List are presented in ATTACHMENT I. The schedule below presents the target dates for incorporating the attached ICSs in each 304(l)(C) listed facility's final NPDES permits:

1. May 15, 1989. Delaware adopts State Water Quality Standards pursuant to CWA 303(c)(2)(B).

2. June 4, 1989. EPA Region III issues final determination on Delaware's 304(l) lists.

3. August 15, 1989. All draft NPDES permits incorporating ICSs for 307(a) pollutants placed on public notice.

4. February 4, 1990. All NPDES permits incorporating ICSs final and effective.

Please notify me at your earliest convenience whether this submission satisfies your review and approval needs. All documentation will be furnished to EPA upon request and adoption of final 304(l) regulations. We look forward to working with the Region on this high priority initiative.

Very truly yours,

Robert J. Zimmerman
Administrator
Surfacewater Management Section

cc: Mr. Anthony Meadows, EPA (w/o attach.)
R. Wayne Ashbee (w/o attach.)
Gerard L. Esposito (w/o attach.)

AR202375

ATTACHMENT A

TABLE A1	304(1)(A)(i) List
TABLE A2	304(1)(A)(ii) List
TABLE A3	304(1)(1)(B) List
TABLE A4	304(1)(1)(C) List

TABLE A1

STATE OF DELAWARE

304(l)(1)(A)(i) LIST

SYSTEM BASIN	SCREENING CATEGORY
Appoquinimink	10
Christina	4, 5, 6, 11, 13, 16
Delaware River - Zone 5	9, 11, 13, 16
Indian River	5, 9
Red Clay Creek	1, 2, 4, 5, 6, 11, 12, 13, 16
Red Lion Creek	1, 4, 5, 6, 11, 12, 13, 16
Saint Jones River	1, 5, 11, 12, 13
White Clay Creek	4, 5, 6, 16

AR202377

TABLE A2

STATE OF DELAWARE

304(l)(1)(A)(ii) LIST

STREAM BASIN	SCREENING CATEGORY
Appoquinimink	10
Army Creek	4, 5, 8, 13, 16
Brandywine Creek	4, 6, 8, 13
Broadkill	4, 8, 13
Bunting's Branch	4, 6, 8, 12, 13
Chester River	4, 12
Choptank River	4
Christina	4, 5, 6, 8, 11, 13, 16
Delaware River-Zone 5	7, 8, 9, 11, 13, 16
Indian River/Bay	1, 2, 4, 5, 6, 8, 9, 11, 13
Leipsic River	4
L & R Canal	4, 8
Little River	4
Murderkill	4, 6, 11
Nanticoke	4, 8, 11
Red Clay Creek	1, 2, 4, 5, 6, 8, 11, 12, 13, 16
Red Lion Creek	1, 4, 5, 6, 8, 11, 12, 13, 16
Rehoboth Bay	4, 5, 6, 13
Saint Jones River	1, 5, 8, 11, 13
Shallpot Creek	4
Smyrna River	4
White Clay Creek	4, 5, 6, 8

AR202378

TABLE A3

STATE OF DELAWARE

304(l)(1)(B) LIST

STREAM BASIN	SCREENING CATEGORY
Appoquinimink	10
Christina	11
Delaware River	9, 11
Indian River/Bay	9
Red Clay Creek	11
Red Lion Creek	11
Saint Jones River	11

TABLE A4

STATE OF DELAWARE

304(l)(1)(C) LIST

Facility	NPDES No.
General Chemical	0000655
Occidental Chemical Corp.	0050911
ICI Americas	0000621
NVF Yorklyn	0000451
General Motors	0000523
DP&L Edge Moor	0000558
DP&L Indian River	0050580
Standard Chlorine	0020001
McKee Run Power Plant	0050466
Chloramone	0050636
M-O-T STP	0050547
Keysor	0050920
Caiba Geigy	0000400

AR202380

ATTACHMENT B

304(1) Screening Categories

U. S. EPA Final Guidance on Implementation of Section 304(1) of the Clean Water Act

SCREENING CATEGORIES

1. Waters where fishing or shellfish bans and/or advisories are currently in effect or are anticipated.

2. Waters where there have been repeated fishkills or where abnormalities (cancers, lesions, tumors, etc.) have been observed in fish or other aquatic life during the last 10 years.

3. Waters where there are restrictions on water sports or recreational contact.

4. Waters identified by the States in the 1982, 1984, 1986, or 1988 State §305(b) reports as either "partially achieving" or "not achieving" designated uses.

5. Waters identified by States and reported to EPA in the 3rd quarter of FY87 as waters needing water quality-based controls for "toxics" and "toxics and non-toxics." (See FY87 Office of Water Accountability System measure WQ-32).

6. Waters identified by the State as priority water bodies in FY88 because of impaired or threatened uses. State Water Quality Management Plans often include priority water body lists which are those waters that most need water pollution control decisions to achieve water quality goals.

7. Waters where ambient data indicate the presence of § 307(a) toxic pollutants from primary industries.

8. Waters for which effluent toxicity test results indicate possible violations of State water quality standards, including narrative "free form" criteria, or EPA criteria where State standards are not available.

9. Waters with primary major industrial dischargers where simple dilution analyses indicate exceedances of State water quality standards (or EPA criteria where State standards are not available) for 307(a) toxic pollutants, ammonia, or chlorine. These dilution analyses could be based upon estimates of BAT levels from effluent guidelines development documents, NPDES permit application data (e.g., Form 2C), Discharge Monitoring Reports (DMRs), or other available information.

10. Waters with municipal major dischargers requiring pretreatment where simple dilution analyses indicate exceedances of State water quality standards (or EPA criteria where State standards are not available) for §307(a) toxic pollutants, ammonia, or chlorine. These dilution analyses could be based upon data from NPDES permit applications (e.g., Form 2A), Discharge Monitoring Reports (DMRs), or other available information.

AR202382

11. Waters with known or suspected use impairments where dilution analyses indicate exceedances of State water quality standards (or EPA criteria where State standards are not available) for § 307(a) toxic pollutants, ammonia, or chlorine. This category includes waters with facilities not included in numbers nine and ten above such as municipal majors not required to have pretreatment, federal majors, and minors having water quality impacts and municipal minors. These dilution analyses could be based upon estimates of BAT levels from effluent guideline development documents, NPDES permit application data, Discharge Monitoring Reports (DMRs), or other available information.

12. Waters classified for uses that will not support the "fishable/swimmable" goal of the Clean Water Act.

13. Waters where ambient toxicity or adverse water quality conditions have been reported by local, State, EPA, or other Federal agencies, the private sector, public interest groups, or universities. These organizations and groups should be actively solicited for research they may be conducting or reporting. For example, State University researchers, USDA Agricultural Extension Service, and the U. S. Fish and Wildlife Service are good sources of current field research and activities.

14. Waters identified as having impaired or threatened designated uses in the Clean Lakes Assessments conducted under § 314 of the Clean Water Act.

15. Waters identified as impaired by nonpoint sources in the 1988 America's Clean Waters: State's Nonpoint Source Assessment (Association of State and Interstate Water Quality Pollution Control Administrators [ASIWPCA]) and waters identified as impaired or threatened in the nonpoint source assessments under §319 of the Clean Water Act.

16. Surface waters impaired by pollutants from hazardous waste sites on the National Priority List should be included prepared under § 105(8)(A) of CERCLA.

ATTACHMENT I

PROPOSED INDIVIDUAL CONTROL STRATEGIES

TABLE II

SUMMARY OF PROPOSED EFFLUENT LIMITATIONS FOR PERMITTEES

APPEARING ON DELAWARE's 304(l)(C) LIST

FACILITY	NPDES NO.	OUTFALL NO.	ICS POLLUTANT	ICS LIMIT (ppb)	METHOD DETECTION LIMIT (ppb)	APPROVED EPA TEST METHOD NUMBER AND DESCRIPTION	LIMIT SPECIFIED IN PERMIT (ppb)
1. General Chemical	0000655	001	Cadmium	WLA $\leq$ CMC = 1.8	0.1	213.2 (AA, furnace)	MDL = 1.8
		001	Copper	WLA $\leq$ CMC = 9.2	1	220.2 (AA, furnace)	MDL = 9.2
					6	200.7 (ICP)	
		001	Silver	WLA $\leq$ CMC = 1.2	0.2	272.2 (AA, furnace)	MDL = 1.2
		001	Zinc	WLA $\leq$ CMC = 65	5	289.1 (AA, flame)	MDL = 65
					0.05	289.2 (AA, furnace)	
					2	200.7 (ICP)	
2. Occidental	0050911	001	Chromium (Hex)	WLA $\leq$ CMC = 16	10	218.4 (AA, extraction)	MDL = 16
		001	Mercury	WLA $\leq$ 5.1	0.2	245.1 (Cold Vapor, manual	MDL = 5.1
					0.2	245.2 (Cold Vapor, auto)	

AR202385

FACILITY	NPDES NO.	NPID	ICS POLLUTANT	ICS LIMIT (ppb)	METHOD DETECTION LIMIT (ppb)	APPROVED EPA TEST METHOD NUMBER AND DESCRIPTION	LIMIT SPECIFIED IN PERMIT (ppb)
3. ICI Americas	0000621	006	Chromium (Hex)	MLA ≤CMC=16 A	10	218.4 (AA, extraction)	MIC = 16
4. DUF Yorklyn	0000451	002	Zinc	MLA ≤CMC=65 A	5	289.1 (AA, flame)	MIC = 65
					0.05	289.2 (AA, furnace)	
					2	200.7 (ICP)	
5. General Motors	0000523	001	Chromium (Hex)	MLA ≤12 C	10	218.4 (AA, extraction)	Daily Ave.=1
		001	Lead	MLA ≤1.4 C	1	239.2 (AA, furnace)	Daily Ave.=1
6. DPSL Edgemoor	0000558	014	Copper	MLA ≤CMC=9.2 A	1	220.2 (AA, furnace)	MIC = 9.2
					6	200.7 (ICP)	
		014	Zinc	MLA ≤CMC=65 A	5	289.1 (AA, flame)	MIC = 65
					0.05	289.2 (AA, furnace)	
					2	200.7 (ICP)	
		014	Selenium	MLA ≤CMC=20 A	2	270.2 (AA, furnace)	MIC = 20
					2	270.3 (AA, hydride)	

AR202386

FACILITY	NPDES NO.	NPDB	ICS POLLUTANT	ICS LIMIT (ppb)	METHOD DETECTION LIMIT (ppb)	APPROVED EPA TEST METHOD NUMBER AND DESCRIPTION	LIMIT SPEC. IN PERMIT (ppb)
7. DPEA Indian River	0050580	010	Silver	WLA ≤4 C	0.2	272.2 (AA, furnace)	Daily Ave.
		012	Silver	WLA ≤4 C	0.2	272.2 (AA, furnace)	Daily Ave.
		027	Arsenic	WLA ≤0.9 Human	1	206.2 (AA, furnace)	NONE DETECT
		031	Arsenic	WLA ≤0.9 Human	1	206.2 (AA, furnace)	NONE DETECT
		031	Copper	WLA ≤CMC = 2.9 A	1	220.2 (AA, furnace)	MIC = 2.9
8. Standard Chlorine	0020001	001	Chromium (Hex)	WLA ≤CMC = 16 A	10	218.4 (AA, extraction)	MIC = 16
		001	Copper	WLA ≤CMC = 2.9 A	1	220.2 (AA, furnace)	MIC = 2.9
		001	Lead	WLA ≤CMC = 34 A	1	239.2 (AA, furnace)	MIC = 34
		001	Zinc	WLA ≤CMC = 65 A	5	289.1 (AA, flame)	MIC = 65
					0.05	289.2 (AA, furnace)	
					2	200.7 (ICP)	

AR202387

FACILITY	NPDES NO.	NPID	ICS POLLUTANT	ICS LIMIT (ppb)	METHOD DETECTION LIMIT (ppb)	APPROVED EPA TEST METHOD NUMBER AND DESCRIPTION	LIMIT SPECI IN PERMIT (ppb)
9. McKee Run	0050466	005	Copper	MLA ≤ 15.4 A	1	220.2 (AA, furnace)	MIC = 15.4
					6	200.7 (ICP)	
10. Chloramine	0050636	002	Copper	MLA ≤MDC=9.2 A	1	220.2 (AA, furnace)	MIC = 9.2
					6	200.7 (ICP)	
		002	Lead	MLA ≤15.3 C	1	239.2 (AA, furnace)	Daily Ave.=1
		002	Mercury	MLA ≤0.14 C	0.2	245.1 (cold vapor, manual	NONE DETECTE
					0.2	245.2 (cold vapor, auto)	
11. N-O-T	0050547	001	Lead	MLA ≤13.9 C	1	239.2 (AA, furnace)	Daily Ave.=1
12. Keyser	0050920	001	Lead	MLA ≤ MDC=34 A	1	239.2 (AA, furnace)	MIC = 34
13. Ciba-Geigy	0000400	001	Zinc	MLA ≤MDC=65 A	5	289.1 (AA, flame)	MIC = 65
					0.05	289.2 (AA, furnace)	
					2	200.7 (ICP)	

AR202388

RECEIVED
MAR 2 1989

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF WATER RESOURCES
89 KINGS HIGHWAY, P.O. BOX 1401
DOVER, DELAWARE 19903

SURFACE WATER MANAGEMENT
SECTION

TELEPHONE (302) 736-5731

February 28, 1989

Mr. George Hull
CIBA-GEIGY Corporation
James & Water Streets
Newport, Delaware 19804

Re: Quinacridone Facility
NPDES Permit DE 0000400

Dear Mr. Hull:

The Water Quality Act of 1987, Section 304(l) requires states to identify those waters that are adversely affected by toxic pollutants and the point sources discharging to these waters which may be sources of the pollutants. As you know, we discussed this section of the statute at the November "Surfacewater Toxicity Workshop". I hope you were able to attend the presentation. As indicated at the workshop, the State was required to report their findings to the Environmental Protection Agency (EPA) by February 4, 1989.

The purpose of this letter is to inform you that the referenced facility was one of the NPDES permitted discharges identified by the State as a facility which may adversely affect its receiving waters through the discharge of toxic pollutants. This determination was made based on a review of the data submitted by your facility in Discharge Monitoring Reports (DMRs), special permit monitoring requirements, and NPDES Form 2C applications. Following EPA guidance, both the Delaware Water Quality Standards for Streams and EPA water quality criteria were employed in the evaluation.

Over the next several months, we will be evaluating each facility identified and determining the modifications of their NPDES permit needed to address the discharge of those toxic pollutants identified. Listed below are the outfalls and toxic pollutants for which the above referenced facility has been identified.

Outfall	Parameter
001	Total Zinc

AR202389

During the period after February 4th, EPA Region III will be reviewing our submission. As directed in the statute, EPA must review the submission within 120 days. We have reached an agreement with Region III that they will consider additional facility information if submitted by the State prior to May 1, 1989. Should you wish to supplement the information in our files with any additional information, it must be submitted to us prior to May 1, 1989.

In the absence of any additional information which may lead us to modify our determination, we will be forwarding a revised NPDES permit for your review and comment in late June or early July, 1989. If you have any immediate questions regarding the above information, however, please feel free to contact Frank Henshaw, an environmental engineer on my staff, at 736-5733.

We look forward to working with you and your staff as we strive to improve the surface water quality in Delaware, as well as meet the requirements set forth in the Water Quality Act of 1987.

Very truly yours,

Robert J. Zimmerman
Administrater
Surfacewater Management Section

cc: Frank F. Henshaw II

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF WATER RESOURCES
89 KINGS HIGHWAY, P.O. BOX 1401
DOVER, DELAWARE 19903

SURFACE WATER MANAGEMENT
SECTION

TELEPHONE: (302) 736-5731

May 22, 1989

Mr. E. Dale Wismer, Chief
General Permits Section
Permits Enforcement Branch
Water Management Division
U.S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107

Dear Mr. Wismer:

On February 2, 1989, we submitted a preliminary list to your office which identifies point source dischargers which may adversely affect the State's surface waters through discharge of toxic pollutants. That list was prepared in accordance with Section 304(l)(C) of the Clean Water Act, as amended by the Water Quality Act of 1987.

We notified each of the dischargers on the list in February regarding our preliminary determination; several of them submitted additional data for our consideration with the intent of being "delisted". We have reviewed the information provided and recommend that the following dischargers be removed from the 304(l)(C) list we submitted in February:

DP&L Edge Moor	DE 0000558
McKee Run Power Plant	DE 0050466
M-O-T STP	DE 0050547

Occidental Chemical Corp., DE 0050911, Standard Chlorine of Delaware, Inc., DE 0020001, and DP&L Indian River, DE 0050580, also responded but the information they provided does not support delisting at this time. Although the data submitted for Occidental shows that chromium is not currently a concern, an ICS appears to still be warranted for mercury. The data submitted for DP&L Indian River shows that of the 5 limits originally proposed for this facility in February, only copper in discharge 031 apparently needs an ICS.

AR202391

Copies of all the information submitted by the dischargers are enclosed. In the case of General Chemical, intake and effluent data for cadmium, copper, silver and zinc were collected in conjunction with permit reissuance. This data suggests that copper is the only pollutant for which an ICS may be needed. Appropriate monitoring requirements without limits will be included in the reissued permit. Should the additional data show that a copper limit is needed, the permit will be reopened and include a compliance schedule to meet the June 4, 1992 deadline.

We have also reviewed and evaluated the additional monitoring and mass balance calculations that were provided under cover of Francisco Cruz's April 2, 1989 letter. While the information is useful, we maintain that one priority pollutant scan is insufficient to conclusively place a facility on the 304(l)(C) list. Therefore, we are not proposing to add any facilities to the list based on the EPA data. Rather, the information EPA provided will be used in permit reissuance decisions. The permits for 5 of the 10 facilities flagged are scheduled to be reissued this fiscal year; 3 of these were recently reissued; the remaining 2 are due for reissuance next fiscal year.

In consideration of the above, we are forwarding Delaware's final 304(l)(l)(A)(i), 304(l)(l)(A)(ii), 304(l)(l)(B) and 304(l)(l)(C) lists. These lists appear as Table A1 through A4 attached. As stated previously, we intended to put all the draft NPDES permits incorporating ICS's on notice after the revised State Water Quality Standards are adopted. We anticipate placing these permits on notice during the first quarter of FY90, with final issuance prior to February 4, 1990.

Should you have any questions or wish to discuss this further, please do not hesitate to call either Paul Janiga at (302) 736-5731.

Very truly yours,

Robert J. Zimmerman
Administrator
Surfacewater Management Section

cc: Mr. Anthony Meadows, EPA (w/o attach.)
R. Wayne Ashbee (w/o attach.)
Gerard L. Esposito (w/o attach.)
Paul J. Janiga, P.E.

ATTACHMENT A

TABLE A1	304(1)(A)(i) List
TABLE A2	304(1)(A)(ii) List
TABLE A3	304(1)(1)(B) List
TABLE A4	304(1)(1)(C) List

AR202393

TABLE A1

STATE OF DELAWARE

304(l)(1)(A)(i) LIST

STREAM BASIN	SCREENING CATEGORY
Christina	4, 5, 6, 11, 13, 16
Delaware River - Zone 5	9, 11, 13, 16
Indian River	5, 9
Red Clay Creek	1, 2, 4, 5, 6, 11, 12, 13, 16
Red Lion Creek	1, 4, 5, 6, 11, 12, 13, 16
Saint Jones River	1, 5, 12, 13
White Clay Creek	4, 5, 6, 16

Revised May 22, 1989

TABLE A2

STATE OF DELAWARE

304(1)(1)(A)(ii) LIST

STREAM BASIN	SCREENING CATEGORY
Army Creek	4, 5, 8, 13, 16
Brandywine Creek	4, 6, 8, 13
Broadkill	4, 8, 13
Bunting's Branch	4, 6, 8, 12, 13
Chester River	4, 12
Choptank River	4
Christina	4, 5, 6, 8, 11, 13, 16
Delaware River - Zone 5	7, 8, 9, 11, 13, 16
Indian River/Bay	1, 2, 4, 5, 6, 8, 9, 11, 13
Leipsic River	4
L & R Canal	4, 8
Little River	4
Murderkill	4, 6, 11
Naamans Creek	4, 8, 11
Nanticoke	4, 6, 8, 11
Red Clay Creek	1, 2, 4, 5, 6, 8, 11, 12, 13, 16
Red Lion Creek	1, 4, 5, 6, 8, 11, 12, 13, 16
Rehoboth Bay	4, 5, 6, 13
Saint Jones River	1, 5, 8, 13
Shellpot Creek	4
Smyrna River	4
White Clay Creek	4, 5, 6, 8

Revised May 22, 1989

AR202395

TABLE A3

STATE OF DELAWARE

304(L)(1)(B) LIST

STREAM BASIN	SCREENING CATEGORY
Christina	11
Delaware River	9, 11
Indian River/Bay	9
Red Clay Creek	11
Red Lion Creek	11

Revised May 22, 1989

AR202396

TABLE A4

STATE OF DELAWARE

304(l)(1)(C) LIST

FACILITY	NPDES NO.
General Chemical	0000655
Occidental Chemical Corp.	0050911
ICI Americas	0000621
NVF Yorklyn	0000451
General Motors	0000523
DP&L Indian River	0050580
Standard Chlorine	0020001
Chloramone	0050636
Kaysor	0050920
CIBA-CEICY	0000400

AR202397

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

Mr. Everett A. Kliphouse
Vice-President
Ciba Geiby Corporation
James and Water Streets
Newport, Delaware 19804

JUN 06 1990

Re: NPDES Permit DE0000400
Ciba Geiby Corporation

Dear Mr. Kliphouse:

Under Section 304(1)(1)(C) of the Clean Water Act (CWA) as amended by the Water Quality Act of 1987, each State was to identify and list by February 4, 1989, specific point sources believed to be preventing or impairing the attainment of applicable water quality standards for any priority pollutant. The State of Delaware has included your facility discharge on their final list of dischargers.

According to the CWA and the recently adopted 304(1) regulations, an individual control strategy (ICS) must be developed and implemented for each listed facility. An ICS is an effective National Pollutant Discharge Elimination System (NPDES) discharge permit that includes the appropriate water quality-based limits for the identified priority pollutants. The ICSs must be in place by February 4, 1990 and comply with these limits as soon as possible but no later than June 4, 1992. Enclosed is a draft ICS which includes the parameters of concern for your facility.

As your permit is modified to include the ICS requirement, you will be given an opportunity to comment on the effluent limits as you do under the existing NPDES permitting program. Further, if you wish to provide us with any additional data that you believe would preclude us from listing your facility, please send it to Mr. Francisco Cruz of this office. We will accept any such submittal during the Section 304(1) public comment period, which ends October 5, 1989, or until your ICS is issued, whichever occurs first.

If you have any questions on the listing of your facility, please call Mr. Francisco Cruz at 215/597-8813.

Sincerely,

Joseph T. Piotrowski, Chief
Permits Enforcement Branch

AR202398

Enclosure

FACILITY NAME AND RECEIVING STREAM	NPDES NO.	OUTFALL NO.	PARAMETER
CIBA GEIBY	DE0000400	001	TOTAL ZINC
CHRISTINA RIVER		001	FLOW (mgd)

Rcvd 6/25

#.31.74

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF WATER RESOURCES
89 KINGS HIGHWAY, P.O. BOX 1401
DOVER, DELAWARE 19903

SURFACE WATER MANAGEMENT
SECTION

TELEPHONE: (302) 736 - 5731

Date: June 19, 1987

Mr. George Hull
CIBA-GEIGY Corporation
James and Water Sts.
Newport, Delaware 19804

Re: Effluent Toxicity Testing
NPDES No. DE 0000400

Dear Mr. Hull:

An extremely important issue that must be addressed by dischargers and regulatory agencies throughout the nation is that of controlling effluent toxicity. This issue is important enough that the U.S. Environmental Protection Agency (EPA) published a statement in the Federal Register (Volume 49, No. 48, Friday, March 9, 1984) which sets forth a national policy on the matter. The national policy statement, entitled, "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants" states that "to control pollutants beyond Best Available Technology (BAT) Economically Achievable, secondary treatment, and other Clean Water Act technology-based requirements in order to meet water quality standards, the EPA will use an integrated strategy consisting of both biological and chemical methods to address toxic and nonconventional pollutants from industrial and municipal sources. EPA and the states will use biological techniques and available data on chemical effects to assess [aquatic life] toxicity impacts and human health hazards based on the general standard of no toxic materials in toxic amounts". Consistent with this national policy directive, Section 5 (5)(a) of the "State of Delaware Water Quality Standards for Streams: Amended 12/23/85" states that all mixing zones (i.e. that area where the discharge mixes with the receiving water) be free of "materials in concentrations that will cause acute toxicity to aquatic life, or present unacceptable risk to human health".

As a first step of ensuring that the surface waters of Delaware are protected from toxic impacts, the Department of Natural Resources and Environmental Control (DNREC) has begun to systematically screen all NPDES discharges in the state for possible toxicity using a standardized biological technique. This standardized technique, known as a bioassay test, involves exposing healthy organisms to an effluent for a specified period of time and observing the number of organisms that die during the exposure period. Each discharge is scheduled to be sampled on three separate occasions in conjunction with the screening tests. Each sample will be split into 2 equal portions and then

AR202400

separate 24 hour acute bioassays will be performed on Ceriodaphnia dubia (water fleas) and Pimephales promelas (fathead minnows). Each bioassay is to be run on 100% undiluted effluent. The methods being used are described in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, EPA/600/4-85/013. The results will be expressed as a % mortality for each test and as an arithmatic average of all three tests for each test specie. Upon completion of the statewide toxics survey, you will receive the individual results of the toxicity tests performed on your discharge. It is anticipated that the survey will be completed in the spring of 1988.

This information is being provided in an effort to facilitate your understanding of a key component of our current sampling activities. As presented earlier we foresee a substantial effort being made in the next few years to assess the potential impacts of toxics on waters of the State. If you have any questions regarding the survey, please contact Mr. Frank Henshaw of my staff at (302) 736-3829.

Very truly yours,

Robert J. Zimmerman
Supervisor
Water Pollution Branch

cc: R. Wayne Ashbee
Gerard L. Esposito
Dr. Harry Otto
NPDES Permits Group

Question 2

Provide all information in CIBA-GEIGY's possession regarding storm sewer discharge contamination at the site.

Attachment

8) Static Acute Screening Toxicity Tests for Outfall 001, February 1990.

Pigments Division

CIBA-GEIGY Corporation
James & Water Streets
Newport, Delaware 19804
Telephone 302 992 5600

CIBA–GEIGY

February 8, 1990

Mr. Joe Kilby, Program Manager
Surface Water Management Section
Department of Natural Resources and
Environmental Control
Division of Water Resources
89 Kings Highway, P.O. Box 1401
Dover, Delaware 19903

Dear Mr. Kilby:

As required by our NPDES permit, please find enclosed a copy of the results from outfall 001 effluent biomonitoring testing. The effluent testing was performed by QC Inc. and samples were taken by Artesian Labs. The testing included performance of a series of three 24-hour 'Static Acute Screening Toxicity Tests'.

In summary, outfall 001 showed a consistency in toxicity for both species used in the test. These species were Pimephales Promelas (Fathead Minnow) and Cladoceran Daphnia Pulex. It must also be noted that there was no observable correlation between background testing and the observed mortality.

Since the average survival rate for both species was below 80%, we will, within the next week, begin performing a 'Definitive Acute Toxicity Test' on the effluent. The testing presently is planned to be completed by QC Inc. and sampled by Artesian Labs.

If you require additional information, please contact me at your convenience on 996-2920.

Sincerely,

Joseph J. Sasso
Environmental Specialist

cc. John DeFriece (DNREC)

Enclosures

AR202403

ARTESIAN
LABORATORIES, INC.

A wholly owned subsidiary of
Artesian Resources Corporation

Mr. Joseph J. Sasso
Ciba Geigy Corporation
James & Water Streets
Newport, Delaware 19804

Account Number: 70600187
Date Sampled: 12/14-20/89
Date Received: 12/15-20/89
Sampled by: ALI
Lab ID Number: PM 10598, PM 10600, PM 10601
P.O. #: X003773
Report Date: 01/22/90

Bioassay Specifications

The Outfall 001 was subjected to a 24 hour acute bioassay screen test using Pimephales Promelas (Fathead Minnow) and Cladoceran Daphnia Pulex to determine the percent mortality.

Results

QC, Inc. was selected to perform the bioassay analysis. The laboratory was not aware of specific site details. Therefore, the recommended conclusions may not be applicable to the outfall.

The data for each day is summarized on Pages 2 to 4. QC, Inc.'s report is attached for detailed information on the bioassay test specifications. The Bioassay Data column is the lab data performed by QC, Inc. on the sample splits used for the bioassay testing. This was performed to observe any possible sample changes during transport.

Conclusions

Outfall 001 showed a consistency in toxicity for each species. The fathead minnow on the first day test showed signs of stress. No correlation between the background testing and the observed mortality was observed. Definitive testing will need to be initiated to determine concentration at which mortality is observed.

Marlene O. Frey
VICE PRESIDENT

AR202404

DISCLAIMER: Liability to Artesian Laboratories, Inc. not to exceed cost of analysis.

ARTESIAN
LABORATORIES, INC.

A wholly owned subsidiary of
Artesian Resources Corporation

Mr. Joseph J. Sasso
Ciba Geigy Corporation
James & Water Streets
Newport, Delaware 19804

Account Number: 70600187
Date Sampled: 12/14/89
Date Received: 12/15/89
Sampled by: ALI
Lab ID Number: PM 10598, PM 10600, PM 10601
P.O. #: X003773
Report Date: 01/22/90

Sample Site: Outfall 001

Sample Stream Temperature start of sampling: 9°C
Sample Stream Temperature end of sampling : 9°C

Date/Time Composite Started: 12/14/89 14:50 Ended: 12/15/89 14:40
Time interval composite prepared for analysis.

		ALI Testing Sample Site	QC, Inc. Test Bioassay Data	ALI MDL
Chlorine Residual	(mg/L)	ND	0.00	0.1
Dissolved Oxygen	(mg/L)	10.8	11.6	--
pH	(units)	7.1	7.3	--
Conductivity	(µmhos/cm)	720.	750.	--
Total Hardness	(mg/L-CaCO3)	150.	144.	--
T. Alkalinity	(mg/L-CaCO3)	38.	37.4	--
Ammonia	(mg/L)	1.	0.00	--
Chloride	(mg/L)	160.	--	--
Copper, Total	(mg/L)	0.04	--	--
Mortality	(%)			
Fathead minnow		--	55.	
Daphnia Pulex		--	40.	

N.D.= The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

AR202405

DISCLAIMER: Liability to Artesian Laboratories, Inc not to exceed cost of analysis.

ARTESIAN
LABORATORIES, INC.

A wholly owned subsidiary of
Artesian Resources Corporation

Mr. Joseph J. Sasso
Ciba Geigy Corporation
James & Water Streets
Newport, Delaware 19804

Account Number: 70600187
Date Sampled: 12/17/89
Date Received: 12/18/89
Sampled by: ALI
Lab ID Number: PM 10598, PM 10600, PM 10601
P.O. #: X003773
Report Date: 01/22/90

Sample Site: Upstream of Outfall 001

Sample Stream Temperature start of sampling: 8°C
Sample Stream Temperature end of sampling : 8°C

Date/Time Composite Started: 12/17/89 13:30 Ended: 12/18/89 13:30
Time interval composite prepared for analysis.

		ALI Testing Sample Site	QC, Inc. Test Bioassay Data	ALI MDL
Chlorine Residual	(mg/L)	ND	0.00	0.01
Dissolved Oxygen	(mg/L)	11.8	10.7	--
pH	(units)	7.0	7.00	--
Conductivity	(µmhos/cm)	1100.	1050.	--
Total Hardness	(mg/L-CaCO3)	130.	132.	--
T. Alkalinity	(mg/L-CaCO3)	39.	37.4	--
Ammonia	(mg/L)	2.	0.00	--
Chloride	(mg/L)	200.	--	--
Copper, Total	(mg/L)	0.05	--	--
Mortality	(%)			
Fathead minnow		--	35.	
Daphnia Pulex		--	90.	

N.D.= The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

AR202406

DISCLAIMER: Liability to Artesian Laboratories, Inc. not to exceed cost of analysis.

Post Office Box 15004
Wilmington, Delaware 19850
(302) 453-6920

Delaware Department of Public Health Approved
Maryland Department of Public Health Certified
Pennsylvania Department of Environmental Resources Certified

Post Office Box 935
Dover, Delaware 19903
(302) 734-8417

ARTESIAN
LABORATORIES, INC.

A wholly owned subsidiary of
Artesian Resources Corporation

Mr. Joseph J. Sasso
Ciba Geigy Corporation
James & Water Streets
Newport, Delaware 19804

Account Number: 70600187
Date Sampled: 12/19/89
Date Received: 12/20/89
Sampled by: ALI
Lab ID Number: PM 10598, PM 10600, PM 10601
P.O. #: X003773
Report Date: 01/22/90

Sample Site: Outfall 001

Sample Stream Temperature start of sampling: 7°C
Sample Stream Temperature end of sampling : 9°C

Date/Time Composite Started: 12/19/89 14:40 Ended: 12/20/89 14:00
Time interval composite prepared for analysis.

		ALI Testing Sample Site	QC, Inc. Test Bioassay Data	ALI MDL
Chlorine Residual	(mg/L)	ND	0.00	0.1
Dissolved Oxygen	(mg/L)	12.2	11.	--
pH	(units)	6.9	7.13	--
Conductivity	(µmhos/cm)	650.	700.	--
Total Hardness	(mg/L-CaCO3)	130.	140.	--
T. Alkalinity	(mg/L-CaCO3)	41.	39.6	--
Ammonia	(mg/L)	2.	0.38	--
Chloride	(mg/L)	100.	--	--
Copper, Total	(mg/L)	0.05	--	--
Mortality	(%)			
Fathead minnow		--	95.	
Daphnia Pulex		--	100.	

N.D.= The compound indicated was not detected above the Method Detection Limit (MDL) listed for the method performed.

AR202407

DISCLAIMER: Liability to Artesian Laboratories, Inc. not to exceed cost of analysis.

Post Office Box 15004
Wilmington, Delaware 19850
(302) 453-6920

Delaware Department of Public Health Approved
Maryland Department of Public Health Certified
Pennsylvania Department of Environmental Resources Certified

Post Office Box 935
Dover, Delaware 19903
(302) 734-8417

QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

TWENTY-FOUR HOUR

ACUTE SCREENING TESTS

ON THE DISCHARGE FROM OUTFALL

001/NPDES # DE0000400

Study Director: Robert Martino
Initiation Date: December 16, 1989
Termination Date: December 22, 1989

AR202408

QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

TABLE OF CONTENTS

AR202409

QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

Section I

QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

Approval:

Principal Investigator	Date
Study Director	3/27/87 Date
Allen D. Schopbach, President	Date

QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

Section II

QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

GENERAL INFORMATION

Study Number(s): AL008FH/DP, AL009FH/DP, AL010FH/DP

Title: Reserved

Purpose: To ascertain the toxicity, if any, in accordance with NPDES permit conditions.

Requestor: Reserved

NPDES Permit Number: DE0000400

Facility Conducting Study:

QC Inc.
Ecotoxicology Laboratory
1205 Industrial Highway
Southampton, PA 18966

Director of Laboratory: Robert Martino

RATIONALE

Justification of Species Selection: The fathead minnow and the cladoceran Daphnia pulex were used in accordance with EPA recommendations in EPA/600/4-85/013.

Design Summary: This study was run under static type conditions. A control and a 100% effluent dose in duplicate made up the testing series.

TEST SYSTEM

Test Temperature: 22 ± 2 °C

Test Containers: One-half gallon non-toxic plastic containers with 1.0 liters of test solution was used in fish tests. 250-ml acid rinsed glass beakers holding 150-ml of solution was used for cladoceran species.

Test Type: Static

Test Duration: 24 hours

Test Volumes: 1000-ml in fish tests
150-ml in cladoceran tests

AR202413

QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

Number of Animals Evaluated: 10 per test vessel, replicates per concentration, total number tested was 20 per effluent sample and 20 per control groups.

Experimental Groups:

Group I	:	Untreated Group
Group II	:	100.0 % Undiluted Effluent

Water Quality Analysis: Temperature, pH, Dissolved Oxygen, Alkalinity, Hardness, Conductivity, Ammonia, and Residual Chlorine were measured initially on each sample. Dissolved oxygen and pH were measured on each test replicate at test termination.

Behavioral Observations: Test organisms were observed initially, at the one-hour mark, and every 2 hours from the t=0 mark for the first eight hours of the study, and at test termination. Death was determined by the absence of opercular movement in fish and lack of mobility in the cladoceran species.

Organism Length and Weight Measurements: Measurements were taken on a group of 10 fish from the same lot prior to test initiation.

DILUTION WATER SOURCE AND SAMPLING

Dilution Water Source: EPA recommended formula for moderately hard water.

EFFLUENT SAMPLING AND IDENTIFICATION

Test Material: Final pre-chlorinated effluent

Sampling: Sampling was done by Artesian Labs personnel. All samples were 24-hour composites. The samples were then iced and shipped via overnight carrier to QC Inc. Tests were initiated on the day of sample arrival.

Aeration: None

Stability: Any breakdown of components under s[illegible] tions for the study were considered representative of natural occurrences of biological and chemical degradation.

AR202414

QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

Sample Numbers:

	Artesian #	Dates Sampled
Outfall 001	PM 10598-7	12/14 to 12/15
Outfall 001	PM 10600-7	12/17 to 12/18
Outfall 001	PM 10601-7	12/19 to 12/20

Chain of Custody: All samples were logged in on chain-of custody forms, and the chlorine residual levels were determined. The samples were also logged in on sample report forms.

TEST ORGANISMS

A. Fathead Minnow Tests

Species: Pimephales promelas
Source: In-house culture
Lot Number: FH112389
Age at test initiation: 23/26/28

Culturing: All fish used in this series of tests came from in-house cultures. All organisms were disease and parasite free at test initiation.

Lighting: A 16 hr light / 8 hour dark cycle, fluorescent bulbs supplied the light at 50 to 100 ft-ca.

Food: Dry flake food (Tetra Min). The fish used in the study were not fed a minimum of 24 hours prior to test initiation.

Acclimation to Dilution Water: The fish were acclimated to the reconstituted dilution water over a 24 hour period. The fish then remained in the dilution water for an additional 48 hours prior to testing. During this period no mortality occurred.

Assignment to Groups: Random assignment, no individual identification of the test organisms was possible. The fish were randomly selected per dose.

Average Loading:

QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

B. Daphnia pulex Tests

Species: Daphnia pulex
Source: In-house culture
Lot Number:
Age at Test Initiation: < 24 hours

Culturing: The Daphnia pulex cultures are maintained in continuous acclimation cultures. Third, fifth, and seventh generation young were used for testing purposes. Only moderately hard EPA formula reconsti tuted fresh water is used in culturing.

Lighting: 16 hour light / 8 hour dark cycle, fluorescent bulbs supplied the light at 50 to 100 ft-ca.

Food: The daphnia were fed a vitamin enriched Selanastrum capricornutum algae daily. Organisms were not fed during the course of the study.

Assignment to Groups: Random assignment, no individual identification of the test organisms was possible. The daphnids were randomly selected per dose.

RESULTS OF DEFINITIVE TEST

This series of samples showed a consistency in toxixcity for each species category. Sample PM 10598-7 had a strong Ketone odor which could not be idenitified. Mortality rates for the both speicies appeared to be similar. It should be noted, that at t=24 hours in the fathead test, the organisms showed clear signs of stress and it is my opionion that if the study were to be continued for an additional 24 hours, a 100% kill would have been observed.

Samples PM 10600-7 and 10601-7 lacked the "ketone" odor. Mortality for the cladoceran species occurred at a greater rate than that of the fathead. All test information can be seen in the summary and section III.

QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

SUMMARY OF ACUTE SCREENING TESTS

Sample	Test Number	Dates of Test	Species	Average Percent Mortality
Group sampled 11/26 to 11/27/89				
PM10598-7	AL008FH	12/16-12/17	P. promelas	55
PM10598-7	AL008DP	12/16-12/17	D. Pulex	40
Group sampled 11/28 to 11/29/89				
PM10600-7	AL009FH	12/19-12/20	P. promelas	35
PM10600-7	AL009DP	12/19-12/20	D. pulex	90
Group sampled 11/30 to 12/01/89				
PM10601-7	AL010FH	12/21-12/22	P. promelas	95
PM10601-7	AL010DP	12/21-12/22	D. pulex	100

QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

Section III

AR202418

Acute Screening Studies Data Sheet

Study Number: AL008-FH

Client NPDES #: DE0000400

Client Reference Number: 70600187

Sample Number: FM 10598-7

Species Tested: Pimephales promelas

Date Initiated: 12/16/89

Date Terminated: 12/17/89

Time Initiated: 10:15 am

Time Terminated: 10:15 am

Lot Number:

INITIAL DATA (T=0 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	23.00		23.00	23.00
pH	7.85		7.27	7.29
D.O.	8.60		11.80	11.50
Alkalinity	59.40		37.40	37.40
Hardness	92.00		144.00	144.00
Conduc	295.00		750.00	750.00
Ammonia	0.00		0.00	0.00
Res. Chlorine	0.00		0.00	0.00

FINAL DATA (T=24 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	21.50		21.50	21.50
pH	7.43		7.34	7.35
D.O.	6.00		6.50	5.60
Alkalinity				
Hardness				
Conduc				
Ammonia				
Res. Chlorine				

Hours	Control A	Control B	Effluent A	Effluent B
0.0	0		0	0
0.5				
1.0				
1.5				
2.0				
2.5				
3.0	0		1	0
4.0				
6.0				
12.0				
24.0	0		6	5
% Dead	0		60	50

Verification: _____
Director of Laboratory

Date: 12/28/89

AR202419

Acute Screening Studies Data Sheet

Study Number: AL008-DP

Client NPDES #: DE0000400

Client Reference Number: 70600187

Sample Number: PM 10598-7

Species Tested: Daphnia pulex

Date Initiated: 12/16/89

Date Terminated: 12/17/89

Time Initiated: 10:15 am

Time Terminated: 10:15 am

Lot Number:

INITIAL DATA (T=0 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	23.00		23.00	23.00
pH	7.85		7.27	7.29
D.O.	8.60		11.80	11.50
Alkalinity	59.40		37.40	37.40
Hardness	92.00		144.00	144.00
Conduc	295.00		750.00	750.00
Ammonia	0.00		0.00	0.00
Res. Chlorine	0.00		0.00	0.00

FINAL DATA (T=24 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	21.50		21.50	21.50
pH	7.43		7.67	7.69
D.O.	6.00		8.00	8.20
Alkalinity				
Hardness				
Conduc				
Ammonia				
Res. Chlorine				

	Control A	Control B	Effluent A	Effluent B
Hours				
0.0	0		0	0
0.5				
1.0				
1.5				
2.0				
2.5				
3.0	0		0	0
4.0				
6.0				
12.0				
24.0	0		3	5
# Dead	0		30	50

Verification: _____
Director of Laboratory

Date: 12/18/89

AR202420

Acute Screening Studies Data Sheet

Study Number: AL009-FH

Client NPDES #: DE0000400

Client Reference Number: 70600187

Sample Number: 10600-7

Species Tested: Pimephales promelas

Date Initiated: 12/19/89

Date Terminated: 12/20/89

Time Initiated: 10:15 am

Time Terminated: 10:15 am

Lot Number:

INITIAL DATA (T=0 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	23.80		23.80	23.80
pH	7.89		7.00	7.00
D.O.	8.60		10.60	10.80
Alkalinity	59.40		37.40	37.40
Hardness	92.00		132.00	132.00
Conduc	295.00		1050.00	1050.00
Ammonia	0.00		0.00	0.00
Res. Chlorine	0.00		0.00	0.00

FINAL DATA (T=24 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	23.00		23.00	23.00
pH	7.39		6.97	7.12
D.O.	5.70		5.40	5.70
Alkalinity				
Hardness				
Conduc				
Ammonia				
Res. Chlorine				

Hours	Control A	Control B	Effluent A	Effluent B
0.0	0		0	0
0.5				
1.0				
1.5				
2.0				
2.5				
3.0	0		0	0
4.0	0		0	0
6.0				
12.0				
24.0	0		1	6
% Dead	0		10	60

Verification: _____
Director of Laboratory

Date: 12/22/89

AR202421

Acute Screening Studies Data Sheet

Study Number: AL009-DP

Client NPDES #: DE0000400

Client Reference Number: 70600187

Sample Number: 10600-7

Species Tested: Daphnia pulex

Date Initiated: 12/19/89

Date Terminated: 12/20/89

Time Initiated: 1:15 am

Time Terminated: 1:15 am

Lot Number:

INITIAL DATA (T=0 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	24.40		24.40	24.40
pH	7.89		7.00	7.00
D.O.	8.60		10.60	10.80
Alkalinity	59.40		37.40	37.40
Hardness	92.00		132.00	132.00
Conduc	295.00		1050.00	1050.00
Ammonia	0.00		0.00	0.00
Res. Chlorine	0.00		0.00	0.00

FINAL DATA (T=24 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	24.90		24.90	24.90
pH	8.06		7.74	7.87
D.O.	8.90		9.00	9.00
Alkalinity				
Hardness				
Conduc				
Ammonia				
Res. Chlorine				

Hours	Control A	Control B	Effluent A	Effluent B
0.0	0		0	0
0.5				
1.0				
1.5				
2.0	0		0	0
2.5				
3.0				
4.0				
6.0				
12.0				
24.0	0		10	8
2 Dead	0		100	80

Verification: _____ Director of Laboratory

Date: 12/21/89

AR202422

Acute Screening Studies Data Sheet

Study Number: AL010-FH

Client NPDES #: DE0000400

Client Reference Number: 70600187

Sample Number: PM 10601-7

Species Tested: Pimephales promelas

Date Initiated: 12/21/89

Date Terminated: 12/22/89

Time Initiated: 10:30 am

Time Terminated: 10:30 am

Lot Number:

INITIAL DATA (T=0 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	23.20		23.20	23.20
pH	7.91		7.13	7.13
D.O.	8.90		11.00	11.00
Alkalinity	59.40		39.60	39.60
Hardness	92.00		140.00	140.00
Conduc	295.00		700.00	700.00
Ammonia	0.00		0.38	0.38
Res. Chlorine	0.00		0.00	0.00

FINAL DATA (T=24 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	23.30		23.30	23.30
pH	7.81		7.47	7.58
D.O.	7.30		7.80	8.20
Alkalinity				
Hardness				
Conduc				
Ammonia				
Res. Chlorine				

	Control		Effluent	
Hours	A	B	A	B
0.0	0		0	0
0.5				
1.0	0		0	0
1.5				
2.0				
2.5				
3.0	0		3	4
4.0	0		5	7
6.0				
12.0				
24.0	0		9	10
% Dead	0		90	100

Verification: _____ Director of Laboratory

Date: 12/22/89

AR202423

Acute Screening Studies Data Sheet

Study Number: AL010-DP

Client NPDES #: DE0000400

Client Reference Number: 70600187

Sample Number: PM 10601-7

Species Tested: Daphnia pulex

Date Initiated: 12/21/89

Date Terminated: 12/22/89

Time Initiated: 10:30 am

Time Terminated: 10:30 am

Lot Number:

INITIAL DATA (T=0 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	23.20		23.20	23.20
pH	7.91		7.13	7.13
D.O.	8.90		11.00	11.00
Alkalinity	59.40		39.60	39.60
Hardness	92.00		140.00	140.00
Conduc	295.00		700.00	700.00
Ammonia	0.00		0.38	0.38
Res. Chlorine	0.00		0.00	0.00

FINAL DATA (T=24 HOURS)

	CONTROL A	CONTROL B	EFFLUENT A	EFFLUENT B
Temperature	23.30		23.30	23.30
pH	7.81		7.71	7.88
D.O.	9.90		9.70	10.10
Alkalinity				
Hardness				
Conduc				
Ammonia				
Res. Chlorine				

Hours	Control A	Control B	Effluent A	Effluent B
0.0	0		0	0
0.5				
1.0	0		0	0
1.5				
2.0	0		1	0
2.5				
3.0	0		2	0
4.0	0		2	0
6.0				
12.0				
24.0	0		10	10
% Dead	0		100	100

Verification: _____ Director of Laboratory

Date: 12/28/89

AR202424

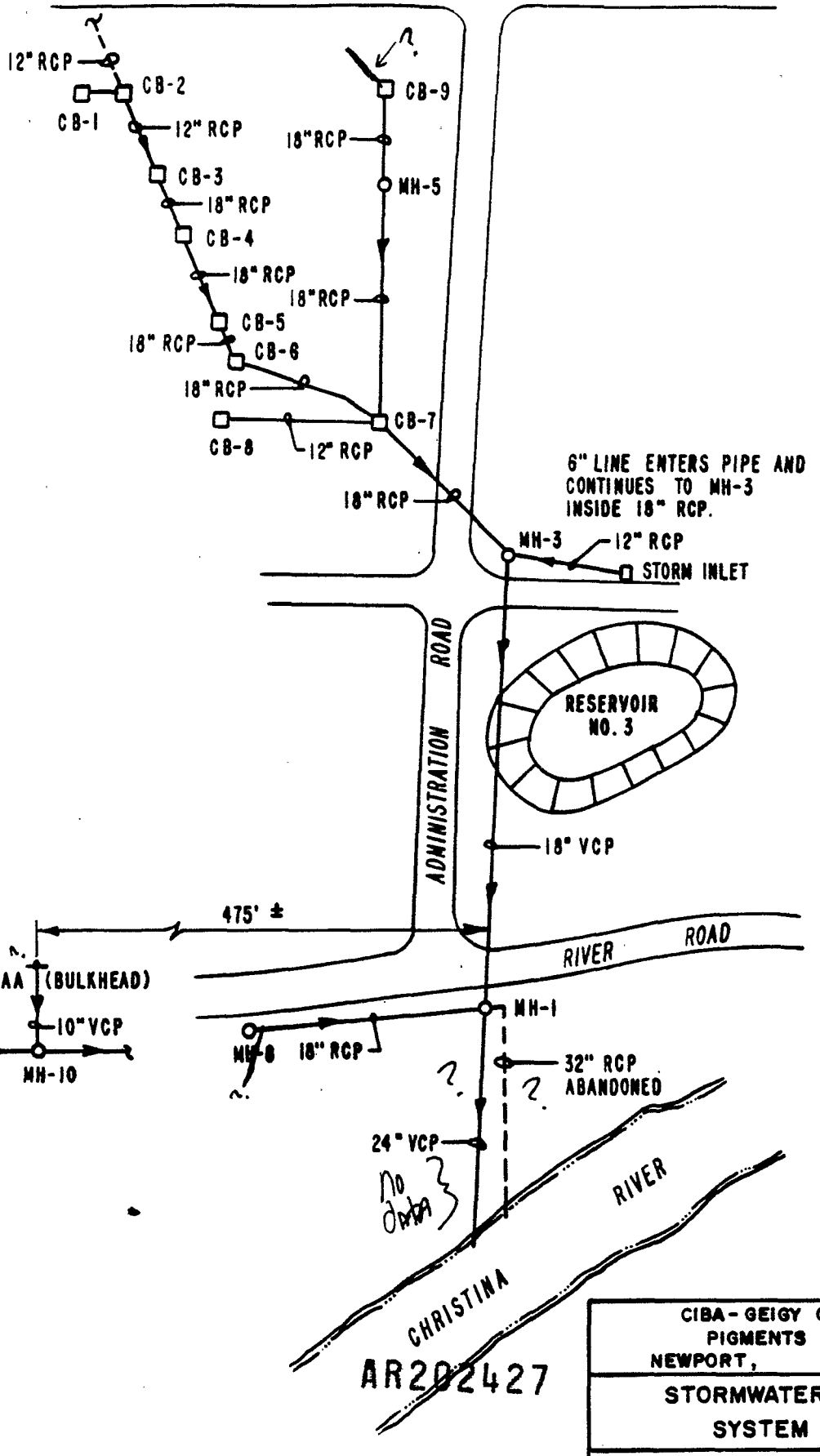
1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

Question 2

Provide all information in CIBA-GEIGY's possession regarding storm sewer discharge contamination at the site.

Attachment

9) Written Report of Video Inspection of Outfall 001 Storm Sewer System, July 1989.



CIBA-GEIGY CORPORATION
PIGMENTS DIVISION
NEWPORT, DELAWARE

STORMWATER DRAINAGE SYSTEM STUDY

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.
HARRISBURG, PENNSYLVANIA

SCALE: 1" = 100'

JULY, 1989

AR202427

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

WATER STREET
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO. CB-2 STA 0+00 — PIPE-LENGTH 29', SIZE 12", TYPE RCP — MH NO. CB-1

TELEVISING

DOWNSTREAM MH	TV INSPECTION UNIT #49	UPSTREAM MH
DEPTH 4	OPERATOR WEC	DEPTH 4
TYPE PRECAST	LENGTH TELEVISED 29'	TYPE PRECAST

STATION	COMMENTS
0+00	CB-2. BEGIN RUN. 1 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 15 FEET ON VIDEO TAPE #1.
0+27	END PIPE. 130 FEET ON VIDEO TAPE #1.
0+29	CB-1. END RUN. RUN CONSISTS OF TWO-FOOT PIPE SECTIONS. 138 FEET ON VIDEO TAPE #1.

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	1000
ESTIMATED FLOW AFTER INSPECTION	1000
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	0
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	0

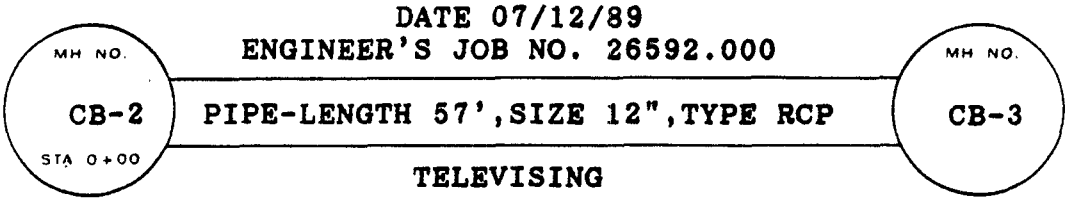
GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000



TELEVISING

UPSTREAM MH	TV INSPECTION UNIT #49	DOWNSTREAM MH
DEPTH 4	OPERATOR WEC	DEPTH 4
TYPE PRECAST	LENGTH TELEVISED 57'	TYPE PRECAST

STATION	COMMENTS
0+00	CB-2. BEGIN RUN. 140 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 150 FEET ON VIDEO TAPE #1.
0+25	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 285 FEET ON VIDEO TAPE #1.
0+35	CRACKED PIPE AT JOINT. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 357 FEET ON VIDEO TAPE #1.
0+40	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 398 FEET ON VIDEO TAPE #1.
0+46	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 436 FEET ON VIDEO TAPE #1.
0+50	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 470 FEET ON VIDEO TAPE #1.
0+54	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 555 FEET ON VIDEO TAPE #1.
0+55	END PIPE. 580 FEET ON VIDEO TAPE #1.
0+57	CB-3. END RUN, RUN CONSISTS OF TWO-FOOT PIPE SECTIONS. 612 FEET ON VIDEO TAPE #1.

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO. CB-2 STA 0+00 — PIPE-LENGTH 57',SIZE 12",TYPE RCP — MH NO CB-3

TELEVISING

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	1000
ESTIMATED FLOW AFTER INSPECTION	1000
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	6
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	1

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO. CB-3 STA 0+00 — PIPE-LENGTH 44', SIZE 18", TYPE RCP — MH NO. CB-4

TELEVISING

UPSTREAM MH	TV INSPECTION UNIT #49	DOWNSTREAM MH
DEPTH 4	OPERATOR WEC	DEPTH 4
TYPE PRECAST	LENGTH TELEVISED 44'	TYPE PRECAST

STATION	COMMENTS
0+00, 6'	CB-3. BEGIN RUN. 615 FEET ON VIDEO TAPE #1.
0+02, 10.6'	BEGIN PIPE. 625 FEET ON VIDEO TAPE #1.
0+29 15', 19', 23'	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 746 FEET ON VIDEO TAPE #1.
0+32 27' 36'	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 790 FEET ON VIDEO TAPE #1.
0+39 2 shear cracks	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 845 FEET ON VIDEO TAPE #1.
bad quality 0+42	END PIPE. 870 FEET ON VIDEO TAPE #1.
0+44	CB-4. END RUN, RUN CONSISTS OF TWO-FOOT PIPE SECTIONS. 892 FEET ON VIDEO TAPE #1.

no statement on report of eaten away channel

areas of in-leakage, poor pipe integrity

6', 10.6, 15, 19, 23, 27, 36, 39' w 2 shear cracks

no Statement made in report of eaten away channel.

AR202431

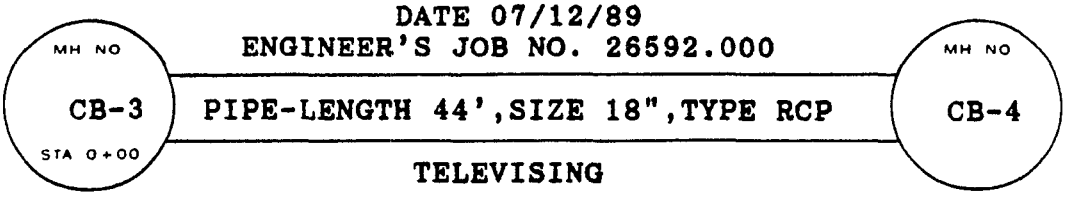
GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000



TELEVISING

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	500
ESTIMATED FLOW AFTER INSPECTION	500
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	3
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	0

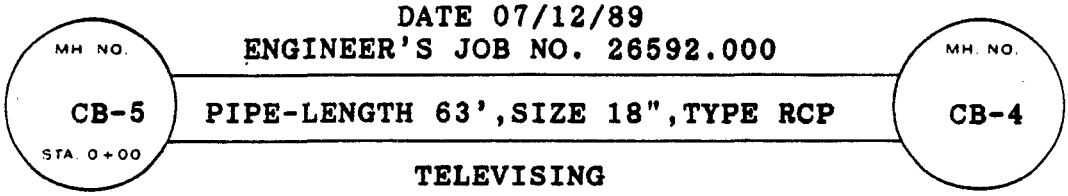
GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000



TELEVISING

DOWNSTREAM MH	TV INSPECTION UNIT #49	UPSTREAM MH
DEPTH 5	OPERATOR WEC	DEPTH 4
TYPE BLOCK	LENGTH TELEVISED 25'	TYPE PRECAST

STATION	COMMENTS
0+00	CB-5. BEGIN RUN. 895 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 910 FEET ON VIDEO TAPE #1.
0+25	COULD NOT PASS WITH CAMERA. POSSIBLY DUE TO GROOVE IN INVERT OF PIPE. END INSPECTION. REVERSED THE SET-UP. 1060 FEET ON VIDEO TAPE #1.

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	2000
ESTIMATED FLOW AFTER INSPECTION	2000
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	0
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	0

6', 10', 14.5, 20,
cakes -

AR202433

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS — HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO CB-4 STA 0+00	PIPE-LENGTH 63',SIZE 18",TYPE RCP	MH NO CB-5

TELEVISING

UPSTREAM MH	TV INSPECTION UNIT #49	DOWNSTREAM MH
DEPTH 4	OPERATOR WEC	DEPTH 5
TYPE PRECAST	LENGTH TELEVISED 38'	TYPE BLOCK

STATION	COMMENTS
0+00	CB-4. BEGIN RUN. 1065 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 1080 FEET ON VIDEO TAPE #1.
0+38	END INTERNAL INSPECTION, ENTIRE RUN IS TELEVISED, RUN CONSISTS OF TWO-FOOT PIPE SECTIONS. 1286 FEET ON VIDEO TAPE #1.

Run ended at 85' — due to groove in pipe.

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	2000
ESTIMATED FLOW AFTER INSPECTION	2000
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	0
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	0

(5 to 4) (4 to 5)

6', 10', 14.5', 20' eaten away channel — 8', 12', 16', 20', 24', 32, 36, 38 eaten away channel

AR202434

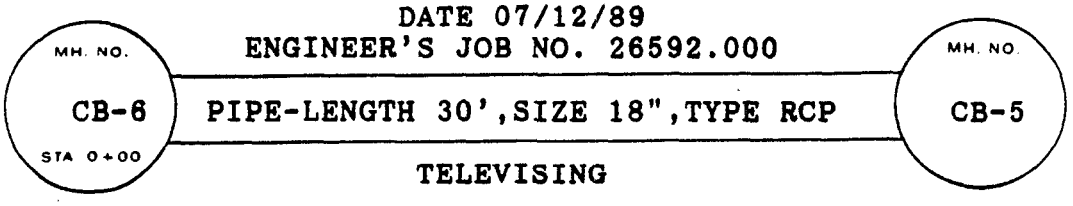
GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000



TELEVISING

DOWNSTREAM MH	TV INSPECTION UNIT #49	UPSTREAM MH
DEPTH 5	OPERATOR WEC	DEPTH 5
TYPE BRICK	LENGTH TELEVISED 30'	TYPE BLOCK

STATION	COMMENTS
0+00	CB-6. BEGIN RUN. 1316 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 1330 FEET ON VIDEO TAPE #1.
0+07	CRACKED PIPE AT JOINT. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 1350 FEET ON VIDEO TAPE #1.
0+27	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 1441 FEET ON VIDEO TAPE #1.
0+28	END PIPE. 1448 FEET ON VIDEO TAPE #1.
0+30	CB-5. END RUN, RUN CONSISTS OF TWO-FOOT PIPE SECTIONS. 1458 FEET ON VIDEO TAPE #1.

4

4', 9', 12', 15', 19', 23', 30'

[redacted]

AR202435

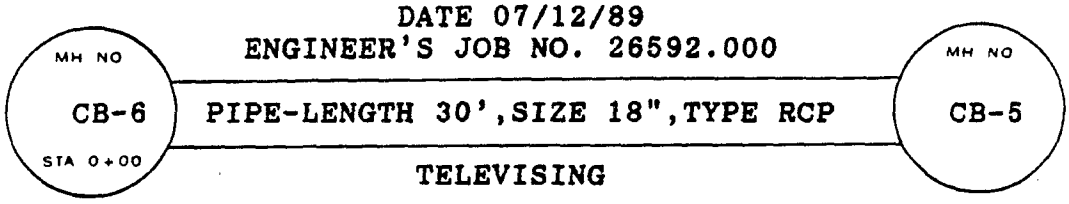
GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000



TELEVISING

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	500
ESTIMATED FLOW AFTER INSPECTION	500
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	2
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	0

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/27/89
ENGINEER'S JOB NO. 26592.000

MH NO. CB-6 STA 0+00 — PIPE-LENGTH 99',SIZE 18",TYPE RCP — MH NO. CB-7

TELEVISING

UPSTREAM MH	TV INSPECTION UNIT #49	DOWNSTREAM MH
DEPTH 5	OPERATOR WEC	DEPTH 9
TYPE BRICK	LENGTH TELEVISED 19'	TYPE PRECAST

STATION	COMMENTS
0+00	CB-6. BEGIN RUN. 1460 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 1470 FEET ON VIDEO TAPE #1.
0+05	JOINT. CAN BE INTERNALLY REPAIRED. 500 GPD FLOW FROM DEFECT. 1480. 1.
0+07	JOINT. CAN BE INTERNALLY REPAIRED. 500 GPD FLOW FROM DEFECT. 1495 FEET ON VIDEO TAPE #1.
0+19	CHANGE OF DIRECTION. 45 DEGREE BEND TO RIGHT, END INTERNAL INSPECTION. COULD NOT PASS WITH CAMERA. REVERSED THE SET-UP. 1550 FEET ON VIDEO TAPE #1.

full of debris

lots of water where from ?

AR202437

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/27/89
ENGINEER'S JOB NO. 26592.000

MH NO CB-6 STA. 0+00 — PIPE-LENGTH 99',SIZE 18",TYPE RCP — MH NO CB-7

TELEVISING

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	2500
ESTIMATED FLOW AFTER INSPECTION	2500
TOTAL NO. OF JOINTS LEAKING	2
TOTAL FLOW FROM LEAKING JOINTS	1000
TOTAL NO. OF MAINLINE CRACKS	0
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	0

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO CB-7 STA 0+00 — PIPE-LENGTH 99', SIZE 18", TYPE RCP — MH NO. CB-6

TELEVISING

DOWNSTREAM MH	TV INSPECTION UNIT #49	UPSTREAM MH
DEPTH 9	OPERATOR WEC	DEPTH 5
TYPE PRECAST	LENGTH TELEVISED 80'	TYPE BRICK

STATION	COMMENTS
0+00	CB-7. BEGIN RUN. 1555 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 1570 FEET ON VIDEO TAPE #1.
0+03	10 O'CLOCK SERVICE CONNECTION. CUT-IN. 2 INCH PROTRUSION. 500 GPD FLOW FROM CONNECTION. 1600 FEET ON VIDEO TAPE #1.
0+05	MULTIPLE CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 1645 FEET ON VIDEO TAPE #1.
0+07	CRACKED PIPE AT JOINT. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 1674 FEET ON VIDEO TAPE #1.
0+20	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 1730 FEET ON VIDEO TAPE #1.
0+22	JOINT. LINEAR CRACK. PIECES MISSING. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 1769 FEET ON VIDEO TAPE #1.
0+24	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 1820 FEET ON VIDEO TAPE #1.
0+29	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 1875 FEET ON VIDEO TAPE #1.
0+30	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 1890 FEET ON VIDEO TAPE #1.

AR202439

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO CB-7 STA 0+00 — PIPE-LENGTH 99',SIZE 18",TYPE RCP — MH NO CB-6

TELEVISING

STATION	COMMENTS
0+32	CRACKED PIPE AT JOINT. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 1930 FEET ON VIDEO TAPE #1.
0+43	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 1975 FEET ON VIDEO TAPE #1.
0+46	MULTIPLE CRACK. PIECES MISSING. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 2007 FEET ON VIDEO TAPE #1.
0+50	CRACKED PIPE AT JOINT. SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 2045 FEET ON VIDEO TAPE #1.
0+80	COULD NOT PASS WITH CAMERA. 45 DEGREE BEND TO LEFT, SAME POINT AS ENCOUNTERED ON PREVIOUS SET-UP, END INTERNAL INSPECTION. 2187 FEET ON VIDEO TAPE #1.

debris, possible shear crack at joint

joint leaks
54', 58', 60', 64', 68', 71'

AR202440

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO. CB-7 STA 0+00 — PIPE-LENGTH 99',SIZE 18",TYPE RCP — MH NO. CB-6

TELEVISING

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	2500
ESTIMATED FLOW AFTER INSPECTION	2500
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	11
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	1
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	1
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	500
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	8

AR202441

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/11/89
ENGINEER'S JOB NO. 26592.000

MH NO CB-7 STA 0+00 — PIPE-LENGTH 102', SIZE 12", TYPE RCP — MH NO CB-8

TELEVISING

DOWNSTREAM MH — TV INSPECTION UNIT #49 — UPSTREAM MH
DEPTH 9 — OPERATOR WEC
TYPE PRECAST — LENGTH TELEVISED 102'

POOR picture quality
poor sound quality

STATION	COMMENTS
0+00	CB-7. BEGIN RUN. 2215 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 2225 FEET ON VIDEO TAPE #1.
0+03	LINEAR CRACK. SHEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 2232 FEET ON VIDEO TAPE #1.
0+34	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 2335 FEET ON VIDEO TAPE #1.
0+30	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 2389 FEET ON VIDEO TAPE #1.
0+38	LINEAR CRACK. SHEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 2427 FEET ON VIDEO TAPE #1.
0+41	BEGIN LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 2463 FEET ON VIDEO TAPE #1.
0+42	END LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 2495 FEET ON VIDEO TAPE #1.
0+46	shear crack LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 2556 FEET ON VIDEO TAPE #1.
0+53	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 2630 FEET ON VIDEO TAPE #1. evidence of infiltration

dirty pipe

clean pipe

beginning of debris

32

* debris

AR202442

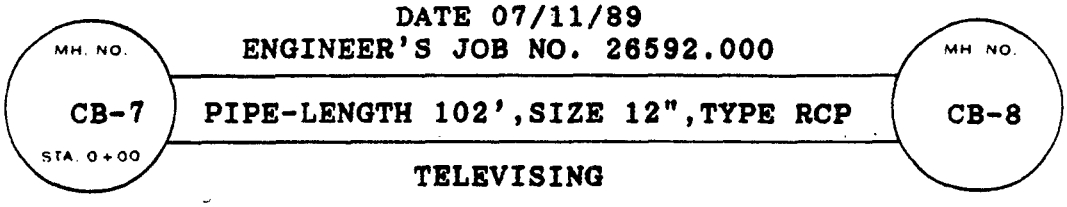
GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/11/89
ENGINEER'S JOB NO. 26592.000



TELEVISING

STATION	COMMENTS
0+56	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 2660 FEET ON VIDEO TAPE #1.
0+60	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 2703 FEET ON VIDEO TAPE #1.
0+62	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 2740 FEET ON VIDEO TAPE #1.
0+77	JOINT. SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 2100 GPD FLOW FROM DEFECTS. 2940 FEET ON VIDEO TAPE #1.
0+80	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 3003 FEET ON VIDEO TAPE #1.
0+86	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 3050 FEET ON VIDEO TAPE #1.
0+88	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 3082 FEET ON VIDEO TAPE #1.
1+00	END PIPE. 3141 FEET ON VIDEO TAPE #1.
1+02	CB-8. END RUN, RUN CONSISTS OF TWO-FOOT PIPE SECTIONS, CB-8 IS BURIED. 3160 FEET ON VIDEO TAPE #1.

AR202443

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/11/89
ENGINEER'S JOB NO. 26592.000

MH NO. CB-7 STA 0+00 — PIPE-LENGTH 102', SIZE 12", TYPE RCP — MH NO. CB-8

TELEVISING

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	2100
ESTIMATED FLOW AFTER INSPECTION	2100
TOTAL NO. OF JOINTS LEAKING	1
TOTAL FLOW FROM LEAKING JOINTS	2100
TOTAL NO. OF MAINLINE CRACKS	14
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	12

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO CB-7 STA 0+00 — PIPE-LENGTH 156', SIZE 18", TYPE RCP — MH. NO. 5

TELEVISING

DOWNSTREAM MH	TV INSPECTION UNIT #49	UPSTREAM MH
DEPTH 9	OPERATOR WEC	DEPTH 6
TYPE PRECAST	LENGTH TELEVISED 156'	TYPE BLOCK

STATION	COMMENTS
0+00	CB-7. BEGIN RUN. 3162 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 3175 FEET ON VIDEO TAPE #1.
0+03	CRACKED PIPE AT SERVICE CONNECTION. SHEAR CRACK. 3 O'CLOCK SERVICE CONNECTION. WYE OR TEE. 0 GPD FLOW FROM CONNECTION. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 3199 FEET ON VIDEO TAPE #1.
0+55	CRACKED PIPE AT JOINT. LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 3330 FEET ON VIDEO TAPE #1.
0+61	CRACKED PIPE AT JOINT. LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 3366 FEET ON VIDEO TAPE #1.
0+71	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 3399 FEET ON VIDEO TAPE #1.
0+93	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 3461 FEET ON VIDEO TAPE #1.
1+00	CRACKED PIPE AT JOINT. LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 3497 FEET ON VIDEO TAPE #1.
1+05	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 3517 FEET ON VIDEO TAPE #1.

Linear crack? → 8"

106 Shear 90°

AR202445

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO. CB-7 STA 0+00 — PIPE-LENGTH 156', SIZE 18", TYPE RCP — MH NO. 5

TELEVISING

STATION	COMMENTS
1+09	12 O'CLOCK SERVICE CONNECTION. CUT-IN. 2 INCH PROTRUSION. 50 GPD FLOW FROM CONNECTION. DRIPPING SLIGHTLY. 3542 FEET ON VIDEO TAPE #1.
1+49	CRACKED PIPE AT JOINT. LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 3743 FEET ON VIDEO TAPE #1.
1+54	END PIPE. 3940 FEET ON VIDEO TAPE #1.
1+56	MANHOLE 5. END RUN, RUN CONSISTS OF TWO-FOOT PIPE SECTIONS. 3952 FEET ON VIDEO TAPE #1.

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	1000
ESTIMATED FLOW AFTER INSPECTION	1000
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	8
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	2
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	1
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	50
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	6

AR202446

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH. NO. 5 STA 0+00 — PIPE-LENGTH 67', SIZE 18", TYPE RCP — MH NO. CB-9

TELEVISING

DOWNSTREAM MH	TV INSPECTION UNIT #49	UPSTREAM MH
DEPTH 6	OPERATOR WEC	DEPTH 5
TYPE BLOCK	LENGTH TELEVISED 67'	TYPE PRECAST

STATION	COMMENTS
0+00	MANHOLE 5. BEGIN RUN. 3955 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 3965 FEET ON VIDEO TAPE #1.
0+65	END PIPE. 4092 FEET ON VIDEO TAPE #1.
0+67	CB-9. END RUN. RUN CONSISTS OF THREE-FOOT PIPE SECTIONS. 4111 FEET ON VIDEO TAPE #1.

7 to 8' linear cracks 12.00

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	500
ESTIMATED FLOW AFTER INSPECTION	500
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	0
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	0

* linear crack 12.00 to 18' 46' shown
* joint leaks

AR202447

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO CB-7 STA 0+00 — PIPE-LENGTH 121', SIZE 18", TYPE RCP — MH NO 3

TELEVISING

UPSTREAM MH	TV INSPECTION UNIT #49	DOWNSTREAM MH
DEPTH 9	OPERATOR WEC	DEPTH 13
TYPE PRECAST	LENGTH TELEVISED 91'	TYPE BLOCK

STATION	COMMENTS
0+00	CB-7. BEGIN RUN. 4113 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 4123 FEET ON VIDEO TAPE #1.
0+03	MULTIPLE CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 4147 FEET ON VIDEO TAPE #1.
0+07	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 4160 FEET ON VIDEO TAPE #1.
0+09	CRACKED PIPE AT JOINT. LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 50 GPD FLOW FROM DEFECT. DRIPPING SLIGHLY. 4186 FEET ON VIDEO TAPE #1.
0+30	CRACKED PIPE AT JOINT. LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 50 GPD FLOW FROM DEFECT. DRIPPING SLIGHTLY 4336 FEET ON VIDEO TAPE #1.
0+37	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 50 GPD FLOW FROM DEFECT. DRIPPING SLIGHTLY. 4395 FEET ON VIDEO TAPE #1.
0+58	MULTIPLE CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 4510 FEET ON VIDEO TAPE #1.
0+66	MULTIPLE CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 4537 FEET ON VIDEO TAPE #1.
0+68	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 50 GPD FLOW FROM DEFECT. DRIPPING SLIGHTLY. 4586 FEET ON

AR202448

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO. CB-7 STA. 0+00 — PIPE-LENGTH 121',SIZE 18",TYPE RCP — MH. NO. 3

TELEVISING

STATION	COMMENTS
	VIDEO TAPE #1.
0+88	MODERATE ROOT PENETRATION. 0 GPD FLOW FROM DEFECT. 4704 FEET ON VIDEO TAPE #1.
0+91	COULD NOT PASS WITH CAMERA. CAMERA WILL NOT PASS DEBRIS IN LINE. REVERSED THE SET-UP. 4770 FEET ON VIDEO TAPE #1.

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	1500
ESTIMATED FLOW AFTER INSPECTION	1500
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	8
TOTAL NO. OF MAINLINE CRACKS LEAKING	4
TOTAL FLOW FROM LEAKING CRACKS	200
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	1
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	8

AR202449

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

PARKING LOT
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000

MH NO. 3 STA 0+00 — PIPE-LENGTH 121',SIZE 18",TYPE RCP — MH NO. CB-7

TELEVISING

DOWNSTREAM MH	TV INSPECTION UNIT #49	UPSTREAM MH
DEPTH 13	OPERATOR WEC	DEPTH 9
TYPE BLOCK	LENGTH TELEVISED 3'	TYPE PRECAST

STATION	COMMENTS
0+00	MANHOLE 3. BEGIN RUN. 4775 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 4785 FEET ON VIDEO TAPE #1.
0+03	COULD NOT PASS WITH CAMERA. UNABLE TO CONTINUE DUE TO SIX INCH PIPE INSIDE THE 18-INCH PIPE, END INSPECTION.

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	1500
ESTIMATED FLOW AFTER INSPECTION	1500
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	0
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	0

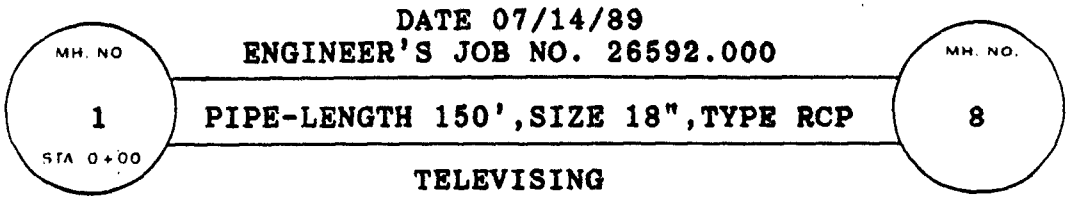
GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

RIVER ROAD
DATE 07/14/89
ENGINEER'S JOB NO. 26592.000



TELEVISING

DOWNSTREAM MH	TV INSPECTION UNIT #49	UPSTREAM MH
DEPTH 17	OPERATOR WEC	DEPTH 10
TYPE BLOCK	LENGTH TELEVISED 82'	TYPE BLOCK

STATION	COMMENTS
0+00	MANHOLE 1. BEGIN RUN. 4840 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 4850 FEET ON VIDEO TAPE #1.
0+08	CRACKED PIPE AT JOINT. MULTIPLE CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 4872 FEET ON VIDEO TAPE #1.
0+18	LINEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 4932 FEET ON VIDEO TAPE #1.
0+19	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 4948 FEET ON VIDEO TAPE #1.
0+22	LINEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 4964 FEET ON VIDEO TAPE #1.
0+24	SHEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 4975 FEET ON VIDEO TAPE #1.
0+29	LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 4995 FEET ON VIDEO TAPE #1.
0+35	MULTIPLE CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 5036 FEET ON VIDEO TAPE #1.
0+38	SHEAR CRACK. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 5053 FEET ON VIDEO TAPE #1.
0+55	SHEAR CRACK. 0 GPD FLOW FROM DEFECT. 5110 FEET ON

AR202451

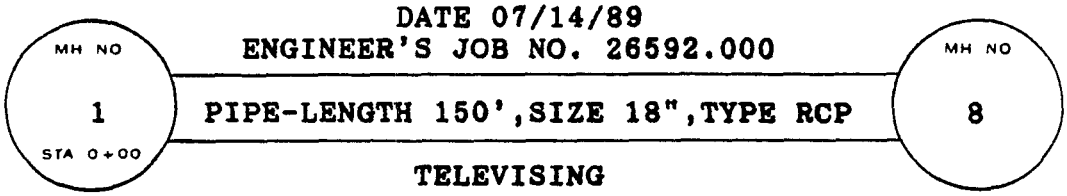
GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

RIVER ROAD
DATE 07/14/89
ENGINEER'S JOB NO. 26592.000



TELEVISING

STATION	COMMENTS
	VIDEO TAPE #1.
0+82	COULD NOT PASS WITH CAMERA. DEBRIS IN LINE. REVERSED THE SET-UP. 5330 FEET ON VIDEO TAPE #1.

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	1500
ESTIMATED FLOW AFTER INSPECTION	1500
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	9
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	3

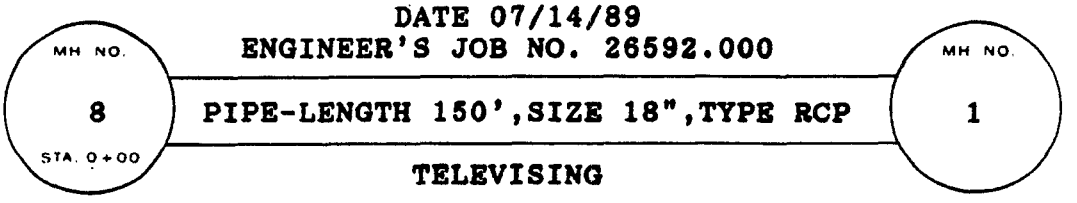
GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

RIVER ROAD
DATE 07/14/89
ENGINEER'S JOB NO. 26592.000



TELEVISING

UPSTREAM MH	TV INSPECTION UNIT #49	DOWNSTREAM MH
DEPTH 10	OPERATOR WEC	DEPTH 17
TYPE BLOCK	LENGTH TELEVISED 3'	TYPE BLOCK

STATION	COMMENTS
0+00	MANHOLE 8. BEGIN RUN. 5335 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 5345 FEET ON VIDEO TAPE #1.
0+03	CUT-IN. 10 INCH PROTRUSION. 0 GPD FLOW FROM CONNECTION. COULD NOT PASS WITH CAMERA. UNABLE TO TELEVISE DUE TO PROTRUDING CUT-IN SERVICE CONNECTION. 5368 FEET ON VIDEO TAPE #1.

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	1500
ESTIMATED FLOW AFTER INSPECTION	1500
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	0
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	1
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	0

AR202453

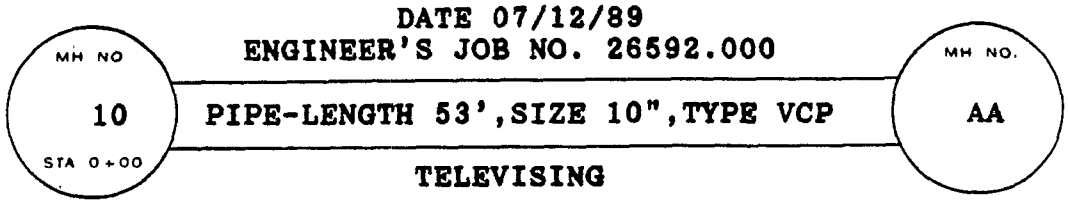
GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

RIVER ROAD
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000



TELEVISING

DOWNSTREAM MH — TV INSPECTION UNIT #49 — UPSTREAM MH
DEPTH 7 — OPERATOR WEC
TYPE BLOCK — LENGTH TELEVISED 53'

STATION	COMMENTS
0+00	MANHOLE 10. BEGIN RUN. 5455 FEET ON VIDEO TAPE #1.
0+02	BEGIN PIPE. 5465 FEET ON VIDEO TAPE #1.
0+05	BEGIN MULTIPLE CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 5490 FEET ON VIDEO TAPE #1.
0+07	CONTINUE MULTIPLE CRACK. REQUIRES EXTERNAL REPAIR. 5503 FEET ON VIDEO TAPE #1.
0+10	END MULTIPLE CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 5509 FEET ON VIDEO TAPE #1.
0+11	BEGIN LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 5511 FEET ON VIDEO TAPE #1.
0+18	END LINEAR CRACK. REQUIRES EXTERNAL REPAIR. 0 GPD FLOW FROM DEFECT. 5533 FEET ON VIDEO TAPE #1.
0+50	CRACKED PIPE AT JOINT. CAN BE INTERNALLY REPAIRED. 0 GPD FLOW FROM DEFECT. 5750 FEET ON VIDEO TAPE #1.
0+52	12 O'CLOCK SERVICE CONNECTION. WYE OR TEE. 0 GPD FLOW FROM CONNECTION. 5665 FEET ON VIDEO TAPE #1.

AR202454

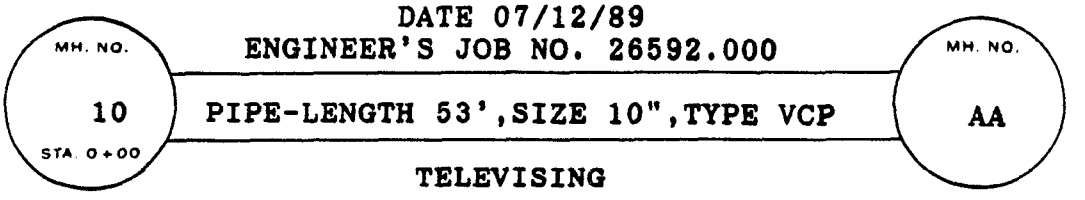
GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT

RIVER ROAD
DATE 07/12/89
ENGINEER'S JOB NO. 26592.000



TELEVISING

STATION	COMMENTS
0+53	AA. ENCOUNTERED A BULKHEAD, END OF INTERNAL INSPECTION. 5740 FEET ON VIDEO TAPE #1.

SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	12000
ESTIMATED FLOW AFTER INSPECTION	12000
TOTAL NO. OF JOINTS LEAKING	0
TOTAL FLOW FROM LEAKING JOINTS	0
TOTAL NO. OF MAINLINE CRACKS	6
TOTAL NO. OF MAINLINE CRACKS LEAKING	0
TOTAL FLOW FROM LEAKING CRACKS	0
TOTAL NO. OF SERVICE CONNECTIONS	1
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	0
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	0
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	0
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	5

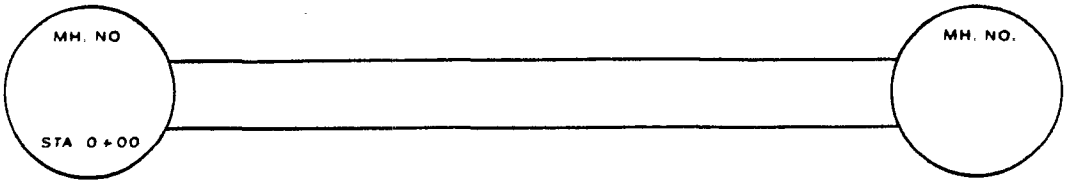
flow?

GANNETT FLEMING ENVIRONMENTAL ENGINEERS, INC.

ENGINEERS HARRISBURG, PENNSYLVANIA

CIBA-GEIGY CORPORATION

SEWER SYSTEM INTERNAL INSPECTION / REPAIR REPORT



CLIENT SUMMARY

ESTIMATED FLOW PRIOR TO INSPECTION	26100
ESTIMATED FLOW AFTER INSPECTION	26100
TOTAL NO. OF JOINTS LEAKING	3
TOTAL FLOW FROM LEAKING JOINTS	3100
TOTAL NO. OF MAINLINE CRACKS	59
TOTAL NO. OF MAINLINE CRACKS LEAKING	4
TOTAL FLOW FROM LEAKING CRACKS	200
TOTAL NO. OF SERVICE CONNECTIONS	4
TOTAL NO. OF LEAKING SERVICE CONNECTIONS	2
TOTAL FLOW FROM LEAKING SERVICE CONNECTIONS	550
TOTAL NO. OF LEAKING MANHOLES	0
TOTAL FLOW FROM LEAKING MANHOLES	0
TOTAL INCIDENTS OF ROOT PENETRATION	1
TOTAL NO. OF EXTERNAL REPAIRS REQUIRED	43
TOTAL PIPE LENGTH TELEVISED	879

Question 3

Provide a listing of all raw materials and chemicals used on the site.

Attachments

1) Chemical Inventory Printed by "Area Used" Category.

AR202457

Question 3

Provide a listing of all raw materials and chemicals used on the site.

Attachment

1) Chemical Inventory Printed by "Area Used" Category.

"AREA-USED" CATEGORIES

CHEMICAL - xxxx

A - MAINTENANCE	B - PRODUCTION	C - RESEARCH & DEV.
D - TECH SERVICES	E - CONTROL	F - HUMAN RES.
G - SH&E	H - PF&I	

ENTER APPROPRIATE ONE-LETTER CODE FOR EACH RELEVANT CATEGORY:

CIBA GEIGY -- CHEMICAL INVENTORY SYSTEM 02/17/90

CHEMICALS CONTAINING AREA-USED CODE B (PRODUCTION)

CHEMICAL NAME	CAS #	NIN #	A
ACETIC ACID, GLACIAL	64-19-7		
ACTIVATED CARBON DECOLORIZING	7440-44-0		
ADHESIVE NO. 520 (ARMSTRONG)		57	
AG-726 LATEX SEMI-GLOSS (MAHOGANY) (DRUM PAINT)		796	
AIRX 22 ODOR SPRAY		777	
AIRX 60 ODOR SPRAY		778	
ALCOHOL, USP		1207	
ALK. FLAT WALL PAINT-MAROON (DRUM PAINT)		797	
ALUMINUM SULFATE (DRY,LIQUID)	10043-01-3		
AMINOURACIL, 5- 98%	932-52-5		
AMYL ALCOHOL (N-PENTANOL)	71-41-0		
ANILINE	62-53-3		
ANILINOACRIDONE ,2-	75512-00-4		
ARQUAD 16-29	112-02-7		
ARQUAD 2C-75		11	
BASIC NICKEL CARBONATE	12607-70-4		
BEE & WASP KILLER 12oz.		823	
BEHOLD CLEANING POLISH		738	
BENZYLTRIBUTYLAMMONIUM CHLORIDE (BTBAC)	23616-79-7		
BETZ 429		68	
BETZ C-5P		67	
BETZ KI-2		66	
BETZ LIQUI-TREAT CL-12 SERIES		65	
BIMODE TONER-QH #8902-909	64742-48-9		
BLANCOL N DISPERSANT	9084-06-4		
BODY SHAMPOO		438	
BORAX (SODIUM TETRABORATE PENTAHYDRATE)	1330-43-4		
BORAX ANHYDROUS	1330-43-4		
BORAXO POWDERED HAND SOAP		1039	
BUCKEYE BLUE		64	
BUCKEYE WORKOUT WITH LIQUESCENT		1310	
CALCIUM CARBONATE, PRECIPITATED	471-34-1		
CALCIUM CHLORIDE, FLAKE	10035-04-8		
CALCIUM CHLORIDE, LIQUID	10043-52-4		
CARBOMETHOXY(2)-3-0 CHLOROANILINO-1,4-DIHYRO		1095	
CARBOMETHOXY(2)-3-ANILINO-1,4-DIHYDROACRIDONE		1096	
CARBOMETHOXY(2)-3-P-CHLOROANILINO-1,4-DIHYDRO		1097	
CARBOMETHOXY-3-P-TOLUIDINO-1,4-DIHYDROACRIDONE		1098	
CAUSTIC POTASH (POTASSIUM HYDROXIDE)	1310-58-3		
CAUSTIC SODA (SODIUM HYDROXIDE)	1310-73-2		
CHLOROANILINE O-	95-51-2		
CHLOROANILINE P-	106-47-8		
CITRO-SHIELD FURNITURE POLISH (AEROSOL)		128	
CLEANERS (SEE COMMENTS)		1072	
CLOCREAM SKIN CREAM (LTR STATING NON-HAZ)		1063	
COLLOID 0077-NP12		1315	
COMET		7	
COMPOUND QAAF SW86-488		291	
CROMOFINE MAGENTA 6891		297	
CYCLOHEXADIENE(1,4) 1,4-DICARBOXYLIC ACID, 2,5-DI		1099	
CYCLOHEXADIENE(1,4)-1,4-DICARBOXYLIC ACID, 2,5-BI		1100	

AR202460

CYCLOHEXANOL	108-93-0	
DA-70 FLOOR WAX STRIPPER		133
DAXAD 11 KLS	67828-14-2	
DBE-5	1119-40-0	
DC ANTIFOAM 1410 40# PAIL		1011
DEEP GOLD YT-815-D		294
DEODORANT GRANULES #6000		134
DIETHYL SUCCINATE 99%	123-25-1	
DIMETHYL SUCCINATE (DMS)	106-65-0	
DIMETHYLQUINACRIDONE 2,9	980-26-7	
DIPHENYL ETHER, DIPHENYL OXIDE	101-84-8	
DIPHENYLUREA, 1-3	102-07-8	
DISPERBYK-130		137
DISPERBYK-160		75
DOW CORNING ANTIFOAM H-10 EMULSION		798
DOW CORNING DB-110A ANTIFOAM EMULSION		16
DOWTHERM A		4
DOWTHERM G		5
DOWTHERM LF HEAT TRANSFER FLUID		3
DRESINATE X	61790-51-0	
ELVACITE 2046	9011-53-4	
ETHANOL	64-17-5	
ETHANOL SDA 3A, 200 PROOF		1210
ETHANOL, PURE 200 PROOF	64-17-5	1181
EXPERIMENTAL CABERNET (17/100C)		293
EXPERIMENTAL FAST GOLD 1973		1159
EXPERIMENTAL MAGENTA 1737		296
EXPERIMENTAL MAGENTA 1857		1068
EXPERIMENTAL MAGENTA 8507		298
EXPERIMENTAL POLYDIS EE1447		1019
EXPERIMENTAL RED 6/64A		300
EXPERIMENTAL RED B 1724		301
EXPERIMENTAL RED B 1725		1147
EXPERIMENTAL RED Y 6/18 B		302
EXPERIMENTAL RED Y 8615		303
EXPERIMENTAL RED Y 8616		304
EXPERIMENTAL RUSSET 1728		431
EXPERIMENTAL SCARLET 1738		305
EXPERIMENTAL VIOLET 1736		306
F-1 INSECTICIDE (AEROSOL)		142
F-6 GENERAL PURPOSE INSECTICIDE (AEROSOL)		246
FANTASTIC SPRAY CLEANER		119
FAST GOLD YT-915-D		307
FERRIC SESQUISULFATE	1310-45-8	
FERRIC SULFATE	10028-22-5	
FLOMO AJ-100	24938-91-8	
FLUORESCENT YELLOW 8501		308
FREON #12	75-71-8	
FREON #22	75-45-6	
FUEL OIL #2 (DIESEL FUEL #2)		2
FURNITURE POLISH #740503		144
GAMMA CRUDE		309
GO-JO HAND CLEANER		451
GOIN HOME HAND CLEANER		148
GOLD YT-823-D		310

AR202461

GREASES (SEE COMMENTS)		1071
HALOCARBON 56 OIL	9002-83-9	
HALOCARBON GREASE 25-55	9002-83-9	
HYDRAULIC OIL 9-32		249
HYDROFLUORIC ACID, 52%	7664-39-3	
HYDROXY-2-NAPHTHOIC ACID 98%,3- (LTR NON HAZ)		667
HYFLO SUPER-CEL	68855-54-9	
HYTRAN 41-AR		453
IGEPAL CO-210 SURFACTANT		80
IGEPAL CO-430 SURFACTANT	9016-45-9	
IGEPAL CO-997 SURFACTANT		81
IMPERSE MAGENTA XRW-453-P		313
IMPERSE RED B RW-768-P DISPERSION		311
ISOPAR M	64742-47-8	
ISOPROPYL ALCOHOL	67-63-0	
IWT A-244 ANION EXCHANGE RESIN		681
LIQUID PAPER CORRECTION FLUID		456
LOTION HAND SOAP		1225
LTS LOTION SOAP		156
LYSOL		927
M-95 TILE CLEANER		157
MAGENTA B RT-303-D		316
MAGENTA B RT-343-D		317
MAGENTA RT-235-D		318
MAGENTA RT-243-D		319
MAGENTA RT-298-P PRESSCAKE		320
MAGENTA XRT-100-D		321
MAGENTA XRT-353-D		322
MAGNESIUM SULFATE	7487-88-9	
MAGNIFLOC 870 A FLOCULANT		159
MANGANESE CARBONATE	598-62-9	
MAROON B RT-229-D		323
MAROON RT-209-D		324
MAROON RT-792-D		325
MCCALLS - ROACH & ANT KILLER		460
METHANOL	67-56-1	
METHYL ALCOHOL	67-56-1	
METHYLANILINE, N-	100-61-8	
MOLYBDENUS 1 REAGENT POWDER		1155
MOLYBDENUS 2 REAGENT		1154
MOLYVER 1 MOLYBDENUM REAGENT		807
MOLYVER 2		808
MOLYVER 3 MOLYBDENUM REAGENT		809
MONOSODIUM PHOSPHATE	7558-80-7	
MR-625 DEGREASER		566
MULTITHERM PG-1 HEAT TRANSFER FLUID	8020-83-5	
N-100 SLURRY		326
N-7000		327
N-7001		328
N-7002		329
N-7008		330
N-7026		331
N-7029		332
N-7030		333
N-7031		334

AR202462

N-7044	335
N-7045	336
N-7047	337
N-7088	338
N-7102	339
N-7103	340
N-7103 AQM	341
N-7104	342
N-7105	343
N-7106	344
N-7115	1148
N-7120	345
N-7126	346
N-7127	347
N-7132	348
N-7140	349
N-7147	350
N-7148	351
N-7150	1149
N-7158	352
N-7264	353
N-7310	354
N-7332	355
N-7340	356
N-7402-XOR-593	1167
N-7405-XOR-584	1238
N-7406	357
N-7415	358
N-7426	359
N-7427	1150
N-7448	360
N-7458	361
N-7500	362
N-7501	363
N-7502	364
N-7508	436
N-7511	365
N-7511 (WET)	366
N-7526	367
N-7529	368
N-7530	369
N-7531 (QAAF)	370
N-7544	371
N-7545	372
N-7547	373
N-7588	374
N-7609	375
N-7612	376
N-7631	377
N-7638	378
N-7643	379
N-7652	380
N-7654	381
N-7656	383
N-7657	384

AR202463

N-7657 A HT BETA		385
N-7740 AQUEOUS MILLED MAGENTA		880
N-7750		1060
N-7800-A		386
N-7910		387
N-7911		388
N-7927		389
N-7962		390
N.B. DEGREASER MMC-1307		803
NAPHTHENIC ACID	1338-24-5	
NATURAL GAS		108
NATURE SOL EMULSION		956
NAXONATE SX	1300-27-7	
NICKEL SULFATE	7786-81-4	
NITROGEN (LIQUID, GAS)	7727-37-9	
NIVEA CREAM		702
NUOSEPT 95 PRESERVATIVE		104
OILS (PETROLEUM) (SEE COMMENTS)		1073
ON AN' ON		767
OXYGEN	7782-44-7	
PARA-TOLUENE SULFONIC ACID		49
PARA-TOLUIDINE 99%	106-49-0	
PARAFORMALDEHYDE PRILLS, 95-97%	30525-89-4	
PENTANOL 1-	71-41-0	
PERCHLORIC ACID 50-72%	7601-90-3	
PERCHLORIC ACID N/10 IN GLACIAL ACETIC		92
PERCHLOROETHYLENE	127-18-4	
PERFORMAX 330 COOLING WATER TREATMENT		990
PHTHALIMIDE P-	85-41-6	
PLEDGE FURNITURE POLISH		575
POLYFON H	8061-51-6	
POTASSIUM HYDROXIDE SOLID	1310-58-3	
PRINCEP 80W	122-34-9	
PROCESS TARS		6
PROPANOL 1-	71-23-8	
PROPANOL 2-	67-63-0	
PROTOTYPE HAZ LIQUID		391
PROTOTYPE HAZ LIQUID 2		392
PROTOTYPE HAZ POWDER		393
PROTOTYPE NON LIQUID		394
PROTOTYPE NON POWDER		395
QA TARS		427
QUINACRIDONE QUINONE	1503-48-6	
QUINACRIDONE RED B		396
RAID HOUSE & GARDEN BUG KILLER		473
RECONSTITUTED BREATHING AIR		804
RECORDER INK 96S46		942
RED B RT-742-D		397
RED B RT-763-P PRESSCAKE		435
RED B RT-790-D		432
RED B RT-796-D		398
RED RT-236-D		399
RED RT-238-D		400
RED Y RT-359-D		401
RED Y RT-759-D		402

AR202464

RED Y RT-785-P		403
RED Y RT-859-D		404
RED Y RT-959-D		405
RENOWN		174
RENUZIT DISINFECTANT DEODORANT		479
ROACH & ANT KILLER ,031, (CLAIRE)		483
RT-200-D DIMETHYL CRUDE		1029
RUBICRON RED CRUDE		1226
SAFEGUARD DEODORANT SOAP		1083
SANI-FRESH RTU PINK LOTION HAND SOAP		1156
SANI-TUFF CLEANSER WITH GRIT		1157
SANOR CHEM LINE "X" SERIES		176
SCARLET RT-787-D		412
SCARLET RT-788-D		772
SCENE WINDOW CLEANER		490
SCOTCH IVI SPRAY 1602		178
SITOL, (M-NITROBENZENE SULFONIC ACID, SODIUM SALT)	127-68-4	
SOABAR MARKING INK #444603		946
SODIUM ACETATE, ANHYDROUS	127-09-3	
SODIUM BICARBONATE	144-55-8	
SODIUM CARBONATE	497-19-8	
SODIUM CHLORATE	7775-09-9	
SODIUM CHLORIDE	7647-14-5	
SODIUM HYDROXIDE SOLUTION	1310-73-2	
SODIUM METHYLATE	124-41-4	
SODIUM SULFATE	7757-82-6	
SODIUM SULFITE		947
SODIUM THIOSULFATE ANHYDROUS	7772-98-7	
SODIUM THIOSULFATE PENTAHYDRATE	10102-17-7	
SOUR-TEC	16893-85-9	
SPRAY NINE		784
SPRAYWAY BEE AND WASP KILLER		277
STANNIC CHLORIDE		498
STILL SLURRY 8621		1242
STYROCELL TYPE R-451		53
SUCCINYLSUCCINIC ACID, DIETHYL ESTER (SSE)		1123
SUCCINYLSUCCINIC ACID, ETHYL METHYL ESTER (SSE)		1125
SUCCINYSUCCINIC ACID, DIMETHYL ESTER (SSE)		1124
SULFURIC ACID	7664-93-9	
SURFYNOL 104 SURFACTANT	126-86-3	
SURFYNOL 104H		1182
TETRAPHENYLBORON SODIUM	143-66-8	
TEXO 127		197
TEXO LP 1033		196
TFL-50 DRY LUBRICANT		945
TFL-50 WET LUBRICANT		1276
THERMINOL VP-1 HEAT TRANSFER FLUID		54
THREE 3M BRAND A-101 SPRAY CLEANER		180
TOLUENESULFONIC ACID 93%	104-15-4	
TOLUIDINE-O	95-53-4	
TRANSPARENT RED B 1841		1028
TRANSPARENT RED B RT-233-D		407
TRANSPARENT RED B RT-273-D		408
TRANSPARENT RED B XRT-333-D		409
TRANSPARENT RED RT-246-P PRESSCAKE		410

AR202465

TRANSPARENT RED Y RT-218-D		411
TRIFLUOROACETIC ACID	76-05-1	
TRISODIUM PHOSPHATE	7601-54-9	
TRITON X-100	9036-19-5	
ULTRAFOAM CONCENTRATE		585
UNISPERSE RED B RW-768-D		413
UNISPERSE SCARLET RW-252-D		414
UNISPERSE VIOLET R RW-767-P		415
VANADIUM PENTOXIDE	1314-62-1	
VIOLET R RT-201-D		434
VIOLET R RT-301-D		417
VIOLET R RT-544-D		416
VIOLET R RT-791-D		418
VIOLET R RT-795-D		419
VIOLET R RT-795-NN		420
VIOLET R RT-887-D		421
VIOLET R RT-891-D		433
VIOLET R RT-899-D		422
VIOLET RT-231-D		423
VIOLET RT-297-D		424
WITCONATE 1240 SLURRY		1199
WITCONATE P-1059	26264-05-1	
WRICO DT-312		989
WRICO TQC		1030
YARMOR 302W PINE OIL		596
ZONILITE INDUSTRIAL VERMICULITE	1318-00-9	

CIBA GEIGY -- CHEMICAL INVENTORY SYSTEM 02/17/90

CHEMICALS CONTAINING AREA-USED CODE A (MAINTENANCE)

CHEMICAL NAME	CAS #	NIN #	A
A-100 FLAT LATEX HOUSE & TRIM PAINT		817	
A-94 B&D #51315 (HAMMER OIL)		543	
ACETANILIDE 97%	103-84-4		
ACETYLENE	74-86-2		
ACRYLIC HOUSE PAINT 231C		475	
ACTIVATED CARBON DECOLORIZING	7440-44-0		
ADHESIVE / SEALENT 262		813	
ADHESIVE NO. 520 (ARMSTRONG)		57	
AIC-HOM 11		1144	
AIR ZERO GRADE		920	
AIRCOSIL FLUX #12, #18		61	
AIRX 22 ODOR SPRAY		777	
AIRX 60 ODOR SPRAY		778	
ALL-PURPOSE SILICON LUBE TM-2898		121	
ALL-STATE CUTTING ELECTRODE		645	
ALPENCO LENS CLEANER AND ANTIFOG		719	
ALPENCO MYSTIC SHEEN		720	
ALUMINUM ALLOY SERIES 1000-7000		223	
AMERGY 5400 PLUS (TM) FUEL OIL TREATMENT		1041	
AMMONIA ABSORBER FILTER		546	
AMSCO SOLV 1435	64742-95-6		
AMWAY LOC		547	
AQUA AMMONIA SOLUTION #2		25	

AR202466

ARALDITE AV 1253		26
ARALDITE AV 1258		122
ARALDITE AV 8504		27
ARALDITE AW 106		28
ARGON	7440-37-1	
ASBESTO-WET		739
ATOM ARC COVERED LOW HYDROGEN ELECTRODES		123
AUTO MIX SYRINGE		822
B.F. GOODRICH #4 CEMENT		1145
BEE & WASP KILLER 12oz.		823
BEHOLD CLEANING POLISH		738
BERKEBILE 2+2 GUM CUTTER		548
BERYLLIUM COPPER		224
BESTOIL		714
BIMODE TONER-QH #8902-909	64742-48-9	
BL-15 CELL FLUID		737
BODY SHAMPOO		438
BOND-AID A&B		124
BORAXO POWDERED HAND SOAP		1039
BOWL CLEANER		1044
BRAZING ALLOYS		439
BTLM 817	9003-08-1	
BUCKEYE BLUE		64
C-420 GERMICIDAL DETERGENT		826
C-460 FLOOR CONDITIONER		126
C-490 COMMERCIAL NONDULLING FLOOR FINISH		127
CADOX M-50		29
CALCOMP CLEANER CL58		1268

CALCOMP REPLENISHER RP58SY		1272
CALCOMP REPLENISHER RP58B		1269
CALCOMP REPLENISHER RP58SC		1270
CALCOMP REPLENISHER RP58SM		1271
CALCOMP TONER TCM-58		1277
CARBOMASTIC #3 PART A 010162A		440
CARBOMASTIC #3 PART B 010162B		441
CARBOMASTIC 14 PART A		735
CARBOMASTIC 14 PART B		736
CARBOMASTIC THINNER		734
CARBON & ALLOY STEELS AISI/SAE GRADES 10XX THRU 93XX		225
CATALYZED SULFITE(TM) CORROSION INHIBITOR		220
CENTARI ACRYLIC ENAMEL 700A, 706A, 710A, 732A, 756A		549
CENTARI ACRYLIC ENAMEL 935 AC095 (SILVER MET)		97
CHARGETTE STARTING FLUID		226
CITRASPERSE (SOLVENT CLEANER)		733
CITRO-SHIELD FURNITURE POLISH (AEROSOL)		128
CLASS I FOAM SEALANT		239
CLEAN SLICK/CLEAN LUBE (AEROSOL)		843
CLEANER CL-51 (ISOPAR L)		1134
CLEANERS (SEE COMMENTS)		1072
CLEAR SILICONE		1204
CLOCREAM SKIN CREAM (LTR STATING NON-HAZ)		1063
CLOVER SILICON CARBIDE GREASE MIX		129
CLOVER SILICON CARBIDE PAT-GEL		1129
CO CONTACT CLEANER(AEROSOL) #2015,2016#		31
COMET		7
COMPRESSED AIR		33
CONCRETE NEUTRALIZER - CLEANER		130
CONDUCTIVITY SOLUTION 2500 UMHOS	7647-14-5	
CONOCO GEAR OILS		227
CONOCO SUPER HYDRAULIC OIL 32		228
CONTACT CLEANER (AEROSOL)#3070		131
CONTAX HP 16 oz. AEROSOL		710
COPPER/COPPER ALLOYS		229
CORLAR / IMLAR-2 THINNER		914
CORROGEN		72
CRC 2-26(MOISTURE REPELLANT AND LUBRICANT AEROSOL)		443
CRC 3-36 (MULTIPURPOSE CLEANER AEROSOL) #3005		444
CUTTING OIL (OSBORN) TM-793		132
CYLINDER OIL 1000, 00624 650T		35
D.A. TORQUE FLUID		10
DA-70 FLOOR WAX STRIPPER		133
DAP VINYL SPACKLING (INTERIOR)		1177
DAP WELDWOOD CARPENTER GLUE		1101
DAP WOOD DOUGH		1102
DASH PATCH (MIXWAX)		1178
DEVELOPER 3080		1252
DIESEL FUEL #1,#1 FUEL OIL		662
DIESEL FUEL #2, #2 FUEL OIL		663
DISSOLV		732
DOW CORNING 340 HEAT SINK COMPOUND		445
DOW CORNING HIGH VACUUM GREASE		814
DRY IMAGER 3080		1251
DRY INK U-MAG, 5018/5028		1253

AR202468

DTM ACRYLIC GLOSS COATING B6XX (NON LEAD ONLY)		1136
DUCO CEMENT		1105
DUPONT DULUX #354-Y-797 ALUMINUM		231
DUPONT DULUX #96-Y-23665 PRECAUTION BLUE		230
DUPONT DULUX #96-Y-23666 SAFETY GREEN		232
DUPONT DULUX #96-Y-67633 SHALE GRAY		234
DUPONT DULUX #96-Y-67637 CIRRUS GRAY		235
DUPONT DULUX #96-Y-67638 FALLS BLUE		233
DUPONT DULUX #96-Y-67639 TERRA GREEN		236
DUPONT FOA-2 (FUEL OIL ADDITIVE #2)		117
DUPONT PAINT & VARNISH REMOVER #999		118
DUST MOP/DUST CLOTH TREATMENT (AEROSOL)		138
DYKEM STEEL BLUE DX-100		446
EASY-ARC 7018		76
EASY-ARC 7024 ELECTRODES		555
ENGINE STARTING FLUID (AEROSOL)		237
EP GREASE 2		905
EPOXY 907 TWO PART ADHESIVE PART A		1318
EPOXY 907 TWO PART ADHESIVE PART B	37189-83-6	
EPOXY ATLAC WELDKIT PART A		1320
EPOXY ATLAC WELDKIT PART B		1319
EPOXY PRIMER MASTIC GREY 5256		238
EPOXY PRIMER MASTIC GREY 5257		146
EPOXY WELD KIT PART "A" & "B"		213
EUROCLEAN PUMP OIL		904
EVERCLEAR CLEANING BAR		840
EZ WELD PIPE CLEANER		139
EZ WELD PVC CEMENT		140
F-1 INSECTICIDE (AEROSOL)		142
F-6 GENERAL PURPOSE INSECTICIDE (AEROSOL)		246
FANTASTIC SPRAY CLEANER		119
FAST 'N FINAL SPACKLING		1170
FASTWELD 10 HARDENER		41
FASTWELD 10 RESIN		42
FEL-PRO C5-A HIGH TEMPERATURE		556
FEL-PRO C5-A HIGH TEMPERATURE ANTISIEZE COMPOUND AEROSO		557
FEL-PRO HPS (HIGH PERFORMANCE SEALER) #51112		1209
FIRE RESISTIVE LAGGING ADHESIVE		965
FLAMMABLE PAINTS, LACQUERS & RESINS (SEE COMMENTS)		1070
FLOOR SEALER ACRYLIC 13% SOLIDS		288
FLOOR SEALER ACRYLIC 20%		289
FLOURESCEIN (URANINE)	2321-07-5	
FLUOROLUBE OILS AND GREASES	9002-83-9	
FORETELL NEVER RINSE		449
FORM-A-GASKET #2 (PERMETEX)		711
FOUNDATION COATING (DEL-VAL)		1022
FOXBORO INK 1500		558
FOXBORO INK 1800		559
FREON #12	75-71-8	
FREON #22	75-45-6	
FREON 500		77
FREON 502		78
FUEL OIL #6		665
FUREX 770		731
FURNITURE POLISH #740503		144

AR202469

FUSER AGENT		1274
FYRQUEL LT		1
GALVITE PAINT, WHITE		815
GARAGE TANK		1237
GASOLINE		86
GEAR OIL 320		248
GENERAL PURPOSE ALKALINE, HIGH DETERGENT, CLEANER SSI-5		1211
GENERAL PURPOSE ALKALINE, HIGH DETERGENT, CLEANER SSI-5		1212
GERM-0-SOLVE 2		709
GLADE AIR FRESHENER		79
GLASS CLEANER		708
GLID - GUARD PRIMER NO. 5205 SERIES		147
GLYPTAL #120, INSULATING PAINT		450
GO-JO HAND CLEANER		451
GO-JO ORIGINAL FORMULA		452
GOIN HOME HAND CLEANER		148
GP SPINDLE OIL 15		666
GRAPHITE #205	7782-42-5	
GREASES (SEE COMMENTS)		1071
GRIME GRABBER FORMULA II		149
HABCOOL #318 TAPPING TOOL		561
HARDENER HV 1253		44
HARDENER HV 1258		45
HARDENER HV 8504		46
HARDENER HV 953		43
HARDNESS BUFFER CODE 291		150
HARDNESS INDICATOR CODE 290		151
HARDNESS TITRATING SOLUTION CODE 292		152
HAVOLINE SUPREME SAE 10W-40		968
HEAVY DUTY BLOCK FILLER		1130
HELSMAN SPAR URETHANE SEMI GLOSS		91
HI-STRENGTH L/F WHITE CENTARI TINT ENAMEL 700 A		98
HYDRAULIC OIL 9-32		249
HYDROGEN	1333-74-0	
HYTRAN 41-AR		453
IM-1060 METAL COAT PAINT		154
IMPAX DETERGENT		562
IMRON POLYURETHANE ENAMEL ACTIVATER VG-Y-511		250
INDUSTRIAL ENAMEL NON-LEAD COLORS		251
INSTANT ADHESIVE		730
KARMEX HERBICIDE		757
KBS SEALBAGS		1023
KEM KROMIK METAL PRIMER, WHITE		253
KENDALL ALL SUPER-D III MOTOR OIL, ALLSAE GRADES		1038
KENDALL DEXRON II AUTOMATIC TRANSMISSION FLUID		290
KENDALL SUPER BLU-GREASE L-427		972
KENDALL SUPERB 100 MOTOR OIL,ALL SAE GRADES		971
KEYSTONE 122-C5X GREASE		902
KEYSTONE MASONRY CEMENTS		1051
KLEENKUT 6222		282
KLINGFAST SPECIAL MEDIUM		8
KOOL KUT / KOOL TOOL (CUTTING FLUID)		455
KROIL		563
KRYLON 1322 OPEN GEAR LUBRICANT		706
KRYLON ALL-PURPOSE SILICONE SPRAY		801

AR202470

KRYLON CRYSTAL CLEAR SPRAY COATING		800
KRYLON INT./EXT. ENAMEL		1009
KRYLON INT/EXT ENEMAL OR ENGINE COLOR		799
KRYLON SPRAY PAINT 1501-2504		1036
KRYLON SPRAY PRIMER		255
L.P. LSI STAIN REMOVER		1042
LACO BRITE REGULAR FLUX LIQUID		854
LATEX FLAT PAINT		1035
LATEX HOUSE PAINT 8911		705
LATEX METAL PRIMER (BROWN)		256
LEAK-TEC		257
LECTRA CLEAN (AEROSOL) #02018,02018T		93
LECTRO-PLUS SOLDER		729
LENMAR SPRAY BOOTH COATING		925
LIFT-OFF SPECIAL NONBUTYL		703
LIQUID ICE MACHINE CLEANER		454
LIQUID PAPER CORRECTION FLUID		456
LO-SHUN		155
LOCKS NUTS ADHESIVE		458
LOCKS NUTS REMOVABLE THREADLOCKER		974
LOTION HAND SOAP		1225
LP-100 DISHWASHING DETERGENT		704
LTS LOTION SOAP		156
LUBRI-PACK HEAVY DUTY PACKING		763
LUCITE HOUSE & TRIM PAINT - FLAT		459
LYSOL		927
M-95 TILE CLEANER		157
MAGNESIUM SULFATE	7487-88-9	
MAJESTIC STAINLESS STEEL POLISH		457
MC 1309 EXCELLENCE		158
MCCALLS - ROACH & ANT KILLER		460
MEGA QUICK SYRINGE		728
MEGA STEEL STICK		727
MEGA TECH BRUSHABLE WEAR RESISTANT COATING		1216
MERIAN 100 RED UNITY OIL		461
METANIL YELLOW (TECHN.)	587-98-4	
MINERAL SPIRITS REGULAR	64741-41-9	
MISTY ACCUR-SPRAY WASP & HORNET KILLER		462
MIXED ALCOHOLS SS4120 (SILICON PRIMER)		463
MOBIL VELOCITE OIL NO. 10		583
MOBILITH AW-1		1296
MOLY GREASE NO.613		464
MS-180 FREON TF SOLVENT		102
MS-190 FLUX REMOVER		103
MS-230 CONTACT RE-NU		270
MS-240 QUIK-FREEZE	75-71-8	
MS-266 EN STAT STATIC ELIMINATER		726
MULE KICK		684
MULTIFAK 2 INDUSTRIAL GREASE		259
MURALO EGGSHELL INTERIOR LATEX VINYL ACRYLIC PAINT		567
MURALO LATEX HIGH GLOSS ENAMEL 1700 SERIES		568
MURALO LATEX ULTIMATE MID-GLOSS HOUSE AND TRIM PAINT		569
MURALO SUPER FINISH LATEX S.G. 700 LINE		570
MURALO VINYL ACRYLIC LATEX INTERIOR FLAT		571
NATURAL GAS		108

AR202471

NATURE SOL 100		1153
NATURE SOL EMULSION		956
NC-123 AEROSOL & LIQUID WATER SEALER		802
NCC SLUDGE SOLVENT (NUTMEG FUEL OIL ADDITIVE)		262
NITROGEN (LIQUID, GAS)	7727-37-9	
NIVEA CREAM		702
NOKORODE SOLDERING PASTE		977
NORPLEX 1 & 2		9
NORTEK PE HIGH TEMP OIL		1261
OAKITE 131		465
OILS (PETROLEUM) (SEE COMMENTS)		1073
ON AN' ON		767
OVERKOTE PART A		724
OVERKOTE PART B		725
OXYGEN	7782-44-7	
PARAFFIN OIL	8012-95-1	
PARAPLEX G-62	8013-07-8	
PARKER-O-LUBE		264
PATCH AND BOND FOR WOOD 43131		281
PATCH AND BOND II 45335		280
PATGEL (ABRASIVE FUID)		574
PEERLESS CUTTING OIL 0977		1004
PENA-PENETROX COMPOUND		468
PENS WL2, WL3', WL4 & WL5		1052
PHENOLINE 302 PART A		980
PHENOLINE 302/314 B		981
PHOSVER 3 PHOSPHATE REAGENT		1031
PIPE JOINT COMPOUND #80044,80045		470
PLASTIC PIPE & FITTING CLEANER		935
PLEDGE FURNITURE POLISH		575
PLIOBOND 20 ADHESIVE		471
POLYMER 1125L		265
POLYPAINT		933
POLYURETHANE		979
POLYURETHANE ACTIVATOR		934
POLYURETHANE FLOOR ENAMEL G-35 A-33 SERIES		172
PREMIUM AW FLUIDS (HYDRAULIC FLUID)		168
PREMIUM MULTIPURPOSE 1 & 2		1256
PRESTONE II ANTIFREEZE/COOLANT		266
PRINCEP 80W	122-34-9	
PRO-MAR ALKYD EG-SHEL ENAMEL CODES B33W 100-103		171
PRO-MAR LATEX WALL PAINT SEALER COAT B28W1		169
PROMAR 400 LATEX SEMI-GLOSS ENAMEL		170
PROPANE	74-98-6	
PROPRIETARY SOLVENT FORMULA III		576
PURGE METERED FRESH AIR 7 OZ		173
PVC & CPVC PRIMER		1161
PVC BELOW ZERO CLEAR CEMENT		1162
PVC CEMENT CLEAR HEAVY DUTY		534
PVC CEMENT CLEAR MEDIUM		577
PVC CEMENT GRAY		1047
PVC PRIMER		1045
PYDRAUL 29E FIRE RESISTANT HYDRAULIC FLUID		165
QUICKSTIR AMINE ACTIVATED EPOXY		426
QUIK KOTE ALUMINUM		816

AR202472

RAID HOUSE & GARDEN BUG KILLER		473
REAGENT #730		578
REAGENT #731		701
RECONSTITUTED BREATHING AIR		804
RECORDER INK 96S46		942
RECTOR SEAL #5		476
RED URETHANE SEAL COAT (AEROSOL & BULK) CRC		477
REFERENCE ELECTRODE FILLING SOLUTION		984
RENOWN		174
RENUZIT DISINFECTANT DEODORANT		479
REPLENISHER RP-55		1135
REXLUBE #310		480
REXLUBE #330		481
REXTHANE POLYURETHANE VARNISH		1020
RIDGID DARK THREAD CUTTING OIL		96
RIDGID NU-CLEAR CUTTING OIL		34
RIO INK CONDITIONER		482
ROACH & ANT KILLER ,031, (CLAIRE)		483
ROBROY DARK GRAY VINYL #5736		1012
RTV 108 ADHESIVE SEALENT		486
RTV 31 SILICONE RUBBER COMPOUND		579
RTV 60 SILICONE RUBBER		580
RTV 88 SILICONE RUBBER		581
RTV-102 SILICONE RUBBER ADHESIVE SEALER		484
RTV-103 SILICONE RUBBER ADHESIVE SEALER		485
SAFE STEP ICE MELTER w/KCL		1021
SAFEGUARD DEODORANT SOAP		1083
SAFETY SOLVENT		175
SAKRETE BLACKTOP PATCH		994
SANI-FRESH. RTU PINK LOTION HAND SOAP		1156
SANI-TUFF CLEANSER WITH GRIT		1157
SANOR CHEM LINE "X" SERIES		176
SARGENT WELCH, DUOSEAL HIGH VACUUM PUMP OIL	64742-65-0	
SAV A BRUSH CLEANER		582
SC-200 INDUSTRIAL CLEANER		177
SCENE WINDOW CLEANER		490
SCOTCH DEGREASER #1606		179
SCOTCH IVI SPRAY 1602		178
SEALING CEMENT #33 POWDER		489
SEALING CEMENT - NO. 33S		1202
SEVIN BRAND 50MC CARBARYL INSECICIDE	63-25-2	
SEVIN BRAND 80S CARBARYL INSECICIDE	63-25-2	
SEYMOUR GREENE HAMMER FINISH		182
SHELL HVI 170 NEUTRAL	64742-54-7	
SHELLAC , CLEAR #5 CUT		493
SHINE-UP (LIQUID)		190
SHINE-UP (PRESSURIZED)		183
SHINELINE MULTI-SURFACE CLEANER		1311
SILICONE CLEAR PRESSURE PK802		1200
SILICONE POLYMER IN SOLVENT SS4004		494
SILICONE PRIMER MIXTURE SS4155		1005
SILICONE PRIMER SS4044		495
SILITE RTV SILICON-CLEAR, WHITE ,HIGH TEMP. RED		496
SILVER-BRITE ALUMINUM PAINT B59511		279
SITOL, (M-NITROBENZENE SULFONIC ACID, SODIUM SALT)	127-68-4	

AR202473

SLIMICIDE 508		184
SOABAR MARKING INK #444603		946
SOUR-TEC	16893-85-9	
SPECIFIC CONDUCTANCE CALIBRATION SOL. (LTR NON-HAZ)		690
SPRAY NINE		784
SPRAYWAY BEE AND WASP KILLER		277
SPRED ULTRA PRIMER SEALER 5111		986
STAINLESS 20CB-3 (METAL LIGHT GREEN PAINT)		863
STAINLESS OIL AAA	8042-47-5	
STAINLESS STEEL CLEANER + POLISH (3M)		185
STANNOUS CHLORIDE	10025-69-1	
STAY CLEAN SOLDERING FLUX		499
STED CONTROLLED SUDS DETERGENT		500
STEEL 19Cr - 9Ni (LTR U.S. NON HAZ)		1084
STEEL GRADES		268
STONHARD PRIMER 01310		187
STP OIL TREATMENT		188
STYLE 370 CARBON YARN PACKING		189
SUN SPIRITS (AMOS SOL.1005)	64742-48-9	
SUNDEX 8600 T	64742-04-7	
SUNNYSIDE (FLOOR FINISH)		786
SUNTHENE 5600	64742-52-5	
SUPER DUTY CLEANSER WITH GRIT		1206
SUPER STA-GREASE (ALL GRADES)		691
SWEEPING COMPOUND OIL BASE NEVA DRI		466
SYNTHO-GLASS		948
TANK & STRUCTURAL PRIMER RED 5205		987
TAP TOOL #9106		501
TAPMATIC CUTTING FLUID #1		1230
TEFLON AEROSOL WET LUBRICANT		474
TEFLON DRY LUBRICANT AEROSOL		191
TFL-50 DRY LUBRICANT		945
TFL-50 WET LUBRICANT		1276
THERMASTIC (WET & DRY) AIR SET MASTIC	1332-58-7	
THOMPSON'S WATER SEAL BRAND WATERPROOFING FORMULA		1049
THOMPSON'S WOOD PROTECTER		1050
THREAD RENEW		1217
THREAD RENEW - RELEASE AGENT		1218
THREE 3M BRAND A-101 SPRAY CLEANER		180
TILE KLENZ		988
TITRATING SOLUTION CODE 1235		199
TONER FOR RP503, 505, 509		1131
TONER TN-55 (ISOPAR H)		1133
TRIPLE EXPANDING POLYUETHANE FOAM		805
TROUBLE SHOOTER (3M)		203
TURBINE OILS 68		692
TYGON R-3603		1054
ULTIMATE FLAT EXTERIOR 100% ACRYLIC HOUSE PAINT		586
UNITED SUPER HEAVY DUTY BRAKE FLUID		587
URSA OIL EXTRA DUTY SAE 30		589
USED LUBRICATING OIL		806
VELPAR HERBICIDE		590
VINYL STRIPPABLE COATING #8040		503
W.E.S. 509 DETERGENT		952
WALSEAL #2		591

AR202474

WASP STOPPER		205
WATER BASED FINISHES #310-Y-5101		208
WATERPLUG		206
WAVICIDE -01 2%		209
WAX TAPE #2		14
WD-40 AEROSOL		504
WEATHER PERFECT LATEX FLAT HOUSE & TRIM PAINT		210
WELD-ON 711 SOLVENT		699
WELD-ON 717 FOR PLASTIC PVC PIPE		505
WELDFAST 220 PART A		592
WELDFAST CL-200,PART A		211
WELDFAST CL-200,PART B		212
WELDING CONSUMABLES/STEEL RODS		593
WELDING WIRE AND ROD		594
WHITE L/F IMRON URETHANE ENAMEL		269
WOOD FINISH COLONIAL MAPLE #223 (MINWAX)		216
WOOD FINISH WALNUT #224 (MINWAX)		215
WRICO 13-A		696
WRICO BTC-304 CORROSION INHIBITOR		217
WRICO D-4503		697
WRICO D-6238		698
WRICO DCF INDUSTRIAL MICROBICIDE		218
WRICO J-3043		595
WRICO NA-500		219
WRICO ZC-830		1075
XYLENES,MIXED A.C.S. REAGENT		222
ZEROX ANTIFREEZE		953
ZONILITE INDUSTRIAL VERMICULITE	1318-00-9	

CIBA GEIGY -- CHEMICAL INVENTORY SYSTEM 02/17/90

CHEMICALS CONTAINING AREA-USED CODE C (RESEARCH & DEV.)

CHEMICAL NAME	CAS #	NIN #	A
A-C 316 ... 680 HOMOPOLYMERS	68441-17-8		
A-C 540, 540A, 580, 5120 COPOLYMERS	9010-77-9		
ACACIA (GUM ARABIC)	9000-01-5		
ACETIC ACID, SODIUM SALT, ANHYDROUS, 99% ACS REAGENT	127-09-3		
ACETIC ANHYDRIDE ACS REAGENT	108-24-7		
ACETOACETANILIDE, 98%	102-01-2		
ACETOACETANISIDE O-(ALDRICH LTR NON-HAZ)	92-15-9		
ACETONE	67-64-1		
ACETONITRILE	75-05-8		
ACETONITRILE, 99%, 2-(DIETHYLAMINO)	3010-02-4		
ACETYL 3-, -2,4-DIHYDROXYCHINOLIN R&D TSCA EXEMPT MAT'L		1143	
ACETYL CHLORIDE 98%	75-36-5		
ACETYLSULFANILYL CHLORIDE, N- 98%	121-60-8		
ACRIDINE 99%	260-94-6		
ACRIDONE, 9-(10h)99%	578-95-0		
ACTISIL BLEACHING EARTHS	70131-50-9		
ACTIVATED CARBON DECOLORIZING	7440-44-0		
ADHESIVE NO. 520 (ARMSTRONG)		57	
ADOGEN 340	67701-00-2		
ADOGEN 364 SURFACTANT	68814-95-9		
AEROSIL R-812V	68909-20-6		

AR202475

AEROSIL, 200	7631-86-9	
AEROSOL AY-65 65%		881
AEROSOL OT-70 PG SURFACTANT		716
AEROSOL OT-75% SURFACTANT		717
AEROSOL OT-S SURFACTANT		718
AIRX 22 ODOR SPRAY		777
AIRX 60 ODOR SPRAY		778
ALCOHOL, USP		1207
ALCONOX		545
ALIQUAT 336		1053
ALKANOL DOA, ACN		1092
ALUMINA (ALUMINUM OXIDE)	1344-28-1	
ALUMINUM CHLORIDE	7446-70-0	
ALUMINUM CHLORIDE (ANHYDROUS)	7446-70-0	
ALUMINUM HYDROXIDE	21645-51-2	
ALUMINUM NITRATE	13473-90-0	
ALUMINUM OTHER THAN POWDER	7429-90-5	
ALUMINUM POTASSIUM SULFATE DODECHYDRATE 98+%, ACS REAGE	7784-24-9	
ALUMINUM SULFATE (DRY,LIQUID)	10043-01-3	
AMBERLITE 252 RESIN		883
AMBERLYST 15 RESIN		882
AMBERYLST A-21		957
AMINO, 2-, 4,5 DICHLOROBENZENESULFONIC ACID		1093
AMINO-2-CHLOROBENZOIC ACID 5-, TECH. 85%	89-54-3	
AMINO-4'-METHYLBENZOPHENONE 2-, 99%	36192-63-9	
AMINO-4-CHLOROBENZOIC ACID 3-,98%	2840-28-0	
AMINO-4-METHYLBENZOPHENONE 2-,99%	4937-62-6	
AMINO-5-CHLOROBENZOPHENONE 2-, 98%	719-59-5	
AMINOACETOPHENONE 2'-, 99%	551-93-9	
AMINOANTHRAQUINONE 1-, 97%	82-45-1	

AMINOBENZAMIDE 4-,98%	2835-68-9	
AMINOBENZOIC ACID 3-,98%	99-05-8	
AMINOBENZOIC ACID 4-,99%	150-13-0	
AMINOBENZONITRILE, 4-	873-74-5	
AMINOBENZOPHENONE, 2-	2835-77-0	
AMINOBENZOPHENONE, 4- 98%	1137-41-3	
AMINOBENZOPHENONE-2'-CARBOXYLIC ACID 2- LTR NON-HAZ		997
AMINOBIPHENYL 4-,98%	92-67-1	
AMINOCROTONAMIDE B-	15846-25-0	
AMINODIPHENYLAMINE P-	101-54-2	
AMINOETHYLAMINO 2-, (2-ETHANOL)	111-41-1	
AMINOPHENOL 4-,98+%	123-30-8	
AMINOPHENOL O-	95-55-6	
AMINOPHENYL ETHER 4-	101-80-4	
AMINOPYRIDINE 3-, 99%	462-08-8	
AMINOPYRIDINE 4-, 98%	504-24-5	
AMINOTEREPHTHALIC ACID	10312-55-7	
AMINOTHIAZOLE 2-	96-50-4	
AMMONIUM ACETATE 98%	631-61-8	
AMMONIUM BIFLUORIDE	1341-49-7	
AMMONIUM BISULFITE SOLUTION 45%		721
AMMONIUM CARBONATE	506-87-6	
AMMONIUM CHLORIDE	12125-02-9	
AMMONIUM CHROMATE	7788-98-9	
AMMONIUM CITRATE,DIBASIC	3012-65-5	
AMMONIUM DICHROMATE	7789-09-5	
AMMONIUM HYDROXIDE	1336-21-6	
AMMONIUM METAVANADATE	7803-55-6	
AMMONIUM MOLYBDATE	13106-76-8	
AMMONIUM NITRATE	6484-52-2	
AMMONIUM OXALATE	14258-49-2	
AMMONIUM OXALATE, MONOHYDRATE	6009-70-7	
AMMONIUM PEROXYDISULFATE	7727-54-0	
AMMONIUM PHOSPHATE	7722-76-1	
AMMONIUM PHOSPHATE (DIBASIC)	7783-28-0	
AMMONIUM SULFATE	7783-20-2	
AMMONIUM THIOCYANATE	1762-95-4	
AMP-95 (N-173-D)		512
AMYL ALCOHOL (N-PENTANOL)	71-41-0	
ANILINE	62-53-3	
ANILINE HYDROCHLORIDE	142-04-1	
ANILINOACRIDONE ,2-	75512-00-4	
ANISIDINE O-,99+%	90-04-0	
ANISIDINE P-,99%	104-94-9	
ANTHRANILAMIDE LTR FM ALDRICH NON-HAZ		998
ANTHRANILIC ACID 98+%	118-92-3	
ANTHRANILONITRILE, 98%	1885-29-6	
ANTHRAQUINONE	84-65-1	
ANTIMONY	7440-36-0	
ANTIMONY POTASSIUM TARTRATE	28300-74-5	
ANTIMONY TRICHLORIDE	10025-91-9	
ANTIMONY TRIOXIDE	1309-64-4	
ARMEEN DMHTD	61788-95-2	
ARQUAD 12-50		112
ARQUAD 16-29	112-02-7	

AR202477

ARQUAD 16-50		13
ARQUAD 18-50		113
ARQUAD 2C-75		11
ARQUAD 2HT-75		111
ARQUAD 2HT-MS-100		110
ARQUAD T-50		114
ARSENIC TRIOXIDE	1327-53-3	
BARIUM CARBONATE	513-77-9	
BARIUM CHLORIDE	10361-37-2	
BARIUM SULFATE	7727-43-7	
BASIC NICKEL CARBONATE	12607-70-4	
BATH WAX	8001-29-4	
BEE & WASP KILLER 12oz.		823
BEHOLD CLEANING POLISH		738
BENZALDEHYDE	100-52-7	
BENZALDEHYDE P-(DIMETHYLAMINO)	100-10-7	
BENZENESULFONIC ACID TECH., 90%	7664-93-9	
BENZENETETRACARBOXYLIC DIANHYDRIDE 1,2,4,5- 97%	89-32-7	
BENZETHONIUM CHLORIDE, 97%	121-54-0	
BENZOIC ACID	65-85-0	
BENZOIC ANHYDRIDE, 98%	93-97-0	
BENZONITRILE 99%	100-47-0	
BENZOYL CHLORIDE, 99%	98-88-4	
BENZYL ALCOHOL, ANHYDROUS	100-51-6	
BENZYL CHLORIDE	100-44-7	
BENZYLANILINE 2-,99+%	28059-64-5	
BENZYLTRIBUTYLAMMONIUM CHLORIDE (BTBAC)	23616-79-7	
BENZYLTRIMETHYLAMMONIUM CHLORIDE 97%	56-93-9	
BENZYLTRIMETHYLAMMONIUM HYROXIDE	100-85-6	
BIMODE TONER-QH #8902-909	64742-48-9	
BIO-SOFT S-100		1203
BIPHENYL	92-52-4	
BLANC FIXE 136 F & 136 N GRADES		1001
BLANCOL N DISPERSANT	9084-06-4	
BODY SHAMPOO		438
BORAX (SODIUM TETRABORATE PENTAHYDRATE)	1330-43-4	
BORAX ANHYDROUS	1330-43-4	
BORAXO POWDERED HAND SOAP		1039
BORIC ACID	10043-35-3	
BORON	7440-42-8	
BPDAS (3,4,3',4'-BIPHENYLTETRACARBOXYLIC DIANHYDRIDE)		125
BROMINE	7726-95-6	
BROMOPHENOL BLUE, WATER SOLUBLE A.C.S. REAGENT	62625-28-9	
BTDA (BENZOPHONE TETRACARBOXYLIC DIANHYD.3,3',4,4')	2421-28-5	
BUFF 10404		825
BUFFER SOLUTIONS PH 1		1179
BUFFER SOLUTIONS PH 3-5		89
BUFFER SOLUTIONS PH 6-8		1067
BUFFER SOLUTIONS PH 9-11		88
BURNT REFRACTORY (70% A1203) (LTR FM U.S. NON-HAZ)		748
BUTANETHIOL, 1-, 99%	109-79-5	
BUTANOL 1-, 99%	71-36-3	
BUTANOL 1-,ANHYDROUS 99+%	71-36-3	
BUTANOL-2-(+/-),ANHYDROUS,99+%	15892-23-6	
BUTANOL-ISO, (METHYL,1-PROPANOL,2 ANHYDROUS)	78-83-1	

AR202478

BUTYL ACETATE 99%	123-86-4	
BUTYL CARBITOL ACETATE	124-17-4	
CAF ADDITIVE PRESSCAKE		749
CALCIUM CARBONATE, PRECIPITATED	471-34-1	
CALCIUM CHLORIDE, FLAKE	10035-04-8	
CALCIUM CHLORIDE, LIQUID	10043-52-4	
CALCIUM HYDROXIDE	1305-62-0	
CALCIUM STEARATE	1592-23-0	
CARBANILIDE 98%	102-07-8	
CARBETHOXY-5-PHENYL-PYRROLIN-2-ONE-4-ENE,4-		1094
CARBETHOXYCYCLOHEXANONE 2-	1655-07-8	
CARBOMETHOXYPROPIONYL,3- CHLORIDE, 98%	1490-25-1	
CARBON DIOXIDE (GAS)	124-38-9	
CARBON STEELS -(BOH .6C) (LTR FM U.S. NON HAZ)		750
CARBON TETRACHLORIDE	56-23-5	
CARBOSET 531		115
CARBOSET XL-11		70
CARBOSET XL27		30
CARBOSET XPD 1012		116
CARBOWAX POLYETHYLENE GLYCOL 200	25322-68-3	
CARBOWAX POLYETHYLENE GLYCOL 400	25322-68-3	
CAUSTIC POTASH (POTASSIUM HYDROXIDE)	1310-58-3	
CAUSTIC SODA (SODIUM HYDROXIDE)	1310-73-2	
CAUSTIC SODA ANHYDROUS (SODIUM HYDROXIDE DRY)	1310-73-2	
CELITE 503	68855-54-9	
CERIC AMMONIUM SULFATE DIHYDRATE	10378-47-9	
CERIUM (IV) SULFATE	13590-82-4	
CESIUM CHLORIDE	7647-17-8	
CHIMASSORB 944 FL		1283
CHLORINE	7782-50-5	
CHLORO, 3- -2 BUTANONE, 98%	4091-39-8	
CHLORO-1,2-PHENYLENEDIAMINE 4-, 97%	95-83-0	
CHLORO-5-FLUORO-1,2-DIAMINOBENZENE, 4-		1032
CHLOROACETAMIDE 2-,98%	79-07-2	
CHLOROACETANILIDE P- (LTR FM ALDRICH NON-HAZ		1024
CHLOROACETIC ACID	79-11-8	
CHLOROACETIC ACID 99%	79-11-8	
CHLOROANILINE 2-, 98%	95-51-2*	
CHLOROANILINE 3-, 99%	108-42-9	
CHLOROANILINE 4-,98%	106-47-8	
CHLOROANILINE P-	106-47-8	
CHLOROBENZOIC ACID, 4- 99%	74-11-3	
CHLOROBENZOYL CHLORIDE, 4- 99%	122-01-0	
CHLOROFORM	67-66-3	
CHLORONAPHTHALENE 1-,99%	90-13-1	
CHLOROPHENYL ISOCYANATE 4-, 98%	104-12-1	
CHLOROSULFONIC ACID, 99%	7790-94-5	
CHROMIC CHLORIDE	10025-73-7	
CHROMIC POTASSIUM SULFATE, DODECAHYDRATE	7788-99-0	
CHROMIUM	7440-47-3	
CHROMIUM (III) OXIDE	1308-38-9	
CHROMOSORB WHP 100/120		272
CITRIC ACID	77-92-9	
CITRO-SHIELD FURNITURE POLISH (AEROSOL)		128
CLOCREAM SKIN CREAM (LTR STATING NON-HAZ)		1063

AR202479

COBALT (II) ACETATE TETRAHYDRATE	6147-53-1	
COBALT CHLORIDE, HEXAHYDRATE	7791-13-1	
COBALT NITRATE HEXAHYDRATE	10026-22-9	
COBALTOUS ACETATE	71-48-7	
COBALTOUS SULFATE, HEPTAHYDRATE	10026-24-1	
COLLODION	9004-70-0	
COMET		7
COMPOUND QAAF SW86-488		291
COPPER	7440-50-8	
CORVIC CL 4317		32
COUMARANONE, 3-	7169-34-8	
CROMOFINE MAGENTA 6891		297
CUPRIC ACETATE, ANHYDROUS	142-71-2	
CUPRIC CHLORIDE	1344-67-8	
CUPRIC NITRATE TRIHYDRATE	10031-43-3	
CUPRIC SULFATE	7758-98-7	
CUPRIC SULFATE CRYSTAL	7758-98-7	
CUPROUS CHLORIDE	7758-89-6	
CYANOACETAMIDE	107-91-5	
CYCLOHEXANOL	108-93-0	
CYCLOHEXANONE	108-94-1	
CYCLOHEXYL-2-PYRROLIDONE,N-	6837-24-7	
CYCLOHEXYLAMINE	108-91-8	
CYCOLAC ABS POLYMER PELLETS	9003-56-9	
DA-70 FLOOR WAX STRIPPER		133
DAIHAN CARMINE 4B-338Y		1193
DAVISON BLUE INDICATING GEL		835
DBE (DIBASIC ESTER)		36
DBE-3 (DIBASIC ESTER -3)		73
DBE-5	1119-40-0	
DBE-5 (DIBASIC ESTER -5)	1119-40-0	
DBE-9 (DIBASIC ESTER -9)		74
DECANOYL CHLORIDE	122-13-0	
DEEP GOLD YT-815-D		294
DEHYDROABIEYLAMINE	1446-61-3	
DEOXYBENZOIN		1275
DERTOPOLINE G		56
DIACETONE ALCOHOL	123-42-2	
DIAMINO - TEREPHTHALATE 2,5-		1037
DIAMINOBENZIDINE 3,3, 99%	91-95-2	
DIAMMONIUM TARTRATE	3164-29-2	
DIAZABICYCLO 1,4-,(2,2,2) OCTANE 97%		38
DIBUTYL PHTHALATE	84-74-2	
DIBUTYL PHTHALATE,99+%. GOLD LABEL	84-74-2	
DIBUTYL SUBERATE :LTR FROM ALDRICH DTD 6/7 "NON-HAZ"		58
DICHLORO, 2, 5 - 1,4-PHENYLENEDIAMINE	20103-09-7	
DICHLOROANILINE 2,4	554-00-7	
DICHLOROANILINE, 2,3	608-27-5	
DICHLOROBENZENE O-, LIQUID	95-50-1	
DICHLOROBENZOIC ACID, 2,4	50-84-0	
DICHLOROBENZOIC ACID, 3-4, 99%	51-44-5	
DICYANOBENZENE 1,4-, 98%	623-26-7	
DIEMTHYL ACETYLSUCCINATE, (+/-)	10420-33-4	
DIETHANOLAMINE, DEA C5091	111-42-2	
DIETHYL OXALACETATE SODIUM SALT	52980-17-3	

AR202480

DIETHYL PHTHALATE	84-66-2	
DIETHYL SUCCINATE 99%	123-25-1	
DIETHYLENE GLYCOL	111-46-6	
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	
DIHYDROXY, 2-4 -6- METHYL PYRIMIDINE, 97%	626-48-2	
DIISOPROPYL SUCCINATE		1103
DIKETENE, 98%	674-82-8	
DIMETHOXYPROPANE 2,2- ,98%	77-76-9	
DIMETHYL -1, 4-PHENYLENEDIAMINE N,N, 97%	99-98-9	
DIMETHYL ACETYLENEDICARBOXYLATE 99%	762-42-5	
DIMETHYL GLYOXIME	95-45-4	
DIMETHYL SUCCINYLOSUCCINATE (DMSS)	6289-46-9	
DIMETHYL SULFATE 99%	77-78-1	
DIMETHYL SULFOXIDE	67-68-5	
DIMETHYL-1,2-PHENYLENEDIAMINE 4,5-, 99%	3171-45-7	
DIMETHYLAMINE	124-40-3	
DIMETHYLAMINO BENZALDEHYDE P-	100-10-7	
DIMETHYLAMINOPROPYLAMINE 3-, 99%	109-55-7	
DIMETHYLFORMAMIDE N,N-, 99%	68-12-2	
DIMETHYLPYRAZOLE,3,5,-1-1 METHANOL		1254
DIMETHYLTHIOFORMAMIDE N,N-,97%	758-16-7	
DINITROPHENYLHYDRAZINE 2,4	119-26-6	
DIPHENYL-P-PHENYLENEDIAMINE N,N	74-31-7	
DIPHENYLUREA, 1-3	102-07-8	
DIPROPYLENE GLYCOL METHYL ETHER 97% MIXTURE OF ISOMERS	101750-15-6	
DISPERBYK-130		137
DISPERBYK-160		75
DL 2,3-DIAMINOPROPIONIC ACID MONOHYDROCHLORIDE	54897-59-5	
DMAMP		551
DODECANEDIOL 1,2-,(+/-) 97%	1119-87-5	
DODECANETHIOL, 1-	112-55-0	
DODECYLANILINE	68411-48-3	
DODECYLANILINE 4-, 97%	104-42-7	
DOW CORNING (R) ANTIFOAM 1430		15
DOWANOL PMA GLYCOL ETHER ACETATE		40
DOWFAX 2A1 SOLUTION SURFACTANT		552
DOWFAX 3B2 SOLUTION SURFACTANT		553
DOWFAX 8390 SOLUTION SURFACTANT		554
DOWTHERM A		4
DRESINATE X	61790-51-0	
DUOQUAD T-50		1058
DUPONAL-C		1106
EDTA	64-02-8	
ELVACITE 2028		141
ELVACITE 2046	9011-53-4	
EMULSIFIER W		753
ETHANOL	64-17-5	
ETHANOL SDA 3A, 200 PROOF		1210
ETHANOL, PURE 200 PROOF	64-17-5	1181
ETHER, ABSOLUTE, A.C.S. REAGENT:(99.9%,HPLC GRADE)	60-29-7	
ETHOCEL E7		19
ETHOXYETHANOL 2-, 99%	110-80-5	
ETHYL 2-OXOCYCLOPENTANECAROXYLATE 97%	611-10-9	
ETHYL 3-AMINOCROTONATE	626-34-6	
ETHYL 4-AMINOBENZOATE, 98%	94-09-7	

AR202481

ETHYL ACETATE	141-78-6	
ETHYL ACETOACETATE 99%	141-97-9	
ETHYL BENZENE, ANHYDROUS 99%	100-41-1	
ETHYL BENZOYLACETATE,TECH. 98% (LTR NON HAZ)		664
ETHYL CARBANILATE	101-99-5	
ETHYL CELLULOSE	9004-57-3	
ETHYL CYCLOHEXANONE-2-CARBOXYLATE	1655-07-8	
ETHYL METHYL ETHER	540-67-0	
ETHYL PHENYLACETATE	101-97-3	
ETHYL SUCCINYL CHLORIDE, 96%	14794-31-1	
ETHYLENE GLYCOL	107-21-1	
ETHYLENE GLYCOL MONOMETHYL ETHER	109-86-4	
ETHYLENEDIAMINE	107-15-3	
ETHYLENEDIAMINETETRAACETIC ACID, DISODIUM SALT	139-33-3	
ETHYLHEXYL ACETATE 2-	103-09-3	
ETHYLPYRUVATE, 98%	617-35-6	
EXPERIMENTAL CABERNET (17/100C)		293
EXPERIMENTAL CABERNET 8621		292
EXPERIMENTAL FAST GOLD 1973		1159
EXPERIMENTAL GOLD 1844		295
EXPERIMENTAL MAGENTA 1737		296
EXPERIMENTAL MAGENTA 1857		1068
EXPERIMENTAL MAGENTA 8507		298
EXPERIMENTAL MAROON 1843		299
EXPERIMENTAL POLYDIS EE1447		1019
EXPERIMENTAL POLYDIS RA51.1		1018
EXPERIMENTAL RED 6/64A		300
EXPERIMENTAL RED B 1724		301
EXPERIMENTAL RED B 1725		1147
EXPERIMENTAL RED Y 6/18 B		302
EXPERIMENTAL RED Y 8615		303
EXPERIMENTAL RED Y 8616		304
EXPERIMENTAL RUSSET 1728		431
EXPERIMENTAL SCARLET 1738		305
EXPERIMENTAL VIOLET 1736		306
F-1 INSECTICIDE (AEROSOL)		142
F-6 GENERAL PURPOSE INSECTICIDE (AEROSOL)		246
FANTASTIC SPRAY CLEANER		119
FAST GOLD YT-915-D		307
FERRIC AMMONIUM SULFATE	7783-83-7	
FERRIC CHLORIDE	7705-08-0	
FERRIC OXIDE RED	1309-37-1	
FERRIC PYROPHOSPHATE	10058-44-3	
FERRIC SUBSULFATE SOLUTION	1310-45-8	
FERRIC SULFATE	10028-22-5	
FERROTITANIUM		1107
FERROTITANIUM (LOW CARBON)		1108
FERROUS AMONIUM SULFATE	7783-85-9	
FERROUS SULFATE	7782-63-0	
FILTRATE, 8615		1239
FILTRATE, 8621		1240
FLOMO AJ-100	24938-91-8	
FLOURESCEIN (URANINE)	2321-07-5	
FLUORO-1,2-DIAMINOBENZENE, 4-	367-31-7	
FLUROBENZOIC ACID, 99%	456-22-4	

AR202482

FORMAMIDE	75-12-7	
FORMIC ACID	64-18-6	
FURNITURE POLISH #740503		144
G-3300		1085
GAMMA CRUDE		309
GLASS CLEANER (AEROSOL)		145
GLUTARIC ACID	110-94-1	
GLYCERIN	56-81-5	
GO-JO HAND CLEANER		451
GOIN HOME HAND CLEANER		148
GOLD YT-823-D		310
HELIUM	7440-59-7	
HEPTANE	142-82-5	
HEPTANESULFONIC ACID SODIUM SALT 1-	22767-50-6	
HEPTANESULFONIC ACID-1 SODIUM SALT PREMIXED CONCENTRATE		1166
HEXADECANEDIOL 1,2-, TECH., 90%	6920-24-7	
HEXADECYLTRIBUTYLPHOSPHONIUM BROMIDE	14937-45-2	
HEXADIENE, 2-4	592-46-1	
HEXAMETHYLPHOSPHORAMIDE, 99%	680-31-9	
HEXANE	110-54-3	
HEXANE SULFONIC ACID 1-, SODIUM SALT	2832-45-3	
HEXANEDIOL 1,2- DL, 98+%	6920-22-5	
HEXANESULFONIC ACID-1 SODIUM SALT PREMIXED CONCENTRATE		1165
HEXANOYL CHLORIDE, 97%	142-61-0	
HEXYL CELLOSOLVE	112-25-4	
HEXYLENE GLYCOL	107-41-5	
HYDRANAL - COMPOSITE 2 (2-METHOXYETHANOL)		153
HYDRAZINE HYDRATE	10217-52-4	
HYDROCHLORIC ACID	7647-01-0	
HYDROFLUORIC ACID, 52%	7664-39-3	
HYDROFLUORIC ACID-ANHYDROUS	7664-39-3	
HYDROGEN PEROXIDE	7722-84-1	
HYDROXY, 4-, -4-METHYL-2-PENTANONE, 99%	123-42-2	
HYDROXY-2-NAPHTHOIC ACID 98%,3- (LTR NON HAZ)		667
HYDROXYLAMINE HYDROCHLORIDE	5470-11-1	
HYDROXYMETHYL PHTHALIMIDE N-, 97%	118-29-6	
HYDROXYMETHYL-N, -TRIFLUROACETAMIDE	50667-69-1	
HYDROXYMETHYL-N, 3,4,5,6- TETRAHYDROPHTHALIMIDE	4887-42-7	
HYDROXYMETHYLACETAMIDE	625-51-4	
HYDROXYMETHYLBENZAMIDE, N-	6282-02-6	
HYDROXYMETHYLNICOTINAMIDE, N-	3569-99-1	
HYPERMER PS2		1087
HYPERMER WSR		1086
IGEPAL CO-630 SURFACTANT	9016-45-9	
IGEPAL CO-710 SURFACTANT	9016-45-9	
IMIDAZOLEDICARBOXYLIC ACID, 97%	570-22-9	
IMPERSE MAGENTA XRW-453-P		313
IMPERSE RED B RW-768-P DISPERSION		311
INDICATING DRIERITE		779
INDIGO	482-89-3	
IODINE	7553-56-2	
IODOMETHANE, 99.5% GOLD LABEL	74-88-4	
IRGACOLOR YELLOW 14189A BV 220 B		1191
IRGACOLOR YELLOW 14237A BV 225		1190
IRGACOLOR YELLOW 14245A BV 221 B		1188

AR202483

IRGACOLOR YELLOW 14247A BV 223		1187
IRGANOX B 1171		1285
IRON	7439-89-6	
IRON SULFATE	7720-78-7	
ISATIN 98%	91-56-5	
ISATOIC ANHYDRIDE 96%	118-48-9	
ISOBUTYL ACETATE	110-19-0	
ISONICOTINIC ACID, 99%	55-22-1	
ISOOCTANE	540-84-1	
ISOPAR M	64742-47-8	
ISOPROPYL ALCOHOL	67-63-0	
KARL FISCHER REAGENT		252
KEROSENE	8008-20-6	
KRYLON INT/EXT ENEMAL OR ENGINE COLOR		799
KRYTOX OIL		758
KS F/O		1015
KSF		1016
LATEX PAINT BASE NO. 9390, 9396		565
LAURIC ACID 95%	143-07-7	
LAWESSON'S REAGENT 97%	19172-47-5	
LEAD	7439-92-1	
LEAD ACETATE TRIHYDRATE	6080-56-4	
LEAD CHLORIDE	7758-95-4	
LEAD OXIDE	1317-36-8	
LIQUID AQUEOUS SOLUTION 8/132 A		314
LIQUID AQUEOUS SOLUTION 8/132 B		315
LIQUID PAPER CORRECTION FLUID		456
LITHIUM CARBONATE	554-13-2	
LITHIUM CHLORIDE BRINE	7447-41-8	
LITHIUM FLUORIDE	7789-24-4	
LITHIUM HYDROXIDE	1310-65-2	
LOTION HAND SOAP		1225
LOW ALLOY STEEL, AISI 8620 (LTR FM U.S. NON-HAZ)		761
LOW BORON GLASS (BE 203 = .7%) (LTR FM U.S. NON-HAZ)		762
LTS LOTION SOAP		156
LUTONAL M40-50% AQUEOUS		1059
LYSOL		927
M-95 TILE CLEANER		157
MAGENTA B RT-303-D		316
MAGENTA B RT-343-D		317
MAGENTA RT-235-D		318
MAGENTA RT-243-D		319
MAGENTA RT-298-P PRESSCAKE		320
MAGENTA XRT-100-D		321
MAGENTA XRT-353-D		322
MAGNESIUM CARBONATE, BASIC	12125-28-9	
MAGNESIUM NITRATE	10377-60-3	
MAGNESIUM OXIDE	1309-48-4	
MAGNESIUM PERCHLORATE	10034-81-8	
MAGNESIUM PHOSPHATE, DIBASIC, TRIHYDRATE	7757-86-0	9
MAGNESIUM SULFATE	7487-88-9	
MAGNIFLOC 870 A FLOCULANT		159
MALEIC ANHYDRIDE BRIQUETTES	108-31-6	
MALONONITRILE	109-77-3	
MALONYL DICHLORIDE, 97%	1663-67-8	

AR202484

MANDELIC ACID	90-64-2	
MANGANESE CHLORIDE	7773-01-5	
MANGANESE(OUS) SULFATE (MANG. SULF. MONO.)	785-87-7	
MANGANOUS SULFATE MONOHYDRATE	10034-96-5	
MAROON B RT-229-D		323
MAROON RT-209-D		324
MAROON RT-792-D		325
MCCALLS - ROACH & ANT KILLER		460
MERCURIC CHLORIDE	7487-94-7	
MERCURIC OXIDE, SOLID	21908-53-2	
MERCURIC SULFATE	7783-35-9	
MERCURY	7439-97-6	
METHANESULFONIC ACID, 98%	75-75-2	
METHANOL	67-56-1	
METHOXY-2-NITROANILINE 4-,98%	96-96-8	
METHOXY-4,-1,2-PHENYLENEDIAMINE DIHYDROCHLORIDE, 98%	59548-39-9	
METHOXY-4-NITROANILINE,2 98%	97-52-9	
METHOXYBENZYL ALCOHOL, 4-	105-13-5	
METHOXYETHYL ETHER 2-, ANHYDROUS 99+%	111-96-6	
METHYL ACRYLATE, 99%	96-33-3	
METHYL ALCOHOL	67-56-1	
METHYL ANTHRANILATE, 99%	134-20-3	
METHYL BENZOATE, 99%	93-58-3	
METHYL CELLOSOLVE ACETATE	110-49-6	
METHYL ETHER, 99%	115-10-6	
METHYL ETHYL KETONE	78-93-3	
METHYL METHACRYLATE 99%	80-62-6	
METHYL PHENYLGLYOXALATE (BENZOYLFORMATE)	15206-55-0	
METHYL PURPLE INDICATOR		859
METHYL RED	493-52-7	
METHYL SULFOXIDE, 99+%	67-68-5	
METHYL VIOLET	8004-87-3	
METHYL-2-PROPANOL 2-, 99.5%	75-65-0	
METHYL-2-PYRROLIDINONE 1-	872-50-4	
METHYL-5-IMIDAZOLEMETHANOL HYDROCHLORIDE, 4-, 97%	38585-62-5	
METHYLANILINE, N-	100-61-8	
METHYLCAPROLACTAM N-, 99%	2556-73-2	
METHYLENE BLUE ZX		928
METHYLENE CHLORIDE	75-09-2	
METHYLIMIDAZOLE, 2-, 99%	693-98-1	
METHYLIMIDAZOLE, 2-, 99%	693-98-1	
METHYLNAPTHALENE 1-,98%	90-12-0	
METHYLNAPTHALENE 2-	91-57-6	
METHYLPYRROLIDONE N-	872-50-4	
METHYLTHIO BENZYL ALCOHOL 4-, 98%	3446-90-0	
MILL SLURRY, 8615		1247
MILL SLURRY, 8621		1249
MILL WASH, 8615		1248
MILL WASH, 8621		1243
MINERAL OIL	8020-83-5	
MINERAL OIL	8012-95-1	
MINERAL OIL (606= 6 X 10G)	8020-83-5	
MINERAL SPIRITS REGULAR	64741-41-9	
MOBILE COMPOUND #9200-1601C		1228
MOLECULAR SIEVE		860

AR202485

MOLYBDENUM REFERENCE STANDARD SOL.		975
MOLYBDIC ACID	7782-91-4	
MOLYBDIC ANHYDRIDE	1313-27-5	
MONOMETHYL SUCCINATE (LTR FM ALDRICH)	3878-55-5	
MONOSODIUM PHOSPHATE	7558-80-7	
MORPHOLINE,99+%,GOLD LABEL	110-91-8	
MORWET PETRO D-425 POWDER		105
MURIATIC ACID	7647-01-0	
MYRISTOYL CHLORIDE, 97%	112-64-1	
N-7000		327
N-7001		328
N-7002		329
N-7008		330
N-7026		331
N-7029		332
N-7030		333
N-7031		334
N-7044		335
N-7045		336
N-7047		337
N-7088		338
N-7102		339
N-7103		340
N-7104		342
N-7105		343
N-7106		344
N-7115		1148
N-7120		345
N-7126		346
N-7127		347
N-7132		348
N-7140		349
N-7147		350
N-7148		351
N-7150		1149
N-7158		352
N-7264		353
N-7310		354
N-7332		355
N-7340		356
N-7402-XOR-593		1167
N-7405-XOR-584		1238
N-7406		357
N-7415		358
N-7426		359
N-7427		1150
N-7448		360
N-7458		361
N-7500		362
N-7501		363
N-7502		364
N-7508		436
N-7511		365
N-7511 (WET)		366
N-7526		367

AR202486

N-7529		368
N-7530		369
N-7531 (QAAF)		370
N-7544		371
N-7545		372
N-7547		373
N-7588		374
N-7609		375
N-7612		376
N-7631		377
N-7638		378
N-7643		379
N-7652		380
N-7654		381
N-7656		383
N-7657		384
N-7657 A HT BETA		385
N-7740 AQUEOUS MILLED MAGENTA		880
N-7750		1060
N-7800-A		386
N-7910		387
N-7911		388
N-7927		389
N-7962		390
N1-(2-THIAZOLYL) SULFANILAMIDE, 98%	72-14-0	
NALCO 2300 ANTIFOAM		12
NAPHTALENEDISULPHONIC ACID, DISODIUM SALT 2,6-NONHA		1040
NAPHTHALENE	91-20-3	
NAPHTHALENETETRACARBOXYLIC DIANHYDRIDE 1,4,5,8-	81-30-1	
NAPHTHALIC ANHYDRIDE 1,8-	81-84-5	
NAPHTHENIC ACID	1338-24-5	
NAPHTHOL -3,6-DISULFONIC ACID, 2-	135-51-3	
NAR-COIL CLEANER		261
NATURAL GAS		108
NEO-DECANOIC ACID	26896-20-8	
NEODOL 25-12	68131-39-5	
NEODOL 45-13	68131-39-5	
NEODOL 91-8	68439-46-3	
NEOPENTYL ALCOHOL 99%	75-84-3	
NICKEL	7440-02-0	
NICKEL (II) ACETATE TETRAHYDRATE	6018-89-9	
NICKEL 2-ETHYLHEXANOATE	4454-16-4	
NICKEL ACETATE	373-02-4	
NICKEL CARBONATE		263
NICKEL NITRATE, HEXAHYDRATE	13478-00-7	
NICKEL OXIDE	1313-99-1	
NICKEL SULFATE	7786-81-4	
NICKEL, POWDER, -100 MESH, 99.99%	7440-02-0	
NICKELOUS CHLORIDE HEXAHYDRATE	7791-20-0	
NICOTINIC ACID	59-67-6	
NITRIC ACID	7697-37-2	
NITROANILINE P-	100-01-6	
NITROANTHRANILIC ACID 4-,97%	619-17-0	
NITROANTHRANILIC ACID, 5-	616-79-5	
NITROANTHRANILONITRILE 5-,97%	17420-30-3	

AR202487

NITROGEN (LIQUID, GAS)	7727-37-9	
NITROPHENOL 2-	88-75-5	
NIVEA CREAM		702
NOPCOSANT L		572
NOPCOSPERSE (R) 44		573
NUOSEPT 95 PRESERVATIVE		104
NUTSCH CAKE, 8615		1245
NUTSCH CAKE, 8621		1244
OCTADECYLAMINE	124-30-1	
OCTANESULFONIC ACID-1 SODIUM SALT PREMIXED CONCENTRATE		1164
OCTODECANOL 1-, 95%	112-92-5	
OCTYL ALCOHOL	111-87-5	
OCTYL N-, ALCOHOL	111-87-5	
OLEUM (SULFURIC ACID FUMING)	8014-95-7	
ON AN' ON		767
OV-1 (VINYL) SILICONE GUM	63148-62-9	
OXONE MONOSPERSULFATE	70693-62-8	
OXYGEN	7782-44-7	
PAINT ADDITIVE VH-1480,VH-1510,VH-1580		930
PALIOTOL YELLOW K2270		437
PALLADIUM IN GRAPHITE		768
PARA-TOLUENE SULFONIC ACID		49
PARA-TOLUIDINE 99%	106-49-0	
PARAFORMALDEHYDE PRILLS, 95-97%	30525-89-4	
PARAPLEX G-62	8013-07-8	
PCD-351 CAF ADDITIVE		892
PCD-501 25% CROMOPHTAL RED BRN		1241
PD3599 JSR 1939		1194
PD3701 AMM 117		1195
PENTALYN K SYNTHETIC RESIN	65997-12-8	
PENTANESULFONIC ACID SODIUM SALT PREMIXED CONCENTRATE		1163
PENTANOL 1-	71-41-0	
PERCHLORIC ACID 50-72%	7601-90-3	
PERCHLORIC ACID N/10 IN GLACIAL ACETIC		92
PERCHLOROETHYLENE	127-18-4	
PETROLEUM ETHER, A.C.S. REAGENT	8032-32-4	
PHENANTHROL, 9-	484-17-3	
PHENOL RED SOLUTION	34487-61-1	
PHENOXYACETYL CHLORIDE, 98%	701-99-5	
PHENYL ETHER - BIPHENYL EUTECTIC	8004-13-5	
PHENYL ETHER 99%	101-84-8	
PHENYL ISOCYANATE, 98+%	103-71-9	
PHENYL SUCCINATE N- (LTR FM COC STATING NON-HAZ		1006
PHENYLACETIC ACID, 99%	103-82-2	
PHENYLENEDIAMINE 1,2-, 98%	95-54-5	
PHENYLENEDIAMINE O-	95-54-5	
PHENYLHYDRAZINE, 97%	100-63-0	
PHENYLUREA (LTR FM ALDRICH NON HAZ)		1014
PHOSPHORIC ACID 105-117%	8017-16-1	
PHOSPHOROUS PENTOXIDE, 97%	1314-56-3	
PHTHALIC ANHYDRIDE	85-44-9	
PHTHALONITRILE O-		1118
PICOLINE 2-, 98%	109-06-8	
PICOLINE 4-, 99%	108-89-4	
PIGMENT RED 3067B		624

AR202488

PIGMENT RED 3098		626
PIGMENT RED 4013A		627
PIGMENT RED 7501 AL		1208
PIGMENT RED 767A		623
PIGMENT YELLOW 14101A BV 133		1192
PIGMENT YELLOW 14244A BV 142		1189
PIPERIDINE, 98%	110-89-4	
PIPERIDINEMETHONAL, 3-		1263
PLEDGE FURNITURE POLISH		575
PMDA (PYROMELLITIC DIANHYDRIDE)	89-32-7	
POLY(1,1-DIMETHYL-3,5-DIMETHYLENE PIPERIDINIUM CHLORIDE		769
POLY(ETHYLENE GLYCOL), AVERAGE M.W. 1000	25322-68-3	
POLY(ETHYLENIMINE),50 WT.% (LTR FM ALDRICH NO MSDS)		770
POLYGLYCOL E 200	25322-68-3	
POLYPHOSPHORIC ACID	8017-16-1	
POLYVINYLPYRROLIDINE	9003-39-8	
POTASSIUM	13455-21-5	
POTASSIUM ACETATE	127-08-2	
POTASSIUM ALUMINUM SULFATE, DODECAHYDRATE	7784-24-9	
POTASSIUM BICARBONATE	298-14-6	
POTASSIUM BIPHTHALATE	877-24-7*	
POTASSIUM BROMATE	7758-01-2	
POTASSIUM BROMIDE	7758-02-3	
POTASSIUM CARBONATE, SESQUIHYDRATE	6381-79-9	
POTASSIUM CHLORATE	3811-04-9	
POTASSIUM CHLORIDE	7447-40-7	
POTASSIUM CHROMATE	7789-00-6	
POTASSIUM DICHROMATE	7778-50-9	
POTASSIUM FERRICYANIDE	13746-66-2	
POTASSIUM FLUORIDE DIHYDRATE	13455-21-5	
POTASSIUM HYDROGEN PHTHALATE	877-24-7	
POTASSIUM HYDROXIDE SOLID	1310-58-3	
POTASSIUM IODATE	7758-05-6	
POTASSIUM IODIDE	7681-11-0	
POTASSIUM NITRATE	7757-79-1	
POTASSIUM PERIODATE	7790-21-8	
POTASSIUM PERMANGANATE 99% A.C.S. REAGENT	7722-64-7	
POTASSIUM PERSULFATE	7727-21-1	
POTASSIUM PHOSPHATE MONOBASIC	7778-77-0	
POTASSIUM PYROSULFATE	7790-62-7	
POTASSIUM SODIUM TARTRATE, 4-HYDRATE	6381-59-5	
POTASSIUM SULFATE	7778-80-5	
POTASSIUM TERT-BUTOXIDE 97%	865-47-4	
POTASSIUM TETRABORATE TETRAHYDRATE		879
POTASSIUM THIOCYANATE	333-20-0	
PRIMARY AMYL ALCOHOL		1066
PROPANOL 1-	71-23-8	
PROPANOL 1-, ANHYDROUS 99%	67-63-0	
PROPANOL 2-	67-63-0	
PROPANOL 2-, 99+% ACS REAGENT	67-63-0	
PROPIONIC ACID 99%	79-09-4	
PROPYLAMINE SOLUTION RCSE-1560		164
PROPYLENE GLYCOL	57-55-6	
PROTOTYPE HAZ LIQUID		391
PROTOTYPE HAZ LIQUID 2		392

AR202489

PROTOTYPE HAZ POWDER		393
PROTOTYPE NON LIQUID		394
PROTOTYPE NON POWDER		395
PYRAZOLIC ACID 4-	89-36-1	
PYRIDINE	110-86-1	
PYRIDINE-3-METHANOL	100-55-0	
PYRIDINE-4-METHANOL	586-95-8	
PYRIDINEDICARBOXIMIDE, 97%	4664-01-1	
QUINACRIDONE QUINONE	1503-48-6	
QUINACRIDONE RED B		396
QUINDO RED R-6719		983
QUINDO VIOLET RV-6909		773
QUINDO VIOLET RV-6911		774
QUINDO VIOLET RV-6926		50
QUINDO VIOLET RV-6945		51
RAID HOUSE & GARDEN BUG KILLER		473
RECORDER INK 96S46		942
RED B RT-742-D		397
RED B RT-763-P PRESSCAKE		435
RED B RT-790-D		432
RED B RT-796-D		398
RED RT-236-D		399
RED RT-238-D		400
RED Y RT-359-D		401
RED Y RT-759-D		402
RED Y RT-785-P		403
RED Y RT-859-D		404
RED Y RT-959-D		405
REFERENCE ELECTRODE FILLING SOLUTION		984
RENOWN		174
RENUZIT DISINFECTANT DEODORANT		479
RESEARCH YELLOW PD3425		1185
RESEARCH YELLOW R2644		1186
RESORCINOL 98%	108-46-3	
REVERSPERSE 180		1007
REVERSPERSE 280		1008
ROACH & ANT KILLER ,031, (CLAIRE)		483
ROCAL COMPOUND #9200-1603C		1227
RT-200-D DIMETHYL CRUDE		1029
RUBICRON RED 680 RGN		406
RUBRICRON RED 680 RGN		1152
SAFEGUARD DEODORANT SOAP		1083
SANI-FRESH RTU PINK LOTION HAND SOAP		1156
SANI-TUFF CLEANSER WITH GRIT		1157
SANOR CHEM LINE "X" SERIES		176
SARGENT WELCH, DUOSEAL HIGH VACUUM PUMP OIL	64742-65-0	
SCARLET RT-787-D		412
SCARLET RT-788-D		772
SCENE WINDOW CLEANER		490
SCOTCH IVI SPRAY 1602		178
SEBACIC ACID DIBUTYL ESTER GRADE II	109-43-3	
SEBACIC ACID, 99%	111-20-6	
SEMICARBAZIDE HYDROCHLORIDE,99+%	563-41-7	
SERIES IONIC STRENGTH ADJUSTOR 5M NaNO3, 94		775
SICO FAST RED L 3550 HD		985

AR202490

SILICA BRICK (LTR FM U.S. NON-HAZ)		776
SILICIC ACID	1343-98-2	
SILVER NITRATE	7761-88-8	
SILVER SULFATE	10294-26-5	
SOABAR MARKING INK #444603		946
SODIUM (DI) ETHYLENEDIA	139-33-3	
SODIUM ACETATE, ANHYDROUS	127-09-3	
SODIUM ALUMINATE		1121
SODIUM AMIDE, 50 WT.% SUSPENSION IN XYLENE	7782-92-5	
SODIUM ANTHRAQUINONE 2 SULFONATE (LTR NO MSDS)		788
SODIUM ARSENITE	7784-46-5	
SODIUM BENZOATE	532-32-1	
SODIUM BICARBONATE	144-55-8	
SODIUM BISMUTHATE	12232-99-4	
SODIUM BISULFATE	7681-38-1	
SODIUM BORATE DECAHYDRATE	1303-96-4	
SODIUM BROMIDE	7647-15-6	
SODIUM CARBONATE	497-19-8	
SODIUM CHLORATE	7775-09-9	
SODIUM CHLORIDE	7647-14-5	
SODIUM CITRATE	6132-04-3	
SODIUM DICHROMATE (DIHYDRATE)	7789-12-0	
SODIUM ETHOXIDE 21 WT% SOLN. IN DENATURED ETHYL ALCOHOL	141-52-6	
SODIUM FLUORIDE, SOLID	7681-49-4	
SODIUM FORMALDEHYDE SULFOXYLATE	149-44-0	
SODIUM HYDROSULFITE, TECH., CA. 85%	7775-14-6	
SODIUM HYDROXIDE SOLUTION	1310-73-2	
SODIUM METASILICATE	13517-24-3	
SODIUM METASILICATE PENTAHYDRATE	10213-79-2	
SODIUM METHOXIDE, 25 WT.% SOLN IN METHANOL	124-41-4	
SODIUM METHOXIDE, ANHYDROUS POWDER	124-41-4	
SODIUM METHYLATE	124-41-4	
SODIUM NITRATE	7631-99-4	
SODIUM NITRITE,97+%,A.C.S. REAGENT	7632-00-0	
SODIUM PERBORATE	10486-00-7	
SODIUM PEROXIDE	1313-60-6	
SODIUM PHOSPHATE SECONDARY		1122
SODIUM PHOSPHATE, DIBASIC, ANHYDROUS	7558-79-4	
SODIUM PHOSPHATE, MONOBASIC	7558-80-7	
SODIUM POTASSIUM TARTRATE	6381-59-5	
SODIUM PYROPHOSPHATE DECAHYDRATE	1347-36-1	
SODIUM SILICATE	1344-09-8	
SODIUM SULFATE	7757-82-6	
SODIUM SULFIDE, 9-HYDRATE	1313-84-4	
SODIUM SULFITE		947
SODIUM TARTRATE, DIHYDRATE	868-18-8	
SODIUM TERT-PENTOXIDE 98%	14593-46-5	
SODIUM THIOSULFATE ANHYDROUS	7772-98-7	
SODIUM THIOSULFATE PENTAHYDRATE	10102-17-7	
SODIUM TRIPOLYPHOSPHATE	7758-29-4	
SODIUM TUNGSTATE	53125-86-3	
SODIUM, LUMP, IN KEROSENE, 99%	7440-23-5	
SOLSPERSE 13550		1026
SOLSPERSE 17000		781
SOLSPERSE 2000		782

AR202491

SOLSPERSE 24000		887
SOLSPERSE 25000		783
SOLSPERSE 3000		780
SPRAY NINE		784
SPRAYWAY BEE AND WASP KILLER		277
STAINLESS STEEL PIT CORROSION STANDARDS (LTR NONHAZ)		785
STANNOUS CHLORIDE	10025-69-1	
STARCH	9005-25-8	
STARCH INDICATOR SOLUTION		186
STEAROYL CHLORIDE, 99%	112-76-5	
STEEL 19Cr - 9Ni (LTR U.S. NON HAZ)		1084
STILL SLURRY, 8615		1246
SUCCINAMIDE, 98%	110-14-5	
SUCCINIC ACID	110-15-6	
SUCCINIC ANHYDRIDE,99%	108-30-5	
SUCCINYLSUCCINIC ACID, DIETHYL ESTER (SSE)		1123
SUCCINYLSUCCINIC ACID, ETHYL METHYL ESTER (SSE)		1125
SUCCINYSUCCINIC ACID, DIMETHYL ESTER (SSE)		1124
SUCROSE	57-50-1	
SULFADIAZINE, 99%	68-35-9	
SULFAMIC ACID	5329-14-6	
SULFANILAMIDE, 98%	63-74-1	
SULFUR POWDER	7704-34-9	
SULFUR,99.99%	7704-34-9	
SULFURIC ACID	7664-93-9	
SULFUROUS ACID	7782-99-2	
SUMQUAT 2355; TRIETHYLBENZYLAMONIUM CHLORIDE	56-37-1	
SUN SPIRITS (AMOS SOL.1005)	64742-48-9	
TALC		1000
TAMOL SN DISPERSING AGENT		949
TANNIC ACID	1401-55-4	
TARTARIC ACID	87-69-4	
TBAB: BUTANAMINIUM,N,N,N-TRIBUTYL, BROMIDE	1643-19-2	
TCD ALCOHOL M		597
TEREPHTHALIC ACID, 97%	100-21-0	
TERT-AMYL ALCOHOL,99%	75-85-4	
TERT-BUTYL HYDROPEROXIDE,70%	75-91-2	
TETRABROMOPHTHALIC ANHYDRIDE 98%	632-79-1	
TETRABROMOPHTHALIMIDE 3,4,5,6- (LTR NO MSDS)		787
TETRABUTYLAMMONIUM BROMIDE	1643-19-2	
TETRABUTYLAMMONIUM HYDROGEN SULFATE, 97%	32503-27-8	
TETRABUTYLAMMONIUM HYDROXIDE (IN WATER)	2052-49-5	
TETRABUTYLAMMONIUM HYDROXIDE, 25% IN METHANOL		1308
TETRABUTYLAMMONIUM PHOSPHATE PREMIXED CONCENTRATE		1180
TETRACHLORO IMINO PHTHALIMIDE		192
TETRACHLORO-1-METHOXY-3-DIMETHOXY-ISOINDOLINE		193
TETRACHLOROPHTHALIC ANHYDRIDE,99%	117-08-8	
TETRACHLOROPHTHALIMIDE 3,4,5,6-	1571-13-7	
TETRACHLOROPHTHALONITRILE		194
TETRADECANEDIOL 1,2-, TECH. 90% (LTR FM NON-HAZ)		888
TETRAETHYL ORTHOSILICATE	78-10-4	
TETRAETHYLENE GLYCOL DIMETHYL ETHER, 99+%	143-24-8	
TETRAHYDROANILINOACRIDONE		195
TETRAHYDROFURAN	109-99-9	
TETRAMETHYL-N,N,N',N'-METHYLENEDIAMINE	51-80-9	

AR202492

TETRAMETHYLAMMONIUM HYDROXIDE,25%	75-59-2	
TETRAMETHYLENE SULFONE,99%	126-33-0	
TETRATHAL TETRACHLOROPHTHALIC ANHYDRIDE	117-08-8	
TFL-50 DRY LUBRICANT		945
TFL-50 WET LUBRICANT		1276
THERMINOL VP-1 HEAT TRANSFER FLUID		54
THIOACETAMIDE	62-55-5	
THIOPHENOL	108-98-5	
THIOSEMICARBAZIDE,99%	79-19-6	
THOIXANTHENEDIAMINE-10,10-DIOXIDE, 3-6-	10215-25-5	
THREE 3M BRAND A-101 SPRAY CLEANER		180
THYMOPHTHALEIN	62698-55-9	
TI-PURE TITANIUM DIOXIDE	13463-67-7	
TIN	7440-31-5	
TINUVIN 292		429
TINUVIN 328	25973-55-1	
TINUVIN 440		430
TINUVIN 900 (UV ABSORBER)		893
TITANIUM (IV) BUTOXIDE,99%	5593-70-4	
TITANOUS CHLORIDE SOLUTION,20% STABILIZED		198
TITREX STRIPPER		950
TOLUENE	108-88-3	
TOLUENE 70309	108-88-3	
TOLUIC ACID, -P	99-94-5	
TOLUIDINE-O	95-53-4	
TOLUIDINE-P	106-49-0	
TONSIL BLEACHING EARTHS	70131-50-9	
TRAGACANTH GUM	9000-65-1	
TRANSPARENT RED B 1841		1028
TRANSPARENT RED B RT-233-D		407
TRANSPARENT RED B RT-273-D		408
TRANSPARENT RED B XRT-333-D		409
TRANSPARENT RED RT-246-P PRESSCAKE		410
TRANSPARENT RED Y RT-218-D		411
TRIBUTYLAMINE	102-82-9	
TRICHLOROBENZENE 1,2,4-, 99+% SPECTROPHOTOMETRIC GR.	120-82-1	
TRIETHYL ORTHOFORMATE 98%	122-51-0	
TRIETHYL PHOSPHITE 98%	122-52-1	
TRIETHYLAMINE	121-44-8	
TRIETHYLENE GLYCOL	112-27-6	
TRIFLUOROACETANILIDE	404-24-0	
TRIFLUOROACETIC ACID	76-05-1	
TRIFLUOROACETIC ANHYDRIDE 99+%	407-25-0	
TRIMETHYLAMINE	75-50-3	
TRIMETHYLAMINE, 25 WT.% SOLUTION IN WATER	75-50-3	
TRISODIUM PHOSPHATE	7601-54-9	
TRISODIUM PHOSPHATE CRYSTALS	10101-89-0	
TRISULPHOIL SOAP D		951
TRITON X-100	9036-19-5	
TRUST-X ACCELORATOR		819
TUNGSTIC ACID	7783-03-1	
TURKEY RED OIL		1126
TYGON R-3603		1054
UNAMINE O	27136-73-8	
UNIREZ 7098		790

AR202493

UNIREZ 710		789
UNIREZ A-750		791
UNISPERSE RED B RW-768-D		413
UNISPERSE SCARLET RW-252-D		414
UNISPERSE VIOLET R RW-767-P		415
URANINE	518-47-8	
UREA	57-13-6	
UREA,98%	57-13-6	
VANADIUM PENTOXIDE	1314-62-1	
VINNOL E 15/45		204
VINYL ACETATE 99+%	108-05-4	
VIOLET R RT-201-D		434
VIOLET R RT-301-D		417
VIOLET R RT-544-D		416
VIOLET R RT-791-D		418
VIOLET R RT-795-D		419
VIOLET R RT-795-NN		420
VIOLET R RT-887-D		421
VIOLET R RT-891-D		433
VIOLET R RT-899-D		422
VIOLET RT-231-D		423
VIOLET RT-297-D		424
WITCAT TSA-50	104-15-4	
WITCO 1298 ACID (SOFT)		877
WITCO TX ACID		939
WITCONATE 1240 SLURRY		1199
WITCONATE 1250		1198
WITCONATE 1260		1197
XYLENE	1330-20-7	
XYLENE M-	108-38-3	
XYLENES,MIXED A.C.S. REAGENT		222
ZINC	7440-66-6	
ZINC ACETATE	5970-45-6	
ZINC CHLORIDE	7646-85-7	
ZINC NITRATE	7779-88-6	
ZINC OXIDE	1314-13-2	
ZINC POWDER OR DUST, NONPYROPHORIC	7440-66-6	
ZINC STEARATE	557-05-1	
ZINC SULFATE HEPTAHYDRATE	7446-20-0	
ZINPOL 1519W		794
ZINPOL 1537		795
ZIRCON ORE		1127
ZIRCONIUM CHLORIDE (LTR FM FISHER)	10026-11-6	
ZIRCONIUM HYDROXIDE (LTR FM ALDRICH)	14475-63-9	
ZIRCONIUM METAL/POWDER	7440-67-7	
ZIRCONIUM OXIDE	1314-23-4	
ZIRCONIUM SULFATE (LTR FM ALDRICH)	14644-61-2	
ZIRCONYL CHLORIDE HYDRATE 99.99%	15461-27-5	

AR202494

CHEMICALS CONTAINING AREA-USED CODE D (TECH SERVICES)

CHEMICAL NAME	CAS #	NIN #	A
A-B DISPERSANT A DIV. MASTER RC-5120		598	

A-B DISPERSANT DIV. MASTER AB-1020		830
ACETONE	67-64-1	
ACROSOLV PM		1279
ACRYLIC DISPERSION RESIN A-85105		1317
ACRYLIC LACQUER PRIMERS AND SEALERS 30S...2184S		820
ACRYLIC MICROGEL LATEX RC-11021		1214
ACRYLIC MICROGEL LATEX RC-11033		1213
ACRYLIC MICROGEL LATEX RCH72740		693
ACRYLIC POLYMER RCH 72973		1082
ACRYLIC POLYMER RCH76121		694
ACRYLIC POLYMER RCH76122		695
ACRYLIC POLYMER RCH87281		715
ACRYLIC RESIN DAP-1411		1091
ACRYLIC RESIN HCM-2555		508
ACRYLIC RESIN HCR-8727		1064
ACRYLIC RESIN HCS-6234		744
ACRYLIC RESIN HCV-4257		510
ACRYLIC RESIN RC-3763		506
ACRYLIC RESIN RC3765, RC5156, AB-1020		922
ACRYLIC RESIN RCE-2151		507
ACRYLIC RESIN RK-4044		1236
ACRYLIC RESIN TO SHIP		1169
ACRYLIC RESIN XCM-2857		511
ACRYLIC SOLUTION SV3829R		599
ACRYLIC TINT PASTE 2151-A3386		513
ACRYLIC TINT PASTE 2151-Y5290		514
ACRYLOID A-101 (40%)		742
ACRYLOID A-11		743
ACRYLOID AT-400 RESIN		1088
ACRYLOURETHANE RESIN RK-3869		515
ACRYSOL ASE-108 THICKENING AGENT		921
ACRYSOL I-62		1265
ADDITIVES FOR TOPCOATS 189S...7007S		821
ADHESIVE NO. 520 (ARMSTRONG)		57
AEROSIL, 200	7631-86-9	
AIRX 22 ODOR SPRAY		777
AIRX 60 ODOR SPRAY		778
ALCOHOL REAGENT		62
ALKYD PLASTICIZER RK-3655		600
ALUMINUM BASE 995E80175		601
AMBERLITE IRA-410 RESIN		741
AMBERLITE SR-1 RESIN		740
AMP-95 (N-173-D)		512
AMYL ACETATE	628-63-7	
ANTI-TERRA 202		602
ANTI-TERRA-U		603
AQUA PASTE TM 5245-AR-305 INHIBITED ALUMINUM PIGMENT		1321
AROMATIC 100	64742-95-6	
AROMATIC 150	64742-94-5	
AROMATIC SULFONIC ACID KCG 2686		516

AROPLAZ 1266-M-70		284
AROPLAZ 1445-M-50		285
AROPLAZ 6008-X-50		286
BAYFERROX RED	1309-37-1	
BEE & WASP KILLER 12oz.		823
BEHOLD CLEANING POLISH		738
BIMODE TONER-QH #8902-909	64742-48-9	
BLACK 10335 20:80		646
BLACK 10335 MASSTONE		647
BLACK CENTARI ACRYLIC ENAMEL		872
BLENDEX MODIFERS		722
BODY SHAMPOO		438
BOOTH STRIP, PEELABLE SPAY BOOTH COATING #030		63
BORAXO POWDERED HAND SOAP		1039
BRIDGING AGENT SOLUTION VH-1556		924
BRIDGING AGENT SOLUTION VH-1620		1309
BRITE BLUE 10336 20:80		923
BRITE BLUE 10336 MASSTONE		648
BRITE BLUE L/F IMRON URETHANE ENAMEL		824
BUFF 10404		825
BUFF 10406		723
BUFF 10407		746
BUFF 10408		747
BUTYL ACETATE 99%	123-86-4	
BUTYL CARBITOL	112-34-5	
BUTYL CELLOSOLVE SOLVENT	111-76-2	
BYK-155 POLYMERIC DISPERSION		1273
BYK-P 104		848
CALCIUM CHLORIDE DIHYDRATE,98+% A.C.S. REAGENT	10034-04-8	
CALCIUM CHLORIDE, LIQUID	10043-52-4	
CAMOUFLAGE GREEN 10405	68187-49-5	
CAMOUFLAGE GREEN 10405 20:80		649
CAMOUFLAGE GREEN 10405 MASSTONE		650
CARBON BLACK FR LAKE J-1088	1333-86-4	
CARGILLE REFRACTIVE INDEX LIQUID SERIES AAA nD = 1.300-		1158
CATALYST SOLUTION (900-1604)		71
CATALYST SOLUTION VM-1542		827
CATALYST SOLUTION VM-1592		1235
CATALYST SOLUTION VM-1619		1234
CATALYST SOLUTION VMG23277		751
CATALYST-TWO PACK URETHANE PAINT LE9425		605
CELLOSOLVE ACETATE (2-ETHOXYETHANOL ACETATE)	111-15-9	
CELLOSOLVE SOLVENT (2-ETHOXYETHANOL)	110-80-5	
CENTARI & LUCITE BASEMAKERS 8260S, 8265S		828
CENTARI ACRYLIC ENAMEL 758S, 700A		1260
CENTARI ACRYLIC ENAMEL 935 AC095 (SILVER MET)		97
CENTARI DRIER SOLUTION VDY 1398 91398)		829
CENTARI F/P DRIER SOLUTION VD-1404		842
CENTARI W-393 MAROON DISPERSION		959
CHEMFAST 545 EPOXY H.B. CONVERTER		961
CHEMFAST 545 EPOXY H.B. LT. BUFF (KWIK-1810) BASE		960
CHROMIUM OXIDE X3623 20:80		1033
CHROMIUM OXIDE X3623 MASSTONE		651
CITRAZINIC ACID 98%	99-11-6	
CITRO-SHIELD FURNITURE POLISH (AEROSOL)		128

AR202496

CLEANERS (SEE COMMENTS)		1072
CLEAR ACRYLIC DISPERSION 974-115		999
CLEAR ACRYLIC DISPERSION 974-172		915
CLEAR BASE DMR 499		550
CLEAR ENAMEL TOPCOATS 500S,580S,780S		517
CLEAR FOR 507U, RKE 77541		1305
CLEAR FOR 559U, RKE 77540		1304
CLEAR FOR CENTARI ACRYLIC ENAMEL 756A		849
CLEAR FOR CENTARI ACRYLIC ENAMEL RK-3617		831
CLEAR PAINT ADDITIVE VME-44454 (VM-1560,VM-1539)		931
CLEARBASE DMR 499		1221
CLEARCOAT RK-3840		832
CLOCREAM SKIN CREAM (LTR STATING NON-HAZ)		1063
COBALT NAPHTHENATE		606
COMET		7
COMPOUND QAAF SW86-488		291
COMPOUND, LACQUER, THINNER SV3846R		607
COMPOUND, LACQUER, THINNING, LIQUID SV3873		608
CROMOFINE MAGENTA 6891		297
CROMOPHTAL BLUE A3R 20:80		652
CROMOPHTAL ORANGE 2G 20:80		653
CROMOPHTAL ORANGE 2G MASSTONE		654
CROMOPHTAL RED A3B 20:80		655
CROMOPHTAL RED BRN 20:80		656
CROMOPHTAL RED BRN MASSTONE		657
CROMOPHTAL SCARLET RN 20:80		658
CROMOPHTAL SCARLET RN MASSTONE		659
CROMOPHTAL YELLOW 8GN 10:90		660
CROMOPHTAL YELLOW 8GN 50:50		661
CROMOPHTAL YELLOW GR PRESSCAKE		1138
CRONAR BASEMAKERS 9375S		1257
CRONAR CLEARS 9500S		1259
CRONAR REDUCERS/ADDITIVES/INITIATORS 9585S, 9504S		1278
CRONAR TINTS BALANCERS, BINDERS 813J, 1850J		1262
CWO-DCDFA-BENZ-PA/PE RC-3553 ALKYD/DIV MASTER		833
CWO/SCO ALKYD RESIN RC-3179		834
CYCAT 4040 CATALYST		1089
CYCOLAC ABS POLYMER PELLETS	9003-56-9	
CYMEL 1168 RESIN		1219
CYMEL 303 RESIN	68002-20-0	
CYMEL 325 RESIN	68002-20-0	
CYMEL 350 RESIN		1183
DA-70 FLOOR WAX STRIPPER		133
DALAMAR YELLOW PIGMENTS YT-808-D	6558-31-2	
DDBSA/AMP CATALYST SOLUTION VM-1541		1224
DEEP GOLD YT-815-D		294
DEEP TOLUIDINE RED X-2742		891
DEPRESS 14, FOAM CONTROL AGENT		135
DESMODUR N-75		37
DESMOPHEN 650A-65 PMA		136
DIISOBUTYL KETONE (2,6-DIMETHYL-4-HEPTANONE)	108-83-8	
DIMETHYLAMNIOETHANOL, 2-	108-01-0	
DISPERBYK - 161		1316
DISPERSING RESIN RK-3727		609
DISPERSION 700A WHITE BASE		1104

AR202497

DOPING SOLUTION VH5379		610
DOW CORNING 57 ADDITIVE	68037-61-6	
DOWANOL PM GLYCOL ETHER		39
DOWANOL PMA GLYCOL ETHER ACETATE		40
DULUX ALKYD ENAMEL		836
DUOMEEN O	7173-62-8	
DUPONT 2401E12		837
DUPONT 51H71453		838
DUPONT ACRYLIC PRIMER 100-S		912
DUPONT ACTIVATOR 192-S		911
DUPONT ALKYD PRIMER 67Y-744		909
DUPONT EPOXY ENAMEL 823-Y-67637		908
DUPONT PAINT & VARNISH REMOVER #999		118
DUPONT PAINT CLEAR #VG-Y-8339		907
DUPONT THINNER #8034-S		906
EASISPERSE 154		713
EASTACEL 1412 & 1420 CELLULOSIC RESINS		752
EASTMAN CELLULOSE ACETATE BUTYRATE ESTERS	9004-36-8	
EKTASOLVE EB ACETATE SOLVENT	112-07-2	
ELASTOMERIC CLEAR BASE SV3957		611
ENAMEL REDUCER, 8022S		1323
ENAMEL REDUCER, 8034S		1322
ENAMEL REDUCERS 8585S		612
ETHANOL SDA 2-B 200 PROOF		712
ETHYL ACETATE	141-78-6	
ETHYLENE GLYCOL	107-21-1	
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	
ETHYLENE GLYCOL MONOETHYL ETHER ACETATE	111-15-9	
ETHYLENE GLYCOL MONOMETHYL ETHER	109-86-4	
EXPERIMENTAL CABERNET (17/100C)		293
EXPERIMENTAL COPPER PHTHALOCYANINE		895
EXPERIMENTAL FAST GOLD 1973		1159
EXPERIMENTAL MAGENTA 1737		296
EXPERIMENTAL MAGENTA 1857		1068
EXPERIMENTAL MAGENTA 8507		298
EXPERIMENTAL PHTHALO BLUE IAL 1924		962
EXPERIMENTAL PHTHALO BLUE IAL 1925		963
EXPERIMENTAL PHTHALO BLUE IAL 1928		964
EXPERIMENTAL RED 6/64A		300
EXPERIMENTAL RED B 1724		301
EXPERIMENTAL RED B 1725		1147
EXPERIMENTAL RED Y 6/18 B		302
EXPERIMENTAL RED Y 8615		303
EXPERIMENTAL RED Y 8616		304
EXPERIMENTAL RUSSET 1728		431
EXPERIMENTAL SCARLET 1738		305
EXPERIMENTAL VIOLET 1736		306
EXTERIOR MEARLIN BRIGHT BRONZE		1056
EXTERIOR MEARLIN BRIGHT GOLD		240
EXTERIOR MEARLIN BRIGHT WHITE		241
EXTERIOR MEARLIN FINE PEARL		1078
EXTERIOR MEARLIN HI-LITE BLUE		242
EXTERIOR MEARLIN HI-LITE GREEN		243
EXTERIOR MEARLIN HI-LITE RED		244
EXTERIOR MEARLIN HI-LITE VIOLET		245

AR202498

EXTERIOR MEARLIN RUSSET		1055
F-1 INSECTICIDE (AEROSOL)		142
F-6 GENERAL PURPOSE INSECTICIDE (AEROSOL)		246
FANCHON FAST YELLOW YH-5790		1300
FANTASTIC SPRAY CLEANER		119
FAST GOLD YT-915-D		307
FC-170C FLUORAD BRAND FLUOROCHEMICAL SURFACTANT		613
FLAMMABLE PAINTS, LACQUERS & RESINS (SEE COMMENTS)		1070
FURNITURE POLISH #740503		144
GAMMA CRUDE		309
GLOSS LACQUER CLEAR 2286		966
GO-JO HAND CLEANER		451
GOIN HOME HAND CLEANER		148
GOLD YT-823-D		310
GOLDEN MAROON MIXING ENAMEL DMR 400		560
H-79 FREE RULE 66 'LBA' ACRYLIC RESIN		1303
H-79 FREE RULE 66 LBA ACRYLIC RESIN RC-63884		841
H.S. BASECOAT DISPERSION W-6803 131H74981		845
H.S. BASECOAT DISPERSION W-6812 131H74973		846
H.S. CLEARCOAT DCT3000		523
H.S. DISPERSION 131-1573 X-3627		847
H.S. DISPESION 131-1805 RT-243-D		850
H/S CLEARCOAT DCT-1000		1065
HALS SOLUTION VGE78015		754
HANSA BRILLIANT YELLOW 2GX-70, 11-2519		1297
HELIOGEN BLUE L 6920		755
HEPTANE	142-82-5	
HEXANE	110-54-3	
HI-FLOC		283
HIGH SOLIDS ACRYLIC RESIN RC-3764		521
HIGH SOLIDS ACRYLIC RESIN RK-3853		522
HISPERSE IRON BLUE X-3434		896
HOSTAPERM RED E2B-70 13-7005		614
HOSTAPERM VIOLET RL SPECIAL 14-4006	6358-30-1	
HOYA MULTI-COATED FILTER AND CLEANER		1160
HYDRAID 7951 (CATIONIC POLYMER)		1002
IMPERSE MAGENTA XRW-453-P		313
IMPERSE RED B RW-768-P DISPERSION		311
IMRON 5000 LOW VOC POLYURETHANE		1307
IMRON 5000 LOW VOC POLYURETHANE 8685S		1312
IMRON 5000 LOW VOC POLYURETHANE ENAMEL 516U		1314
IMRON 5000 LOW VOC POLYURETHANE ENAMEL 577U		1313
IMRON 539 U ORANGE BASE POLYURETHANE ENAMEL		82
IMRON 571 U CLEAR ADJUSTING POLYURETHANE ENAMEL		83
IMRON 6000 BASECOAT, 522U		1306
IMRON POLYURETHANE ENAMEL 555U		524
IMRON W-805 RED DISPERSION, H-79 FREE		969
INDOFAST BRILLANT SCARLET R-6300		1298
INDOFAST BRILLANT SCARLET R-6500		1299
INDOFAST VIOLET B-4018		756
INHIBITOR SOLUTION, 10% VH-7552		852
IRGACOLOR BROWN 10364 20:80		668
IRGACOLOR BROWN 10364 MASSTONE		669
IRGACOLOR YELLOW 10400 20:80		670
IRGACOLOR YELLOW 10400 MASSTONE		671

AR202499

IRGACOLOR YELLOW 10408 20:80		672
IRGACOLOR YELLOW 10408 MASSTONE		673
IRGAFOS 168		1287
IRGALITE BLUE PDS6 20:80		674
IRGALITE VIOLET R RT-795-D 20:80		675
IRGANOX 1010		95
IRGANOX 1010		1290
IRGANOX 1076	2082-79-3	
IRGANOX 1076		1291
IRGANOX 1098		1282
IRGANOX 245		1286
IRGANOX B 215		1292
IRGANOX B 225		1293
IRGASPERSE BLACK R-U		1171
IRGASPERSE BLUE B-U		1175
IRGASPERSE BROWN 4RL-U		1174
IRGASPERSE RED G-U		1173
IRGASPERSE YELLOW 2R-U		1172
IRGAZIN BLUE 9860BX		897
IRGAZIN BLUE 9869 CX		898
IRGAZIN DPP RED 3067		525
IRGAZIN DPP RED BO		894
IRGAZIN DPP RED BO 20:80		970
IRGAZIN DPP RED BO MASSTONE		676
IRGAZIN YELLOW 2GLTE 10:90		677
IRGAZIN YELLOW 2GLTE 75:25		678
IRGAZIN YELLOW 3RLTN 10:90		679
IRGAZIN YELLOW 3RLTN 50:50		680
IRON PYROPHOSPHATE DISPERSION 974-2314, 974-115, 929-23		526
ISOCYANATE ACTIVATORS,HARDEN. AND ADD.77S..VG-Y-1421		853
ISOPAR M	64742-47-8	
ISOPROPYL ALCOHOL	67-63-0	
IWT A-244 ANION EXCHANGE RESIN		681
IWT C-211 CATION EXCHANGE RESIN		682
KODAFLEX DEP PLASTICIZER	84-66-2	
KP-POLYPROPYLENE GLYCOL 4 KPF-6257		616
KRONOS 2160 MASSTONE		683
L-77 SOLUTION RCSE-1510		1061
LACQUER CLEARS 22S...1999S		855
LACQUER THINNER AND CLEANING SOLVENT 3602S...3979S		856
LATEX HOUSE PAINT 8902		564
LATEX RCH 72740		94
LATEX RCH 74335 (FOR COLORS)		99
LATEX RCH 74336 (FOR METALICS)		100
LDL RESIN (FAST SOLVENTS) RK-3720		617
LDL RESIN (SLOW SOLVENTS) RK-3766		618
LDL-27 BALANCED CLEAR RKG24425		528
LEXAN 141 111 POLYCARBONATE PELLETS		973
LIGHT GREEN 5G		1232
LINE BALANCED CLEAR METALLICS 407 RKG95303		759
LINE BALANCED CLEAR SOLID COLORS 408 RKG95304		760
LINSEED OIL (BOILED)	67746-08-1	
LINSEED OIL (RAW)	8001-26-1	
LIQUID PAPER CORRECTION FLUID		456
LOTION HAND SOAP		1225

AR202500

LOW STRENGTH BLACK L/F IMRON TINT 531U		258
LTS LOTION SOAP		156
LUCITE ACRYLIC LACQUER		857
LUCITE ACRYLIC RESIN RC-909		619
LUTONAL M40-50% AQUEOUS		1059
LYSOL		927
M-95 TILE CLEANER		157
M-P-A 2000X		1081
MAGENTA B RT-303-D		316
MAGENTA B RT-343-D		317
MAGENTA RT-235-D		318
MAGENTA RT-243-D		319
MAGENTA RT-298-P PRESSCAKE		320
MAGENTA XRT-100-D		321
MAGENTA XRT-353-D		322
MAPRENAL MF 650		764
MAROON B RT-229-D		323
MAROON RT-209-D		324
MAROON RT-792-D		325
MCCALLS - ROACH & ANT KILLER		460
MELAMINE FORMALDEHYDE RESIN A-35178	68002-25-5	
METAL TREATMENTS,LAQUER REMOVER,PAINT REMOVER 224S...39		858
METHANOL	67-56-1	
METHYL ALCOHOL	67-56-1	
METHYL CELLOSOLVE ACETATE	110-49-6	
METHYL ETHYL KETONE	78-93-3	
METHYL ISO-BUTYL KETONE (MIBK)	108-10-1	
METHYL-N-AMYL KETONE	110-43-0	
METHYLATED MELAMINE FORMALDEHYDE RESIN KG-10515		101
MICROTHENE (TM) MA 778-00	9002-88-4	
MMA/DEAM COPOLYMER RC-963		621
MOLYBDATE ORANGE PIGMENTS YE-698-DYE-998-LD		1250
MONASTRAL BLUE BT-417-D		1176
MULTRON R-221-75		260
N-7000		327
N-7001		328
N-7002		329
N-7008		330
N-7026		331
N-7029		332
N-7030		333
N-7031		334
N-7044		335
N-7045		336
N-7047		337
N-7088		338
N-7102		339
N-7103		340
N-7104		342
N-7105		343
N-7106		344
N-7115		1148
N-7120		345
N-7126		346
N-7127		347

AR202501

N-7132	348
N-7140	349
N-7147	350
N-7148	351
N-7150	1149
N-7158	352
N-7264	353
N-7310	354
N-7332	355
N-7340	356
N-7402-XOR-593	1167
N-7406	357
N-7415	358
N-7426	359
N-7427	1150
N-7448	360
N-7458	361
N-7500	362
N-7501	363
N-7502	364
N-7508	436
N-7511	365
N-7511 (WET)	366
N-7526	367
N-7529	368
N-7530	369
N-7531 (QAAF)	370
N-7544	371
N-7545	372
N-7547	373
N-7588	374
N-7609	375
N-7612	376
N-7631	377
N-7638	378
N-7643	379
N-7652	380
N-7654	381
N-7656	383
N-7657	384
N-7657 A HT BETA	385
N-7740 AQUEOUS MILLED MAGENTA	880
N-7750	1060
N-7800-A	386
N-7910	387
N-7911	388
N-7927	389
N-7962	390
NACURE 5076	106
NAD RESIN RCSE 3868 (RK-3868)	107
NAD RESIN RK-4053	1233
NALCO 2300 ANTIFOAM	12
NATO GREEN MASSTONE	685
NATURAL GAS	108
NIAX D-22 SOLUTION 10%	861

AR202502

NIAX POLYOL PPG-425		1264
NIVEA CREAM		702
NON SULPHUR RESIN RC-3862		862
NOPCO NDW (FOAMASTER NDW)		143
NOVOPERM ORANGE HL-70, 12-3004	12236-62-3	
NUOSPERSE 657 (DISPERSANT)		620
ON AN' ON		767
PAINT ADDITIVE - FORD CATALYST 99J228C		1113
PAINT ADDITIVE - G-1031 SILICONE SOLUTION "LUCITE"		1114
PAINT ADDITIVE - VH-5379 "LUCITE"		1115
PAINT ADDITIVE - VH-7552 "DULUX" ANTI-SKIN		1116
PAINT ADDITIVE VH E 48680,VH-1556,VH-1546		929
PALIOGEN BLUE L 6480		1080
PALIOGEN BLUE L 6482		1079
PALIOTOL ORANGE L2952 HD		686
PALIOTOL RED L 3550 HD		687
PALOMAR BLUE B-4806		48
PALOMAR BLUE B-4815		47
PARAPLEX G-62	8013-07-8	
PERMANENT YELLOW GR, 11-1300	5102-83-0	
PERRINDO MAROON (YELLOWISH) R-6436		932
PERRINDO MAROON R-6422		1301
PERRINDO RED R-6418		622
PHENOLINE 300 FINISH PT.A		160
PHENOLINE 300 PART B		1034
PIGMENT DISPERSANT RESIN RC-3765		161
PIGMENT RED 3067B		624
PIGMENT RED 3092B		625
PIGMENT RED 3098		626
PIGMENT RED 4013A		627
PIGMENT RED 767A		623
PITTHANE CATALYST COMP. B 97-819		529
PLEDGE FURNITURE POLISH		575
POLYELECTROLYTE DISPERSANT RCH72973		17
POLYESTER PLASTICIZER RK-3654		628
POLYESTER RESIN HPH-7700		530
POLYESTER RESIN HPH-7700-55		629
POLYESTER RESIN HPV-3758		531
POLYESTER RESIN RCSE-3953		1077
POLYESTER RESIN XPR-3090		532
POLYESTER URETHANE RESIN RK-3871		982
POLYETHYLENE SOLUTION 900-1520		630
POLYFLEX 997104-013		886
POLYFLEX 997105-030		885
POLYRESINS 9943		1003
POLYSTYRENE F680 STYROFOAM (R) BRAND PLASTIC FOAM FEEDS		472
PRIMER-SURFACER-GREEN		839
PRO-FAX (R) POLYPROPYLENE 6401 RESIN	9003-07-0	
PROPANOL 1-	71-23-8	
PROPANOL 2-	67-63-0	
PROPYLENE GLYCOL MONOETHYL ETHER ACETATE	108-65-6	
PROTOTYPE HAZ LIQUID		391
PROTOTYPE HAZ LIQUID 2		392
PROTOTYPE HAZ POWDER		393
PROTOTYPE NON LIQUID		394

AR202503

PROTOTYPE NON POWDER		395
PYRAZOLONE RED (ANSICO RED)		918
QUINACRIDONE RED B		396
QUINDO MAGENTA PPF-928		637
QUINDO MAGENTA RV-6843		937
QUINDO MAGENTA RV-6853		938
QUINDO RED R-6719		983
QUINDO VIOLET RV-6909		773
QUINDO VIOLET RV-6911		774
QUINDO VIOLET RV-6926		50
QUINDO VIOLET RV-6945		51
RAID HOUSE & GARDEN BUG KILLER		473
RAL 3000		688
RCSE-24615 RIGID CLEARCOAT		1255
RD-84	68611-42-7	
RECORDER INK 96S46		942
RED B RT-742-D		397
RED B RT-763-P PRESSCAKE		435
RED B RT-790-D		432
RED B RT-796-D		398
RED L/F IMRON URETHANE ENAMEL 565U		267
RED RT-236-D		399
RED RT-238-D		400
RED Y RT-359-D		401
RED Y RT-759-D		402
RED Y RT-785-P		403
RED Y RT-859-D		404
RED Y RT-959-D		405
REGAL MEDIUM YELLOW X-3218		478
REGAL OIL #702		271
RENEX 20		52
RENEX 30	24938-91-8	
RENOWN		174
RENUZIT DISINFECTANT DEODORANT		479
RESIMENE 755 MELAMINE FORMALDEHYDE RESIN	68036-97-5	
RESIMENE BM-7507 MELAMINE-FORMALDEHYDE RESIN SOLUTION	68002-25-5	
RESIN BLEND 756-A		919
RESIN HCH 3297-55		631
RESIN HCM 2555-55		59
RESIN RC H 45609		1017
RESIN RC H 66665,RC-3870,RK-3853,RC-3764		944
RESIN RC-3762,RC-3763		943
RESIN RME2148-55		865
RIGID CLEARCOAT RK-3957		536
RIGID CLEARCOAT RKF 20630		1215
ROACH & ANT KILLER ,031, (CLAIRE)		483
RT-200-D DIMETHYL CRUDE		1029
RUSSET PEARL DISPERSION W-67123 131-16123		866
SAFEGUARD DEODORANT SOAP		1083
SANI-FRESH RTU PINK LOTION HAND SOAP		1156
SANI-TUFF CLEANSER WITH GRIT		1157
SANOR CHEM LINE "X" SERIES		176
SANTICIZER 160 PLASTICIZER - BUTYL BENYL PHTHALATE	85-68-7	
SCARLET RT-787-D		412
SCARLET RT-788-D		772

AR202504

SCENE WINDOW CLEANER		490
SCOTCH IVI SPRAY 1602		178
SEALS PIPES THREAD SEALENT		491
SERPIFLEX SHIELD (SPRAY BOOTH COATINGS)		181
SETAL 84 XX-70		537
SETAMINE US-132 BB-71 MELAMINE RESIN		538
SHELL TOLU-SOL 12 NAPHTHA		810
SHORT OIL ALKYD RC-305		867
SICO FAST ORANGE L 2952 HD		1010
SICOPAL YELLOW L 1110		689
SILICONE SOLUTION VH-1477		539
SILICONE SOLUTION VH-1510		540
SOABAR MARKING INK #444603		946
SOLVENT 624	8052-41-3	
SPARKLE SILVER 5000-AR ALUMINUM PASTE		644
SPARKLE SILVER 5115-AR ALUMINUM PASTE		1025
SPARKLE SILVER 5245-AR ALUMINUM PASTE		541
SPECIAL NAPHTHOLITE 66/3	64742-48-9	
SPENSOL L52		1205
SPRAY NINE		784
SPRAYWAY BEE AND WASP KILLER		277
STYRON 666U POLYSTYRENE		868
SULFURIC ACID	7664-93-9	
SUNFAST VIOLET	1047-16-1	
SUPER DESOTHANE CURING SOLUTION		878
T SERIES PIGMENT T122		1231
TAMOL 165 DISPERSANT		1266
TFL-50 DRY LUBRICANT		945
TFL-50 WET LUBRICANT		1276
THINNER 8485-S		993
THINNER SV3148		634
THREE 3M BRAND A-101 SPRAY CLEANER		180
TI-PURE TITANIUM DIOXIDE	13463-67-7	
TINT BASE R-960 994E80176		635
TINUIVIN 327		1284
TINUVIN 234		1289
TINUVIN 292		429
TINUVIN 328	25973-55-1	
TINUVIN 328		1294
TINUVIN 329		1288
TINUVIN 440		430
TINUVIN 770		1295
TINUVIN 900 (UV ABSORBER)		893
TK-RT243D QUINDO MAGENTA 2151-R9234		636
TOFA MODIFIED ACRYLIC COPOLYMER RC-3936		638
TOLUENE	108-88-3	
TOLUENE 70309	108-88-3	
TOLUIDINE-P	106-49-0	
TOTIL		502
TQ-RT233D MON RED 2148-R1236		639
TRACTER & IMPLEMENT ENAMELS,ALUM.PTS&SPTTR FINSH.250S..		869
TRANSPARENT RED B 1841		1028
TRANSPARENT RED B RT-233-D		407
TRANSPARENT RED B RT-273-D		408
TRANSPARENT RED B XRT-333-D		409

AR202505

TRANSPARENT RED RT-246-P PRESSCAKE		410
TRANSPARENT RED TINT PASTE 2151-Q3098		640
TRANSPARENT RED Y RT-218-D		411
TRICHLOROETHYLENE	79-01-6	
TRITON CF-10 SURFACTANT		1267
TURCO ISO-SPERSE		992
U.V. SCREENER SOLUTION (VM-1619)		1302
UCON HEAT TRANSFER FLUID 500		700
UNISPERSE RED B RW-768-D		413
UNISPERSE SCARLET R-E		1137
UNISPERSE SCARLET RW-252-D		414
UNISPERSE VIOLET R RW-767-P		415
URETHANE GLOSS ACTIVATOR		910
URETHANE RESIN WRX-3671		1280
URO PRODUCTS 1085S/1082S		1258
UV SCREENER SOLUTION VGG63753		792
UV SCREENER SOLUTION VH-1541, RCSE-1541, VHE34104		1013
UV SCREENER SOLUTION VM-1555		871
UV SCREENER/HALS-FREE H.S. CLEARCOAT RK-G-24620		542
VARSOL 1	8052-41-3	
VEDOC POWDER COATINGS/VP 218-A WHITE POLYESTER		1168
VIOLET R RT-201-D		434
VIOLET R RT-301-D		417
VIOLET R RT-544-D		416
VIOLET R RT-791-D		418
VIOLET R RT-795-D		419
VIOLET R RT-795-NN		420
VIOLET R RT-887-D		421
VIOLET R RT-891-D		433
VIOLET R RT-899-D		422
VIOLET RT-231-D		423
VIOLET RT-297-D		424
VM&P NAPTHA	64742-89-8	
VOE-LOFA ACRYLIC COPOLYMER RC-3554 (RK-3651)		873
VOE-LOFA ACRYLIC COPOLYMER RC-6096		874
VYDAX MOLD RELEASE		1229
W-172 AEROSIL 200 H/S DISPERSION 974-172		875
WATER BASE DISPERSANT RC-Z-61830		793
WATERBORNE DISPERSION 51-H-76700 RT-243-D		207
WATERBORNE DISPERSION 51-H-87501 X-3627		876
WHITE TINT 4257-T1462		642
X-2925 MONARCH BLUE G		1141
X-3653 MONARCH BLUE CFR		1139
X-3845 MONARCH BLUE CF		1140
XYLENE O-	95-47-6	
XYLENE P-	106-42-3	
ZONYL FSN FLUOROSURFACTANT		643

CIBA GEIGY -- CHEMICAL INVENTORY SYSTEM 02/17/90

CHEMICALS CONTAINING AREA-USED CODE E (CONTROL)

AR202506

CHEMICAL NAME	CAS #	NIN #	A
ADHESIVE NO. 520 (ARMSTRONG)		57	
AIRX 22 ODOR SPRAY		777	

AIRX 60 ODOR SPRAY		778
BEE & WASP KILLER 12oz.		823
BIMODE TONER-QH #8902-909	64742-48-9	
BODY SHAMPOO		438
BORAXO POWDERED HAND SOAP		1039
CITRO-SHIELD FURNITURE POLISH (AEROSOL)		128
CLOCREAM SKIN CREAM (LTR STATING NON-HAZ)		1063
COMET		7
DA-70 FLOOR WAX STRIPPER		133
F-1 INSECTICIDE (AEROSOL)		142
F-6 GENERAL PURPOSE INSECTICIDE (AEROSOL)		246
FURNITURE POLISH #740503		144
GLUCONIC ACID SODIUM SALT	527-07-1	
GO-JO HAND CLEANER		451
GOIN HOME HAND CLEANER		148
HYDROXYBENZOIC ACID, P-	99-96-7	
LOTION HAND SOAP		1225
LTS LOTION SOAP		156
LYSOL		927
M-95 TILE CLEANER		157
MCCALLS - ROACH & ANT KILLER		460
NIVEA CREAM		702
OFFICE EQUIPMENT CLEANING PAD		978
ON AN' ON		767
PLEDGE FURNITURE POLISH		575
QUININE SULFATE, DIHYDRATE	6119-70-6	
RAID HOUSE & GARDEN BUG KILLER		473
RECORDER INK 96S46		942
RENUZIT DISINFECTANT DEODORANT		479
ROACH & ANT KILLER ,031, (CLAIRE)		483
SAFEGUARD DEODORANT SOAP		1083
SANOR CHEM LINE "X" SERIES		176
SCENE WINDOW CLEANER		490
SCOTCH IVI SPRAY 1602		178
SOABAR MARKING INK #444603		946
SPRAY NINE		784
SPRAYWAY BEE AND WASP KILLER		277
TFL-50 DRY LUBRICANT		945
XEROX 1038 BLACK DEVELOPER		275
XEROX 1038 BLACK TONER		995
XEROX 1075 DEVELOPER		273
XEROX 1075 TONER		991

CIBA GEIGY -- CHEMICAL INVENTORY SYSTEM 02/17/90

CHEMICALS CONTAINING AREA-USED CODE F (HUMAN RES.)

CHEMICAL NAME	CAS #	NIN #	A
BEHOLD CLEANING POLISH		738	
OFFICE EQUIPMENT CLEANING PAD		978	
RENOWN		174	
THREE 3M BRAND A-101 SPRAY CLEANER		180	
XEROX 1038 BLACK DEVELOPER		275	
XEROX 1038 BLACK TONER		995	
XEROX 1075 DEVELOPER		273	
XEROX 1075 TONER		991	

AR202507

CIBA GEIGY -- CHEMICAL INVENTORY SYSTEM 02/17/90

CHEMICALS CONTAINING AREA-USED CODE G (SH&E)

CHEMICAL NAME	CAS #	NIN #	A
FANTASTIC SPRAY CLEANER		119	
FLOURESCEIN (URANINE)	2321-07-5		
HYDROGEN PEROXIDE	7722-84-1		
IODINE	7553-56-2		
ISOBUTYLENE	115-11-7		
LITHIUM CHLORIDE BRINE	7447-41-8		
NATURAL GAS		108	
OFFICE EQUIPMENT CLEANING PAD		978	
OXYGEN	7782-44-7		
STANNIC CHLORIDE		498	

CIBA GEIGY -- CHEMICAL INVENTORY SYSTEM 02/17/90

CHEMICALS CONTAINING AREA-USED CODE H (PF&I)

CHEMICAL NAME	CAS #	NIN #	A
UCON HEAT TRANSFER FLUID 500		700	

Question 4

Provide all information in CIBA-GEIGY's possession concerning groundwater monitoring wells located at the site.

Attachments

1) Question 4 Summary.

Question 4

Provide all information in CIBA-GEIGY's possession concerning groundwater monitoring wells located at the site.

Attachment 1

CIBA-GEIGY does not own or operate any monitoring wells or groundwater wells on this site. All wells are owned and operated by Du Pont and an easement exists which provides them rights to these wells.