

\*627SERBSF10,636\*

\*627SERBSF10,636\*

Site Name (Subject): UNION CARBIDE CORP/EVEREADY BATTERY

Site ID (Document ID): NCD003216462

Document Name (DocType): Correspondence (C)

Report Segment:

**Description:** General Correspondence, 1980 - 1995

Date of Document: 8/22/1995

Date Received:

Box: *Enter SF and # with no spaces* SF10,636

Access Level: PUBLIC

Division: WASTE MANAGEMENT

Section: SUPERFUND

Program (Document Group): SERB (SERB)

Document Category: FACILITY

[Print Report for Record](#)

[Go to New Blank Record](#)

[Go to New Record - \(default to last record values\)](#)

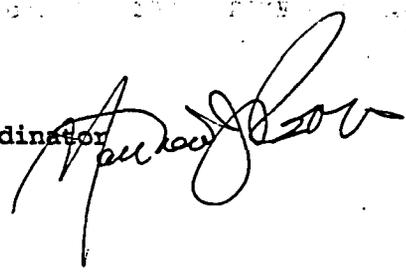
[Delete Record](#)

1995

DATE: August 22, 1995

SUBJECT: REMOVAL FROM EPA'S CERCLIS INVENTORY

FROM: Matthew J. Robbins, Brownfields Coordinator  
Waste Management Division, Region IV



TO: UNION CARBIDE CORP  
800 ALBEMARLE RD  
ASHEBORO  
NC 27203

EPA has identified the Brownfields Initiative as one of the Agency's top priorities. The term "brownfields" refers to previously used properties that may lie vacant because potential contamination makes them unmarketable to the private sector. EPA has recently announced a comprehensive Brownfields strategy, including Pilot grants to municipalities, to stimulate economic revitalization.

One part of the strategy has been for EPA to review its complete inventory of Superfund sites. These sites have been screened and determined to require no remedial action under the Federal Superfund Program based on information available as well as on conditions and policies that currently exist. This is to notify you that EPA has removed your facility from EPA's computer inventory known as CERCLIS. THIS DOES NOT INDICATE THAT THE STATE HAS MADE A SIMILAR DETERMINATION.

If you have any questions, please call me at 404/347-5059 ext. 6214.

cc: State Agency



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

4WD-WPB

OCT 15 1990

Ms. Pat DeRosa  
North Carolina Department of Environment  
Health and Natural Resources  
Division of Solid Waste Management  
P.O. Box 27687  
Raleigh, North Carolina 27611

RECEIVED  
OCT 17 1990  
SUPERFUND SECTION

Dear Ms. DeRosa:

The following is a list of North Carolina site reports received by me in the fourth quarter of FY90. The list also includes my disposition on what, if any, further action is presently needed at the sites.

<u>Site Name</u>	<u>EPA ID #</u>	<u>Disposition</u>
Baker, Maggie Property	NCD986166155	NFRAP
CCFC Pesticide Disposal	NCD986180883	PA
Durham Coal Gasification Plant	NCD986173938	PA
Fawn Plastics Co., Inc. Middlesex	NCD067178707	SSI PHASE II
Fieldcrest Mills, Inc. Smithfield	NCD003528825	SSI PHASE II
Hope Mills Landfill	NCD980502983	SSI PHASE II
Ideal Basic Ind/Plant Marl	NCD980557839	SSI PHASE II
Masonite Corp. Fiberboard Div.	NCD055359079	SSI PHASE II
Spann Property	NCD986180917	PA
Triangle Pacific Corp.	NCD000648451	SSI PHASE II
Union Carbide Corp. Greenville	NCD003184249	SSI PHASE II
Western N.C. Fairgrounds, Old Carochem	TBA	SSI PHASE II
	NCD991278714	LSIE
Carolina Galvinizing Corp.	NCD048181218	LSIE
Creek Bridge Landfill	NCD980502892	NFRAP
Georgia Pacific Corp. Richmond	NCD000616219	NFRAP
Gen Elec Med Steam Turbine Prod	NCD072018252	LSIE
GTE Sylvania, Inc. Johnston Co.	NCD009305699	SSI PHASE II
Intern'l Paper Richmond Gravure	NCD003186004	NFRAP
Red Cap Dog Food	NCD986167104	Incomplete
Union Carbide Corp. Asheboro Plant 1	NCD003216462	NFRAP
Union Carbide Corp. Asheboro Plant 2	NCD000822957	NFRAP

I have also attached copies of the lists of sites in North Carolina that I have reviewed.

If you have any questions about the above, please call me at (404) 347-5065.

Sincerely,

A handwritten signature in cursive script that reads "Robert Morris".

Robert Morris

Attachment

cc: Kelly Cain  
Harvey Allen, NCDEHNR



Rec'd  
AUG 9 1990

State of North Carolina  
Department of Environment, Health, and Natural Resources  
Division of Solid Waste Management  
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor  
William W. Cobey, Jr., Secretary

William L. Meyer  
Director

August 6, 1990

Mr. Robert Morris  
EPA NC CERCLA Project Officer  
EPA Region IV Waste Division  
345 Courtland Street, NE  
Atlanta, Georgia 30365

Date: 10/31/90  
Site Disposition: NEPA-Deferred  
EPA Project Manager: -SM

RE: Phase I, Screening Site Investigation  
Union Carbide Corporation  
Asheboro, Randolph County, North Carolina  
EPA ID No. NCD 003 216 462

#2659

Dear Mr. Morris:

Enclosed herewith is the Phase I, Screening Site Investigation Report by Greenhorne & O'Mara, Inc. for Union Carbide Corporation (NCD 003 216 462).

Based on the available information for the subject site, The North Carolina Superfund Section has recommended that a Phase II, Screening Site Investigation not be performed at this time.

The above recommendation is based on:

- A leaking UST has been removed from the site. The tank contained gasoline, diesel fuel, a degreaser solvent or some combination of those materials.
- Contamination was confirmed in both the soil and groundwater. Contaminates found included benzene, chloroethane, 1-1 dichloroethane, 1-1 dichloroethene, 1-1-1 trichloroethane, trichloroethene and vinyl chloride.
- The North Carolina Division of Environmental Management, Ground Water Section (NCDEM-GW), is actively monitoring the site. Levels have been low and semi-annual monitoring is being performed to establish a trend and see if remediation is warranted.
- The contaminated soils have been removed as much as practical without jeopardizing the integrity of the building foundation.
- There are an estimated 7,623 people drinking groundwater from the



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Division of Solid Waste Management  
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor  
William W. Cobey, Jr., Secretary

William L. Meyer  
Director

August 6, 1990

Mr. Robert Morris  
EPA NC CERCLA Project Officer  
EPA Region IV Waste Division  
345 Courtland Street, NE  
Atlanta, Georgia 30365

Date: \_\_\_\_\_  
Site Disposition: \_\_\_\_\_  
EPA Project Manager: \_\_\_\_\_

RE: Phase I, Screening Site Investigation  
Union Carbide Corporation  
Asheboro, Randolph County, North Carolina  
EPA ID No. NCD 003 216 462

Dear Mr. Morris:

Enclosed herewith is the Phase I, Screening Site Investigation Report by Greenhorne & O'Mara, Inc. for Union Carbide Corporation (NCD 003 216 462).

Based on the available information for the subject site, The North Carolina Superfund Section has recommended that a Phase II, Screening Site Investigation not be performed at this time.

The above recommendation is based on:

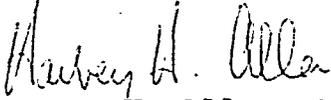
- A leaking UST has been removed from the site. The tank contained gasoline, diesel fuel, a degreaser solvent or some combination of those materials.
- Contamination was confirmed in both the soil and groundwater. Contaminates found included benzene, chloroethane, 1-1 dichloroethane, 1-1 dichloroethene, 1-1-1 trichloroethane, trichloroethene and vinyl chloride.
- The North Carolina Division of Environmental Management, Ground Water Section (NCDEM-GW), is actively monitoring the site. Levels have been low and semi-annual monitoring is being performed to establish a trend and see if remediation is warranted.
- The contaminated soils have been removed as much as practical without jeopardizing the integrity of the building foundation.
- There are an estimated 7,623 people drinking groundwater from the

aquifer of concern with the nearest drinking well an estimated 3,500 feet from the site.

- There are no surface water targets within 15 miles downstream of the site.

If you have any questions, please contact me at 919-733-2801.

Sincerely,



Harvey H. Allen, PE  
Environmental Engineer

Enclosures

cc: Grover Nicholson



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Division of Solid Waste Management  
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor  
William W. Cobey, Jr., Secretary

William L. Meyer  
Director

July 30, 1990

Mr. Joseph Skinner, PE  
Greenhorne & O'Mara, Inc.  
4101 Lake Boone Trail  
The Summit - Suite 111  
Raleigh, North Carolina 27607

RE: Union Carbide Corporation (NCD 003 216 462) Revised Phase  
I, SSI Report and HRS Package

Dear Mr. Skinner:

The North Carolina Superfund Section is in receipt of your Revised Report and HRS Package for the above referenced site. Your submission to our comments is deemed adequate.

As stated in my July 12, 1990 memo to you referencing the subject site, the North Carolina Superfund Section has carefully reviewed and evaluated the available data for the subject site, and concurs with Greenhorne & O'Mara's recommendation that a Phase II, Screening Site Investigation is not warranted at this time.

If you have any questions, please contact me at 733-2801.

Sincerely,

A handwritten signature in cursive script that reads "Harvey H. Allen".

Harvey H. Allen, PE  
Environmental Engineer

cc: Grover Nicholson



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Division of Solid Waste Management  
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor  
William W. Cobey, Jr., Secretary

William L. Meyer  
Director

July 12, 1990

Mr. Joseph Skinner, PE  
Greenhorne & O'Mara, Inc.  
4101 Lake Boone Trail  
The Summit - Suite 111  
Raleigh, North Carolina 27607

RE: Union Carbide Corporation (NCD 003 216 462) Phase I, SSI  
Report and HRS Package; and Subsequent North Superfund  
Section Recommendations

→ Carolina (corrected on original)

Dear Mr. Skinner:

Transmitted herewith are the comments concerning the above referenced subject.

The North Carolina Superfund Section has carefully reviewed and evaluated the available data for the subject site, and concurs with Greenhorne & O'Mara's recommendation that a Phase II, Screening Site Investigation is not warranted at this time.

If you have any questions, please contact me at 733-2801.

Sincerely,

A handwritten signature in cursive script that reads "Harvey H. Allen".

Harvey H. Allen, PE  
Environmental Engineer

Enclosures

cc: Grover Nicholson

COMMENTS FOR UNION CARBIDE CORPORATION (NCD 003 216 462)

- ✓ 1. Page 4: It is stated that prior to 1987, contained runoff was analyzed and discharged to the storm drains (Ref. 15 & 16).

Comment: References 15 and 16 have no mention of analyzing runoff prior to discharging to the storm sewer. Correct this discrepancy. All relevant sections must be revised as necessary.

- ✓ 2. General Comment:

The HRS Ground Water Route Work Sheet must be amended to show an observed release score of 45, and then proceed to line 4. Delete documentation for line items 2 and 3. Correct this information. All relevant sections must be revised as necessary.

- ✓ 3. General Comment:

The HRS reference for the groundwater observed release must be based on groundwater analytical data. Correct this information. All relevant sections must be revised as necessary.

- ✓ 4. General Comment:

The HRS Surface Water Route Work Sheet must be amended for Surface Water Use. Usage is WS-III which includes Class C uses as well. Correct this information. All relevant sections must be revised as necessary.

- ✓ 5. General Comment:

A Site Inspection Form must be provided. This must be provided with all Phase I Reports as well as all Phase II Reports. The reason for this is that a site may not go to Phase II.



Eveready Battery Company, Inc.  
Technology Laboratory

July 11, 1990

Mr. Harvey Allen  
North Carolina Superfund Branch  
401 Oberlin Road  
Raleigh, North Carolina 27611

SUBJECT: Documentation on Remedial Action for Leaking U/G  
Gasoline Tank - Asheboro Plant I

Dear Mr. Allen:

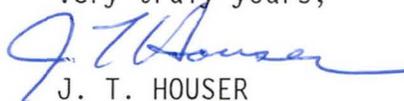
Per our telephone conversation on 7/11/90, please find enclosed copies of documents since August 14, 1986, detailing our communications with N.C. State agencies, our leak remediation efforts, and our ongoing monitoring program. We will be issuing another monitoring report to the State Groundwater Section by the end of this month as scheduled, and this July report will include the groundwater data from sampling on 11/17/89 and 2/11/90 which I have included for your reference at this time.

We would like to remind you that this activity is in response to a former leaking underground petroleum (gasoline) tank, not a CERCLA hazardous substance, RCRA hazardous waste, or waste oil underground tank.

We believe site remediation is being appropriately addressed and are continuing to work with the State D.E.M. Groundwater Section on this matter.

If you have any further questions, please call Mr. Dario Sena or myself.

Very truly yours,



J. T. HOUSER

CC: G. B. McClanahan - Asheboro I  
D. A. Sena - Asheboro I  
E. D. Sawicki/A. M. Nash

JTH/nlc  
Enc.  
(ASH\Leak)

file



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Division of Solid Waste Management  
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor  
William W. Cobey, Jr., Secretary

May 15, 1990

William L. Meyer  
Director

Mr. James D. Smith  
Public Health Sanitarian  
Randolph County Health Department  
2222 South Fayetteville Street  
Asheboro, NC 27203

RE: Off-Site Reconnaissance  
Union Carbide NCD 000 822 957  
Union Carbide NCD 003 216 462

Dear Mr. Smith:

David Lilley of the North Carolina Superfund Section spoke with Ms. Linda Kenedy of your office today to notify you that the N.C. Superfund Section's Contractor will conduct off-site reconnaissances of the subject sites located in Randolph County, North Carolina. The reconnaissances will be conducted on May 24 and 25, 1990 by Hunt Loftin of Greenhorne and O'Mara, Inc.

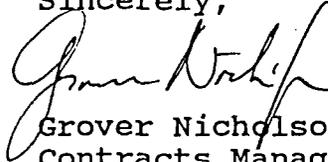
The purpose of the reconnaissances is to determine if the sites pose a hazard to public health or the environment because of releases of contaminants to soil, surface water, groundwater, or air. The reconnaissance team will locate all nearby water supplies (surface and groundwater, community and private) and any close sensitive environments, schools, and day care centers.

These reconnaissances are not emergency situations but are normal steps in the evaluation of all uncontrolled and unregulated potential hazardous waste sites in North Carolina. You may want to have your representative meet the reconnaissance team at the sites. If so, please contact Joe Skinner at (919) 878-0422 and he will coordinate a meeting. I am enclosing background data on the sites for your information.

Mr. James D. Smith  
May 15, 1990  
Page 2

If the reconnaissances indicate the need for future study of the sites, we will contact your office to advise. If you have any question, please don't hesitate to call David Lilley or me at (919) 733-2801.

Sincerely,



Grover Nicholson, Head  
Contracts Management Branch  
Superfund Section

Enclosures

cc: Gordon Layton  
Doug Holyfield  
Steve Reid  
David Lilley  
Lois Walker  
Ann Rudd  
File

Federal  
Trip Notification & Authorization

Prepared by: HARVEY H. ALLEN

Today's Date: 5/15/90

\*Use Black Ink or Typewriter only-Staff to fill out first 2 blocks only.

Site Trip

Date of Trip: 5/24/90

If trip date changed or cancelled note below:

Trip Date Changed To: \_\_\_\_\_ Cancelled: \_\_\_\_\_

NCD#: 000 822 957

Site Name: UNION CARBIDE

City: ASHEBORO

County: RANDOLPH

Reason for Trip: OFF-SITE RECON FOR PHASE I SSI

Name of Hotel (Overnight Trip): \_\_\_\_\_ Hotel Telephone Number: ( ) \_\_\_\_\_

Authorized by: David B. Kelly  
Industrial Hygienist

Project Team Leader: HUNT LOFTIN (GREENHORNE & O'MARA - (919) 878-0422)

Assistants: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Attach To Notification Form: 1 copy each: Preliminary Assessment Form (First page only)  
Submit to the Site Map  
Industrial Hygienist PA Transmittal Letter

(Please list appropriate County Health Department contact person to call to advise of trip)

Environmental Supervisor or Health Director to call: Mr. James D. Smith Title: Public Health Sanitarian  
(Note if Dr., M.P., etc.)

Telephone Number: (919) 629-2131

Notes: Health Department Official Contacted: Linda Kean Kennedy  
Back Up Letter Required: Yes  No

Notified Ms. Kennedy on 5-15-90 (DBL)

Note: Signed original to Data Manager.

Federal  
Trip Notification & Authorization

Prepared by: HARVEY H. ALLEN

Today's Date: 5/15/90

\*Use Black Ink or Typewriter only-Staff to fill out first 2 blocks only.

Site Trip

Date of Trip: 5/25/90

If trip date changed or cancelled note below:

Trip Date Changed To: \_\_\_\_\_ Cancelled: \_\_\_\_\_

NCD#: 003 216 462 Site Name: UNION CARBIDE  
City: ASHEBORO County: RANDOLPH

Reason for Trip: OFF-SITE RECON FOR PHASE I SSI

Name of Hotel (Overnight Trip): \_\_\_\_\_ Hotel Telephone-Number: ( ) \_\_\_\_\_

Authorized by: David B. Kelly

Industrial Hygienist

Project Team Leader: HUNT LOFTIN (GREENHORNE & O'MARA - (919) 878-0422)

Assistants: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Attach To Notification Form: 1 copy each: Preliminary Assessment Form (First page only)  
Submit to the Industrial Hygienist: Site Map  
PA Transmittal Letter

(Please list appropriate County Health Department contact person to call to advise of trip)

Environmental Supervisor or Health Director to call: Mr. James D. Smith Title: Sanitarian

(Note if Dr., M.P., etc.)

Telephone Number: (919) 629-2131

Notes: Health Department Official Contacted: Linda Kennedy  
Back Up Letter Required: Yes  No

Notified Ms. Kennedy on 5-15-90

Note: Signed original to Data Manager



GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-022-2  
Sample Identification: MW-2  
Date Analyzed: 02/11/90 By: Porter

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	10	BQL
2	Bromodichloromethane	10	BQL
3	Bromoform	10	BQL
4	Bromomethane	20	BQL
5	Carbon tetrachloride	10	BQL
6	Chlorobenzene	10	BQL
7	Chloroethane	20	110
8	2-Chloroethylvinyl ether	10	BQL
9	Chloroform	10	BQL
10	Chloromethane	20	BQL
11	Dibromochloromethane	10	BQL
12	1,2-Dichlorobenzene	10	BQL
13	1,3-Dichlorobenzene	10	BQL
14	1,4-Dichlorobenzene	10	BQL
15	1,1-Dichloroethane	10	370
16	1,2-Dichloroethane	10	BQL
17	1,1-Dichloroethene	10	19
18	Total-1,2-Dichloroethene	10	BQL
19	1,2-Dichloropropane	10	BQL
20	cis-1,3-Dichloropropene	10	BQL
21	trans-1,3-Dichloropropene	10	BQL
22	Ethylbenzene	10	BQL
23	Methylene chloride	10	BQL
24	1,1,2,2-Tetrachloroethane	10	BQL
25	Tetrachloroethene	10	BQL
26	Toluene	10	BQL
27	1,1,1-Trichloroethane	10	BQL
28	1,1,2-Trichloroethane	10	BQL
29	Trichloroethene	10	BQL
30	Trichlorofluoromethane	10	BQL
31	Vinyl Chloride	20	35

Comments:

BQL = Below Quantitation Limit  
Quantitation limit elevated due to sample dilution prior to analysis.  
Sample diluted due to high concentration of target compounds present.



GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-022-1  
Sample Identification: MW-3  
Date Analyzed: 02/09/90 By: Casto

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	21
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	15
18	Total-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	38
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit



GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-022-3  
Sample Identification: MW-4  
Date Analyzed: 02/10/90 By: Porter

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	11
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	21
18	Total-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	8
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	9
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit



GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-022-5  
Sample Identification: Trip Blank  
Date Analyzed: 02/11/90

By: Porter

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	Total-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	BQL
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit



State of North Carolina  
Department of Environment, Health, and Natural Resources  
Division of Solid Waste Management  
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor  
William W. Cobey, Jr., Secretary

William L. Meyer  
Director

19 January 1990

Mr. Dario Sena, Environmental Coordinator  
Everready Battery Company  
800 Albermarle Road  
Asheboro, NC 27203

RE: Union Carbide Corporation  
KNA - Everready Battery Company  
NCD00082295T 003216462

Dear Mr. Sena:

The purpose of this letter is to notify you that the above-referenced site has been included on a list of sites for which Superfund site screening investigations will be conducted within the calendar year.

The North Carolina Superfund Section, pursuant to the authority and requirements of G.S. 130A-310.22 and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Public Law 99-499, is responsible for conducting site screening investigations at sites reported to the United States Environmental Protection Agency (EPA) as posing a potential hazard to public health and the environment through the release, or threat of release of hazardous substances to the environment. The purpose of the investigation is to determine whether the site contains hazardous substances which have or might contaminate the soil, surface water, groundwater or air and thus pose a hazard to public safety or the environment. These investigations are not emergency situations, but are normal steps in the evaluation of all such sites reported to EPA.

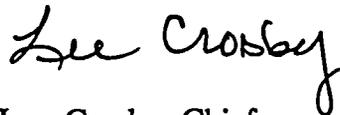
Mr. Dario Sena  
19 January 1990  
Page 2

The above-referenced site is one of 75 which the EPA has requested that the Superfund Section investigate within the next year. To assist us in conducting these investigations, the Superfund Section intends to hire one or more private contractors to perform a portion of these investigations under State supervision. Before any investigative activities are actually conducted at the site, you will be notified of the date of the inspection and specific activities to be conducted. These activities may include:

- 1) inspecting, sketching and photographing the premises;
- 2) collecting of surface and subsurface soil samples;
- 3) collecting sediment samples;
- 4) air monitoring;
- 5) collecting groundwater and surface water samples;
- 6) hand augering boreholes and emplacing temporary monitoring wells;
- 7) conducting geophysical surveys; and
- 8) transporting equipment onto and about the site as necessary to accomplish the above activities, including trucks and sampling equipment.

If you have any questions regarding this notice, please contact Grover Nicholson or me at (919) 733-2801.

Sincerely,



Lee Crosby, Chief  
Superfund Section

LC/acr



GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-019-1  
Sample Identification: MW 2  
Date Analyzed: 11/17/89 By: Casto

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	25	29
2	Bromodichloromethane	25	BQL
3	Bromoform	25	BQL
4	Bromomethane	50	BQL
5	Carbon tetrachloride	25	BQL
6	Chlorobenzene	25	BQL
7	Chloroethane	50	180
8	2-Chloroethylvinyl ether	25	BQL
9	Chloroform	25	BQL
10	Chloromethane	50	BQL
11	Dibromochloromethane	25	BQL
12	1,2-Dichlorobenzene	25	BQL
13	1,3-Dichlorobenzene	25	BQL
14	1,4-Dichlorobenzene	25	BQL
15	1,1-Dichloroethane	25	920
16	1,2-Dichloroethane	25	BQL
17	1,1-Dichloroethene	25	54
18	Total-1,2-Dichloroethene	25	BQL
19	1,2-Dichloropropane	25	BQL
20	cis-1,3-Dichloropropene	25	BQL
21	trans-1,3-Dichloropropene	25	BQL
22	Ethylbenzene	25	BQL
23	Methylene chloride	25	BQL
24	1,1,2,2-Tetrachloroethane	25	BQL
25	Tetrachloroethene	25	BQL
26	Toluene	25	BQL
27	1,1,1-Trichloroethane	25	25
28	1,1,2-Trichloroethane	25	BQL
29	Trichloroethene	25	BQL
30	Trichlorofluoromethane	25	BQL
31	Vinyl Chloride	50	71

Comments:

BQL = Below Quantitation Limit

Quantitation limit elevated due to sample dilution prior to analysis.  
Sample diluted due to high concentration of target compounds present.



GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-019-2  
Sample Identification: MW 3  
Date Analyzed: 11/17/89 By: Casto

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	30
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	35
18	Total-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	110
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	5
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit



GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-019-3

Sample Identification: MW 4

Date Analyzed: 11/17/89

By: Harris

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	15
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	22
18	Total-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	11
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	11
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit



GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-019-4  
Sample Identification: Equipment Blank  
Date Analyzed: 11/17/89

By: Harris

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	Total-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	BQL
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit



GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-019-5  
Sample Identification: Trip Blank  
Date Analyzed: 11/17/89 By: Casto

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	Total-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	BQL
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit

*A. M. Nash*



RECEIVED

JUL 21 1989

ENVIRONMENTAL  
AFFAIRS

State of North Carolina  
Department of Natural Resources and Community Development  
Winston-Salem Regional Office

James G. Martin, Governor

William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

July 10, 1989

Mr. Dario Sena  
Eveready Battery, Inc.  
P. O. Box 3209, PH.1  
Asheboro, NC 27203

SUBJECT: Groundwater Monitor Program,  
Eveready Battery Plant NO. 1,  
Asheboro, Randolph County  
GW #3155

Dear Mr. Sena:

I received the data submitted in your June 26, 1989, report and agree with your conclusion that no noticeable trend is evident and that monitoring should continue for another year. Your next sampling should take place in November, 1989, and May, 1990.

If you have any questions, please contact me at (919) 761-2351.

Sincerely,

*John M. Stewart*  
John M. Stewart, L. G.  
Hydrogeological Regional  
Supervisor

JMS/vm

EVEREADY BATTERY CO. INC.  
Phone (919) 672-3500

P.O. Box 3209, Pkt. 1, Asheboro, N.C. 27204-3209  
800 Albemarle Rd., Asheboro, N.C. 27203

June 26, 1989

RECEIVED

JUN 30 1989

ENVIRONMENTAL  
AFFAIRS

Mr. John M. Stewart  
State of North Carolina Department of  
Natural Resources & Community Development  
Division of Environmental Management  
Groundwater Section  
8025 North Point Blvd. Suite 100  
Winston-Salem, North Carolina 27106-3295

Dear Mr. Stewart:

SUBJECT: Underground Gasoline  
Tank Leak Site at  
Eveready Battery Co., Inc.  
Asheboro Plant I

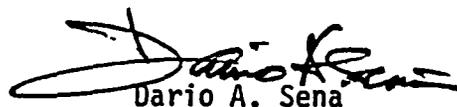
Attached are all the analytical results of the samples taken from our monitoring wells No. 2, No. 3, and No. 4 since our last meeting of 8/24/88.

These results, including the results from the previous samples, are presented graphically in Attachment I and tabulated in Attachment II.

Although some of the contaminant trends are inconclusive, it appears that the overall trend is of a decreasing concentration level. We, therefore, propose a continuing semiannual monitoring for another year. We will submit a similar report in July 1990.

If you have questions, please call me at (919) 672-3524.

Very truly yours,

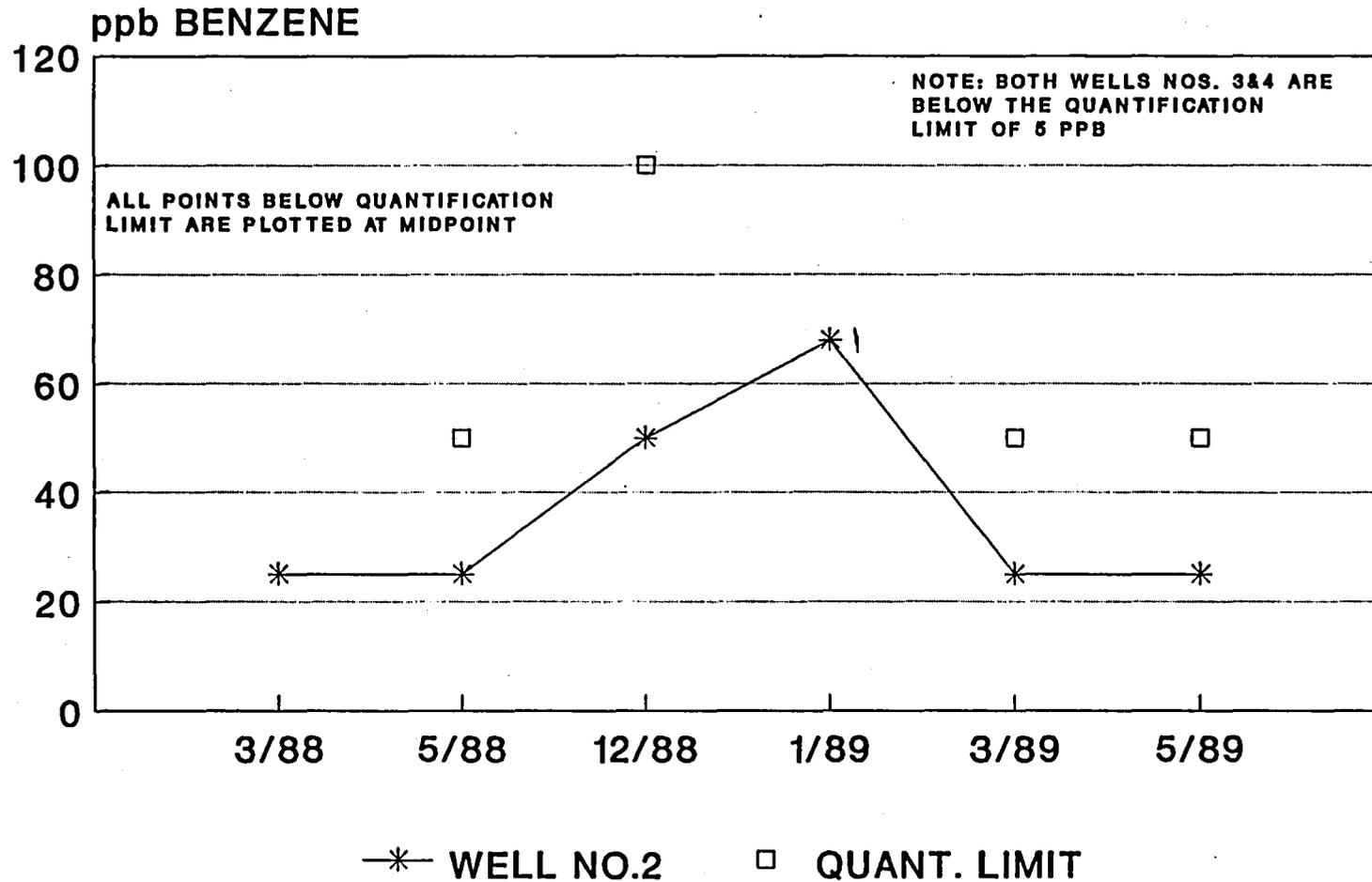
  
Dario A. Sena

DAS:jh

Attachments

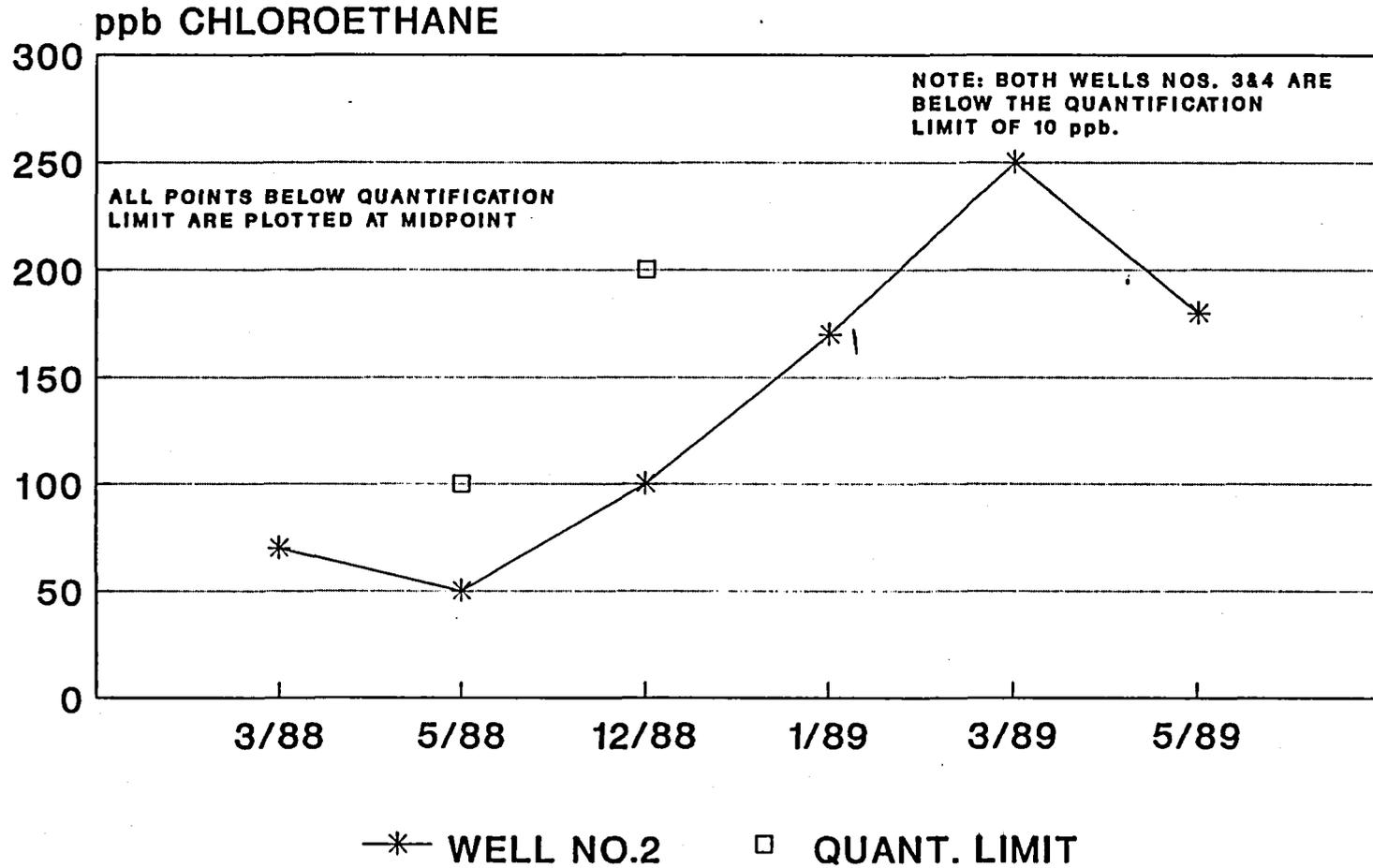
bc: R. G. Behr  
P. R. Brown  
G. B. McClanahan/T. R. Voyles  
A. M. Nash

# GROUNDWATER CONTAMINATION EVEREADY BATTERY CO.- ASHEBORO PLANT I



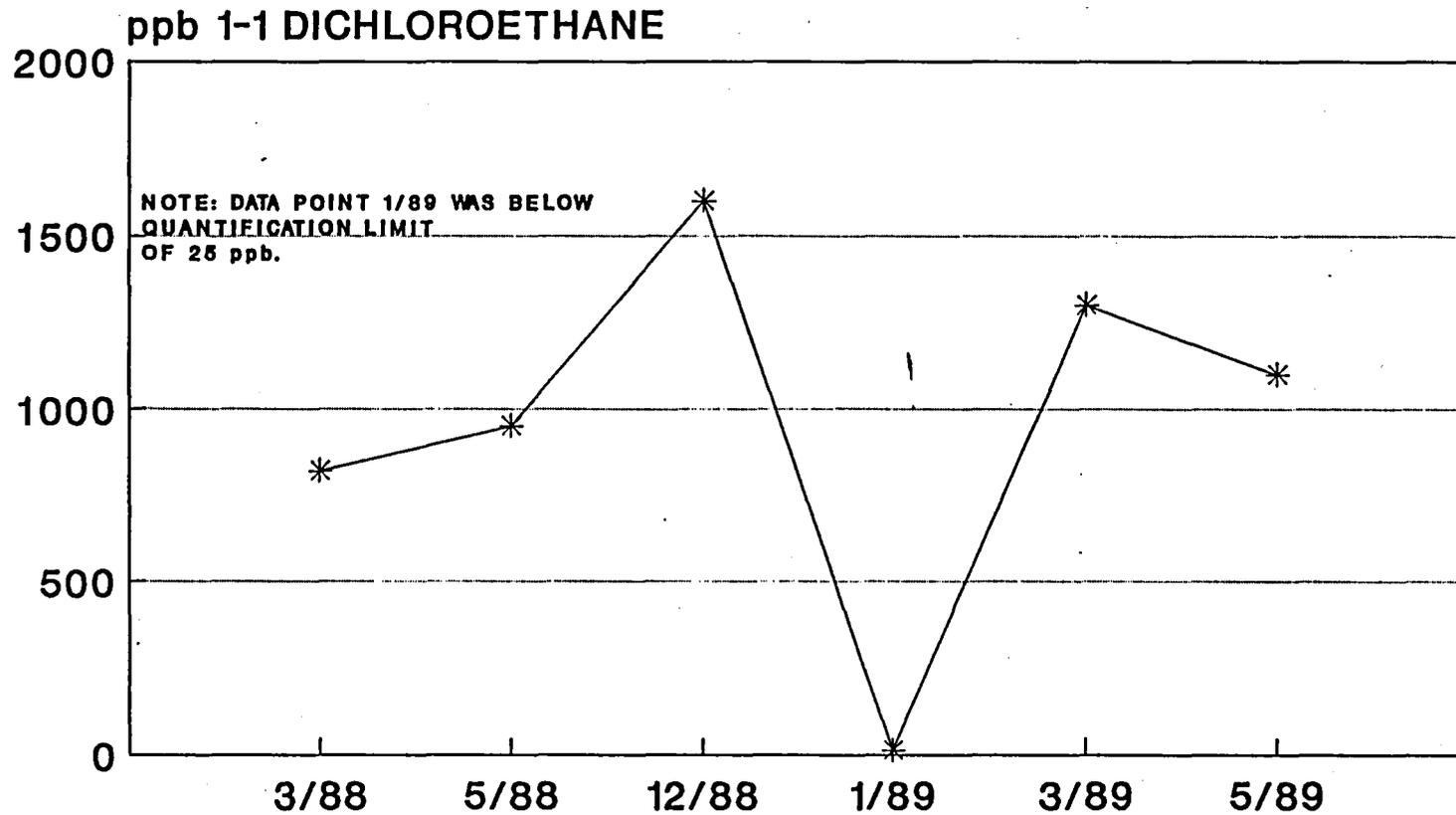
JUNE 20, 1989

# GROUNDWATER CONTAMINATION EVEREADY BATTERY CO.- ASHEBORO PLANT I



JUNE 20, 1989

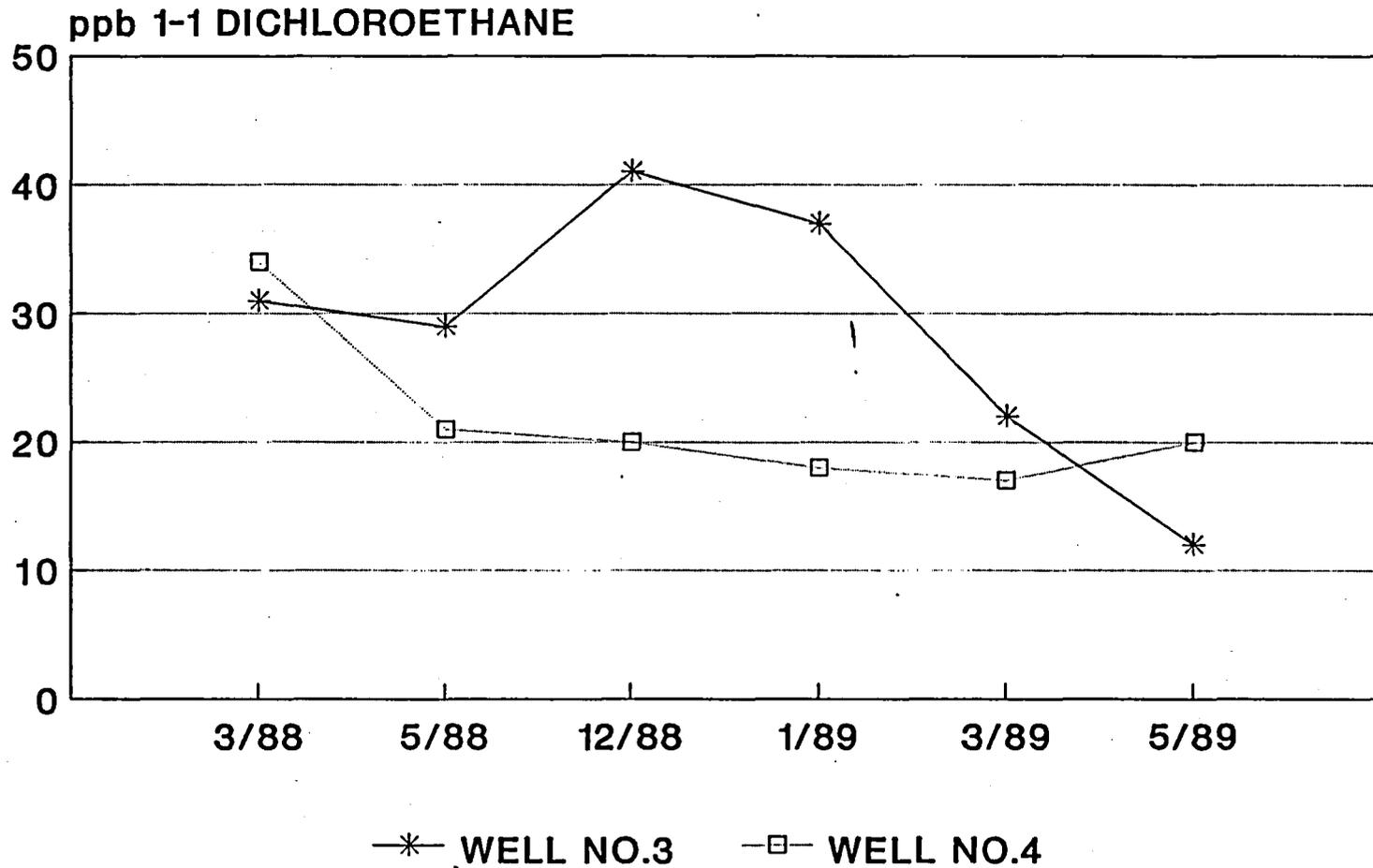
# GROUNDWATER CONTAMINATION EVEREADY BATTERY CO.- ASHEBORO PLANT I



—\*— WELL NO.2

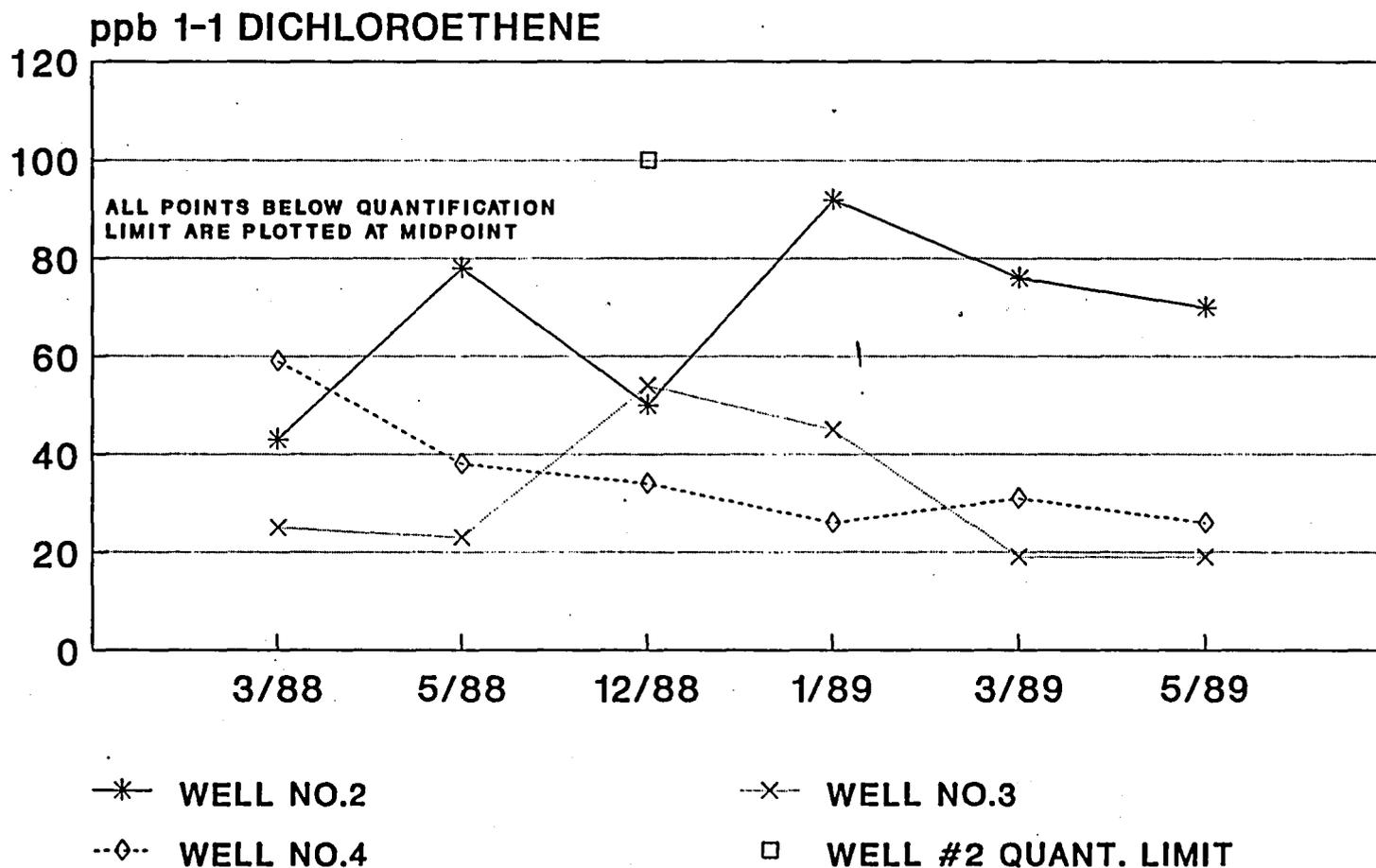
JUNE 20,1989

# GROUNDWATER CONTAMINATION EVEREADY BATTERY CO.- ASHEBORO PLANT I



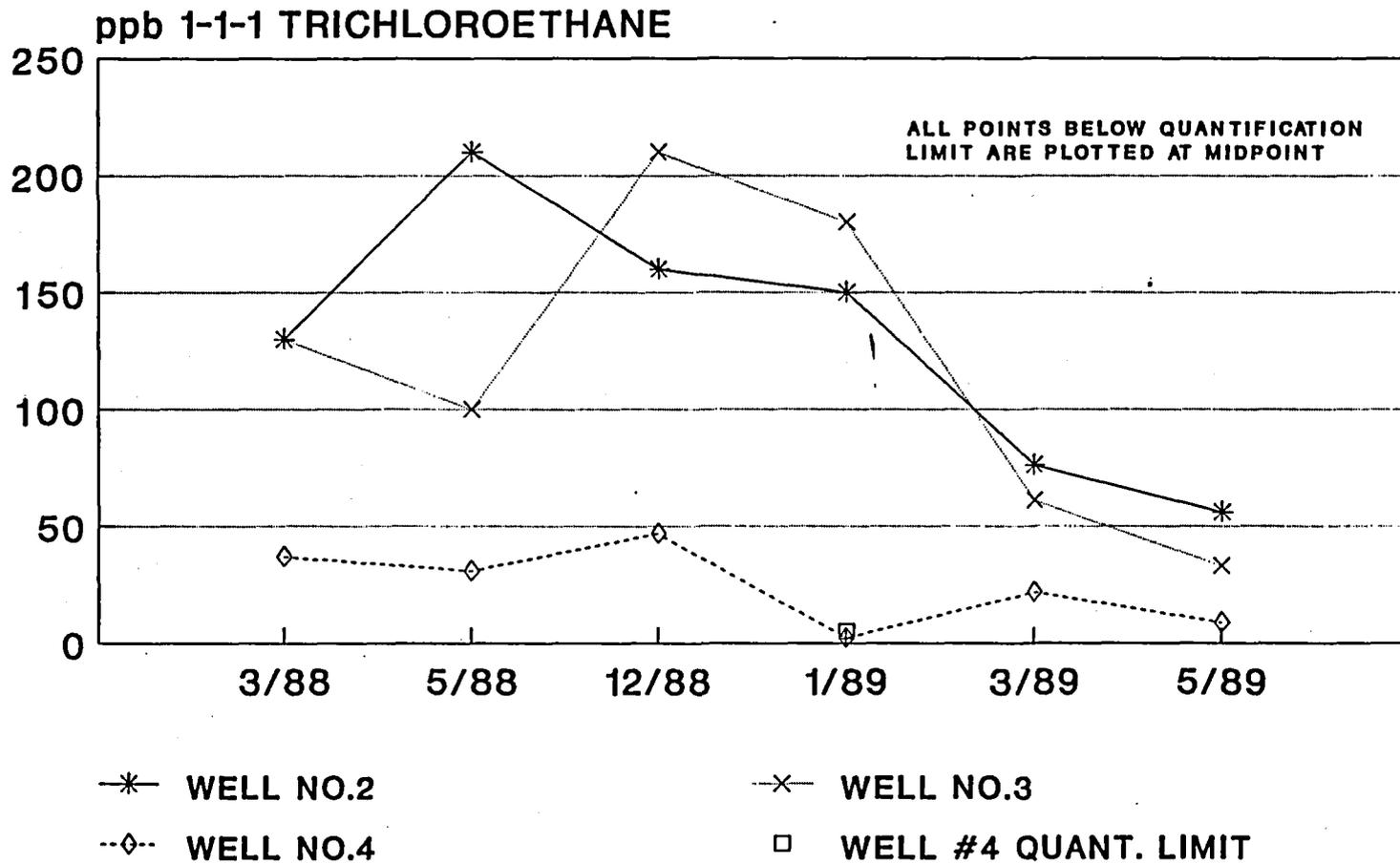
JUNE 20, 1989

# GROUNDWATER CONTAMINATION EVEREADY BATTERY CO.- ASHEBORO PLANT I



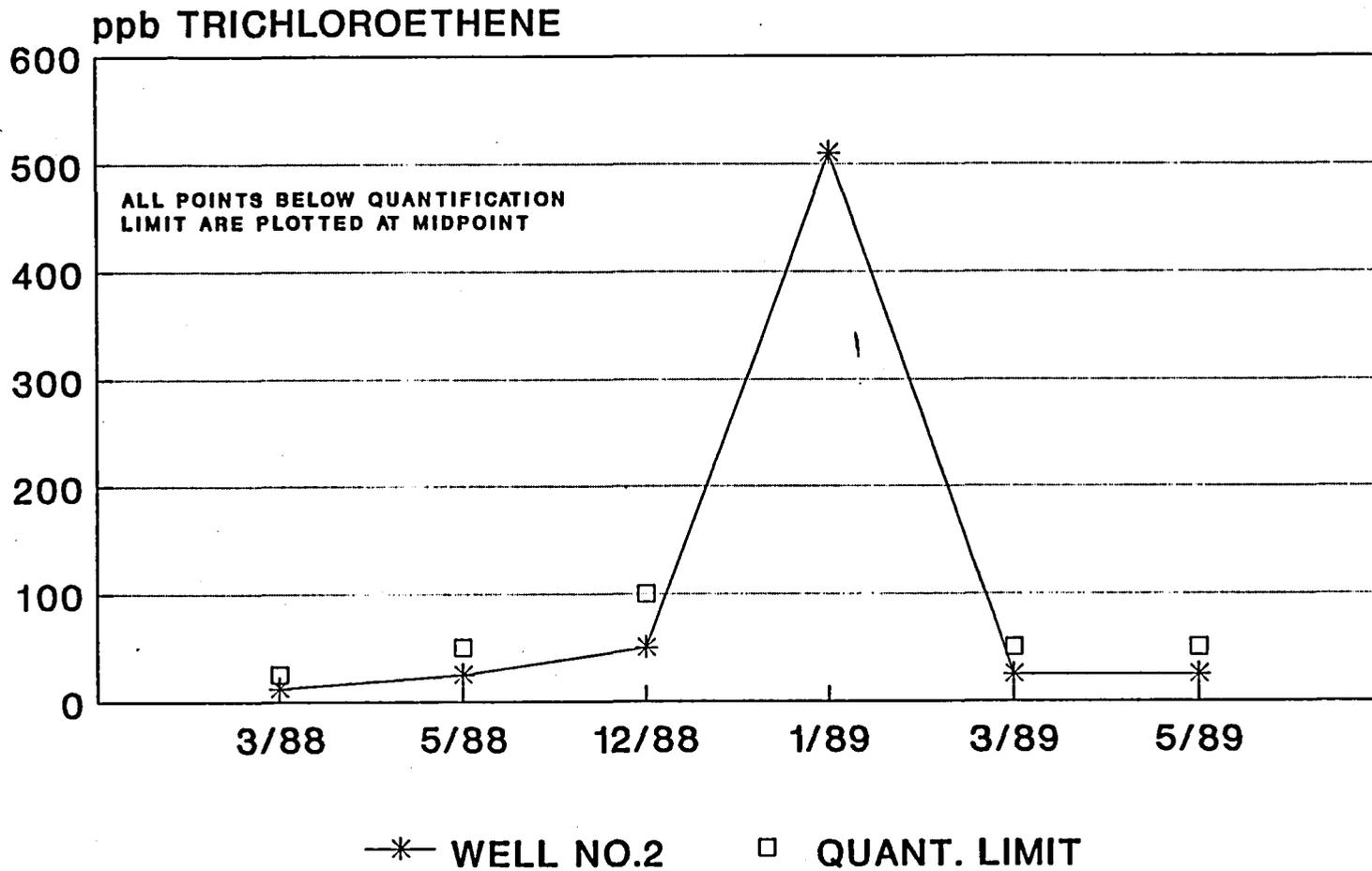
JUNE 20, 1989

# GROUNDWATER CONTAMINATION EVEREADY BATTERY CO.- ASHEBORO PLANT I



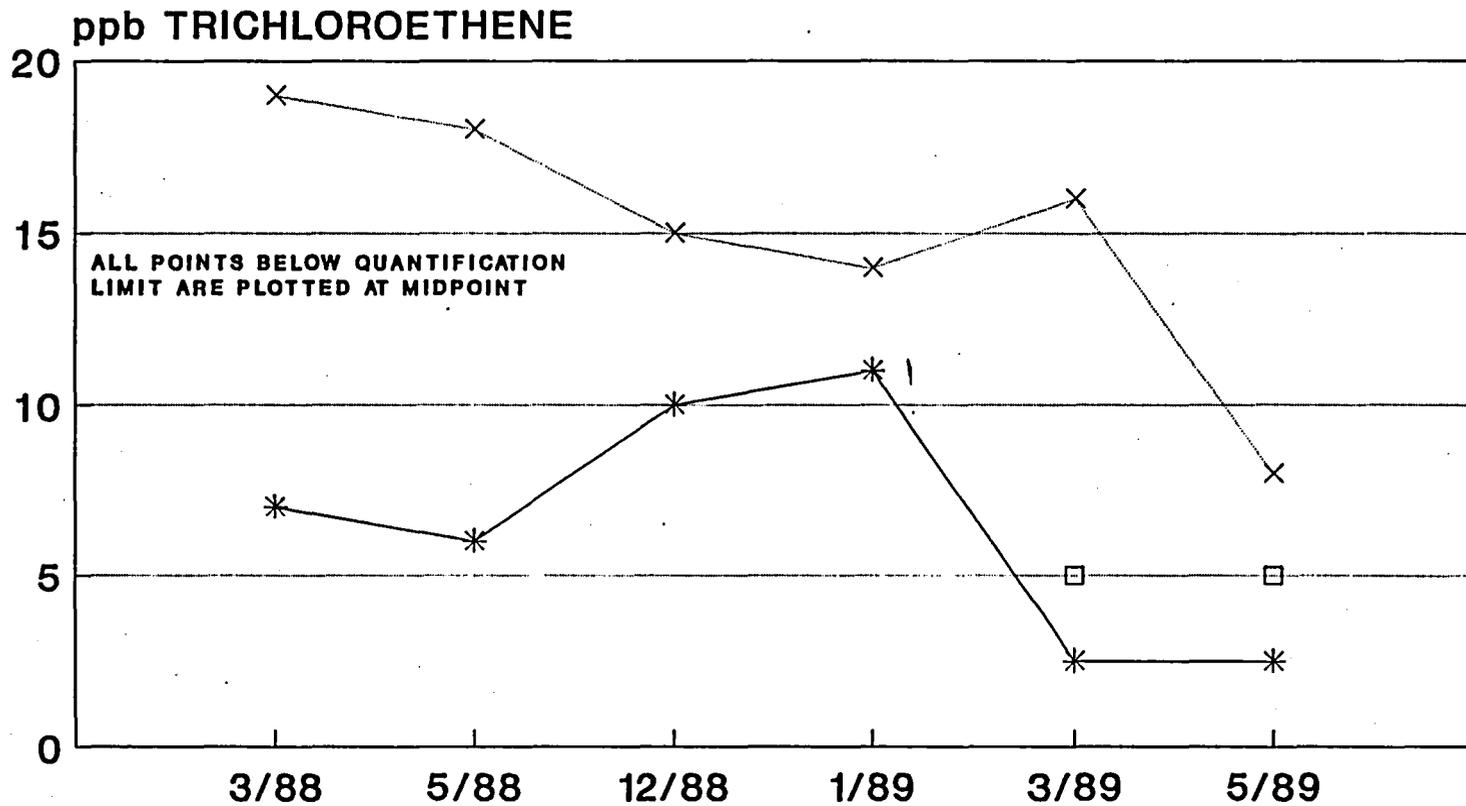
JUNE 20, 1989

# GROUNDWATER CONTAMINATION EVEREADY BATTERY CO.- ASHEBORO PLANT I



JUNE 20, 1989

# GROUNDWATER CONTAMINATION EVEREADY BATTERY CO.- ASHEBORO PLANT I

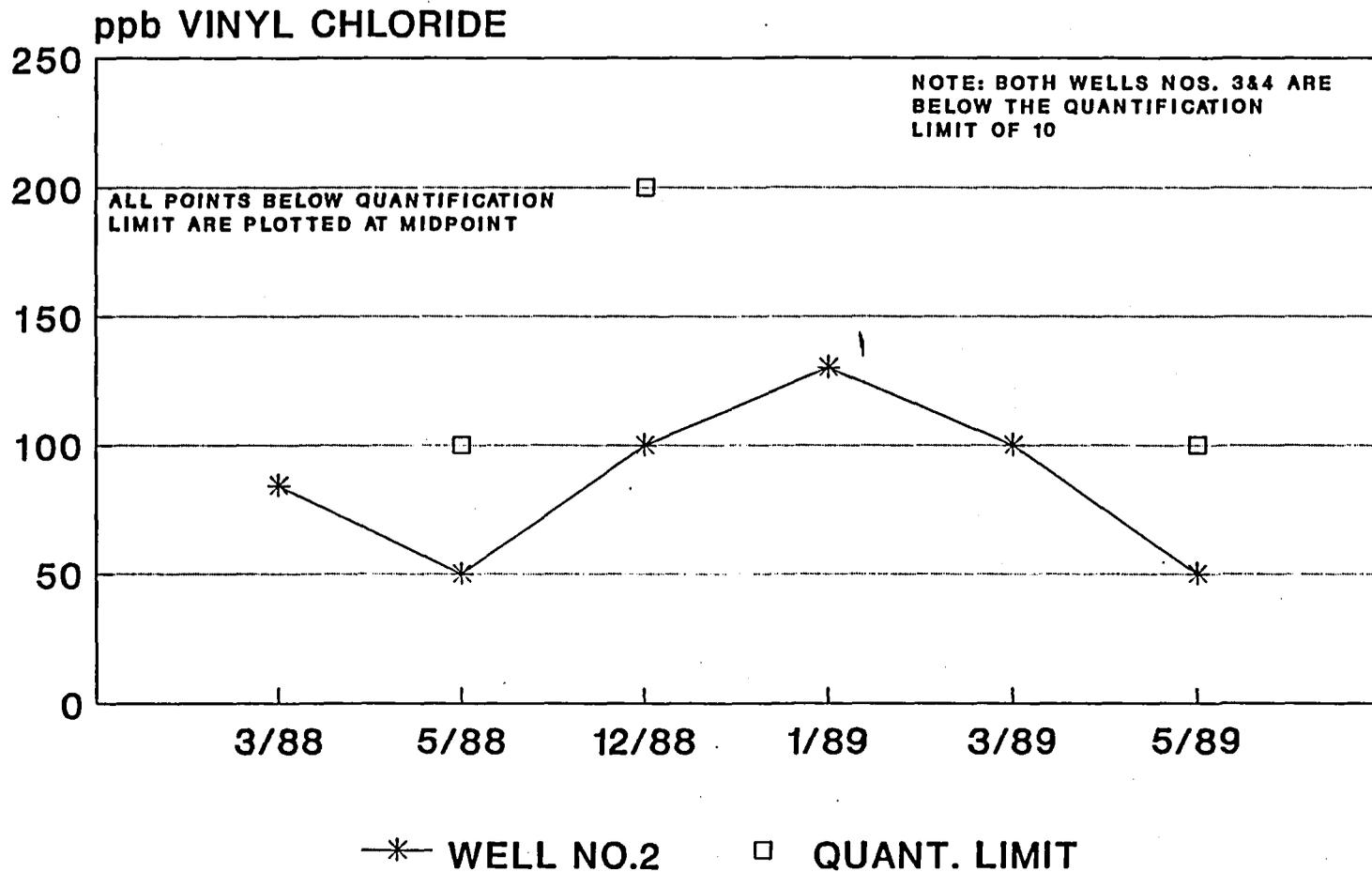


ALL POINTS BELOW QUANTIFICATION  
LIMIT ARE PLOTTED AT MIDPOINT

\* WELL NO.3    \* WELL NO.4    □ WELL #3 QUANT. LIMIT

JUNE 20, 1989

# GROUNDWATER CONTAMINATION EVEREADY BATTERY CO.- ASHEBORO PLANT I



JUNE 20, 1989

**ATTACHMENT II**

**SUMMARY OF EVEREADY BATTERY COMPANY - PLANT I**

**GROUNDWATER ANALYSIS**

(Results in ppb)

<u>Pollutants</u>	<u>Well No. 2</u>						<u>Well No. 3</u>						<u>Well No. 4</u>					
	<u>3/88</u>	<u>5/88</u>	<u>12/88</u>	<u>1/89</u>	<u>3/89</u>	<u>5/89</u>	<u>3/88</u>	<u>5/88</u>	<u>12/88</u>	<u>1/89</u>	<u>3/89</u>	<u>5/89</u>	<u>3/88</u>	<u>5/88</u>	<u>12/88</u>	<u>1/89</u>	<u>3/89</u>	<u>5/89</u>
Benezene	25	BQL	BQL	68	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
Chloroethane	70	BQL	BQL	170	250	180	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-1 Dichloroethane	820	950	1600	BQL	1300	1100	31	29	41	37	22	12	34	21	20	18	17	20
1-1 Dichloroethene	43	78	BQL	92	76	70	25	23	54	45	19	19	59	38	34	26	31	26
1-1-1 Trichloroethane	130	210	160	150	76	56	130	100	210	180	61	33	37	31	47	BQL	22	9
Trichloroethene	BQL	BQL	BQL	510	BQL	BQL	7	6	10	11	BQL	BQL	19	18	15	14	16	8
Vinyl Chloride	84	BQL	BQL	130	100	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

BQL = Below Quantification Limit

Comments **BQL - BELOW QUANTITATION LIMIT**  
 Quantitation limit elevated due to sample dilution prior to analysis.  
 Sample diluted due to high concentration of target compounds present.

**GC/MS Purgeables  
 EPA Method 624 Compounds**

IEA Sample No. 419010 1

Sample Identification MW-2

Date Analyzed December 13, 1988

By Cornwell

<u>Number</u>	<u>Compound</u>	<u>Water</u>	<u>Results</u>
		<u>Quantitation Limit</u> <u>µg/L</u>	<u>Concentration</u> <u>µg/L</u>
1	BENZENE	100	BQL
2	BROMODICHLOROMETHANE	100	BQL
3	BROMOFORM	100	BQL
4	BROMOMETHANE	200	BQL
5	CARBON TETRACHLORIDE	100	BQL
6	CHLOROBENZENE	100	BQL
7	CHLOROETHANE	200	BQL
8	2-CHLOROETHYLYNYL ETHER	100	BQL
9	CHLOROFORM	100	BQL
10	CHLOROMETHANE	200	BQL
11	DIBROMOCHLOROMETHANE	100	BQL
12	1,2-DICHLOROBENZENE	100	BQL
13	1,3-DICHLOROBENZENE	100	BQL
14	1,4-DICHLOROBENZENE	100	BQL
15	1,1-DICHLOROETHANE	100	1600
16	1,2-DICHLOROETHANE	100	BQL
17	1,1-DICHLOROETHENE	100	BQL
18	trans-1,2-DICHLOROETHENE	100	BQL
19	1,2-DICHLOROPROPANE	100	BQL
20	cis-1,3-DICHLOROPROPENE	100	BQL
21	trans-1,3-DICHLOROPROPENE	100	BQL
22	ETHYL BENZENE	100	BQL
23	METHYLENE CHLORIDE	100	BQL
24	1,1,2,2-TETRACHLOROETHANE	100	BQL
25	TETRACHLOROETHENE	100	BQL
26	TOLUENE	100	BQL
27	1,1,1-TRICHLOROETHANE	100	160
28	1,1,2-TRICHLOROETHANE	100	BQL
29	TRICHLOROETHENE	100	BQL
30	TRICHLOROFLUOROMETHANE	100	BQL
31	VINYL CHLORIDE	200	BQL

Comments: BQL - BELOW QUANTITATION LIMIT

**GC/MS Purgeables  
EPA Method 624 Compounds**

IEA Sample No. 419010 2

Sample Identification MW-3

Date Analyzed December 14, 1988

By Griffin

<u>Number</u>	<u>Compound</u>	<u>Water</u>	<u>Results</u>
		<u>Quantitation Limit</u> <u>µg/L</u>	<u>Concentration</u> <u>µg/L</u>
1	BENZENE	5	BQL
2	BROMODICHLOROMETHANE	5	BQL
3	BROMOFORM	5	BQL
4	BROMOMETHANE	10	BQL
5	CARBON TETRACHLORIDE	5	BQL
6	CHLOROBENZENE	5	BQL
7	CHLOROETHANE	10	BQL
8	2-CHLOROETHYLYNYL ETHER	5	BQL
9	CHLOROFORM	5	BQL
10	CHLOROMETHANE	10	BQL
11	DIBROMOCHLOROMETHANE	5	BQL
12	1,2-DICHLOROBENZENE	5	BQL
13	1,3-DICHLOROBENZENE	5	BQL
14	1,4-DICHLOROBENZENE	5	BQL
15	1,1-DICHLOROETHANE	5	41
16	1,2-DICHLOROETHANE	5	BQL
17	1,1-DICHLOROETHENE	5	54
18	trans-1,2-DICHLOROETHENE	5	BQL
19	1,2-DICHLOROPROPANE	5	BQL
20	cis-1,3-DICHLOROPROPENE	5	BQL
21	trans-1,3-DICHLOROPROPENE	5	BQL
22	ETHYL BENZENE	5	BQL
23	METHYLENE CHLORIDE	5	BQL
24	1,1,2,2-TETRACHLOROETHANE	5	BQL
25	TETRACHLOROETHENE	5	BQL
26	TOLUENE	5	BQL
27	1,1,1-TRICHLOROETHANE	5	210
28	1,1,2-TRICHLOROETHANE	5	BQL
29	TRICHLOROETHENE	5	10
30	TRICHLOROFLUOROMETHANE	5	BQL
31	VINYL CHLORIDE	10	BQL

Comments BQL - BELOW QUANTITATION LIMIT

**GC/MS Purgeables  
EPA Method 624 Compounds**

IEA Sample No. 419010 3

Sample Identification MW-4

Date Analyzed December 14, 1988

By Griffin

<u>Number</u>	<u>Compound</u>	<u>Water</u>	<u>Results</u>
		<u>Quantitation Limit</u> <u>ug/L</u>	<u>Concentration</u> <u>ug/L</u>
1	BENZENE	5	BQL
2	BROMODICHLOROMETHANE	5	BQL
3	BROMOFORM	5	BQL
4	BROMOMETHANE	10	BQL
5	CARBON TETRACHLORIDE	5	BQL
6	CHLOROBENZENE	5	BQL
7	CHLOROETHANE	10	BQL
8	2-CHLOROETHYLYNYL ETHER	5	BQL
9	CHLOROFORM	5	BQL
10	CHLOROMETHANE	10	BQL
11	DIBROMOCHLOROMETHANE	5	BQL
12	1,2-DICHLOROBENZENE	5	BQL
13	1,3-DICHLOROBENZENE	5	BQL
14	1,4-DICHLOROBENZENE	5	BQL
15	1,1-DICHLOROETHANE	5	20
16	1,2-DICHLOROETHANE	5	BQL
17	1,1-DICHLOROETHENE	5	34
18	trans-1,2-DICHLOROETHENE	5	BQL
19	1,2-DICHLOROPROPANE	5	BQL
20	cis-1,3-DICHLOROPROPENE	5	BQL
21	trans-1,3-DICHLOROPROPENE	5	BQL
22	ETHYL BENZENE	5	BQL
23	METHYLENE CHLORIDE	5	BQL
24	1,1,2,2-TETRACHLOROETHANE	5	BQL
25	TETRACHLOROETHENE	5	BQL
26	TOLUENE	5	BQL
27	1,1,1-TRICHLOROETHANE	5	47
28	1,1,2-TRICHLOROETHANE	5	BQL
29	TRICHLOROETHENE	5	15
30	TRICHLOROFLUOROMETHANE	5	BQL
31	VINYL CHLORIDE	10	BQL

"January 1989 Sample"

GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419011-1

Sample Identification: MW-2

Date Analyzed: 2-3-89

By: Olszewski

Number	Compound	Water Quantitation Limit ug/L	Results Concentration ug/L
1	Benzene	25	68
2	Bromodichloromethane	25	BQL
3	Bromoform	25	BQL
4	Bromomethane	50	BQL
5	Carbon tetrachloride	25	BQL
6	Chlorobenzene	25	BQL
7	Chloroethane	50	170
8	2-Chloroethylvinyl ether	25	BQL
9	Chloroform	25	BQL
10	Chloromethane	50	BQL
11	Dibromochloromethane	25	BQL
12	1,2-Dichlorobenzene	25	BQL
13	1,3-Dichlorobenzene	25	BQL
14	1,4-Dichlorobenzene	25	BQL
15	1,1-dichloroethane	25	BQL
16	1,2-Dichloroethane	25	BQL
17	1,1-Dichloroethene	25	92
18	trans-1,2-Dichloroethene	25	BQL
19	1,2-Dichloropropane	25	BQL
20	cis-1,3-Dichloropropene	25	BQL
21	trans-1,3-Dichloropropene	25	BQL
22	Ethyl benzene	25	BQL
23	Methylene chloride	25	BQL
24	1,1,2,2-Tetrachloroethane	25	BQL
25	Tetrachloroethene	25	BQL
26	Toluene	25	37
27	1,1,1-Trichloroethane	25	150
28	1,1,2-Trichloroethane	25	BQL
29	Trichloroethene	25	510
30	Trichlorofluoromethane	25	BQL
31	Vinyl Chloride	50	130

Comments:

BQL = Below Quantitation Limit  
Quantitation limit elevated due to sample dilution prior to analysis.  
Sample diluted due to high concentration of target compounds present.

"January 1989 Sample"

GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419011-2  
Sample Identification: MW-3  
Date Analyzed: 2-3-89

By: Olszewski

Number	Compound	Water Quantitation Limit ug/L	Results Concentration ug/L
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-dichloroethane	5	37
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	45
18	trans-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethyl benzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	180
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	11
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit

"January 1989 Sample"

GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 491011-3  
Sample Identification: MW-4  
Date Analyzed: 2-3-89

By: Olszewski

Number	Compound	Water Quantitation Limit ug/L	Results Concentration ug/L
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-dichloroethane	5	18
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	26
18	trans-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethyl benzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	BQL
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	14
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit

**"March 1989 Sample"**

**GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS**

IEA Sample Number: 419-14-1  
 Sample Identification: MW-2  
 Date Analyzed: 03/30/89 By: Cornwell

Number	Compound	Water Quantitation Limit ug/L	Results Concentration ug/L
1	Benzene	50	BQL
2	Bromodichloromethane	50	BQL
3	Bromoform	50	BQL
4	Bromomethane	100	BQL
5	Carbon tetrachloride	50	BQL
6	Chlorobenzene	50	BQL
7	Chloroethane	100	250
8	2-Chloroethylvinyl ether	50	BQL
9	Chloroform	50	BQL
10	Chloromethane	100	BQL
11	Dibromochloromethane	50	BQL
12	1,2-Dichlorobenzene	50	BQL
13	1,3-Dichlorobenzene	50	BQL
14	1,4-Dichlorobenzene	50	BQL
15	1,1-dichloroethane	50	1,300
16	1,2-Dichloroethane	50	BQL
17	1,1-Dichloroethene	50	76
18	trans-1,2-Dichloroethene	50	BQL
19	1,2-Dichloropropane	50	BQL
20	cis-1,3-Dichloropropene	50	BQL
21	trans-1,3-Dichloropropene	50	BQL
22	Ethylbenzene	50	BQL
23	Methylene chloride	50	BQL
24	1,1,2,2-Tetrachloroethane	50	BQL
25	Tetrachloroethene	50	BQL
26	Toluene	50	BQL
27	1,1,1-Trichloroethane	50	76
28	1,1,2-Trichloroethane	50	BQL
29	Trichloroethene	50	BQL
30	Trichlorofluoromethane	50	BQL
31	Vinyl Chloride	100	100

**Comments:**

BQL = Below Quantitation Limit  
 Quantitation limit elevated due to sample dilution prior to analysis.  
 Sample diluted due to high concentration of target compounds present.

"March 1989 Sample"

GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-14-2  
Sample Identification: MW-3  
Date Analyzed: 03/31/89

By: Cornwell

Number	Compound	Water Quantitation Limit ug/L	Results Concentration ug/L
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-dichloroethane	5	22
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	19
18	trans-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	61
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit

"March 1989 Sample"

GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-14-3  
Sample Identification: MW-4  
Date Analyzed: 03/31/89

By: Cornwell

Number	Compound	Water Quantitation Limit ug/L	Results Concentration ug/L
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-dichloroethane	5	17
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	31
18	trans-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	22
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	16
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit

"May 1989 Sample"

GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-016-1  
Sample Identification: MW-2  
Date Analyzed: 05/31/89 By: Cornwell

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	50	BQL
2	Bromodichloromethane	50	BQL
3	Bromoform	50	BQL
4	Bromomethane	100	BQL
5	Carbon tetrachloride	50	BQL
6	Chlorobenzene	50	BQL
7	Chloroethane	100	180
8	2-Chloroethylvinyl ether	50	BQL
9	Chloroform	50	BQL
10	Chloromethane	100	BQL
11	Dibromochloromethane	50	BQL
12	1,2-Dichlorobenzene	50	BQL
13	1,3-Dichlorobenzene	50	BQL
14	1,4-Dichlorobenzene	50	BQL
15	1,1-Dichloroethane	50	1,100
16	1,2-Dichloroethane	50	BQL
17	1,1-Dichloroethene	50	70
18	trans-1,2-Dichloroethene	50	BQL
19	1,2-Dichloropropane	50	BQL
20	cis-1,3-Dichloropropene	50	BQL
21	trans-1,3-Dichloropropene	50	BQL
22	Ethylbenzene	50	BQL
23	Methylene chloride	50	BQL
24	1,1,2,2-Tetrachloroethane	50	BQL
25	Tetrachloroethene	50	BQL
26	Toluene	50	BQL
27	1,1,1-Trichloroethane	50	56
28	1,1,2-Trichloroethane	50	BQL
29	Trichloroethene	50	BQL
30	Trichlorofluoromethane	50	BQL
31	Vinyl Chloride	100	BQL

Comments:

BQL = Below Quantitation Limit  
Quantitation limit elevated due to sample dilution prior to analysis.  
Sample diluted due to high concentration of target compounds present.

"May 1989 Sample"

GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-016-2

Sample Identification: MW-3

Date Analyzed: 05/30/89

By: Carleton

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	12
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	19
18	trans-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	33
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit

"May 1989 Sample"

GC/MS PURGEABLES  
EPA METHOD 624 COMPOUNDS

IEA Sample Number: 419-016-3  
Sample Identification: MW-4  
Date Analyzed: 05/30/89

By: Cornwell

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	20
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	26
18	trans-1,2-Dichloroethene	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	BQL
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	9
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	8
30	Trichlorofluoromethane	5	BQL
31	Vinyl Chloride	10	BQL

Comments:

BQL = Below Quantitation Limit

Mr. A.M. Nash ←



RECEIVED

OCT 24 1988

ENVIRONMENTAL  
AFFAIRS

State of North Carolina  
Department of Natural Resources and Community Development

Winston-Salem Regional Office

James G. Martin, Governor

DIVISION OF ENVIRONMENTAL MANAGEMENT  
GROUNDWATER SECTION

S. Thomas Rhodes, Secretary

October 12, 1988

Mr. Dario Sena  
Eveready Battery Co., Inc.  
P. O. Box 3209, Plant 1  
Asheboro, N.C. 27203

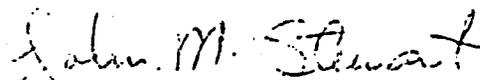
Subject: August 26, 1988, Groundwater Monitoring Plan,  
Eveready Battery Company, Plant 1, Asheboro,  
Randolph County, GW#

Dear Mr. Sena:

Your plan to monitor the wells for an additional eight months to determine if either an increasing or decreasing trend in concentrations develops is acceptable, as are the two options you have presented dependant upon the concentration trends. Please note that the correct end point criteria is four consecutive analyses from each well which shows levels of contamination below the regulatory limits. If the levels of contamination stabilize and no decrease is noted, then you have the options of applying for a reclassification of the groundwater or a variance to the contaminant levels in the groundwater under the subject site (NCAC 15 2L .0103).

If you have any questions, please contact Brenda Smith or me.

Sincerely,

  
John M. Stewart  
Hydrogeologist I

JMS:al

EVEREADY BATTERY CO. INC.  
Phone (919) 672-3500

P.O. Box 3209, Plt. 1, Asheboro, N.C. 27204-3209  
800 Albemarle Rd., Asheboro, N.C. 27203

August 26, 1988

RECEIVED

SEP 9 1988

ENVIRONMENTAL  
AFFAIRS

Mr. John M. Stewart  
Hydrogeologist I  
State of N. C. Dept. of Natural Resources  
& Community Development  
Division of Environmental Management  
Groundwater Section  
8025 North Point Blvd., Suite 100  
Winston-Salem, North Carolina 27106-3295

Dear Mr. Stewart:

SUBJECT: Underground Gasoline Tank Leak  
Soil Clean-up Site at Eveready  
Battery Company, Inc.,  
Asheboro Plant I

Thank you very much for your 8/24/88 visit to review the status of our groundwater situation resulting from the leaking underground tank. We have reviewed your suggestions and are proposing the following actions on the part of Eveready Battery Company, Inc.

1. We will institute a semiannual monitoring program of our existing wells #2, #3, and #4 for the following contaminants.
  1. Benzene
  2. Chloroethane
  3. 1-1 Dichloroethane
  4. Trichloroethene
  5. 1-1 Dichloroethene
  6. 1-1-1 Trichloroethane
  7. Vinyl Chloride
2. Since the last sample was taken on May 31, 1988, the next sampling will be in November 1988 and then May 1989, and so on.
3. The analysis results will be reported to you within 2 weeks of the receipt of the data from the certified lab.
4. In the report addressing the May 1989 monitoring results, we will outline our program steps, i.e.,
  - (a) If the data show an increasing trend, we will initiate source investigation at the tank leak site, and determine the feasibility of aeration for soil remediation. If appropriate, we will also investigate groundwater remedial actions.

Mr. John M. Stewart  
Page 2  
August 26, 1988

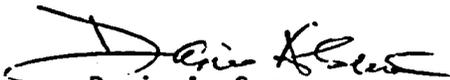
- (b) If the data show a decreasing trend, we will outline a continuing monitoring program on these existing wells.
5. The endpoint criteria for the monitoring program, per your guidance, is four consecutive analyses from each well showing decreases in contaminant concentrations.

If you have questions or comments on these proposals, please call me at (919) 672-3524 or Mr. Albert M. Nash at (216) 835-7607.

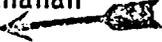
Once again, thank you for your help.

Very truly yours,

EVEREADY BATTERY COMPANY, INC.

  
Dario A. Sena  
Environmental Coordinator

DAS:jh

cc: G. W. Beck  
R. G. Behr  
P. R. Brown  
G. B. McClanahan  
A. M. Nash   
Brenda Smith/Emily Glockler

EVEREADY BATTERY CO. INC.  
Phone (919) 672-3500

P.O. Box 3209, Plt. 1, Asheboro, N.C. 27204-3209  
800 Albemarle Rd., Asheboro, N.C. 27203

July 21, 1988

RECEIVED

JUL 29 1988

ENVIRONMENTAL  
AFFAIRS

Mr. John M. Stewart  
Hydrogeologist I  
State of N. C. Dept. of Natural Resources  
& Community Development  
Division of Environmental Management  
Groundwater Section  
8025 North Point Blvd., Suite 100  
Winston-Salem, North Carolina 27106-3295

Dear Mr. Stewart:

SUBJECT: Underground Gasoline Tank Leak  
Soil Clean-up Site at Eveready  
Battery Company, Inc.,  
Asheboro Plant I

Herewith are the results of resampling done on May 31, 1988 by Industrial and Environmental Analysts, Inc.

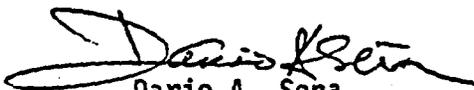
The analyses results indicate residual contamination of the groundwater. We would like to discuss the results with you as early as possible.

I will get in contact with you within two weeks to set up the date and time for the meeting which will suit your tight schedule.

If there are questions, please call me at (919) 672-3524.

Very truly yours,

EVEREADY BATTERY COMPANY, INC.



Dario A. Sena  
Environmental Coordinator

DAS:jh

Attach.

bcc: R. G. Behr  
G. B. McClanahan/G. W. Beck  
A. M. Nash ←

Comments

BQL - BELOW QUANTITATION LIMIT

Quantitation limit elevated due to sample dilution prior to analysis.

Sample diluted due to high concentration of target compounds present.

Xylenes(total) <50 µg/L. Isopropyl ether <50 µg/L. MTBE <50 µg/L.

### GC/MS Purgeables

IEA Sample No. 419004 1

Sample Identification W-2

Date Analyzed June 13, 1988

By O'Toole

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u>	<u>Results</u>
		<u>µg/L</u>	<u>Concentration</u> <u>µg/L</u>
1	BENZENE	50	BQL
2	BROMODICHLOROMETHANE	50	BQL
3	BROMOFORM	50	BQL
4	BROMOMETHANE	100	BQL
5	CARBON TETRACHLORIDE	50	BQL
6	CHLOROBENZENE	50	BQL
7	CHLOROETHANE	100	BQL
8	2-CHLOROETHYLYNYL ETHER	50	BQL
9	CHLOROFORM	50	BQL
10	CHLOROMETHANE	100	BQL
11	DIBROMOCHLOROMETHANE	50	BQL
12	1,2-DICHLOROBENZENE	50	BQL
13	1,3-DICHLOROBENZENE	50	BQL
14	1,4-DICHLOROBENZENE	50	BQL
15	1,1-DICHLOROETHANE	50	950
16	1,2-DICHLOROETHANE	50	BQL
17	1,1-DICHLOROETHENE	50	78
18	trans-1,2-DICHLOROETHENE	50	BQL
19	1,2-DICHLOROPROPANE	50	BQL
20	cis-1,3-DICHLOROPROPENE	50	BQL
21	trans-1,3-DICHLOROPROPENE	50	BQL
22	ETHYL BENZENE	50	BQL
23	METHYLENE CHLORIDE	50	BQL
24	1,1,2,2-TETRACHLOROETHANE	50	BQL
25	TETRACHLOROETHENE	50	BQL
26	TOLUENE	50	BQL
27	1,1,1-TRICHLOROETHANE	50	210
28	1,1,2-TRICHLOROETHANE	50	BQL
29	TRICHLOROETHENE	50	BQL
30	TRICHLOROFLUOROMETHANE	50	BQL
31	VINYL CHLORIDE	100	BQL

Comments BQL - BELOW QUANTITATION LIMIT  
 Xylenes (total) <5 µg/L.  
 Isopropyl ether <5 µg/L.  
 MTBE <5 µg/L.

### GC/MS Purgeables

IEA Sample No. 419004 4

Sample Identification Eveready W-3

Date Analyzed June 13, 1988

By Teismann

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u>	<u>Results</u>
		<u>µg/L</u>	<u>Concentration</u> <u>µg/L</u>
1	BENZENE	5	BQL
2	BROMODICHLOROMETHANE	5	BQL
3	BROMOFORM	5	BQL
4	BROMOMETHANE	10	BQL
5	CARBON TETRACHLORIDE	5	BQL
6	CHLOROENZENE	5	BQL
7	CHLOROETHANE	10	BQL
8	2-CHLOROETHYL VINYL ETHER	5	BQL
9	CHLOROFORM	5	BQL
10	CHLOROMETHANE	10	BQL
11	DIBROMOCHLOROMETHANE	5	BQL
12	1,2-DICHLOROENZENE	5	BQL
13	1,3-DICHLOROENZENE	5	BQL
14	1,4-DICHLOROENZENE	5	BQL
15	1,1-DICHLOROETHANE	5	29
16	1,2-DICHLOROETHANE	5	BQL
17	1,1-DICHLOROETHENE	5	23
18	trans-1,2-DICHLOROETHENE	5	BQL
19	1,2-DICHLOROPROPANE	5	BQL
20	cis-1,3-DICHLOROPROPENE	5	BQL
21	trans-1,3-DICHLOROPROPENE	5	BQL
22	ETHYL BENZENE	5	BQL
23	METHYLENE CHLORIDE	5	BQL
24	1,1,2,2-TETRACHLOROETHANE	5	BQL
25	TETRACHLOROETHENE	5	BQL
26	TOLUENE	5	BQL
27	1,1,1-TRICHLOROETHANE	5	100
28	1,1,2-TRICHLOROETHANE	5	BQL
29	TRICHLOROETHENE	5	6
30	TRICHLOROFLUOROMETHANE	5	BQL
31	VINYL CHLORIDE	10	BQL

Comments

BQL - BELOW QUANTITATION LIMIT

Xylenes (total) <5 µg/L.  
 Isopropyl ether <5 µg/L.  
 MTBE <5 µg/L.

### GC/MS Purgeables

IEA Sample No. 419004 3

Sample Identification W-4

Date Analyzed June 13, 1988

By Cornwell

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u>	<u>Results</u>
		<u>µg/L</u>	<u>Concentration</u> <u>µg/L</u>
1	BENZENE	5	BQL
2	BROMODICHLOROMETHANE	5	BQL
3	BROMOFORM	5	BQL
4	BROMOMETHANE	10	BQL
5	CARBON TETRACHLORIDE	5	BQL
6	CHLOROBENZENE	5	BQL
7	CHLOROETHANE	10	BQL
8	2-CHLOROETHYLYNYL ETHER	5	BQL
9	CHLOROFORM	5	BQL
10	CHLOROMETHANE	10	BQL
11	DIBROMOCHLOROMETHANE	5	BQL
12	1,2-DICHLOROBENZENE	5	BQL
13	1,3-DICHLOROBENZENE	5	BQL
14	1,4-DICHLOROBENZENE	5	BQL
15	1,1-DICHLOROETHANE	5	21
16	1,2-DICHLOROETHANE	5	BQL
17	1,1-DICHLOROETHENE	5	38
18	trans-1,2-DICHLOROETHENE	5	BQL
19	1,2-DICHLOROPROPANE	5	BQL
20	cis-1,3-DICHLOROPROPENE	5	BQL
21	trans-1,3-DICHLOROPROPENE	5	BQL
22	ETHYL BENZENE	5	BQL
23	METHYLENE CHLORIDE	5	BQL
24	1,1,2,2-TETRACHLOROETHANE	5	BQL
25	TETRACHLOROETHENE	5	BQL
26	TOLUENE	5	BQL
27	1,1,1-TRICHLOROETHANE	5	31
28	1,1,2-TRICHLOROETHANE	5	BQL
29	TRICHLOROETHENE	5	18
30	TRICHLOROFLUOROMETHANE	5	BQL
31	VINYL CHLORIDE	10	BQL

Comments BQL - BELOW QUANTITATION LIMIT  
 Xylenes (total) <5 µg/L.  
 Isopropyl ether <5 µg/L.  
 MTBE <5 µg/L.

### GC/MS Purgeables

IEA Sample No. 419004 6

Sample Identification Trip Blank

Date Analyzed June 13, 1988

By O'Toole

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u>	<u>Results</u>
		<u>µg/L</u>	<u>Concentration</u> <u>µg/L</u>
1	BENZENE	5	BQL
2	BROMODICHLOROMETHANE	5	BQL
3	BROMOFORM	5	BQL
4	BROMOMETHANE	10	BQL
5	CARBON TETRACHLORIDE	5	BQL
6	CHLOROBENZENE	5	BQL
7	CHLOROETHANE	10	BQL
8	2-CHLOROETHYL VINYL ETHER	5	BQL
9	CHLOROFORM	5	BQL
10	CHLOROMETHANE	10	BQL
11	DIBROMOCHLOROMETHANE	5	BQL
12	1,2-DICHLOROBENZENE	5	BQL
13	1,3-DICHLOROBENZENE	5	BQL
14	1,4-DICHLOROBENZENE	5	BQL
15	1,1-DICHLOROETHANE	5	BQL
16	1,2-DICHLOROETHANE	5	BQL
17	1,1-DICHLOROETHENE	5	BQL
18	trans-1,2-DICHLOROETHENE	5	BQL
19	1,2-DICHLOROPROPANE	5	BQL
20	cis-1,3-DICHLOROPROPENE	5	BQL
21	trans-1,3-DICHLOROPROPENE	5	BQL
22	ETHYL BENZENE	5	BQL
23	METHYLENE CHLORIDE	5	BQL
24	1,1,2,2-TETRACHLOROETHANE	5	BQL
25	TETRACHLOROETHENE	5	BQL
26	TOLUENE	5	BQL
27	1,1,1-TRICHLOROETHANE	5	BQL
28	1,1,2-TRICHLOROETHANE	5	BQL
29	TRICHLOROETHENE	5	BQL
30	TRICHLOROFLUOROMETHANE	5	BQL
31	VINYL CHLORIDE	10	BQL

Comments

QNR-Quantitation Not Requested

Quantitation limit elevated due sample dilution prior to analysis. Sample diluted due to high concentration of target compounds present.

Tentatively Identified Compounds

IEA Sample ID: 419004 1

Client Sample ID: W-2

Applicable Fraction: Volatile  Base/Neutral  Acid  Other

Tentatively Identified Compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TIC's are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TIC's are identified and quantitated only if the peak height is 10% or more of that of the nearest internal standard.

TIC Name

Concentration

µg/L

None per above criteria

<50

Comments QNR-Quantitation Not Requested

Tentatively Identified Compounds

IEA Sample ID: 419004 4

Client Sample ID: Eveready W-3

Applicable Fraction: Volatile  Base/Neutral  Acid  Other

Tentatively Identified Compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TIC's are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TIC's are identified and quantitated only if the peak height is 10% or more of that of the nearest internal standard.

TIC Name

Concentration

ug/L

None per above criteria

<5

Comments QNR-Quantitation Not Requested

Tentatively Identified Compounds

IEA Sample ID: 419004 3

Client Sample ID: W-4

Applicable Fraction: Volatile  Base/Neutral  Acid  Other

Tentatively Identified Compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TIC's are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TIC's are identified and quantitated only if the peak height is 10% or more of that of the nearest internal standard.

<u>TIC Name</u>	<u>Concentration</u>	<u>µg/L</u>
<u>None per above criteria</u>	<u>&lt;5</u>	

Comments: CNR-Quantitation Not Requested

**Tentatively Identified Compounds**

IEA Sample ID: 419004 6

Client Sample ID: Trip Blank

Applicable Fraction: Volatile  Base/Neutral  Acid  Other

Tentatively Identified Compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TIC's are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact, mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TIC's are identified and quantitated only if the peak height is 10% or more of that of the nearest internal standard.

TIC Name

Concentration

ug/L

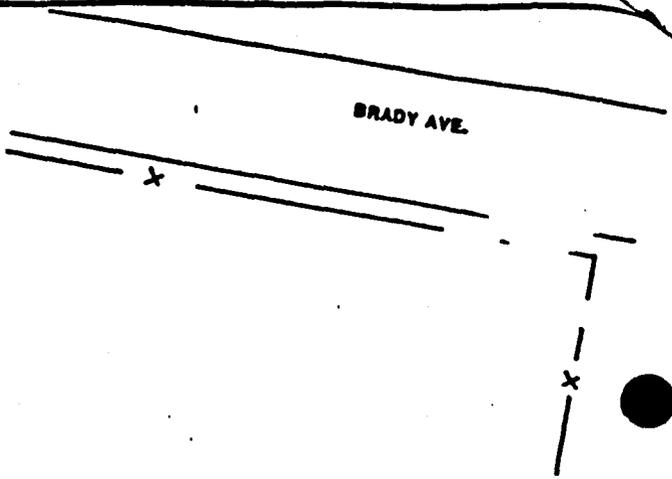
None per above criteria

<5

**IEA LAB RESULTS**

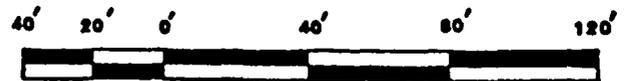
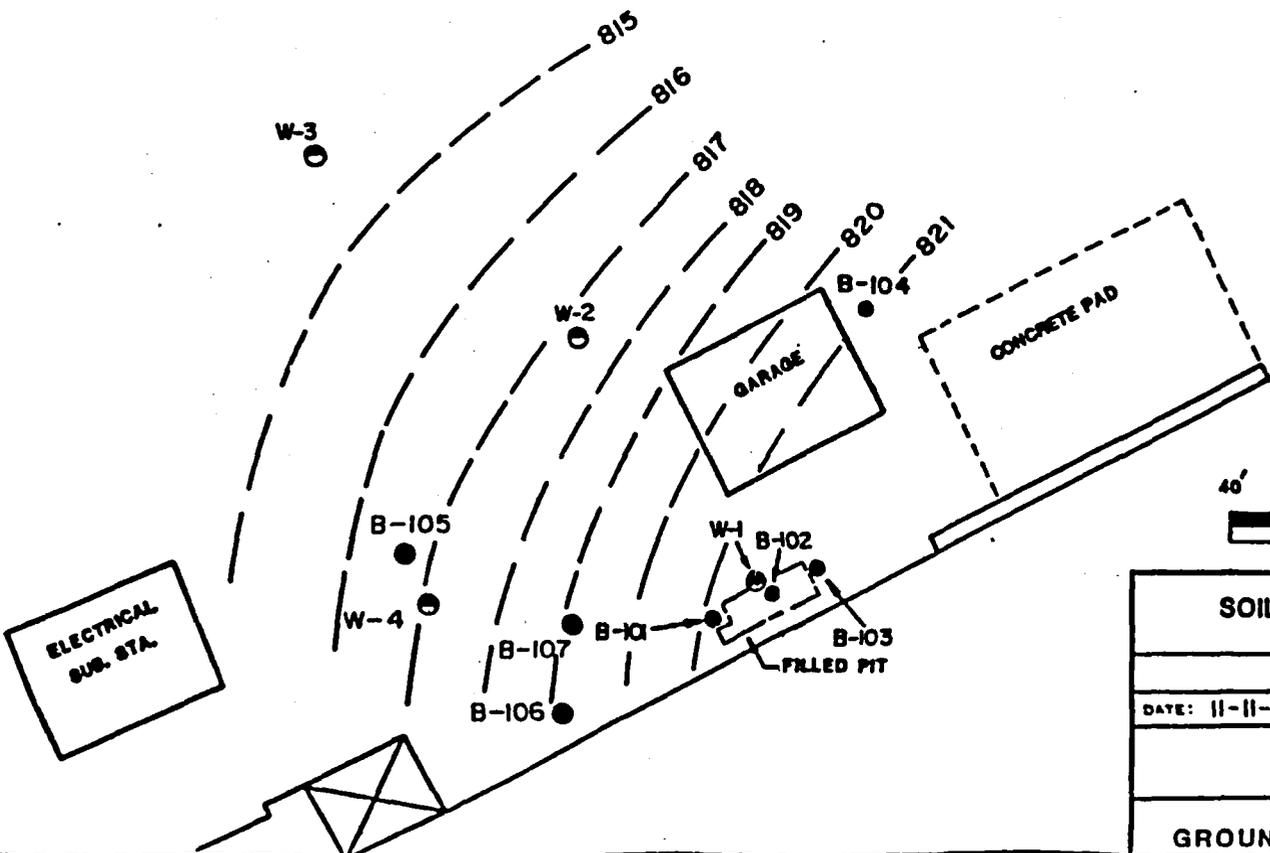
IEA# 419004 Samples: Total Parameters:  
Client Name: Eveready Battery Company, Inc.

Sample I.D.	Parameter Studied	Results	Date Analyzed	Comments
W-2	EDB	<0.020 µg/L	6/14/88	
W-3	EDB	<0.020 µg/L	6/14/88	
W-4	EDB	<0.020 µg/L	6/14/88	
Field Blank	EDB	<0.020 µg/L	6/14/88	



**KEY**

- TEST WELL LOCATION
- TEST BORING LOCATION
- - - GROUNDWATER CONTOURS (LEVELS MEASURED 10-27-86)



<b>SOIL &amp; MATERIAL ENGINEERS, INC.</b> GREENSBORO, NORTH CAROLINA		
DATE: 11-11-86	APPROVED BY: <i>Charles M. ...</i>	DRAWN BY GKS
<b>EVEREADY BATTERY COMPANY</b> ASHEBORO, NORTH CAROLINA		
<b>GROUNDWATER CONTOUR MAP</b>		DRAWING NUMBER 0088-1

EVEREADY BATTERY CO. INC.  
Phone (919) 672-3500

P.O. Box 3209, Plt. 1, Asheboro, N.C. 27204-3209  
800 Albemarle Rd., Asheboro, N.C. 27203

May 19, 1988

RECEIVED

MAY 27 1988

ENVIRONMENTAL  
AFFAIRS

Mr. John M. Stewart  
Hydrogeologist I  
State of North Carolina Dept. of Natural  
Resources & Community Development  
Division of Environmental Management  
Groundwater Section  
8025 North Point Blvd., Suite 100  
Winston-Salem, North Carolina 27106-3295

Dear Mr. Stewart:

SUBJECT: Underground Gasoline Tank Leak  
Soil Clean-up Site at Eveready  
Battery Company, Inc., Asheboro  
Plant I

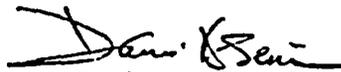
Thank you for your May 9, 1988 response on the groundwater analysis report of the monitoring wells at our subject site.

The results for some parameters are suspect and, therefore, we have made arrangements to resample the wells using the complete services of a certified lab. The results of the samples should be available to you by June 30, 1988.

If there are questions, please advise.

Very truly yours,

EVEREADY BATTERY COMPANY, INC.



Dario A. Sena  
Environmental Coordinator

DAS:jh

bcc: R. G. Behr  
P. R. Brown  
G. B. McClanahan/G. W. Beck  
A. M. Nash



State of North Carolina  
Department of Natural Resources and Community Development  
Winston-Salem Regional Office

James G. Martin, Governor

S. Thomas Rhodes, Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT  
GROUNDWATER SECTION

May 9, 1988

Mr. Dario Sena  
Eveready Battery Co., Inc.  
P. O. Box 3209, Plt. 1  
Asheboro, North Carolina 27204-3209

Dear Mr. Sena:

This letter acknowledges receipt of the groundwater analyses of monitor wells 2, 3 and 4 on the subject site. The analyses indicate the presence of Benzene, Chloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, Ethylene Dibromide, 1,1,1-Trichloroethane, Trichloroethene and Vinyl Chloride. These compounds were not present in the groundwater samples collect May 29, 1988, however, Benzene, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1,-Trichloroethane, and Trichloroethene were previously identified in the soil. The groundwater contamination may be traced back to these compounds in the soil.

I cannot close this incident as previously thought in view of the results. I am recommending that you re-evaluate the current situation and begin plans for groundwater remediation.

Please submit your response to this correspondence to our office by June 9, 1988. If you have any questions concerning this correspondence or the requested date, please call or write me at the letterhead address.

Sincerely,

*John M. Stewart*  
John M. Stewart  
Hydrogeologist I

JMS:al

EVEREADY BATTERY CO. INC.  
Phone (919) 672-3500

P.O. Box 3209, Pkt. 1, Asheboro, N.C. 27204-3209  
800 Albemarle Rd., Asheboro, N.C. 27203

April 27, 1988

RECEIVED

MAY 5 1988

ENVIRONMENTAL  
AFFAIRS

Mr. John M. Stewart  
State of North Carolina Dept. of  
Natural Resources & Community Development  
Division of Environmental Management  
Groundwater Section  
8025 North Point Blvd., Suite 100  
Winston-Salem, North Carolina 27106-3295

Dear Mr. Stewart:

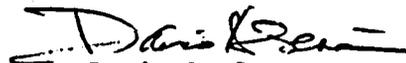
SUBJECT: Underground Gasoline Tank  
Leak Soil Clean-Up at  
Eveready Battery Co., Inc.  
Asheboro Plant I

With regard to the above subject, attached are the results of the analysis of the March 30, 1988 groundwater sampling from the three (3) monitoring wells, as requested in your letter of February 25, 1988.

If you have further questions, please advise.

Very truly yours,

EVEREADY BATTERY COMPANY, INC.



Dario A. Sena  
Environmental Coordinator

DAS:jh

Attach.

bcc: G. W. Beck/G. B. McClanahan  
R. G. Behr  
A. M. Nash ←



Industrial & Environmental Analysts, Inc.

P.O. Box 12846 • Research Triangle Park, NC 27709 • 919-467-9919

Date: April 22, 1988

Mr. Dario Sena  
Eveready Battery Company, Inc.  
P.O. Box 849-Plant I  
Asheboro, NC 27204-0849

Reference: IEA Report No. 419002

Dear Mr. Sena,

Transmitted herewith are the results of analyses on three samples submitted to our laboratory on March 30, 1988.

Please see the enclosed reports for your results.

The average surrogate recovery for samples W-2, W-3, and W-4 was 99%.

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

A handwritten signature in black ink that reads "Mark D. Randall". The signature is written in a cursive, flowing style.

Mark Randall  
Senior Chemist

**IEA LAB RESULTS**

**IEA#** 419002    **Samples:** 3    **Total Parameters:** 15  
**Client Name** Eveready Battery Company, Inc.

<b>Sa#</b>	<b>Sample I.D.</b>	<b>Parameter Studied</b>	<b>Results</b>	<b>Date Analyzed</b>	<b>Comments</b>
1	W-2	EDB	0.69 µg/L	4/15/88	
2	W-3	EDB	<0.020 µg/L	4/15/88	
3	W-4	EDB	<0.020 µg/L	4/15/88	

Comments

BQL - BELOW QUANTITATION LIMIT

Quantitation limit elevated due to sample dilution prior to analysis.  
Sample diluted due to high concentration of target compounds present.  
Isopropyl ether: not detected; MTBE < 25 µg/L;  
Xylenes (total) < 25 µg/L;

### GC/MS Purgeables

IEA Sample No. 419002 1

Sample Identification W-2

Date Analyzed April 8, 1988

By O'Toole

	<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u> µg/L	<u>Results</u> <u>Concentration</u> µg/L
<u>5 ppb</u>	1	BENZENE	25	25
	2	BROMODICHLOROMETHANE	25	BQL
	3	BROMOFORM	25	BQL
	4	BROMOMETHANE	50	BQL
	5	CARBON TETRACHLORIDE	25	BQL
	6	CHLOROBENZENE	25	BQL
	7	CHLOROETHANE	50	70
	8	2-CHLOROETHYL VINYL ETHER	25	BQL
	9	CHLOROFORM	25	BQL
	10	CHLOROMETHANE	50	BQL
	11	DIBROMOCHLOROMETHANE	25	BQL
	12	1,2-DICHLOROBENZENE	25	BQL
	13	1,3-DICHLOROBENZENE	25	BQL
	14	1,4-DICHLOROBENZENE	25	BQL
ADI <u>4050 ppb</u>	15	1,1-DICHLOROETHANE	25	820
	16	1,2-DICHLOROETHANE	25	BQL
<u>7 ppb</u>	17	1,1-DICHLOROETHENE	25	43
	18	trans-1,2-DICHLOROETHENE	25	BQL
	19	1,2-DICHLOROPROPANE	25	BQL
	20	cis-1,3-DICHLOROPROPENE	25	BQL
	21	trans-1,3-DICHLOROPROPENE	25	BQL
	22	ETHYL BENZENE	25	BQL
	23	METHYLENE CHLORIDE	25	BQL
	24	1,1,2,2-TETRACHLOROETHANE	25	BQL
	25	TETRACHLOROETHENE	25	BQL
	26	TOLUENE	25	BQL
<u>200 ppb</u>	27	1,1,1-TRICHLOROETHANE	25	130
	28	1,1,2-TRICHLOROETHANE	25	BQL
	29	TRICHLOROETHENE	25	BQL
	30	TRICHLOROFLUOROMETHANE	25	BQL
<u>2 ppb</u>	31	VINYL CHLORIDE	50	84

Comments

BQL - BELOW QUANTITATION LIMIT  
Isopropyl ether not detected; MTBE < 5 µg/L;  
Xylenes (total) < 5 µg/L;

### GC/MS Purgeables

IEA Sample No. 419002 2

Sample Identification W-3

Date Analyzed April 8, 1988

By O'Toole

ADI 4050 ppb  
7 ppb  
200 ppb  
5 ppb

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u>	<u>Results</u>
		<u>µg/L</u>	<u>Concentration</u> <u>µg/L</u>
1	BENZENE	5	BQL
2	BROMODICHLOROMETHANE	5	BQL
3	BROMOFORM	5	BQL
4	BROMOMETHANE	10	BQL
5	CARBON TETRACHLORIDE	5	BQL
6	CHLOROBENZENE	5	BQL
7	CHLOROETHANE	10	BQL
8	2-CHLOROETHYLYNYL ETHER	5	BQL
9	CHLOROFORM	5	BQL
10	CHLOROMETHANE	10	BQL
11	DIBROMOCHLOROMETHANE	5	BQL
12	1,2-DICHLOROBENZENE	5	BQL
13	1,3-DICHLOROBENZENE	5	BQL
14	1,4-DICHLOROBENZENE	5	BQL
15	1,1-DICHLOROETHANE	5	31
16	1,2-DICHLOROETHANE	5	BQL
17	1,1-DICHLOROETHENE	5	25
18	trans-1,2-DICHLOROETHENE	5	BQL
19	1,2-DICHLOROPROPANE	5	BQL
20	cis-1,3-DICHLOROPROPENE	5	BQL
21	trans-1,3-DICHLOROPROPENE	5	BQL
22	ETHYL BENZENE	5	BQL
23	METHYLENE CHLORIDE	5	BQL
24	1,1,2,2-TETRACHLOROETHANE	5	BQL
25	TETRACHLOROETHENE	5	BQL
26	TOLUENE	5	BQL
27	1,1,1-TRICHLOROETHANE	5	130
28	1,1,2-TRICHLOROETHANE	5	BQL
29	TRICHLOROETHENE	5	7
30	TRICHLOROFLUOROMETHANE	5	BQL
31	VINYL CHLORIDE	10	BQL

Comments BQL - BELOW QUANTITATION LIMIT  
Isopropyl ether not detected; MTBE < 5 µg/L;  
Xylenes (total) < 5 µg/L;

**GC/MS Purgeables**

IEA Sample No. 419002 3  
 Sample Identification W-4  
 Date Analyzed April 8, 1988 By O'Toole

ADI 4050 ppb  
7 ppb  
  
200 ppb  
5 ppb

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u>	<u>Results</u>
		<u>µg/L</u>	<u>Concentration</u> <u>µg/L</u>
1	BENZENE	5	BQL
2	BROMODICHLOROMETHANE	5	BQL
3	BROMOFORM	5	BQL
4	BROMOMETHANE	10	BQL
5	CARBON TETRACHLORIDE	5	BQL
6	CHLOROBENZENE	5	BQL
7	CHLOROETHANE	10	BQL
8	2-CHLOROETHYLYNYL ETHER	5	BQL
9	CHLOROFORM	5	BQL
10	CHLOROMETHANE	10	BQL
11	DIBROMOCHLOROMETHANE	5	BQL
12	1,2-DICHLOROBENZENE	5	BQL
13	1,3-DICHLOROBENZENE	5	BQL
14	1,4-DICHLOROBENZENE	5	BQL
15	1,1-DICHLOROETHANE	5	34
16	1,2-DICHLOROETHANE	5	BQL
17	1,1-DICHLOROETHENE	5	59
18	trans-1,2-DICHLOROETHENE	5	BQL
19	1,2-DICHLOROPROPANE	5	BQL
20	cis-1,3-DICHLOROPROPENE	5	BQL
21	trans-1,3-DICHLOROPROPENE	5	BQL
22	ETHYL BENZENE	5	BQL
23	METHYLENE CHLORIDE	5	BQL
24	1,1,2,2-TETRACHLOROETHANE	5	BQL
25	TETRACHLOROETHENE	5	BQL
26	TOLUENE	5	BQL
27	1,1,1-TRICHLOROETHANE	5	37
28	1,1,2-TRICHLOROETHANE	5	BQL
29	TRICHLOROETHENE	5	19
30	TRICHLOROFLUOROMETHANE	5	BQL
31	VINYL CHLORIDE	10	BQL

Comments

BQL - BELOW QUANTITATION LIMIT

Quantitation limit elevated due to sample dilution prior to analysis.  
Sample diluted due to high concentration of target compounds present.

**Tentatively Identified Compounds**

IEA Sample ID: 419002 1

Client Sample ID: W-2

Applicable Fraction: Volatile  Base/Neutral  Acid  Other

Tentatively Identified Compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TIC's are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TIC's are identified and quantitated only if the peak height is 10% or more of that of the nearest internal standard.

<u>TIC Name</u>	<u>Concentration</u>	<u>µg/L</u>
<u>2-Methylbutane</u>	<u>66</u>	
<u>Pentane</u>	<u>39</u>	

Comments

BQL - BELOW QUANTITATION LIMIT

Tentatively Identified Compounds

IEA Sample ID: 419002 2

Client Sample ID: W-3

Applicable Fraction: Volatile  Base/Neutral  Acid  Other

Tentatively Identified Compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TIC's are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TIC's are identified and quantitated only if the peak height is 10% or more of that of the nearest internal standard.

<u>TIC Name</u>	<u>Concentration</u>	<u>ng/L</u>
<u>1,1,2-Trichloro-1,2,2-trifluoroethane</u>	<u>57</u>	

Comments

BQL - BELOW QUANTITATION LIMIT

**Tentatively Identified Compounds**

IEA Sample ID: 419002 3

Client Sample ID: W-4

Applicable Fraction: Volatile  Base/Neutral  Acid  Other

Tentatively Identified Compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TIC's are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TIC's are identified and quantitated only if the peak height is 10% or more of that of the nearest internal standard.

**TIC Name**

**Concentration**

**ng/L**

None per above criteria

<5.





State of North Carolina  
Department of Natural Resources and Community Development  
Winston-Salem Regional Office

James G. Martin, Governor

DIVISION OF ENVIRONMENTAL MANAGEMENT  
GROUNDWATER SECTION

S. Thomas Rhodes, Secretary

February 25, 1988

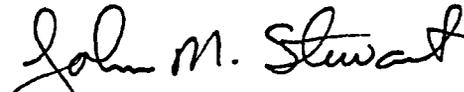
Mr. Dario Sena  
Eveready Battery Company, Inc.  
P. O. Box 3209  
Asheboro, North Carolina 27204-3209

Dear Mr. Sena,

I enjoyed our meeting last Friday, and I appreciate your willingness to cooperate in the investigation. Since it has been almost two years since the last groundwater samples have been analyzed, I feel it is necessary to analyze all the monitor wells for gasoline according to Attachment I. Once our office receives this information, we will have a better understanding of the current status of the site.

Please submit this information to our office by May 2, 1988. If you have any questions concerning this correspondence or the requested date, please call or write me at the letterhead address.

Sincerely,

  
John M. Stewart  
Hydrogeologist I

JMS:al

Enclosure

ATTACHMENT 1

Required Laboratory Analysis for Groundwater

CLASS I Petroleum Products

Motor gasoline  
Aviation gasoline

- (a) \* EPA Methods 601 & 602 or EPA Methods 624
- (b) \* Also test for xylene, EDB, MTBE, and isopropyl ether
- (c) \* The largest 10% of the unidentified GC peaks other than the above listed parameters shall be identified
- (d) \* List the total number of unidentified peaks, percent recovery of the sample and the method detection limit
- (e) \* All tests shall be performed in accordance with EPA reference methods listed in 40 CFR Part 136

CLASS II Petroleum Products:

Jet fuel  
Kerosene  
Diesel fuel  
Heating oils (#2 - #6)  
Motor oils (new & used)

- (a) \* EPA Method 625 (including additional extractable parameters)
- (b) \* The largest 10% of the unidentified GC peaks other than the above referenced parameters shall be identified by GC/MS Library Search
- (c) \* List the total number of unidentified peaks, percent recovery of the sample and the method detection limit.
- (d) \* All tests shall be performed in accordance with EPA reference methods listed in 20 CFR Part 136

RECEIVED

FEB 8 1988

ENVIRONMENTAL  
AFFAIRS

EVEREADY BATTERY CO. INC.  
Phone (919) 672-3500

P.O. Box 3209, Plt. 1, Asheboro, N.C. 27204-3209  
800 Albemarle Rd., Asheboro, N.C. 27203

January 29, 1988

Ms. Brenda J. Smith  
Hydrogeological Regional Supervisor  
State of N. C. Dept. of Natural Resources  
and Community Development  
Division of Environmental Management  
Groundwater Section  
8003 North Point Boulevard  
Winston Salem, North Carolina 27106-3295

SUBJECT: Removal of Contaminated Soil from  
the Underground Gasoline Tank  
Leak at Eveready Battery Co., Inc.,  
Asheboro Plant I

Dear Ms. Smith:

Please find, as Attachment I, the January 29, 1988 Soil & Material Engineers, Inc. report on the excavation/removal of the contaminated soil at our Eveready Plant No. 1 at Asheboro, North Carolina.

The remedial action was authorized in your letter to Mr. T. Wayne Hodges on March 31, 1987. The site excavation work was done on September 15 through September 23, 1987. The site was backfilled with soil and gravel, compacted, and later repaved with concrete on October 21, 1987.

Approximately 350 cu. yds. of contaminated soil were removed. The excavation was extended as far as possible without jeopardizing the building foundation, the storm sewer line, city water and fire protection lines, and electrical lines. Groundwater was not encountered during the excavation process.

During the course of the excavation, soil samples were obtained from "hot spots" identified with the OVA meter (see Attachment I). The purpose of this sampling was not to characterize the soil, but rather to obtain a concentrated sample for analysis of volatile organic constituents. A representative sample from the excavated soil shows only low levels of contamination. Analytical results from the representative sample are contained in Attachment II. The excavated soil was moved to the Eveready Battery Company scrap battery landfill located adjacent to the Randolph County landfill.

We believe that only very minor residual contamination remains on site. These residuals are above groundwater level and have not contaminated the groundwater, as shown from the nearby monitoring well water samples (see Attachments III & IV).

Ms. Brenda J. Smith  
Page 2  
January 29, 1988

From the S&ME calculated groundwater particle velocity of 0.34 to 2.4 ft./yr. (see Attachment IV, S&ME report of August 14, 1986) and considering that the area is well paved, we feel that the potential for groundwater contamination is very minimal. However, as a precautionary measure, we will institute an annual procedure for monitoring all the nearby wells for 5 years. After 5 years, we shall discontinue monitoring if the benzene level remains below the 5 ppb non-drinking water standard.

We fully appreciate your assistance and advice on this matter. We request that this case be closed, pending results of the annual well water monitoring analyses.

If you have further questions in this regard, please call Mr. Dario A. Sena at (919) 672-3524 or the writer at (919) 672-3501.

Very truly yours,

EVEREADY BATTERY COMPANY, INC.



G. B. McClanahan  
Plant Manager

GBM:jh

bc: G. W. Beck/T. R. Voyles  
R. G. Behr  
P. R. Brown/M. B. Murphy  
A. M. Nash ←  
D. A. Sena

**ATTACHMENT I**

**MONITORING OF CONTAMINATED  
SOIL REMOVAL  
EVEREADY BATTERY COMPANY  
ASHEBORO, NORTH CAROLINA**

**S&ME PROJECT NO. 1381-86-008C**





# S&ME

(A partnership in North Carolina)  
Formerly, Soil & Material Engineers, Inc.

January 29, 1988

Eveready Battery Company  
P.O. Box 849  
Asheboro, North Carolina 27203

Attention: Mr. Matt Murphy

Reference: Monitoring of Contaminated Soil Removal  
Eveready Battery Company  
Asheboro, North Carolina  
S&ME Project No. 1381-86-008C

Gentlemen:

This report is provided as a summary of S&ME monitoring activities relating to the excavation and off-site disposal of subsurface soils contaminated by various volatile organic compounds. The purpose of S&ME's involvement was to check the soils as they were being excavated and advise Eveready's excavator as to whether the organic vapors emitted by the soils exceeded 10 parts per million (ppm) via a portable organic vapor analyzer (OVA). This threshold concentration was selected by Eveready Battery Company.

## BACKGROUND

The subject soils were located behind the main plant building in an area that formerly contained three underground storage tanks. When in use these tanks contained primarily gasoline and diesel fuel although some unknown solvents may have been stored there for a short time. S&ME investigated subsurface soil and groundwater conditions and presented the results in its report of August 14, 1986. The report indicated trace levels of volatile organic compounds (VOC's) in five soil samples but very little evidence of groundwater contamination.

Subsequent to the S&ME report, Eveready Battery representatives met with North Carolina Department of Natural Resources and Community Development, Division of Solid and Hazardous Waste and voluntarily offered to remove the contaminated soil.

The agency's acceptance of the offer is provided in a letter of February 19, 1987 by S&ME, Inc.  
135-C Montlieu Street, P.O. Box 18169  
Greensboro, NC 27419 (919) 855-7547

Eveready Battery Company  
January 29, 1988  
Page 2

Mr. Jerry Rhodes, Assistant Branch Head. The letter indicates that the soils would not be considered a hazardous waste and therefore, could be disposed at Eveready Battery's off-site landfill. Further, the letter asked that the agency be notified if the level of contaminants exceeded 1 ppm.

### DAILY SUMMARY OF SITE ACTIVITIES

September 15, 1987

S&ME staff engineer, Cameron Patteron arrived on site per Matt Murphy's request. Contaminated soil monitoring commenced approximately 4 hours after the engineer's arrival. It seems that excavating was delayed due to an insurance problem with the contractor (Junior Delk). Accumulated rain water which infiltrated the soil/gravel fill was encountered in the excavation at approximately 4 feet below ground surface. After intercepting the rain water, several backhoe buckets of stone were removed. Water from the stone was observed flowing down the paved service road. Engineer, C. Patterson stopped the backhoe operator and contacted Matt Murphy. C. Patterson recommended to Matt Murphy that steps be taken to avoid the release of this water. OVA readings of ambient air from the immediate site area were less than 1 part per million (ppm). OVA readings at the top of the excavation reached values greater than 10 ppm. OVA readings were then taken along the ground surface at the base of the excavated stone by making a divot into the stone pile and placing the OVA sampler 2 to 3 inches above the stone. These OVA readings reached levels of 12 to 15 ppm. Matt Murphy called Dario Sena to the site. Mr. Sena agreed that the water should be pumped from the former stone filled excavation and properly disposed before any further excavation resumed. C. Patterson was advised not to return until this water was removed. Matt Murphy contracted Four Seasons Industrial Services to pump out the water.

September 17, 1987

Upon arrival C. Patterson noted that the majority of the stone from the former excavation had been removed and the water pumped out. There was a small puddle

Eveready Battery Company  
January 29, 1988  
Page 3

with a black surface residue located in the center of the excavation. A slight odor was noted coming from the excavation. The excavator began work in the center of the pit. The soil excavated from the center of the pit encountered OVA readings greater than 10 ppm. The OVA readings were taken by pushing a divot into the soil and passing the sampler approximately 2 to 3-inches above the divot. As the excavation moved toward the eastern side of the pit, ambient air from the immediate site area and soil OVA readings increased. Ambient air from the immediate site area and soil OVA readings in the eastern side of the pit reached values as high as 100 ppm and 300 ppm, respectively, with an accompanying strong odor. As a matter of caution, C. Patterson and excavator evacuated the site immediately. Matt Murphy was notified of the unanticipated high OVA readings. In order to resume work, an industrial fan was installed near the excavation. The fan was positioned in order to blow the vapors away from the pit and away from the backhoe operator. The highest OVA readings in the eastern-most portion of the pit were obtained at depths of approximately 8 to 12 feet below ground surface. Although all the contaminated soil (OVA readings greater than 10 ppm) had not been removed, the eastern-most portion of the excavation was terminated due to location of a storm sewer and the foundations of the existing Eveready Battery building. In order to prevent foundation failure, a temporary load of stone was placed in the excavation to hold the cut slope in place. Matt Murphy indicated that he was not going to work on Friday. Therefore, work was postponed until the following Monday.

September 18, 1987

Due to the high ambient (from the immediate site area) and soil OVA results that had been recorded the previous day, Cameron Patterson, Dane Horna and Mike Groves of S&ME met with Phil Brown, Bob Behr, George Beck and Dario Sena of Eveready Battery to discuss S&ME's concern with continuing the excavation. S&ME was concerned about 1) health and safety of the S&ME engineer and the backhoe operator, and 2) that the soil contamination appeared to be somewhat greater than the levels presented in S&ME's August 14, 1986 report. After the discussion, the following items were agreed to:

- 1) samples will be taken from the excavation and analyzed as soon as possible to find out exactly what is in the soil. Sampling to be done Monday by Cameron Patterson.
- 2) the excavator will replace the present backhoe with a machine with greater depth capacity.
- 3) the fan will be utilized to keep the backhoe operator safe.
- 4) Cameron Patterson will use a respirator with an SCBA as standby. Eveready to provide two trained certified SCBA workers, if requested.
- 5) work will not resume until Tuesday AM and only then, if the bigger backhoe was available.

September 21, 1987

S&ME staff engineer (Cameron Patterson) arrived on site as agreed in the Friday meeting. Excavations were made and soil samples were taken from the east and west ends of the pit. The eastern and western samples were taken from approximately 10 feet and 12 feet from ground surface, respectively. The soil samples were immediately put on ice and transported to IEA Laboratories in Cary, North Carolina. The soil samples were analyzed for purgeable halocarbons and purgeable aromatics. We feel that these soil samples are representative of the most highly concentrated soils encountered within the excavation. Results of the analyses are attached. The eastern pit sample has a sample identification of "E" whereas the west sample is identified as the "W" sample.

September 22, 1987

C. Patterson received verbal laboratory results from Mr. Fred Doane of IEA Laboratories. The results were immediately phoned to Mr. Matt Murphy. Mr. Murphy

Eveready Battery Company  
January 29, 1988  
Page 5

said that he would discuss the situation with Dario Sena but plan on being on-site Wednesday morning (9-23-87).

September 23, 1987

C. Patterson arrived on site per Matt Murphy's request to continue monitoring of excavated soil. A trackhoe was provided to continue excavating. More contaminated soil was removed from the center and western ends of the excavation. Portions of the excavation center were excavated to partially weathered rock which was encountered at approximately 16 feet below ground surface. Portions of the partially weathered rock exhibited OVA readings of less than 10 ppm. However, pockets of soil and partially weathered rock exhibited OVA readings of up to 700 ppm.

Contaminated soil with relatively high OVA readings was encountered in the western end of the excavation. Ambient air from the immediate site area and soil OVA readings reached as high as 150 ppm and greater than 1000 ppm, respectively. The industrial fan was located so that it would blow the majority of the vapors away from the trackhoe operator. C. Patterson donned a respirator as protection against the vapors. The excavation was then deepened until partially weathered rock was encountered. Upon encountering partially weathered rock, the ambient air from the immediate site area and soil OVA readings dropped considerably. Again, some soil OVA readings were less than 10 ppm while other readings were in the range of 150 ppm to 250 ppm. Further excavation to the west was restricted due to city water, fire protection and electrical lines. The entire excavation was then terminated due to restrictions in all directions.

The excavation was extended to maximum lateral and vertical limits to the extent possible without jeopardizing the building, storm sewer, city water, fire protection and electrical lines. A drawing showing the final approximate excavation limits is attached. Based on his observations and the OVA results, it is the opinion of S&ME's site engineer that the majority of the highly concentrated (OVA readings greater than 1000 ppm), contaminated soil has been removed. Additional removal of soil would require underpinning the existing building and relocating the storm sewer and several electrical lines, fire protection, and water lines.

Eveready Battery Company  
January 29, 1988  
Page 6

S&ME appreciates having had the opportunity to assist Eveready Battery with this contaminated soil removal. If you have any questions concerning this report or actions taken by S&ME, please call.

Very truly yours,

S & M E



A. Cameron Patterson  
Staff Engineer



Dane A. Horna, P.E.  
Branch Manager

ACP/DAH/vr

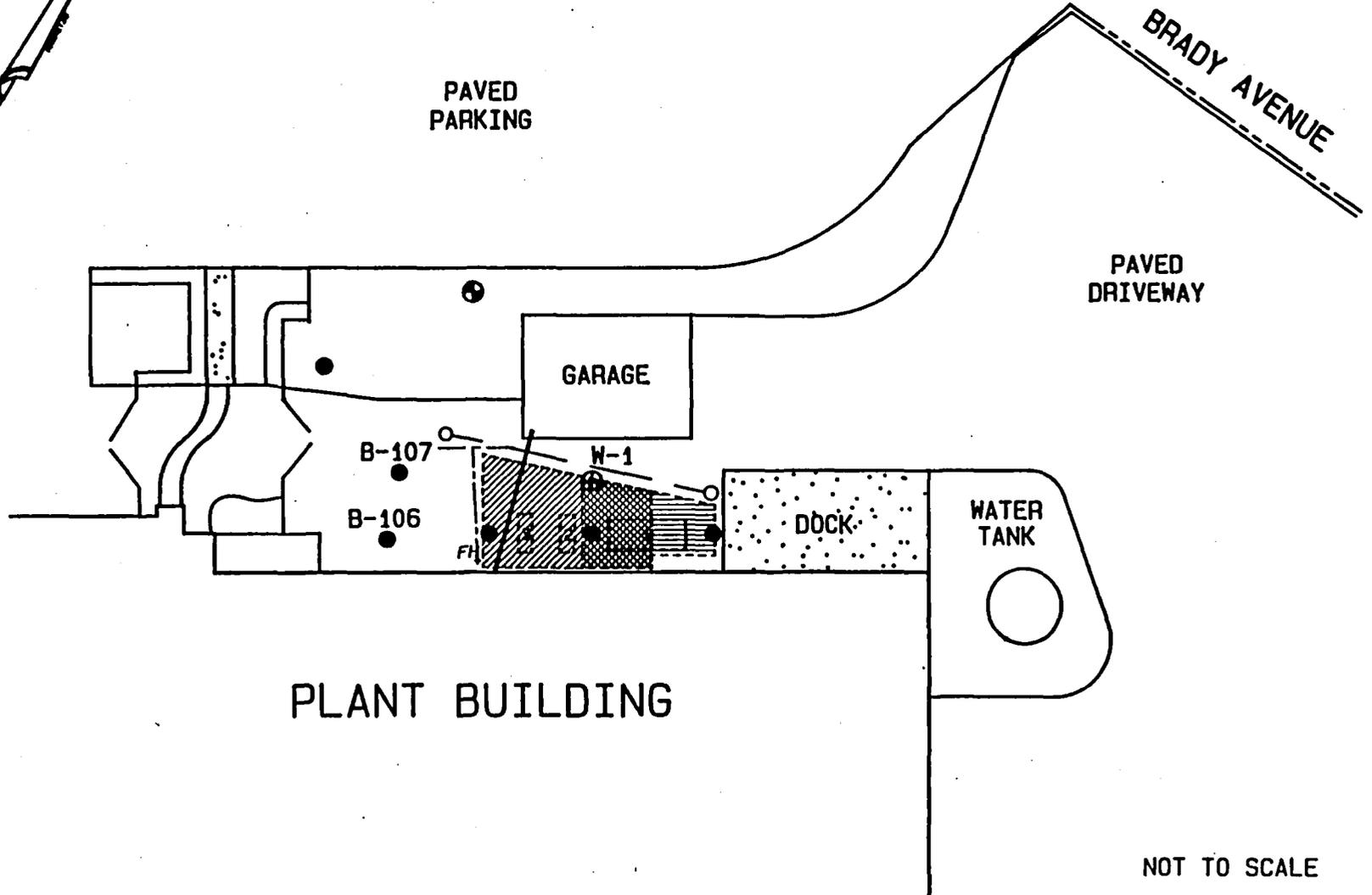
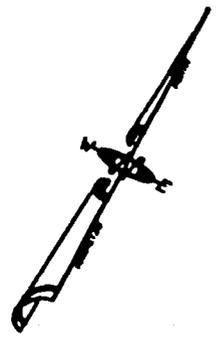
Enclosure(s)



# SOIL SAMPLES & EXCAVATION SITE MAP

## LEGEND

- [ ]-EXCAVATED TANKS
- ⊕-WELL SITES
- SOIL BORINGS
- [ / ]-APPROX. 16 FT. DP.
- [ · ]-APPROX. 12 FT. DP.
- [ - ]-APPROX. 4-8 FT. DP.



NOT TO SCALE

**APPENDIX**

Comments BQL - BELOW QUANTITATION LIMIT

### Purgeable Halocarbons

IEA Sample No. 491514 1

Sample Identification E

Date Analyzed September 22, 1987

By Smith

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u>	<u>Results</u>
		<u>µg/Kg</u>	<u>Concentration</u> <u>µg/Kg</u>
1	Bromodichloromethane	10	BQL
2	Bromoform	10	BQL
3	Bromomethane	10	BQL
4	Carbon tetrachloride	10	BQL
5	Chlorobenzene	10	BQL
6	Chloroethane	10	BQL
7	2-Chloroethylvinyl ether	10	BQL
8	Chloroform	10	BQL
9	Chloromethane	10	BQL
10	Dibromochloromethane	10	BQL
11	1,2-Dichlorobenzene	10	BQL
12	1,3-Dichlorobenzene	10	BQL
13	1,4-Dichlorobenzene	10	BQL
14	Dichlorodifluoromethane	10	BQL
15	1,1-Dichloroethane	10	70
16	1,2-Dichloroethane	10	67
17	1,1-Dichloroethene	10	BQL
18	trans-1,2-Dichloroethene	10	BQL
19	1,2-Dichloropropane	10	BQL
20	cis-1,3-Dichloropropene	10	BQL
21	trans-1,3-Dichloropropene	10	BQL
22	Methylene chloride	10	BQL
23	1,1,2,2-Tetrachloroethane	10	BQL
24	1,1,1-Trichloroethane	10	BQL
25	1,1,2-Trichloroethane	10	BQL
26	Tetrachloroethene	10	BQL
27	Trichlorofluoromethane	10	BQL
28	Vinyl Chloride	10	BQL
29	Trichloroethene	10	BQL

Comments BQL - BELOW QUANTITATION LIMIT

### Purgeable Aromatics

IEA Sample No. 491514 1

Sample Identification E

Date Analyzed September 21, 1987

By Casto

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u> <u>µg/Kg</u>	<u>Results</u> <u>Concentration</u> <u>µg/Kg</u>
1	Benzene	1.0	610
2	Chlorobenzene	1.0	BQL
3	1,2-Dichlorobenzene	1.0	BQL
4	1,3-Dichlorobenzene	1.0	BQL
5	1,4-Dichlorobenzene	1.0	BQL
6	Ethylbenzene	1.0	86
7	Toluene	1.0	810
	Xylenes	1.0	390

Comments BQL - BELOW QUANTITATION LIMIT

### Purgeable Halocarbons

IEA Sample No. 491514 2

Sample Identification W

Date Analyzed September 22, 1987

By Cornwell

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u>	<u>Results</u>
		<u>µg/Kg</u>	<u>Concentration</u> <u>µg/Kg</u>
1	Bromodichloromethane	1000	BQL
2	Bromoform	1000	BQL
3	Bromomethane	1000	BQL
4	Carbon tetrachloride	1000	BQL
5	Chlorobenzene	1000	BQL
6	Chloroethane	1000	BQL
7	2-Chloroethylvinyl ether	1000	BQL
8	Chloroform	1000	BQL
9	Chloromethane	1000	BQL
10	Dibromochloromethane	1000	BQL
11	1,2-Dichlorobenzene	1000	BQL
12	1,3-Dichlorobenzene	1000	BQL
13	1,4-Dichlorobenzene	1000	BQL
14	Dichlorodifluoromethane	1000	BQL
15	1,1-Dichloroethane	1000	1300
16	1,2-Dichloroethane	1000	2900
17	1,1-Dichloroethene	1000	BQL
18	trans-1,2-Dichloroethene	1000	BQL
19	1,2-Dichloropropane	1000	BQL
20	cis-1,3-Dichloropropene	1000	BQL
21	trans-1,3-Dichloropropene	1000	BQL
22	Methylene chloride	1000	BQL
23	1,1,2,2-Tetrachloroethane	1000	BQL
24	1,1,1-Trichloroethane	1000	7900
25	1,1,2-Trichloroethane	1000	BQL
26	Tetrachloroethene	1000	9800
27	Trichlorofluoromethane	1000	BQL
28	Vinyl Chloride	1000	BQL
29	Trichloroethene	1000	BQL

Comments BQL - BELOW QUANTITATION LIMIT

### Purgeable Aromatics

IEA Sample No. 491514 2

Sample Identification W

Date Analyzed September 21, 1987

By Casto

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u> <u>µg/Kg</u>	<u>Results</u> <u>Concentration</u> <u>µg/Kg</u>
1	Benzene	250	BQL
2	Chlorobenzene	250	BQL
3	1,2-Dichlorobenzene	250	BQL
4	1,3-Dichlorobenzene	250	BQL
5	1,4-Dichlorobenzene	250	BQL
6	Ethylbenzene	250	2,000
7	Toluene	250	1,300
	Xylenes	250	11,000



Industrial & Environmental Analysts, Inc.

P.O. Box 12846 • Research Triangle Park, NC 27709 • 919-467-9919

Date: October 15, 1987

Matt Murphy  
Eveready Battery Co.  
P.O. Box 3209  
Asheboro, NC 27203

Reference: IEA Report No. 491522

Dear Mr. Murphy,

Transmitted herewith are the results of analyses on one sample submitted to our laboratory on September 29, 1987.

Please see the enclosed reports for your results.

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

A handwritten signature in black ink, appearing to read "Frederick T. Doane", written over a horizontal line.

Frederick T. Doane  
Senior Scientist

Comments: BQL - BELOW QUANTITATION LIMIT

### Purgeable Halocarbons

IEA Sample No. 491522 1

Sample Identification EBC 9-24-87

Date Analyzed October 8, 1987

By Curry

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u>	<u>Results</u>
		<u>ug/Kg</u>	<u>Concentration</u> <u>ug/Kg</u>
1	Bromodichloromethane	1.0	BQL
2	Bromoform	1.0	BQL
3	Bromomethane	1.0	BQL
4	Carbon tetrachloride	1.0	110
5	Chlorobenzene	1.0	BQL
6	Chloroethane	1.0	BQL
7	2-Chloroethyl vinyl ether	1.0	BQL
8	Chloroform	1.0	110
9	Chloromethane	1.0	BQL
10	Dibromochloromethane	1.0	BQL
11	1,2-Dichlorobenzene	1.0	BQL
12	1,3-Dichlorobenzene	1.0	BQL
13	1,4-Dichlorobenzene	1.0	BQL
14	Dichlorodifluoromethane	1.0	BQL
15	1,1-Dichloroethane	1.0	150
16	1,2-Dichloroethane	1.0	50
17	1,1-Dichloroethene	1.0	67
18	trans-1,2-Dichloroethene	1.0	BQL
19	1,2-Dichloropropene	1.0	BQL
20	cis-1,3-Dichloropropene	1.0	BQL
21	trans-1,3-Dichloropropene	1.0	BQL
22	Methylene chloride	1.0	BQL
23	1,1,2,2-Tetrachloroethane	1.0	BQL
24	1,1,1-Trichloroethane	1.0	740
25	1,1,2-Trichloroethane	1.0	BQL
26	Tetrachloroethene	1.0	34
27	Trichlorofluoromethane	1.0	BQL
28	Vinyl Chloride	1.0	BQL
29	Trichloroethene	1.0	BQL

Comments: BQL - BELOW QUANTITATION LIMIT

### Purgeable Aromatics

IEA Sample No. 491522 1

Sample Identification ESC 9-24-87

Date Analyzed October 5, 1987

By Curry

<u>Number</u>	<u>Compound</u>	<u>Quantitation Limit</u>	<u>Results</u>
		<u>ug/kg</u>	<u>Concentration</u> <u>ug/kg</u>
1	Benzene	1.0	26
2	Chlorobenzene	1.0	BQL
3	1,2-Dichlorobenzene	1.0	BQL
4	1,3-Dichlorobenzene	1.0	BQL
5	1,4-Dichlorobenzene	1.0	BQL
6	Ethylbenzene	1.0	16
7	Toluene	1.0	54
	Xylenes	1.0	82


**SOIL & MATERIAL ENGINEERS, INC. ENGINEERING-TESTING-INSPECTION**

135-C Montlieu Avenue, Box 18169, Greensboro, NC 27419, Phone (919) 855-7547  
November 18, 1986

Eveready Battery Company  
P.O. Box 849  
Asheboro, North Carolina 27203

Attention: Mr. Buster Hill

Reference: Report of Supplementary Studies  
Contaminated Migration  
Eveready Battery Company  
Asheboro, North Carolina  
S&ME Project Number 1381-86-008A

Gentlemen:

This letter summarizes some supplementary studies performed in response to requests from NCDNRCD for additional information and groundwater monitoring capability at the above site. Specifically, this supplementary work included the following elements:

- 1.) Installation of a groundwater monitoring well (W-4) directly down gradient of the former tank location.
- 2.) Installation of a standpipe in a test boring hole (B-106) to permit measurement of the groundwater level at a location to the west of the former tank.
- 3.) The drilling of one additional test boring (B-107) at a location approximately 45 feet down gradient of the former tank in order to assess the presence of significant soil contamination at this location.
- 4.) Laboratory testing for benzene of a single groundwater sample from well W-4.
- 5.) Screening for benzene and chloroform in selected soil samples from W-4, B-106 and B-107.

### RESULTS

Well W-4 and borings B-106 and B-107 were drilled during the period of October 10-11, 1986. The locations of the well and the two borings are shown on the enclosed Drawing Number 008B-1. Well W-4 was drilled to a total depth of 27.7 feet below the ground surface and borings B-106 and B-107 extended to depths of 18.5 and 20.0 feet, respectively.

Eveready Battery Company  
November 18, 1986  
Page 2

Groundwater level measurements in all site wells and open borings were obtained on October 27, 1986. The results of these measurements were then utilized to sketch the groundwater contours presented on Drawing Number 008B-1. A comparison of this drawing with the earlier version based on measurements obtained June 24, 1986 indicates a slight drop in the groundwater levels overall but essentially the same pattern of groundwater flow.

A groundwater sample was obtained from well W-4 on October 28, 1986 and analyzed for benzene. This test found no detectable benzene utilizing a detection limit of 1.0 ug/L (ppb).

Each soil sample was examined for chemical odor. No unusual odors were detected except for a slight to moderate chemical odor in the 9-foot sample from boring B-107. In addition this sample and selected other soil samples were examined with benzene and chloroform Draeger tubes which utilized detection limits of 0.5 ppm and 2.0 ppm, respectively. The results of the Draeger tube tests are presented on the attached data table. We would consider only the detectable quantities of benzene in boring B-107 to be significant. The detection of benzene in well W-4 at 6 feet is considered suspect in that this result could not be confirmed by subsequent Draeger tube testing in the laboratory.

Overall we believe that these data are consistent with that obtained earlier for this site. If you have any questions or require additional information, please do not hesitate to contact us.

Very truly yours,

SOIL & MATERIAL ENGINEERS, INC.



Dane A. Horna, P.E.  
Branch Manager

DAH/vl

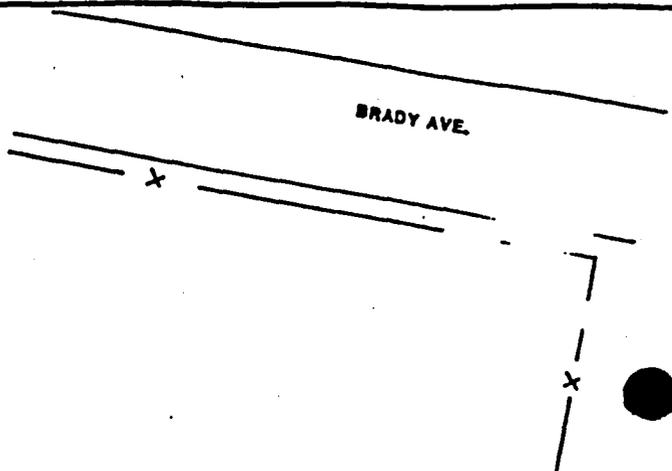
Enclosure(s)



Draeger Tube Results

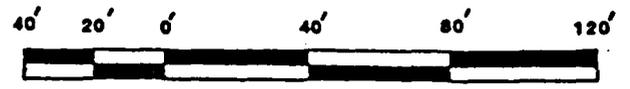
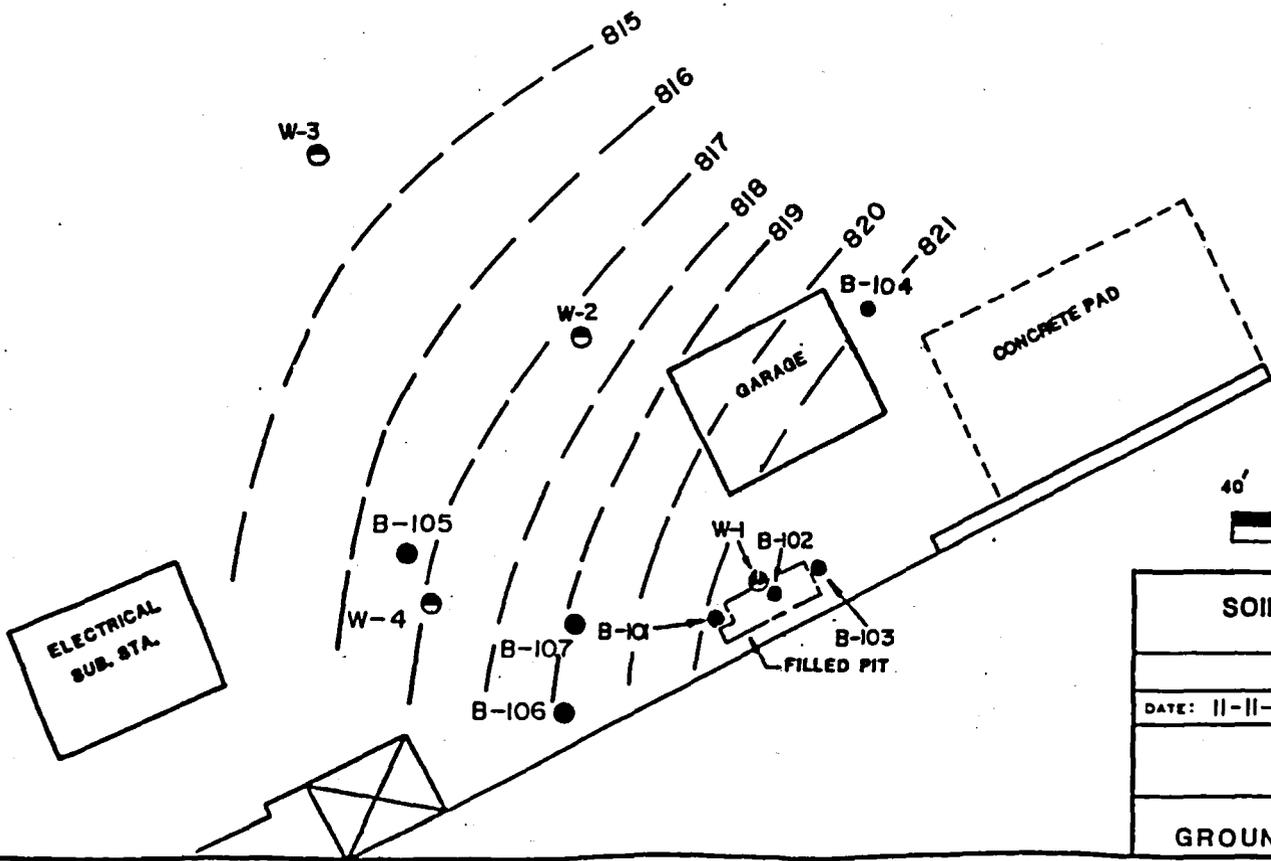
<u>Soil Sample I.D.</u>	<u>Benzene (ppm)</u>	<u>Chloroform (ppm)</u>
W-4 @ 6 ft.	0.6 <sup>a</sup>	-
W-4 @ 13 ft.	< 0.5	< 2
W-4 @ 16 ft.	< 0.5	-
B-106 @ 11 ft.	< 0.5	-
B-106 @ 16 ft.	< 0.5	-
B-107 @ 9 ft.	1.0 <sup>b</sup>	< 2
B-107 @ 13 ft.	< 0.5	-
B-107 @ 17 ft.	< 0.5	-
B-107 @ 19 ft.	0.8	< 2

- a. Retested in the laboratory two days after sampling with a finding of <0.5 ppm.
- b. Retested in the laboratory one day after sampling with a finding of 0.8 ppm.



**KEY**

- TEST WELL LOCATION
- TEST BORING LOCATION
- - - GROUNDWATER CONTOURS (LEVELS MEASURED 10-27-86)



<b>SOIL &amp; MATERIAL ENGINEERS, INC.</b> GREENSBORO, NORTH CAROLINA		
DATE: 11-11-86	APPROVED BY: <i>Charles Stinson</i>	DRAWN BY GKS
		REVISED
<b>EVEREADY BATTERY COMPANY</b> ASHEBORO, NORTH CAROLINA		
<b>GROUNDWATER CONTOUR MAP</b>		DRAWING NUMBER 0088-1

**ATTACHMENT IV**

**CONTAMINANT MIGRATION STUDY  
UNDERGROUND STORAGE TANK  
EVEREADY BATTERY COMPANY  
ASHEBORO, NORTH CAROLINA**

**S&ME PROJECT NO. 1381-86-008A**





**SOIL & MATERIAL ENGINEERS, INC. ENGINEERING-TESTING-INSPECTION**

135-C Montlieu Avenue, Box 18169, Greensboro, NC 27419, Phone (919) 855-7547

August 14, 1986

Eveready Battery Company  
P.O. Box 849  
Asheboro, North Carolina 27203

Attention: Mr. Buster Hill

Reference: Report  
Contaminant Migration Study  
Underground Storage Tank  
Eveready Battery Company  
Asheboro, North Carolina  
S&ME Project No. 1381-86-008A

Gentlemen:

Soil & Material Engineers, Inc. (S&ME) has completed the soil and groundwater testing and evaluation as outlined in S&ME's proposal of April 30, 1986. This report presents data and conclusions relative to soil contamination, groundwater quality, as well as estimated groundwater flow direction and flow rate. Prior to this report, S&ME prepared a report on behalf of Black & Veatch which presented results of the test borings and monitor wells completed in March, 1986.

**BACKGROUND**

The presumed source of subsurface contamination was a storage tank which contained gasoline, diesel fuel, a degreaser solvent or some combination of those materials. The tank has been removed and the excavation backfilled. Eveready Battery Company records do indicate that the tank integrity was questionable in that it would not hold pressure during testing. Upon excavation, holes were noted and a chemical smell was evident. Some soil discoloration was observed.

A soil sample was obtained from the tank excavation and analyzed for volatile organics, acid-neutral extractables and base-neutral extractables. This analysis detected significant quantities of several volatiles including 1,1-dichloroethane, 1,1,1-trichloroethane and toluene. There were no acid-extractable compounds quantified

and only naphthalene was quantified among the base-neutral extractables. The semi-quantitative scan of both acid- and base-neutral extractables identified the possible presence of several other compounds.

In December 1985, five test borings and one monitor well were drilled by others. A total of 19 soil samples from these test borings were analyzed for 1,1-dichloroethane and benzene. The absence of these constituents in all but one sample may, however, be attributable to the two-month holding time (unrefrigerated) between sampling and analysis. The single well installed on December 6, 1985 (currently identified as W-2) was sampled on December 20 and again on February 20, 1986. On both occasions the samples were analyzed for a selected group of six volatiles. Of these analyses only 1,1-dichloroethane was detected at levels of 265 and 50 ppb, respectively, for the two dates.

In March, 1986 S&ME drilled two additional monitoring wells and five additional test borings. A total of 48 jar samples and two steel tube samples were collected. The jar samples were stored under refrigeration at the Black & Veatch laboratory until May 29, 1986. At that time, five samples were selected for testing and 15 samples were transported to Eveready Battery for long-term storage. The remaining 28 samples were discarded. As of the time work on the project was suspended in April, no groundwater sampling or well permeability testing had been performed. During drilling and soil sampling of these wells and borings, chemical odors were noted in several samples taken from locations near the former tank excavation. No odors were detected in any samples from the three boring/well holes located at distances of approximately 50 to 160 feet from the excavation. Further, no floating product was detected in either of the two S&ME installed wells.

#### HYDROGEOLOGIC CONDITIONS

As evidenced by the two wells and five soil test borings drilled by S&ME in March, the general subsurface conditions consist of fill overlying residuum. The fill was noted to consist of soft to very stiff clayey and/or sandy silts with variable amounts of rock fragments and organic debris. The fill was encountered to depths ranging from 5 to

13 feet below the present pavement surface. The residuum which underlies the fill in each boring is made up of those soils formed from the in-situ weathering of bedrock and includes some bedrock described on the Test boring Records as "partially weathered rock". The residual soils generally consisted of soft to hard clayey silt grading to stiff to hard sandy silt with rock fragments. The hard soils often exhibited the fissile structure of the metavolcanic slates from which they were derived. More detailed descriptions of the materials encountered at each drilling location are presented on the "Test Boring Records" which have been reproduced in this report.

The locations and ground surface elevations at each of the seven S&ME borings and wells and Well W-2 (drilled by others) were measured by a registered land surveyor. The locations are indicated on the enclosed Drwg. 008A-1. The elevations were based on a temporary bench mark (a sanitary sewer manhole cover in Brady Avenue) identified as elevation 838.24 feet.

Each of the five test borings (B-101 through B-105) had caved some time after the completion of drilling in March. Thus, reliable groundwater levels could not be obtained. We, therefore, removed some of the caved material by hand-auger and installed temporary standpipes in Borings B-104 and B-105. Boring B-103 was judged to provide an accurate reading without a standpipe while Boring B-101 and B-102 were abandoned. A final set of groundwater level measurements was made on June 24, 1986. These data are presented as follows:

<u>Location</u>	<u>Groundwater Depth (feet)</u>	<u>Groundwater Elevation (feet)</u>
W-1	13.2	822.6
W-2	7.0	818.0
W-3	7.5	814.9
B-103	13.3	822.8
B-104	14.0	822.0
B-105	14.1	817.4

Based on these data, groundwater contours (lines of equal potential) were estimated. These contours are presented in conjunction with groundwater elevations at the

boring/well locations on Drwg. 008A-1. In the vicinity of the former storage tank site, the implied groundwater flow direction is to the northwest. The estimated gradient is 0.07.

In addition to the groundwater level measurements presented above, S&ME performed rising head permeability (hydraulic conductivity) tests in each of the three monitor wells. The following hydraulic conductivities were computed:

<u>Well No.</u>	<u>Hydraulic Conductivity (ft/day)</u>
W-1	0.004
W-2	0.028
W-3	0.005

Based on these hydraulic conductivities, a gradient of 0.07, and an assumed soil porosity of 0.3, we compute the groundwater particle velocity to be in the range of 0.34 to 2.4 feet per year.

#### LABORATORY ANALYSES

Groundwater samples from each of the three monitor wells as well as five test boring soil samples were analyzed for volatile organics, ethylene dibromide (EDB), and lead. In addition one background soil sample was analyzed for total lead. The results of these analyses are presented in Table I.

The groundwater data indicates that Wells W-2 and W-3 are relatively free of contaminants. The EDB that was identified in W-2 in the May 29, 1986 sampling was not confirmed by testing of samples obtained on June 24, 1986. Conversely, Well W-1, which is located nearest the former tank excavation, identified significant concentrations of benzene, toluene and xylene but no other volatiles. Based on the estimated range in groundwater flow velocity, we would not expect contaminants to

Eveready Battery Company  
August 14, 1986  
Page 5

have reached either Well W-2 or W-3 as yet. Given the location of Well W-1 within the Eveready Battery property, it does not appear that this contamination will threaten any offsite water body in the near future, if ever.

A review of the soil analyses indicates the results to be quite variable with a number of volatiles identified. Among the most significant constituents were chloroform (less than 1.0 to 171 ug/kg), 1,4-dichlorobenzene (284 ug/kg), 1,1-dichloroethane (less than 1.0 to 68.4 ug/kg), 1,1,2,2-tetrachloroethane (49.7 ug/kg), 1,1,1-trichloroethane (less than 1.0 to 67.9 ug/kg), and 1,1,2-trichloroethane (less than 1.0 to 48.7 ug/kg). Benzene, toluene and xylene, which had been detected in the groundwater from Well W-1, were not found in any of the soil samples. Thus, while the contaminant levels in the soil may be judged significant, it does not appear that this soil contamination has contributed to any degradation of site groundwater.

If you have any questions concerning information presented in this report, please contact us.

Very truly yours,

SOIL & MATERIAL ENGINEERS, INC.



Dane A. Horna, P.E.  
Branch Manager

DAH/vl

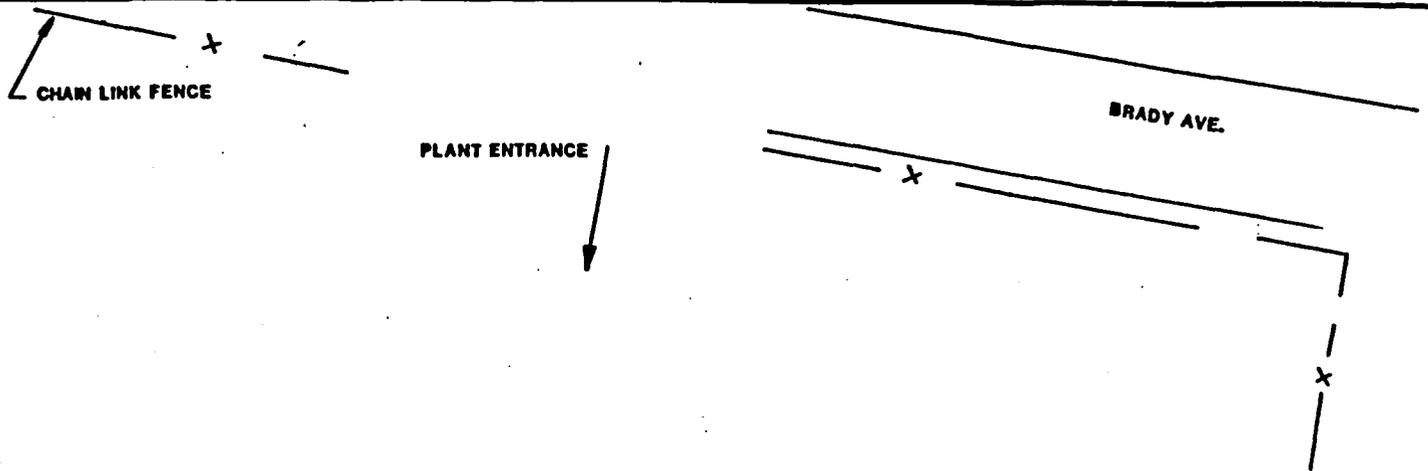
Enclosures



**TABLE I**

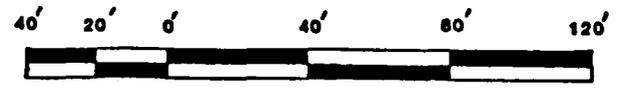
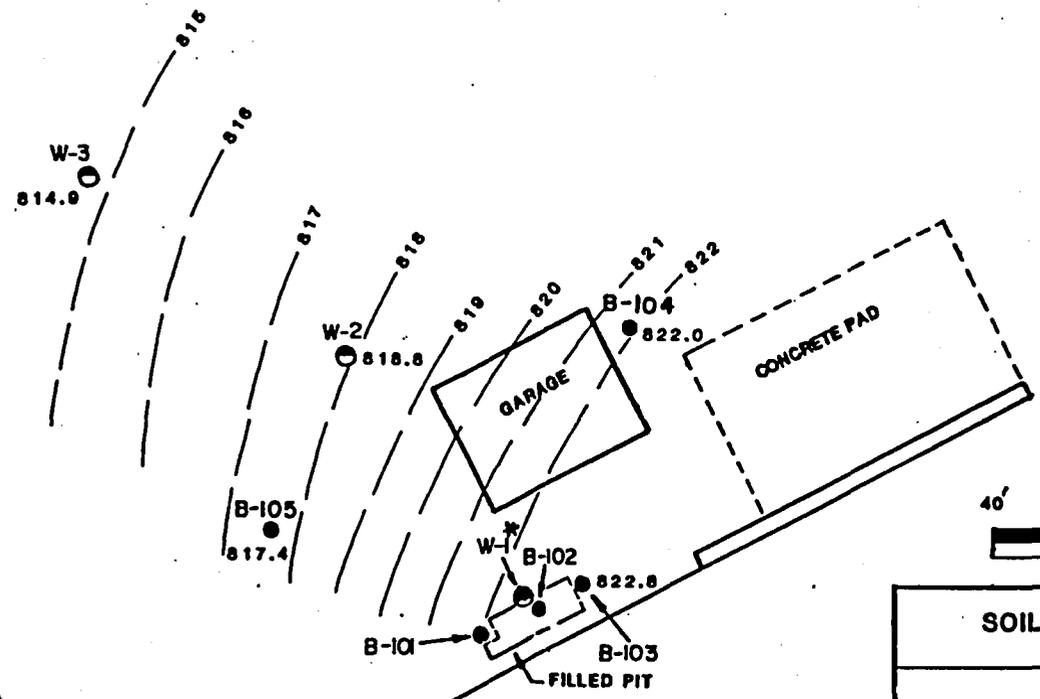
**SAMPLE IDENTIFICATION**

PARAMETER	UNITS	WATER					SOIL					BKGD. 1 ft.	
		Sample I.D.:	W-1	W-2	W-3	W-1	W-2	W-1	W-1	B102	B103		B103
		Sample Date:	5/29/86	5/29/86	5/29/86	6/24/86	6/24/86	12 ft.	17 ft.	19 ft.	12 ft.		21 ft.
Benzene	ug/L	72.2	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Bromodichloromethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Bromoform	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Bromomethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Carbon Tetrachloride	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Chlorobenzene	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Chloroethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
2-Chloroethylvinyl Ether	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Chloroform	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	171	59.0	4.7	<1.0	14.0	-
Chloromethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Dibromochloromethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
1,2-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
1,3-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
1,4-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Dichlorodifluoromethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	284	-
1,1-Dichloroethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
1,2-Dichloroethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	68.4	2.1	<1.0	<1.0	2.5	-
1,1-Dichloroethene	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
trans-1,2-Dichloroethene	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	5.0	<1.0	<1.0	<1.0	<1.0	-
1,2-Dichloropropane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
cis-1,3-Dichloropropane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	8.4	<1.0	<1.0	<1.0	<1.0	-
Ethyl Benzene	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Methylene Chloride	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
1,1,2,2-Tetrachloroethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	30.4	<1.0	<1.0	<1.0	<1.0	-
Tetrachloroethene	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	49.7	-
Toluene	ug/L	42.6	<1.0	<1.0	-	-	ug/kg	<1.0	12.9	<1.0	<1.0	<1.0	-
1,1,1-Trichloroethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
1,1,2-Trichloroethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	5.4	67.9	<1.0	5.4	42.3	-
Trichloroethene	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	41.2	<1.0	<1.0	48.7	-
Trichlorofluoromethane	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	5.1	2.4	<1.0	<1.0	2.3	-
Vinyl Chloride	ug/L	<1.0	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Xylenes	ug/L	1300	<1.0	<1.0	-	-	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-
Lead	mg/L	0.021	0.001	0.020	-	-	mg/kg	4.96	6.22	7.47	9.22	15.5	12.8
Ethylene Dibromide	ug/L	48.9	3.08	<0.010	<0.010	<0.010	ug/kg	<1.0	<1.0	<1.0	<1.0	<1.0	-



**KEY**

- TEST WELL LOCATION
- TEST BORING LOCATION
- - - GROUNDWATER CONTOURS (LEVELS MEASURED 6-24-86)



ELECTRICAL  
SUB. STA.

SOIL & MATERIAL ENGINEERS, INC. GREENSBORO, NORTH CAROLINA		
DATE: 7/21/86	APPROVED BY: <i>Charles Minner</i>	DRAWN BY CP
		REVISED
EVEREADY BATTERY COMPANY ASHEBORO, NORTH CAROLINA		
GROUNDWATER CONTOUR MAP		DRAWING NUMBER 008A-1

**APPENDIX**

**KEY TO  
TEST BORING RECORDS**

**ABBREVIATIONS**

**Soil/Groundwater**

Alluv.	Alluvium
Res.	Residuum
PWR	Partially Weathered Rock
Mica.	Micaceous
C	Coarse
M	Medium
F	Fine
Sli	Slightly
w/	With
V.	Very
g/w	Groundwater

**Drilling**

TOB	Termination of boring
TOD	Termination of drilling

**NOTES**

1. Boring and sampling satisfy ASTM D-1586. Core Drilling satisfies D-2113.
2. "Blows per six inches" (N-value) refers to the number of impacts required of a 140-lb. hammer falling 30 inches to drive a 1.4-inch inner diameter split-spoon sampler six inches. Three consecutive six-inch "drives" are executed at each sampling depth, except when material requiring 50 or more blows per six inches (e.g., 50/3") is encountered. In this case, the sampling at that particular depth is terminated in the drive where the "50+" material occurs.
3. "Penetration" (blows per foot) is a numerical quantity calculated at each sampling depth by summing the last two six-inch blows. In the case of a partial drive (e.g. 50/3"), a value of 100 is assumed. A graphical representation of penetration values is plotted to the left of "blows per six inches" on the Test Boring Records.
4. Recovery (REC), is a term used to describe the retrieved quantities of both soil and rock samples. When associated with soil sampling, it is the retrieved length, in inches, of the split-spoon sample. The maximum is 18 inches. With respect to rock coring, recovery is the ratio of the retrieved length of rock core to the length of the core run times 100%.
5. The Rock Quality Designation (RQD) is the ratio of the cumulative length of those core segments 4 inches or longer to the total length of the core run times 100%. When calculating RQD, mechanical fractures caused by drilling and/or core retrieval are discounted.

**SYMBOLS**

	TOB/TOD Groundwater Level
	24-Hour Groundwater Level
	Undisturbed Sample

# TEST BORING RECORD

DEPTH (FT.)	DESCRIPTION	ELEVATION (FT.)	PENETRATION (BLOWS/FT.)	BLOWS PER SIX IN.	REC. (IN.)			
		0	10	20	30	50		
0.0	Asphalt & Crusher Run							
0.6							6-7-8	18
3.0	Stiff Tan & Grey Fine Sandy Silt-Fill; Trace Odor						8-5-6	18
8.0	Stiff to Med. Stiff Red & Yellow to Tan & Grey Sli. Fine Sandy Clayey Silt; Trace Odor						3-2-3	18
9.5							3-4-5	18
	Stiff Tan & Blue-Grey Sli. Fine Sandy Clayey Silt w/ Organics; Trace Odor						7-20-21	18
							13-18-23	18
17.8	Hard Tan & Blue-Grey Sli. Fine Sandy Silt-Res.; Trace to Moderate Odor						9-14-13	18
							50/5"	5
							50/5"	4
	PWR sampled as Tan & Brown Sli. Fine Sandy Silt w/ Rock Fragments. Soil Seam from approx. 25.0-28.0 ; Sli. Odor to 23.5 then None						50/4"	4
							8-14-19	18
							20-47-50/2"	14
33.5	Boring Terminated  Auger Bored from 28.5 to 33.5 w/ no samples taken							

REFER TO ATTACHED SHEET FOR EXPLANATIONS AND SYMBOLS

JOB NUMBER            1381-86-008  
 BORING NUMBER        W-1  
 DATE                    3-4-86

**SOIL & MATERIAL  
 ENGINEERS, INC.**

# TEST BORING RECORD

DEPTH (FT.)	DESCRIPTION	ELEVATION (FT.)	PENETRATION (BLOWS/FT.)	BLOWS PER SIX IN.	REC. (IN.)
0.0			0    10    20    30    50		
0.6	Asphalt & Crusher Run				
	M. Stiff to Soft Orange & Grey Sli. Clayey Silt w/ Wood Debris at Bottom of Strata-Fill		●	3-2-3	18
			●	2-1-1	18
7.0	Stiff Orange & Grey Sli. Clayey Silt w/ Trace of Organics & Rock Fragments-Poss. Fill/Poss. Res.		●	2-1-18	10
8.0			●	5-6-8	18
9.0	Stiff Orange & Yellow Clayey Silt-Res.		●	5-7-23	18
			●	11-23-35	18
	Hard Grey & Tan to Tan & Brown Sli. Clayey Silt w/ PWR Lenses & Clayey Seams		●	10-22-19	18
			●	24-50/5"	11
			●	19-24-19	18
			●	36-50/6"	12
25.0	Boring Terminated				
	No Hydrocarbon Odor Detected in Boring				

REFER TO ATTACHED SHEET FOR EXPLANATIONS AND SYMBOLS

JOB NUMBER            1381-86-008  
 BORING NUMBER        W-3  
 DATE                    3-5-86

**SOIL & MATERIAL  
 ENGINEERS, INC.**

# TEST BORING RECORD

DEPTH (FT.)	DESCRIPTION	ELEVATION (FT.)	PENETRATION (BLOWS/FT.)	BLOWS PER SIX IN.	REC. (IN.)
0.0			0    10   20 30   50		
0.6	Asphalt & Crusher Run				
	V./ Stiff & Stiff Orange & Black FSli. C-F Sandy Silt & Red Sli. Clayey Silt-Fill Soft zone, 5.5' - 6.5'; No Odor in stratum		●	5-9-7	18
			●	13-5-3	18
8.0			●	1-2-1	18
	Stiff Tan & Grey Sli. M-F Sandy Silt w/ Clayey Seams-Res.; Trace Odor		●	4-5-8	18
12.0					
	Hard Tan Sli. M-F Sandy Silt w/ Clayey Seams & Rock Fragments; Trace Odor			●	19-25-32
19.0					
19.4	PWR sampled as Tan Sli. M-F Sandy Silt w/ Rock Fragments; No Odor			●	22-29-50/5"
	Boring Terminated				
	UD REC = 100% (12' - 13')				
	Boring Caved @ 14.2', 24 Hr.				

REFER TO ATTACHED SHEET FOR EXPLANATIONS AND SYMBOLS

JOB NUMBER            1381-86-008  
 BORING NUMBER        B-101  
 DATE                    3-6-86

**SOIL & MATERIAL  
 ENGINEERS, INC.**

# TEST BORING RECORD

DEPTH (FT.)	DESCRIPTION	ELEVATION (FT.)	PENETRATION (BLOWS/FT.)					BLOWS PER SIX IN.	REC. (IN.)
			0	10	20	30	50		
0.0	Gravel/Soil Backfill in Tank Excavation; Moderate Odor								
11.0	Hard Tan & Blue-Grey Sli. Fine Sandy Silt-Res.; Moderate to No Odor from 11.0'- 20.0'				●		13-14-16	18	
					●		12-12-22	18	
					●		16-16-21	18	
22.5	Boring Terminated  No Groundwater Encountered at TOB				●		20-24-30	18	

REFER TO ATTACHED SHEET FOR EXPLANATIONS AND SYMBOLS

JOB NUMBER            1381-86-008  
 BORING NUMBER        B-102  
 DATE                    3-10-86

---

**SOIL & MATERIAL  
ENGINEERS, INC.**

---

# TEST BORING RECORD

DEPTH (FT.)	DESCRIPTION	ELEVATION (FT.)	PENETRATION (BLOWS/FT.)	BLOWS PER SIX IN.	REC. (IN.)	
		0	10	20	30	50
0.0	Asphalt & Crusher Run					
0.6						
	Stiff Grey & Red and Red-Orange Sli. M-F Sandy Clayey Silt w/ Rock Fragments-Res.; No Odor					
9.5	Soft, Saturated Zone of Red, Grey, & Tan Sli. Clayey Silt w/ Rock Fragments-Poss. Fill/Poss. Res.; Moderate to Strong Odor					
12.5						
	Hard Tan Silt w/ Rock Fragments; Moderate Odor					
16.5						
	PWR Sampled as Tan... (same as previous); Moderate to Trace Odor					
31.1	Auger Refusal					
	UD REC=100%(9' - 11')					

REFER TO ATTACHED SHEET FOR EXPLANATIONS AND SYMBOLS

JOB NUMBER            1381-86-008  
 BORING NUMBER        B-103  
 DATE                    3-6-86

**SOIL & MATERIAL  
 ENGINEERS, INC.**

# TEST BORING RECORD

DEPTH (FT.)	DESCRIPTION	ELEVATION (FT.)	PENETRATION (BLOWS/FT.)					BLOWS PER SIX IN.	REC. (IN.)
			0	10	20	30	50		
0.0 1.2	Asphalt & Crusher Run								
6.0	M. Stiff Grey, Brown, & Orange Clayey Silt-Fill			●				4-2-3	18
6.0	Stiff Grey & Tan Sli. Clayey Sli. M-F Sandy Silt w/ Organic Debris-Fill			●				2-2-8	18
13.0	Hard to V. Hard Green-Grey to Blue-Grey & Tan Silt- Res.					●		12-16-21	18
20.0	-Boring Terminated -No Hydrocarbon Odor Detected in Boring -Boring Caved at 15.5', 24 Hrs.						●	24-44-48	18

REFER TO ATTACHED SHEET FOR EXPLANATIONS AND SYMBOLS

JOB NUMBER            1381-86-008  
 BORING NUMBER        B-104  
 DATE                    3-10-86

**SOIL & MATERIAL  
 ENGINEERS, INC.**

# TEST BORING RECORD

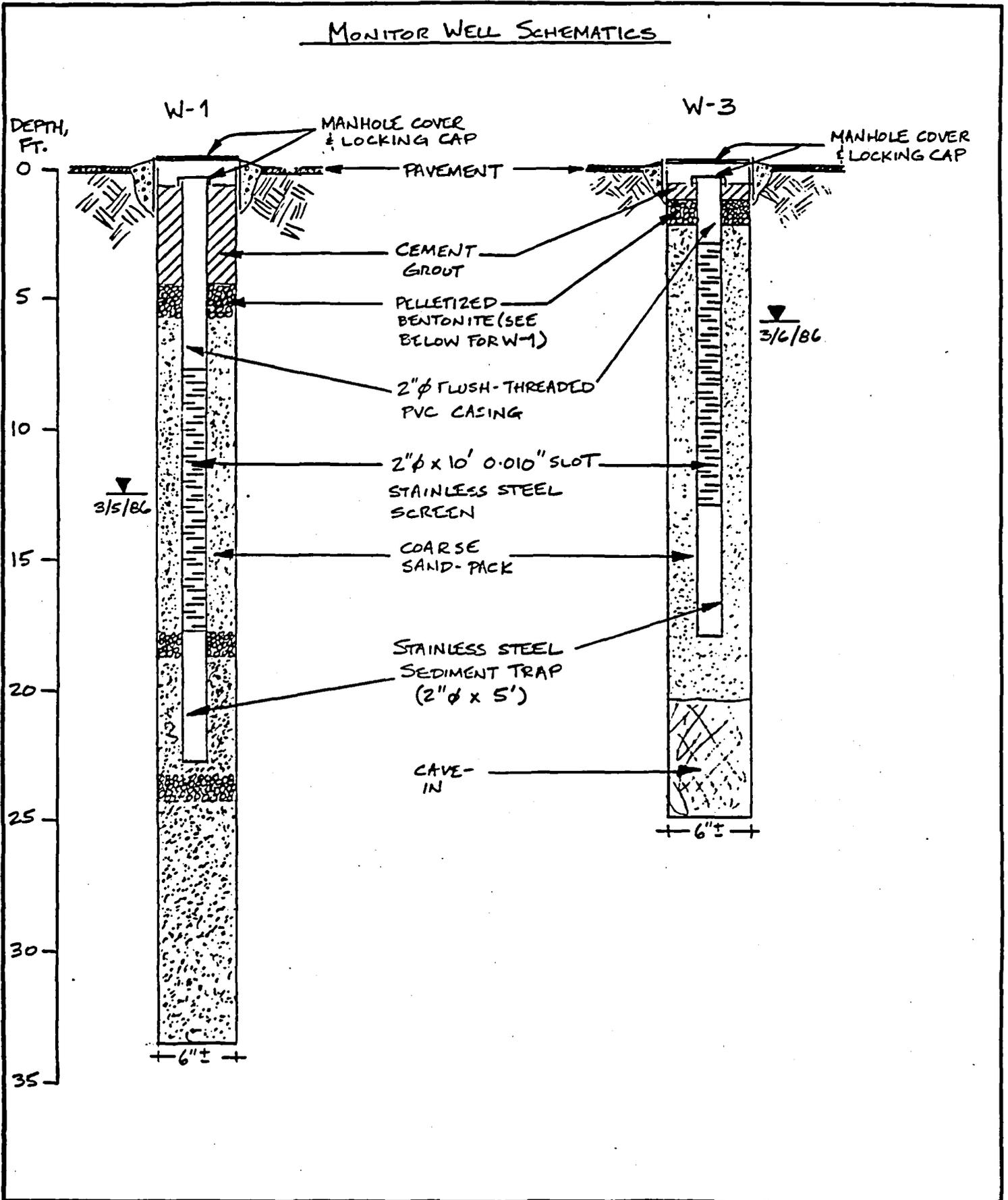
DEPTH (FT.)	DESCRIPTION	ELEVATION (FT.)	PENETRATION (BLOWS/FT.)					BLOWS PER SIX IN.	REC. (IN.)
			0	10	20	30	50		
0.0	Stiff Orange-Brown & Grey C-F Sandy Clayey Silt w/ Rock Fragments-Fill								
5.0	Stiff Orange-Tan Clayey Silt-Res.						2-3-6	18	
7.5	Hard Grey-Orange & Tan Sli. M-F Sandy Silt						10-13-18	18	
							13-19-34	18	
20.0	-Boring Terminated -No Groundwater Encountered at TOB -No Hydrocarbon Odor Detected in Boring						20-24-27	18	

REFER TO ATTACHED SHEET FOR EXPLANATIONS AND SYMBOLS

JOB NUMBER           1381-86-008  
BORING NUMBER        B-105  
DATE                   3-11-86

**SOIL & MATERIAL  
ENGINEERS, INC.**

MONITOR WELL SCHEMATICS





RECEIVED

FEB 23 1987

ENGINEERING

North Carolina Department of Human Resources  
Division of Health Services  
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor  
Phillip J. Kirk, Jr., Secretary

February 19, 1987

Ronald H. Levine, M.D., M.P.H.  
State Health Director

Mr. A. M. Nash  
Environmental Affairs  
Eveready Battery Company, Inc.  
20575 Center Ridge Road  
Rocky River, OH 44116

Re: Eveready Battery Company  
Gasoline Tank Leak  
Asheboro, North Carolina

Dear Mr. Nash:

Since the Division of Environmental Management is pursuing the groundwater aspect of your tank leak cleanup, this office will limit its remarks to residual contamination to remain in the soil. Review of correspondence originating from Soil and Materials Engineering, Inc., indicates that total contamination levels to be below 1 ppm around the "Filled Pit." If these results are representative of the levels of contamination in the soil, this office will be satisfied with no additional treatment.

If during remediation of the site any material is found with levels of contamination greater than 1 ppm, this office should be contacted concerning that material's disposition.

If you have any other questions or concerns related to this matter, please do not hesitate to contact me at (919) 733-2178.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jerry H. Rhodes".

Jerry H. Rhodes, Assistant Branch Head  
Solid & Hazardous Waste Management Branch  
Environmental Health Section

JHR/ppb

cc: Joe Deakins  
Brenda J. Smith



PRB/BIH

PER ANALYSIS - LET'S USE THE 10PPM CRITERIA FOR BENZENE USING HNU METER - WE CAN START WITH 100-200 CU. YD. IF WE HAVE TO DIG SOME MORE WE CHECK w/ R.R. David 4/10/87

State of North Carolina  
Department of Natural Resources and Community Development  
Winston-Salem Regional Office

James G. Martin, Governor

S. Thomas Rhodes, Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT  
GROUNDWATER SECTION

March 31, 1987

Mr. T. Wayne Hodges  
Eveready Battery Company, Inc.  
P. O. Box 849  
Asheboro, NC 27204-0849

Subject: Eveready Battery Company, Inc.  
Underground Gasoline Tank Leak  
Asheboro, Randolph County  
Removal of Contaminated Soil

Dear Mr. Hodges:

This letter is to provide written confirmation to begin subject remedial action, as requested in your March 6, 1987 correspondence.

Please do not hesitate to contact me at (919) 761-2351 if you have any other questions or concerns related to this matter.

Sincerely,

*Brenda J. Smith*

Brenda J. Smith  
Hydrogeological Regional  
Supervisor

BJS:DH

cc: Dane Horna  
Joe Deakins  
Douglas Dixon  
WSRO

**EVEREADY BATTERY COMPANY, INC.**

P.O. BOX 849

ASHEBORO, NC 27204-0849

RECEIVED

MAR 10 1987

ENGINEERING

March 6, 1987

Ms. Brenda J. Smith  
State of N. C. Department of Natural Resources  
& Community Development  
Division of Environmental Management  
Groundwater Section  
8025 North Point Boulevard  
Winston-Salem, North Carolina 27106

Subject: Eveready Battery Company, Inc.  
Underground Gasoline Tank Leak  
Asheboro, North Carolina

Dear Ms. Smith:

Confirming our phone conversation on Thursday, March 5, 1987, we have your authorization to begin remedial action as described in the report by Soil and Material Engineers, Inc., dated September 3, 1986, by Mr. Dane A. Horna. As we discussed, the one exception to the proposed remedial action will be that the soil will not be handled as a hazardous waste, per letter by Mr. Jerry H. Rhodes, dated February 19, 1987. Therefore, the excavated soil will not be treated. Our plans are to carry the soil to the Eveready Battery Company land-fill and spread in our Cell # 2.

Our plans are to await drier and warmer weather conditions prior to beginning the excavation. We would also like your confirming, written correspondence before proceeding.

If you have any questions or comments, please do not hesitate to contact me.

Very truly yours,

*T. Wayne Hodges*

T. Wayne Hodges

TWH:bam

cc: Messrs. G. W. Beck  
A. M. Nash  
D. A. Sena  
P. R. Brown



RECEIVED

FEB 23 1987

GENERAL  
ENGINEERING

North Carolina Department of Human Resources  
Division of Health Services  
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor  
Phillip J. Kirk, Jr., Secretary

February 19, 1987

Ronald H. Levine, M.D., M.P.H.  
State Health Director

Mr. A. M. Nash  
Environmental Affairs  
Eveready Battery Company, Inc.  
20575 Center Ridge Road  
Rocky River, OH 44116

Re: Eveready Battery Company  
Gasoline Tank Leak  
Asheboro, North Carolina

Dear Mr. Nash:

Since the Division of Environmental Management is pursuing the groundwater aspect of your tank leak cleanup, this office will limit its remarks to residual contamination to remain in the soil. Review of correspondence originating from Soil and Materials Engineering, Inc., indicates that total contamination levels to be below 1 ppm around the "Filled Pit." If these results are representative of the levels of contamination in the soil, this office will be satisfied with no additional treatment.

If during remediation of the site any material is found with levels of contamination greater than 1 ppm, this office should be contacted concerning that material's disposition.

If you have any other questions or concerns related to this matter, please do not hesitate to contact me at (919) 733-2178.

Sincerely,

A handwritten signature in cursive script that reads "Jerry H. Rhodes".

Jerry H. Rhodes, Assistant Branch Head  
Solid & Hazardous Waste Management Branch  
Environmental Health Section

JHR/ppb

cc: Joe Deakins  
Brenda J. Smith

**EVEREADY BATTERY COMPANY, INC.**

20575 CENTER RIDGE ROAD  
ROCKY RIVER, OHIO 44116

TELEPHONE: (216) 333-0500  
TELEX: UCCONSPRO AKVA 98-5591  
ADDRESS REPLY TO: P.O. BOX 16000  
ROCKY RIVER, OHIO 44116

Environmental Affairs

December 16, 1986

Mr. Jerry Rhodes  
North Carolina Department of Human Resources  
Solid and Hazardous Waste Management Branch  
P.O. Box 2091  
Raleigh, NC 27602

Subject: Eveready Battery Company  
Underground Gasoline Tank Leak,  
Asheboro, NC

Dear Mr. Rhodes:

Per my telephone conversation yesterday with Mr. Terry Dover, attached please find a copy of the soil and groundwater evaluation report for the subject tank leak. This report was originally submitted to Ms. Brenda Smith, Division of Environmental Management, Hydrogeological Regional Supervisor, Winston-Salem, NC.

Working with Ms. Smith, we have agreed to a remedial action concept which involves soil excavation and confirmatory testing to insure that groundwater standards are not exceeded for benzene. We have proposed two methods for managing the excavated soil:

- (1) Spread on-site over a plastic liner, aerate by tilling until contaminants are at an acceptable level, cover with plastic liner during inclement weather and over weekends.
- (2) Spread in cell #2 of the Eveready Battery Company landfill, aerate by tilling until contaminants are at an acceptable level, leachate to be treated off-site in our wastewater treatment system (pH adjustment, precipitation, filtration, activated carbon).

Ms. Smith has been in contact with your department to determine if either of these methods is acceptable and to determine what level of residual organics is allowable. We do not believe that the soil, which contains extremely low levels of some organics and lead levels comparable to background, is or should be managed as a hazardous waste.

Your comments on these matters would be greatly appreciated as we cannot begin any remedial action until we have resolved the issue of soil management. A meeting is tentatively planned in early January with Ms. Smith and Mr. Stephen Phibbs of your department to further discuss the matter. A response from you to Ms. Smith, Mr. Phibbs, and myself prior to the meeting would be most helpful.

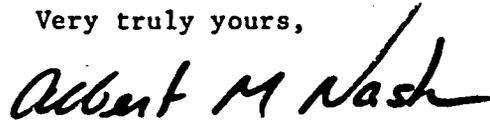
Mr. Jerry Rhodes

-2-

December 16, 1986

Thank you for your time and effort. If you have any questions or comments, please call me at (216) 333-0500 before December 19 or anytime after January 5.

Very truly yours,

A handwritten signature in black ink that reads "Albert M. Nash". The signature is written in a cursive style with a large, sweeping initial "A".

A. M. NASH

AMN:mmm

Att.

cc: Mr. Terry Dover (cover letter only)



**SOIL & MATERIAL ENGINEERS, INC. ENGINEERING-TESTING-INSPECTION**

135-C Montieu Avenue, Box 18169, Greensboro, NC 27419, Phone (919) 855-7547

August 14, 1986

Eveready Battery Company  
P.O. Box 849  
Asheboro, North Carolina 27203

Attention: Mr. Buster Hill

Reference: Report  
Contaminant Migration Study  
Underground Storage Tank  
Eveready Battery Company  
Asheboro, North Carolina  
S&ME Project No. 1381-86-008A

*This tank was decommissioned approximately 8 years ago. Due to the unusual smell and vague recollections of tank use, we reported this as →*

Gentlemen:

Soil & Material Engineers, Inc. (S&ME) has completed the soil and groundwater testing and evaluation as outlined in S&ME's proposal of April 30, 1986. This report presents data and conclusions relative to soil contamination, groundwater quality, as well as estimated groundwater flow direction and flow rate. Prior to this report, S&ME prepared a report on behalf of Black & Veatch which presented results of the test borings and monitor wells completed in March, 1986.

**BACKGROUND**

The presumed source of subsurface contamination was <sup>an underground</sup> a storage tank which contained gasoline, diesel fuel, a degreaser solvent or some combination of those materials. The tank has been removed and the excavation backfilled. Eveready Battery Company records do indicate that the tank integrity was questionable in that it would not hold pressure during testing. Upon excavation, holes were noted and a chemical smell was evident. Some soil discoloration was observed.

A soil sample was obtained from the tank excavation and analyzed for volatile organics, acid-neutral extractables and base-neutral extractables. This analysis detected significant quantities of several volatiles including 1,1-dichloroethane, 1,1,1-trichloroethane and toluene. There were no acid-extractable compounds quantified

a "generic" spill - gasoline/diesel fuel/  
unknown organic solvent. Subsequent  
interviews with employees have confirmed  
that the tank was in fact used for  
gasoline. This was a 500 gallon tank.



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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NC	D003216462

**II. SITE NAME AND LOCATION**

01 SITE NAME (Legal, common, or descriptive name of site) Union Carbide Corporation		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER P.O. Box 849 (800 Albemarle Rd.)			
03 CITY Asheboro	04 STATE NC	05 ZIP CODE 27203	06 COUNTY Randolph	07 COUNTY CODE 76	08 CONG DIST 4
09 COORDINATES LATITUDE <u>35° 41' 25" N</u>		LONGITUDE <u>079° 49' 34" W</u>			

10 DIRECTIONS TO SITE (Starting from nearest public road)

Located at 800 Albemarle Road (NC Hwy. 49A), Asheboro, NC

**III. RESPONSIBLE PARTIES**

01 OWNER (if known) Union Carbide Corporation		02 STREET (Business, mailing, residential)			
03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER ( 919 672-1012		
07 OPERATOR (if known and different from owner)		08 STREET (Business, mailing, residential)			
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER ( )		
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN					

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

A. RCRA 3001 DATE RECEIVED: 8/31/81     B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: \_\_\_\_/\_\_\_\_/\_\_\_\_     C. NONE

**IV. CHARACTERIZATION OF POTENTIAL HAZARD**

01 ON SITE INSPECTION <input type="checkbox"/> YES    DATE ____/____/____ <input checked="" type="checkbox"/> NO		BY (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____			
--	--	---	--	--	--

02 SITE STATUS (Check one) <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN	03 YEARS OF OPERATION <u>1972</u> BEGINNING YEAR    ENDING YEAR		<input type="checkbox"/> UNKNOWN
--	---	--	----------------------------------

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Mercury, lead, chromium, selenium, EP corrosive materials.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

None known. Facility classified as small generator.

**V. PRIORITY ASSESSMENT**

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)  
 A. HIGH (inspection required promptly)     B. MEDIUM (inspection required)     C. LOW (inspect on time available basis)     D. NONE (No further action needed, complete current disposition form)

**VI. INFORMATION AVAILABLE FROM**

01 CONTACT Joseph H. Deakins		02 OF (Agency/Organization) NC DHR, S&HW Mgmt. Branch		03 TELEPHONE NUMBER 919) 563-1818	
04 PERSON RESPONSIBLE FOR ASSESSMENT O.W. Strickland		05 AGENCY NC DHR	06 ORGANIZATION S&HW Mgmt.	07 TELEPHONE NUMBER (919) 733-2178	08 DATE <u>12</u> / <u>1</u> / <u>84</u> MONTH DAY YEAR



SMALL GENERATOR ONLY

UCC Asheville, Albemarle Rd.

NC D003216462

tel 919/672-1012

G. B. McClanahan, Plant Manager

Sena Dario, Q.C. Engineer

- ① how long in existence
- ② any landfilling past or present
- ③ spill history
- ④ Randolph Co. LDFL - special UCC disposal area - YES

McClanahan says: no spills



in general, he was reluctant to give info. I told him I'd arrange for an S.I.

no past or present on-site disposal  
gives 1948 as date facility opened (however this represents establishment of UCC in general, as I understand it, rather than when that particular facility opened.  
indicated that UCC has a special storage area for their non-hay waste at Randolph Co. LDFL.

12-27-84

Hay waste manifests in file indicate:

D007	- Cr
D008	- Pb
D009	- Hg
D010	- Selenium
D002	- CORROSIVE



FILE

*7/1/83*

Ronald H. Levine, M.D., M.P.H.  
STATE HEALTH DIRECTOR

DIVISION OF HEALTH SERVICES  
P.O. Box 2091  
Raleigh, N.C. 27602-2091

September 19, 1983

Mr. G. B. McClanahan  
Plant Manager  
Union Carbide Corporation  
P.O. Box 849  
Asheboro, N. C. 27203

Dear Mr. McClanahan:

Re: Small Generator Status

North Carolina Hazardous Waste Management Rules 10 NCAC 10F .0029(a), Section 261.5 state that a person who generates in a calendar month or accumulates at any time less than 1,000 kilograms of hazardous waste need not comply with 10 NCAC 10F regulations and is classified as a small generator. Many generators in North Carolina have been classified as small generators, but we occasionally find one storing or shipping over 1,000 kilograms of hazardous waste.

Union Carbide Corporation, EPA ID No. NCD003216462, was classified as a small generator on October 13, 1982. However, a shipment of hazardous waste was sent to SCA Services, EPA ID No. SCD070375985, on 8/10/83. This shipment, manifest No. 38565, was 4070 pounds indicating an accumulation greater than 1,000 kilograms. Should a second violation occur, you will be subject to an administrative penalty and will be classified as a hazardous waste generator.

Sincerely,

G. W. Strickland, Head  
Solid & Hazardous Waste Management Branch  
Environmental Health Section

OWS:ct

cc: Steve Phibbs

### HAZARDOUS WASTE MANIFEST

Manifest Document Number  
**Nº 38565**

Name	I.D. Code	Address	Phone Number (area code & number)	Date Shipped or Accepted
(1) Generator <b>UNION CARBIDE CORP</b>	<b>NC0003216462</b>	<b>800 ALBEMARLE RD. P.O. BOX 849 ASHEBORO N.C. 27203</b>	<b>(919) 672-1012</b>	<b>83   8   10</b> year month day
(2) Transporter No. 1 <b>OVERNITE TRANS. CO.</b>	<b>044938991</b>	<b>RT. 7 BOX 168 GREENSBORO, N.C. 27407</b>	<b>(919) 629-4111</b>	<b>83   8   10</b> year month day
Transporter No. 2				<b>1   1</b> year month day
(3) TSDF <b>SCA SERVICES INC.</b>	<b>SCD070375985</b>	<b>RT 1 BOX 55 PINENWOOD, S.C. 29125</b>	<b>(803) 452-5003</b>	<b>83   8   15</b> year month day

No.	(1) Generator Item Count Container Type	(2) DOT Proper Shipping Name/Hazard Class/ DOT Identification Number	(3) Total Quantity	(4) Weight (pounds)	(5) Waste Code	(6) TSDF Item Check		(7) Quantity by Weight (pounds)
						Number	Container Type	
6	55 GAL DRUM	HAZARDOUS WASTE SOLID NOS ORM-E NA 9189	330 GAL	2345	D007/D-008/D009 D010	6	Drums	2,713
3	55 GAL DRUM	PACKAGED LABORATORY WASTE NA 1760 WASTE CORROSIVE NOS UN 1760	165 GAL (INCLUDING PACKING MATERIAL)	1180	CORROSIVE D002	3	Drums	1,357

**Emergency Response Information:**  
 In event of an emergency, phone the Generator at:  
 (919) 672-1012  
 In event of a spill in South Carolina,  
 call the Department at (803) 758-5531

**D. Special Handling Instructions:** *PER MSDS*  
**NONE**

**E. Comments:** *Enclosed Van  
 WORK ORDER # 24673*

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to all applicable regulations of the U.S. DOT, U.S. EPA, the S.C. PSC and the S.C. DHEC.

Signature: *David A. Serna* Name and Title: **DARIO A. SERNA SR. Q.C. ENGINEER** Date: **8/10/83**

I hereby certify that I am an authorized representative of the transporter and that the waste(s) and quantity described in this Manifest have been accepted by us for ultimate delivery to the TSDF identified above

Transporter No. 1: Signature: *Charles Linwood Walker* Name: **Charles Linwood Walker** Date: **83-8-10**

Transporter No. 2: \_\_\_\_\_ Name: \_\_\_\_\_ Date: \_\_\_\_\_

I hereby certify that I am an authorized representative of the TSDF identified above and that the waste(s) and quantity in this Manifest have been accepted by me for treatment, storage, and/or disposal.

Signature: *Hope Barwick* Name and Title: **SCA Services, Technician** Date: **8-15-83**

### HAZARDOUS WASTE MANIFEST

Manifest Document Number

**Nº 42356**

A. Name		I.D. Code	Address	Phone Number (area code & number)	Date Shipped or Accepted
(1) Generator <b>UNION CARBIDE CORP.</b>		<b>NC0003216462</b>	<b>800 ALBEMARLE RD. ASHEBORO N.C. 27208</b>	<b>(919) 672-1012</b>	<b>83 1 12 12</b> year month day
(2) Transporter No. 1 <b>OVERNITE TRANS. CO</b>		<b>044932991</b>	<b>RT. 7 BOX 168 GREENSBORO N.C. 27407</b>	<b>(919) 629-4111</b>	<b>83 1 12 12</b> year month day
Transporter No. 2					<b>1 1</b> year month day
(3) TSDF <b>SCA SERVICES INC.</b>		<b>SC007037598E</b>	<b>RT. 1 BOX 55 PINEWOOD S.C. 29125</b>	<b>(803) 452-5003</b>	<b>83 1 12 128</b> year month day

B. (1) Generator Item Count		(2) DOT Proper Shipping Name/Hazard Class/ DOT Identification Number	(3) Total Quantity	(4) Weight (pounds)	(5) Waste Code	(6) TSDF Item Check		(7) Quantity by Weight (pounds)
Number	Container Type					Number	Container Type	
<b>4</b>	<b>55-GAL DRUM</b>	<b>HAZARDOUS WASTE SOLID NO3 ORM-E NA 9189</b>	<b>220 GAL.</b>	<b>1930 LBS</b>	<b>D007/D008/D009 D010</b>	<b>4</b>	<b>DRUMS</b>	<b>0.26</b>
<p>only 5% over limit - no contact with Union Carbide</p> <p>JHR 1/12/84</p>								

C. Emergency Response Information: In event of an emergency, phone the Generator at: <b>(919) 672-1012</b> In event of a spill in South Carolina, call the Department at (803) 758-5531	D. Special Handling Instructions: <b>NONE</b> <i>Enclosed Van</i>	E. Comments: <b>280-6101 #</b> <b>WORK ORDER 27913</b>
---	---	--

F. This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to all applicable regulations of the U.S. DOT, U.S. EPA, the S.C. PSC and the S.C. DHEC.

*David A. Sena* **DARIO A. SENA SR. O.C. ENGR.** **12-21-83**

G. I hereby certify that I am an authorized representative of the transporter and that the waste(s) and quantity described in this Manifest have been accepted by us for ultimate delivery to the TSDF identified above

Transporter No. 1: <i>Charles J. White</i>	<i>Charles J. White</i>	<b>11-17-83</b>
Signature	Name	Date
Transporter No. 2:		
Signature	Name	Date

H. I hereby certify that I am an authorized representative of the TSDF identified above and that the waste(s) and quantity in this Manifest have been accepted by me for treatment, storage, and/or disposal.

*Nope Baiwick* **SCA Services Technician** **12-28-83**

Signature Name and Title Date

South Carolina Department of Health and Environmental Control  
 Solid and Hazardous Waste Management Division  
 2600 Bull Street, Columbia, SC 29201  
 Phone: (803) 758-5681  
 Emergency & Holidays: (803) 758-5531

### HAZARDOUS WASTE MANIFEST

Manifest Document Number  
**Nº 38565**

Name	I.D. Code	Address	Phone Number (area code & number)	Date Shipped or Accepted
(1) Generator <b>UNION CARBIDE CORP</b>	<b>NC0003216462</b>	<b>800 ALBEMARLE RD. P.O. BOX 849 ASHEBORO N.C. 27203</b>	<b>(919) 672-1012</b>	<b>83   8   10</b> year month day
(2) Transporter No. 1 <b>OVERNITE TRANS. CO.</b>	<b>044938991</b>	<b>RT. 7 BOX 168 GREENSBORO, N.C. 27407</b>	<b>(919) 629-4111</b>	<b>83   8   10</b> year month day
Transporter No. 2				<b>1   1</b> year month day
(3) TSDF <b>SCA SERVICES INC.</b>	<b>SC0070375985</b>	<b>RT 1 BOX 55 PINELAND, S.C. 29125</b>	<b>(803) 452-5003</b>	<b>83   8   15</b> year month day

(1) Generator Item Count		(2) DOT Proper Shipping Name/Hazard Class/ DOT Identification Number	(3) Total Quantity	(4) Weight (pounds)	(5) Waste Code	(6) TSDF Item Check		(7) Quantity by Weight (pounds)
No.	Container Type					Number	Container Type	
6	55 GAL DRUM	HAZARDOUS WASTE SOLID NOS ORM-E NA 9189	330 GAL	2345	D007/D-008/D009 D010	6	Drums	2,713
3	55 GAL DRUM	PACKAGED LABORATORY WASTE NA 1760 (including WASTE CORROSIVE liquid) NOS UN 1760	1/2 55 GAL (INCLUDING PACKING MATERIAL)	1180	CORROSIVE D002	3	Drums	1,357

**C. Emergency Response Information:**  
 In event of an emergency, phone the Generator at: **(919) 672-1012**  
 In event of a spill in South Carolina, call the Department at (803) 758-5531

**D. Special Handling Instructions:** *PER MESA*  
**NONE**

**E. Comments:** **ENCLOSED VAN WORK ORDER # 24673**

**F. This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to all applicable regulations of the U.S. DOT, U.S. EPA, the S.C. PSC and the S.C. DHEC.**

Signature: *David Rene* Name and Title: **DARIO A. SENA SR. O.C. ENGINEER** Date: **8/10/83**

**G. I hereby certify that I am an authorized representative of the transporter and that the waste(s) and quantity described in this Manifest have been accepted by us for ultimate delivery to the TSDF identified above**

Transporter No. 1: Signature: *Charles Linwood Walker* Name: **Charles Linwood Walker** Date: **83-8-10**

Transporter No. 2: Signature: \_\_\_\_\_ Name: \_\_\_\_\_ Date: \_\_\_\_\_

**H. I hereby certify that I am an authorized representative of the TSDF identified above and that the waste(s) and quantity in this Manifest have been accepted by me for treatment, storage, and/or disposal.**

Signature: *Hope Barwick* Name and Title: **SCA Services, Technician** Date: **8-15-83**

### HAZARDOUS WASTE MANIFEST

Manifest Document Number

**Nº 42356**

A. Name		I.D. Code	Address	Phone Number (area code & number)	Date Shipped or Accepted
(1) Generator <b>UNION CARBIDE CORP.</b>		<b>NC0003216462</b>	<b>800 ALBEMARLE RD. ASHEBORO N.C. 27208</b>	<b>(919) 672-1012</b>	<b>83 1 12 13</b> year month day
(2) Transporter No. 1 <b>OVERSITE TRANS. CO</b>		<b>044932991</b>	<b>RT. 7 BOX 168 GREENSBORO N.C. 27407</b>	<b>(919) 629-4111</b>	<b>83 1 12 13</b> year month day
Transporter No. 2					<b>83 1 12 13</b> year month day
(3) TSDF <b>SCA SERVICES INC.</b>		<b>SC0070375925</b>	<b>RT. 1 BOX 55 PINEWOOD S.C. 29125</b>	<b>(803) 452-5003</b>	<b>83 1 12 13</b> year month day

(1) Generator Item Count		(2) DOT Proper Shipping Name/Hazard Class/ DOT Identification Number	(3) Total Quantity	(4) Weight (pounds)	(5) Waste Code	(6) TSDF Item Check		(7) Quantity by Weight (pounds)
Qty	Container Type					Number	Container Type	
<b>4</b>	<b>55-GAL DRUM</b>	<b>HAZARDOUS WASTE SOLID NON ORM-E NA 9189</b>	<b>220 GAL.</b>	<b>1950 LBS</b>	<b>D007/D008/D009 D010</b>	<b>4</b>	<b>DRUMS</b>	<b>2260</b>
<i>only 5% over limit - no contract with Union Carbide</i>								
<i>JHR 1/12/84</i>								

C. Emergency Response Information: In event of an emergency, phone the Generator at: <b>(919) 672-1012</b> In event of a spill in South Carolina, call the Department at (803) 758-5531	D. Special Handling Instructions: <b>NONE</b> <i>Enclosed Van</i>	E. Comments: <b>280-6101 #</b> <b>WORK ORDER 27913</b>
---	---	--

F. This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to all applicable regulations of the U.S. DOT, U.S. EPA, the S.C. PSC and the S.C. DHEC.

*[Signature]* **DARIO A. SENA SR. O.C. ENGR.** **12-21-83**  
 Signature Name and Title Date

G. I hereby certify that I am an authorized representative of the transporter and that the waste(s) and quantity described in this Manifest have been accepted by us for ultimate delivery to the TSDF identified above

Transporter No. 1: <i>[Signature]</i>	<i>[Signature]</i>	<b>11-11-83</b>
Signature	Name	Date
Transporter No. 2: _____	_____	_____
Signature	Name	Date

H. I hereby certify that I am an authorized representative of the TSDF identified above and that the waste(s) and quantity in this Manifest have been accepted by me for treatment, storage, and/or disposal.

*[Signature]* **Nope Baiwick** **SCA Services Technician** **12-28-83**  
 Signature Name and Title Date

Union Carbide Corporation  
800  
P.O. Box 849 (Albemarle Rd)  
Asheboro, NC 27203

NC D003216462

① small generator only (NOT TSDF)

~~① ~~small generator~~~~

② they TREAT WASTEWATER (2-22-82 letter from plant manager, G.B. McClanahan, U.C.C.)

③ GENERATE waste Oil # 01m - E (nos"?)

④ PROCESS TO1 (ie store in tank)

③ NOTIFICATION, 8-31-81, RCRA, 8700-12, EPA FORM  
waste Types: this from summary attachments

F001 (Methylene Chloride)

F002 Trichloroethylene

F003 Acetone

F005 Methanol

D001 (ignitable) waste flammable, MARKEM 452 (ethanol)

D008 (toxic) copper weldwire

NONE epoxy resins, uncured

NONE waste oil

③ PART A, 11-18-80,

3,893,400 lbs/year generated of D009 (MERCURY)!

"this represents...lightly dilute stream... goes to WWTP."

~~DVE~~

(NEXT PAGE)

PLANT IN  
SHELBY!

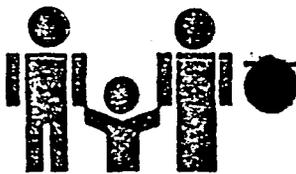
V.C.C. Ashboro, Albemarle Rd, NC D003216 462

④ From PART A (EPA Form 3510-1 (6-80)) <sup>dated</sup> 11-18-80  
(~~Presently~~ (Withdrawn))

- A) TSD F - YES
- B) discharge wastewater - YES (pool - Hg)
- C) only plant for production of primary dry cell batteries.



⑤ in existence since 1972



Ronald H. Levine, M.D., M.P.H.  
STATE HEALTH DIRECTOR

*Keith*

DIVISION OF HEALTH SERVICES  
P.O. Box 2091  
Raleigh, N.C. 27602-2091

Date: October 13, 1982

Mr. G. B. McClanahan  
Union Carbide Corporation  
P.O.Box 849  
Asheboro, NC 27203

Re: Facility ID No. NCD003216462

Dear Mr. McClanahan:

Based on information supplied by you we have processed and accepted at the State level your request for the facility identified with the above ID number to receive the indicated change in classification under RCRA:

<u>Add As</u>	<u>Delete As</u>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	generator
<input type="checkbox"/>	<input type="checkbox"/>	transporter
<input type="checkbox"/>	<input checked="" type="checkbox"/>	treater
<input type="checkbox"/>	<input type="checkbox"/>	storer
<input type="checkbox"/>	<input type="checkbox"/>	disposer
<input checked="" type="checkbox"/>	<input type="checkbox"/>	small generator

We are advising EPA of the change in your status. Please notify us if there is any further change in your operations which would again affect your status. Your EPA ID NO. is  is not  being cancelled.

Cordially,

*O. W. Strickland*

O. W. Strickland, Head  
Solid & Hazardous Waste Management Branch  
Environmental Health Section

OWS

cc: John Herrmann  
EPA Region IV  
Emil Breckling  
Steve Phibbs

DHS Form 3048 3/82  
Solid & Haz. Waste Mgt. Branch



UNION CARBIDE CORPORATION P. O. BOX 849, ASHEBORO, N.C. 27203  
BATTERY PRODUCTS DIVISION

October 6, 1982

*Almanack and*



Mr. O. W. Strickland, Head  
Solid & Hazardous Waste Management Branch  
Division of Health Services  
P.O. Box 2091  
Raleigh, NC 27602

Subject: RCRA Classification  
Changes, EPA ID  
Number NCD 003216462

Dear Mr. Strickland:

We have reviewed our hazardous waste management operations very carefully. Our treatment facility meets the definition of a wastewater treatment unit per RCRA Part 260.10. As such, this facility is exempt from full TSDF regulatory requirements, therefore, we wish to withdraw our Part A Permit Application. Please either return our Part A Application or send an acknowledgment that the application has been voided.

Based on actual 1981 and 1982 hazardous waste generation rates, this facility qualified as a small quantity waste generator and is therefore not subject to the full range of RCRA regulations. For your reference, a copy of the 1981 NC Annual Report for this facility is attached. Waste generation data for 1982 to date is also provided. As a good business practice, this facility will continue to dispose of wastes at qualified hazardous waste disposal sites and will maintain all appropriate records. To provide adequate traceability of disposal activities we will retain our EPA ID number.

Should there be any questions with respect to our application withdrawal or our determination that we qualify as a small quantity generator, please notify us immediately.

Very truly yours,

G. B. McClanahan  
Plant Manager

GBM:mb

Attachments



UNION CARBIDE CORPORATION P. O. BOX 849, ASHEBORO, N.C. 27203  
BATTERY PRODUCTS DIVISION

February 22, 1982

RECEIVED  
NCD003216462  
FEB 26 1982

GENERAL ENGINEERING

Solid and Hazardous Waste  
Management Branch  
Department of Human Resources  
P. O. Box 2091  
Raleigh, N. C. 27602

Gentlemen:

Attached is the annual report for our facility as required by the North Carolina Hazardous Waste Management Regulations. The report covers the period January 1, 1981 through December 31, 1981.

Contained in the permit application file for this plant is a letter which clarifies our treatment facility status; a copy of that letter is attached. The only treatment operation at this plant is our wastewater treatment unit. It is our understanding that for this annual report you do not require data from such systems. All other hazardous wastes generated at this plant are shipped off-site for disposal and are so listed on the report form.

Very truly yours

UNION CARBIDE CORPORATION

G. B. McClanahan  
Plant Manager

GBM:mb

Attachments

bc: Messrs. A. M. Nash ~~\_\_\_\_\_~~  
D. A. Sena

**N. C. 1981 HAZARDOUS WASTE ON-SITE TSP FACILITY  
ANNUAL PART B REPORT \***

I. Installation EPA ID Number:

N C D 0 0 3 2 1 6 4 6 2

II. Name of Installation:

Union Carbide Corporation

III. Location of Installation:

800 Albemarle Road

(Street or Route Number)

Asheboro  
(City or Town)

Randolph  
(County)

North Carolina  
(State)

27203

(Zip Code)

IV. Installation Contact:

Dario A. Sena  
(Name)

919

(Area Code)

672-1012 Ext. 3139

(Phone Number)

V. Waste Identification:

Line Number	A. EPA Waste Number	B. Description of Waste	C. Quantity Generated (000's LBS)	D. Amount of Waste by Handling Method			
				1. Handling Method Code	2. Quantity Stored, Treated, Disposed, or Recovered On-Site	3. Quantity Shipped to Off-Site Treatment, Disposal, or Recovery Facility	4. Facility EPA ID No./Recovery Facility Name
1	None	Waste Oil Nos Orm -E	10	T01	None	10	Oldover Corp. VAD077942266
2	None	"	18.5	R01	None	18.5	Chem-Care Corp. NC 4299/Alt. 423
3	None	"	5.5	R01	None	5.5	Hoiston Fuel Co. NCD 081333858
4							
5							
6							
7							
8							
9							
10							
11							
12							

(If more space is needed check  and complete attachment 1)

VI. Comments:

VII. Signature:

(Signature)

G. B. McClanahan  
(Print or Type Name)

\*Read instructions before completing form.



UNION CARBIDE CORPORATION P. O. BOX 849, ASHEBORO, N.C. 27203  
BATTERY PRODUCTS DIVISION

April 8, 1981

EPA Region IV  
RCRA Activities  
Permit Contact  
Permits Section  
U. S. Environmental Protection Agency  
345 Courtland Street N.E.  
Atlanta, Georgia 30365

EPA ID No. NCDO03216462

Gentlemen:

In November 1980, when we submitted Part A of our permit applications under the RCRA hazardous waste regulations, we had not yet become aware of the November 17, 1980 amendment to those regulations which suspended the applicability of the permit requirements and interim status requirements to qualifying wastewater treatment units. This is to advise you that, in our opinion, our wastewater treatment facility meets the definition of a wastewater treatment unit contained in Sections 260.10(a)(76a) and 122.3 of the regulations (45 Fed. Reg. 76075), and, therefore, is not subject to the requirements of Parts 122, 264, or 265 of the regulations.

The EPA also proposed on November 17, to provide for permit by rule for wastewater treatment units, while at the same time reserving the authority to terminate eligibility for a permit by rule on a case-by-case basis. The proposal is unclear as to whether interim status would be available for a facility which had its permit by rule terminated and, if so, what would be required to obtain interim status. In these circumstances, we would prefer to keep our permit applications pending, at least until the EPA's rule-making on this issue is complete, and therefore do not intend to withdraw our previously filed applications at this time.

Very truly yours,

G. B. McClanahan  
Plant Manager

GEM:mb

bc: Messrs. C. K. Shumate  
D. A. Sena

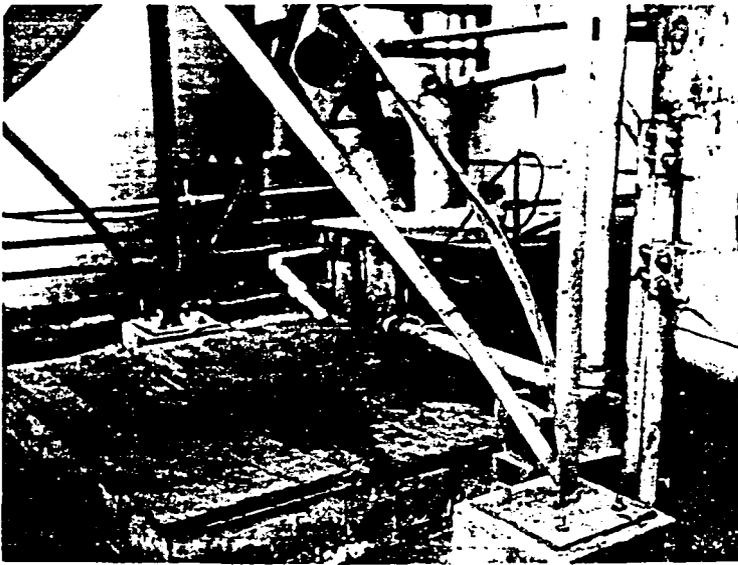
1982 Hazardous Waste Management Summary

Union Carbide Corporation  
 800 Albemarle Road  
 Asheboro, N. C. 27203

NCD 003216462

<u>EPA Waste Number</u>	<u>Description of Waste</u>	<u>Quantity Generated Thru 9/82</u>	<u>Handling* Method</u>	<u>Shipped to Off-Site Facility</u>	
				<u>Quantity</u>	<u>TSD or Recov</u>
None	Waste Oil NOS ORM-E	32,500 lbs.	R01	32,500 lbs.	Holston Fuel Co. NCD081333858

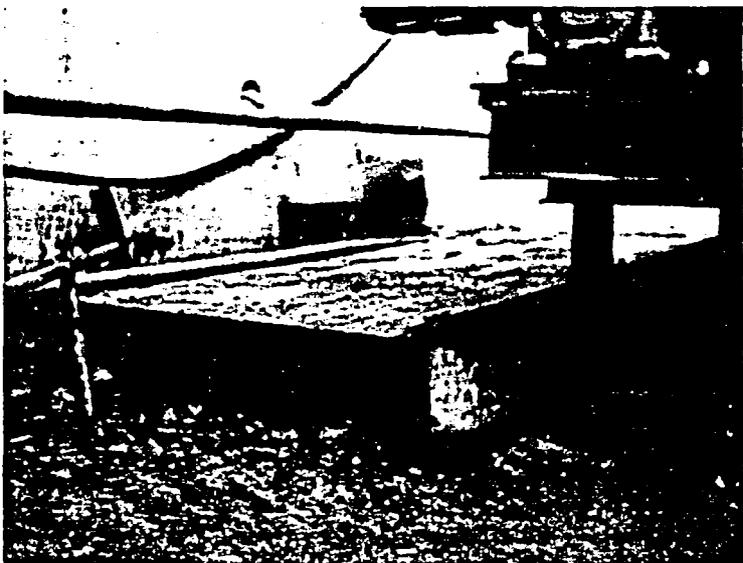
\* Same Handling Codes as Specified for 1981 NC Annual Report.



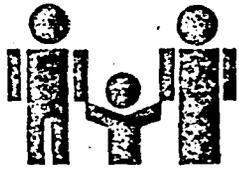
Tanks for separating oil and grease.



Sand filter



Charcoal Filter



Ronald H. Levine, M.D., M.P.H.  
STATE HEALTH DIRECTOR

DIVISION OF HEALTH SERVICES  
P.O. Box 2091  
Raleigh, N.C. 27602-2091

July 8, 1982



Mr. Vincent Godette  
Union Carbide Corporation  
P.O. Box 849  
Asheboro, NC 27203

Dear Mr. Godette:

On June 22, 1982 Mr. Steve Phibbs of the Solid and Hazardous Waste Management Branch conducted a RCRA inspection of your facility. You were found to be in compliance with the standards.

This office wishes to thank you for your cooperation and please do not hesitate to contact us if we may be of future assistance.

Sincerely,

O. W. Strickland, Head  
Solid & Hazardous Waste Management Branch  
Environmental Health Section

OWS:nlc

cc: Mr. Steve Phibbs



Ronald H. Levine, M.D., M.P.H.  
STATE HEALTH DIRECTOR

DIVISION OF HEALTH SERVICES  
NORTH CENTRAL REGIONAL OFFICE  
720 Coliseum Drive-Plaza West.  
Winston-Salem, N.C. 27106  
(919) 761-2390



June 24, 1982

MEMORANDUM

TO: O. W. Strickland, Head  
Solid and Hazardous Waste Management Branch

FROM: Steve Phibbs, District Sanitarian  
North Central Regional Office

SUBJECT: Interim Status Inspection

COMPANY: Union Carbide Corporation  
800 Albemarle Road  
Asheboro, NC 27203  
E.P.A. ID# NCD003216462

*PO Box 849*

CONTACT: Vincent Godette

CURRENT WASTE DISPOSAL SITE(s): Holston Oil Company, Waynesville, NC  
(through Piedmont Oil Products, Asheboro, NC)

On June 22, 1982, a RCRA interim status inspection was conducted at Union Carbide, Albermarle Road in Asheboro, NC. This facility manufactures dry cell batteries for commercial use. The wastes generated consist of waste oils from machinery clean up and waste sludges from the wastewater treatment system.

No violations were noted during the inspection.

SP/mrw

## RCRA Inspection Report

- 1) Facility Information  
Union Carbide Corporation  
800 Albermarle Road  
Asheboro, NC 27203  
Randolph County  
E.P.A. ID# NCD003216462
- 2) Facility Contact  
Vincent Godette
- 3) Survey Participants  
Vincent Godette, Union Carbide  
Ken Brown, Union Carbide  
Derrio Sena, Union Carbide  
Steve Phibbs, District Sanitarian, Division of Health Services
- 4) Date of Inspection  
June 22, 1982
- 5) Applicable Regulations  
40 CFR Part 262 and Part 265
- 6) Scope of Survey  
RCRA interim status inspection was conducted by the North Carolina Solid and Hazardous Waste Management Branch. The scope of the survey covered record review and site survey. Applicable regulations covered those in 40 CFR Part 262, Generator Standards and Part 265, General Facility Standards; chemical, physical and biological treatment.
- 7) Facility Description  
Union Carbide manufactures dry cell (paste) batteries used for residential and commercial purposes. Waste oils are generated from the lubricating and cleaning of facility equipment. The oils are transported to Holston Oil Company in Waynesville, NC, where they are reprocessed and used as fuel oil. Personnel at Union Carbide has been notified to thoroughly analyze the waste oils to insure that it does not meet the hazardous waste regulations.  
  
Union Carbide has a wastewater pre-treatment system (filtration) used to remove suspended solids prior to discharge to the Asheboro wastewater treatment system. The wastes are generated from the clean up of the production equipment and all other plant areas. The wastewater goes through a grease settling tank, then to a holding tank, then through a sand filtration unit and finally through a charcoal filter. The filter media in these tanks is removed and recharged ever six (6) months. This material will be analyzed each time prior to disposition because of the fluctuating mercury concentrations. Disposal location will depend on meeting the extraction procedure toxicity test and other relative RCRA standards.
- 8) Site Deficiencies  
None

1

INSPECTION FORM FOR INTERIM STATUS STANDARDS FOR  
OWNER/OPERATOR OF HAZARDOUS WASTE MANAGEMENT  
FACILITIES

Name of Site <i>Union Carbide</i>	EPA I.D. <i>NC D003216462</i>	County <i>Randolph</i>
Location <i>800 Albemarle Rd.; Asheville, N.C.</i>	Signature of Facility Contact <i>Wesley D. Galt</i>	
Date <i>6/22/82</i>	Signature of Inspector(s) <i>Gene Phillips</i>	
INSTRUCTIONS: Place a check to indicate Compliance (C), NonCompliance (NC) or Not Applicable (NA). Cite specific violation by Section No.		

	<u>C</u>	<u>NC</u>	<u>NA</u>	<u>Violation(s)</u>
1. GENERAL	✓			
2. GENERAL FACILITY STANDARDS	✓			
3. PREPAREDNESS AND PREVENTION	✓			
4. CONTINGENCY PLAN AND EMERGENCY PROCEDURES	✓			
5. MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING	✓			
6. GROUND-WATER MONITORING			✓	
7. <u>CLOSURE</u> AND POST-CLOSURE	✓			
8. FINANCIAL REQUIREMENTS	✓			
9. USE AND MANAGEMENT OF CONTAINERS	✓			
10. TANKS			✓	
11. SURFACE IMPOUNDMENTS			✓	
12. WASTE PILES			✓	
13. LAND TREATMENT			✓	
14. LANDFILLS			✓	
15. INCINERATORS			✓	
16. THERMAL TREATMENT			✓	
17. CHEMICAL, <u>PHYSICAL</u> , AND BIOLOGICAL TREATMENT	✓			
18. UNDERGROUND INJECTION			✓	

*Generator and treatment facility only.*

	<u>YES</u>	<u>NO</u>
Imminent hazard	( )	(✓)

FORM <b>1</b>	ENVIRONMENTAL PROTECTION AGENCY <b>GENERAL INFORMATION</b> Consolidated Permit Program (Read the "General Instructions" before starting.)	I. EPA I.D. NUMBER <b>NC D003216462</b>
LABEL ITEMS E. EPA I.D. NUMBER II. FACILITY NAME FACILITY MAILING ADDRESS FACILITY LOCATION		GENERAL INSTRUCTIONS If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except V-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.
III. FACILITY NAME <b>NC D003216462</b>		
FACILITY MAILING ADDRESS <b>UNION CARBIDE CORP                  PO BOX 200                  ASHEBORO, NC 27203</b>		
FACILITY LOCATION <b>350 ALBEMARLE RD                  ASHEBORO, NC 27203</b>		

**II. POLLUTANT CHARACTERISTICS**  
**INSTRUCTIONS:** Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any question, you must submit this form and the supplemental form listed in the parentheses following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements, see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X" FORM ATTACHED			SPECIFIC QUESTIONS	MARK "X" FORM ATTACHED		
	YES	NO	ATTACHED		YES	NO	ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X		*	D. Is this proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X*	F. Do you or will you inject at this facility industrial or municipal effluent below the lowest stratum containing within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil, or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

**III. NAME OF FACILITY**  
 S. NAME  
 P. NAME  
 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

**IV. FACILITY CONTACT**  
 A. NAME & TITLE (last, first, & title)  
**SENA DARIO A. G.C. ENGINEER**  
 B. PHONE (area code & no.)  
**919 672 1012**

**V. FACILITY MAILING ADDRESS**  
 A. STREET OR P.O. BOX  
**P.O. BOX 849**  
 B. CITY OR TOWN  
**RANDOLPH**  
 C. STATE  
**NC**  
 D. ZIP CODE  
**27203**

**VI. FACILITY LOCATION**  
 A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER  
**800 ALBEMARLE RD.**  
 B. COUNTY NAME  
**RANDOLPH**  
 C. CITY OR TOWN  
**RANDOLPH**  
 D. STATE  
**NC**  
 E. ZIP CODE  
**27203**  
 F. COUNTY CODE (if known)  
**076**

VII. SIC CODES (4-digit, in order of priority)

A. FIRST				B. SECOND			
7	3	6	9	7			
(specify) PRIMARY BATTERY, DRY				(specify)			
C. THIRD				D. FOURTH			
7				7			
(specify)				(specify)			

VIII. OPERATOR INFORMATION

A. NAME												B. Is the name listed in Item VIII-A also the owner?	
UNION CARBIDE CORP.												<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify):										D. PHONE (area code & no.)																	
F. FEDERAL		M. PUBLIC (other than federal or state)		P. (specify)		S. STATE		O. OTHER (specify)		9		1		6		7		2		1		0		1		2	

E. STREET OR P.O. BOX											
P.O. BOX 849											

F. CITY OR TOWN						G. STATE		H. ZIP CODE				I. INDIAN LAND	
RASHBORO						NC		27203				<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Is the facility located on Indian land?	

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Waters)												D. PSD (Air Emissions from Proposed Sources)											
NA												NA											
B. UIC (Underground Injection of Fluids)												E. OTHER (specify)											
NA												NA (specify)											
C. RCRA (Hazardous Wastes)												F. OTHER (specify)											
NA												NA (specify)											

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

MANUFACTURING PLANT FOR THE PRODUCTION OF PRIMARY DRY CELL BATTERY.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)				B. SIGNATURE				C. DATE SIGNED			
P. J. Kennedy Vice President - Production								11/10/80			

COMMENTS FOR OFFICIAL USE ONLY

--	--	--	--	--	--	--	--	--	--	--	--

\*EXPLANATION OF ITEM II C

Process wastewater from this facility is discharged to the Asheboro Sanitary Sewer System, a publicly owned treatment works. No permit application is enclosed for stormwater discharges. The stormwater discharges at this facility are currently being reviewed in light of the EPA's May 19, 1980 consolidated permit regulations. A decision on whether or not to submit an NPDES permit application in the future will depend upon the factual circumstances and the response of EPA Headquarters to the Chemical Manufacturers Association's letter to R. Sarah Compton on the subject of Stormwater Discharges, dated September 25, 1980.

\*EXPLANATION OF ITEM II E

Current regulations appear to require treatment permit for included pre-treatment operations going to municipal treatment systems. However, the EPA may issue interpretative memos or regulatory changes which will negate this requirement for our type operations. If so, we will request a withdrawal of this part of the application. In the meantime, this application is being submitted to protect interim status.

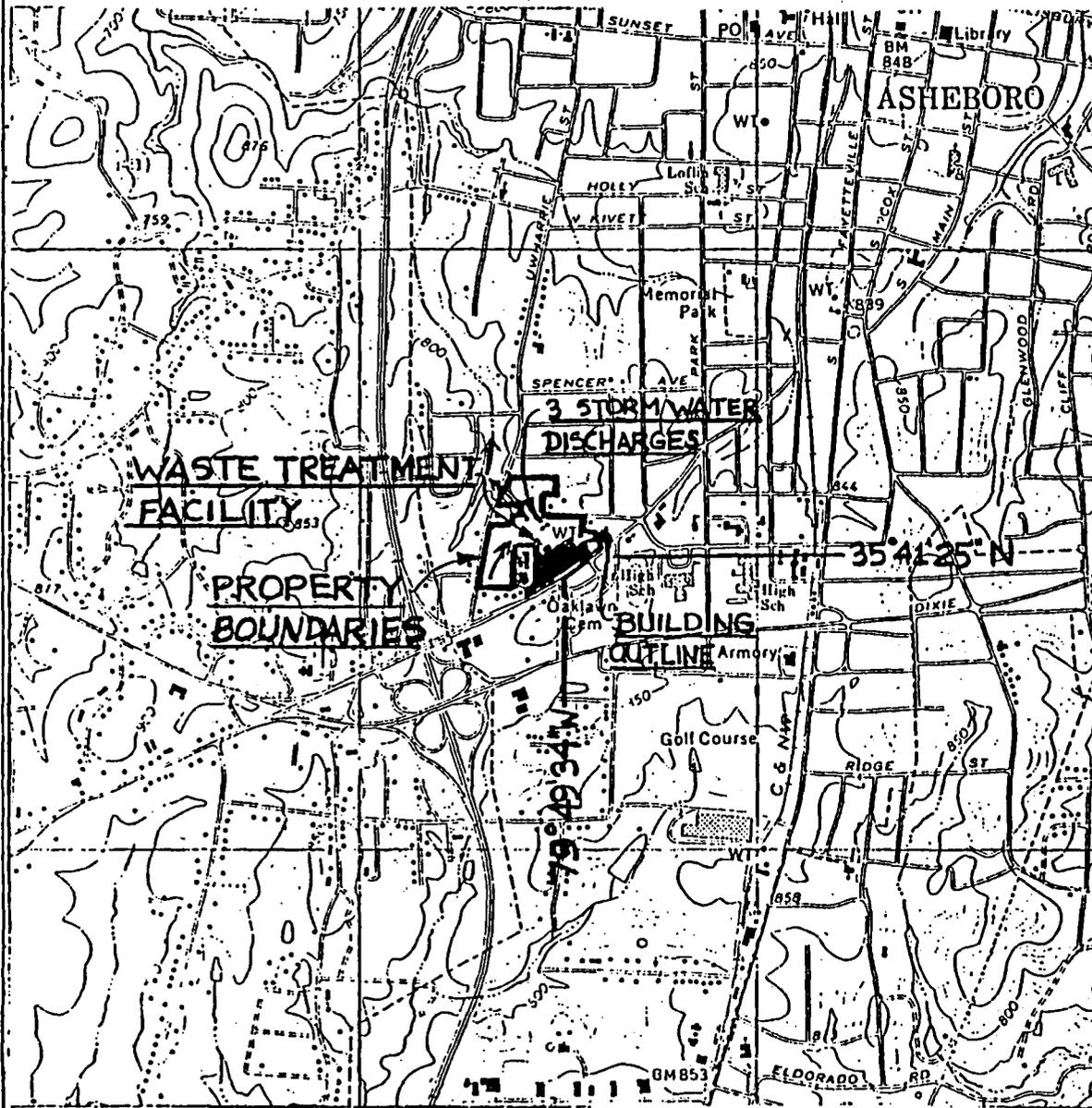
42' 30"

3951

5055 III (ASHEBORO 1:62 500)

3949

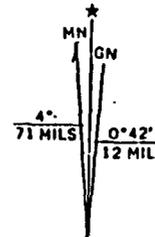
40'



ASHEBORO QUADRANGLE  
 NORTH CAROLINA—RANDOLPH CO.  
 7.5 MINUTE SERIES (TOPOGRAPHIC)  
 NE/4 ASHEBORO 15' QUADRANGLE

ASHEBORO, N. C.  
 NE/4 ASHEBORO 15' QUADRANGLE  
 N3537.5—W7945/7.5

1970



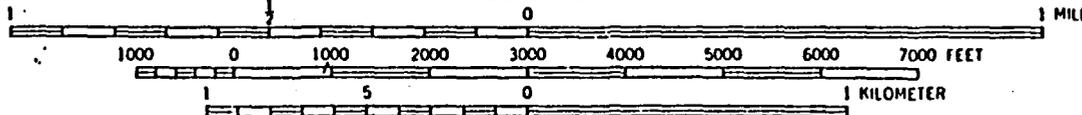
UTM GRID AND 1970 MAGNETIC NORTH  
 DECLINATION AT CENTER OF SHEET

79° 50'

1407 (ASHEBORO 1:62 500) 1408

1409 79°47'30"

SCALE 1:24000



CONTOUR INTERVAL 10 FEET  
 DATUM IS MEAN SEA LEVEL

NO DRINKING WATER  
 WELLS WITHIN 1/4 MILE  
 OF THIS FACILITY.

FORM I, ITEM XI MAP

EPA. ID. No. NCDD003216462



**III. PROCESSES (continued)**

C. SPACE FOR ADDITIONAL PROCESS CODES FOR DESCRIBING OTHER PROCESSES (code " "). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

**IV. DESCRIPTION OF HAZARDOUS WASTES**

**A. EPA HAZARDOUS WASTE NUMBER** — Enter the four-digit number from 40 CFR, Subpart D, for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

**B. ESTIMATED ANNUAL QUANTITY** — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

**C. UNIT OF MEASURE** — For each quantity entered in column B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	KG
TONS	T	METRIC TONS	MT

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

**D. PROCESSES**

**1. PROCESS CODES:**

For listed hazardous wastes: For each listed hazardous waste entered in column A, select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Notes: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

**2. PROCESS DESCRIPTION:** If a code is not listed for a process that will be used, describe the process in the space provided on the form.

**NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER** — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
- Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

**EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below)** — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

EPA I.D. NUMBER (enter from page 1)										FOR OFFICIAL USE ONLY											
W	N	C	D	0	0	3	2	1	6	4	6	2	T/A	C	1	W	DUP	T/A	C	2	DUP
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES							
				1. PROCESS CODES (enter)				2. PROCESS DESCRIPTION (if a code is not entered in D(1))			
				27	28	29	30	27	28	29	30
1	D009	3,893,400 *	P	T	O	I					
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											

**IV. DESCRIPTION OF HAZARDOUS WASTES (continued)**

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. (enter from page 1)

F	N	C	D	0	0	3	2	1	6	4	6	2	T/A	C
														6

**V. FACILITY DRAWING**

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

**VI. PHOTOGRAPHS**

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

**VII. FACILITY GEOGRAPHIC LOCATION**

LATITUDE (degrees, minutes, & seconds)

LONGITUDE (degrees, minutes, & seconds)

3	5	4	1	2	5	N
45	45	47	45	45	45	75

7	9	4	9	3	4	W
72	34	79	79	77	79	

**VIII. FACILITY OWNER**

A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER

2. PHONE NO. (area code & no.)

UNION CARBIDE CORP.

919-672-1012

3. STREET OR P.O. BOX

4. CITY OR TOWN

5. ST.

6. ZIP CODE

P.O. BOX 849

ASHBORO

NC

27203

**IX. OWNER CERTIFICATION**

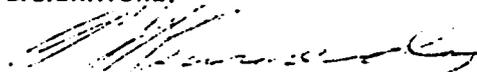
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)

B. SIGNATURE

C. DATE SIGNED

P. J. Kennedy



11/2/79

**X. OPERATOR CERTIFICATION**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)

B. SIGNATURE

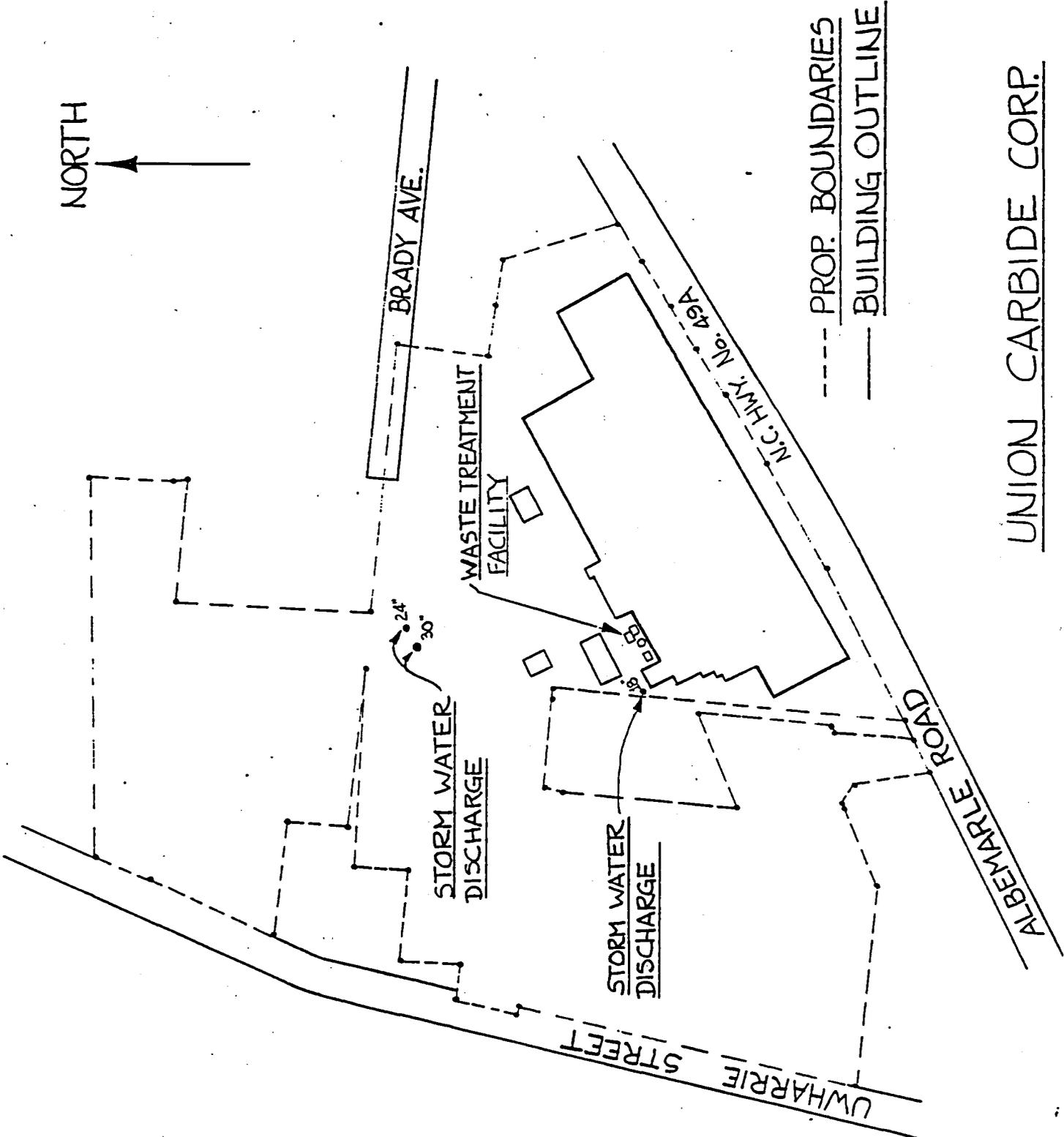
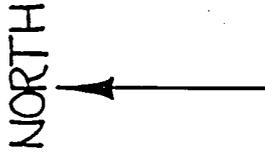
C. DATE SIGNED

\*NOTE IN REFERENCE TO PAGE 3 LINE 1

This represents maximum expected volume during interim period. This is a highly dilute stream which goes to the municipal waste treatment system.

V. FACILITY DRAWING (see page 4)

EPA I.D. No. NCD003216462



UNION CARBIDE CORP.

ASHEBORO PLANT I SCALE: 1"=200'