146SERBSF10,610

146SERBSF10,610

Site Name (Subject):	OLD WESTERN NC FAIRGROUNDS
Site ID (Document ID):	NCD986185411
Document Name (DocType):	Correspondence (C)
Report Segment:	
Description:	General Correspondence, 1989 - 2008
Date of Document:	1/7/2008
Date Received:	
Box: *Enter SF and # with no spaces*	SF10,610
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**

TOP

Diane Eskenasy, UST Section
Asheville Regional Office
2090 US Highway 70
Swannanoa, NC 28778

January 7, 2008

RE: Old Western NC Fairgrounds
NCD 986 185 411, Henderson County

Dear Diane:

Enclosed are the two site inspection reports (Greenhorne & O'Mara, 1991 and Black & Veatch 1994 Site Inspection Prioritization Report [SIP]) and the recent entries from three different files (CERCLA, State File, and Brownfields) here at DWM. Please note that the State File is the NC Inactive Hazardous Sites Branch file.

The SIP report is designed to be reviewed alongside with the Site Inspection Report (1991). I have enclosed some of the necessary references for both reports. Please note that the field notes have the sampling depth and well depth of the collected samples. It appears that no new samples were collected for the 1994 SIP report. Some of the photos mentioned in the field notes were not found in the file or in the reports. Appendix D was not found in the files, but was found as Reference 12 in the 1994 Black & Veatch SIP report. Reference 12 is a data validation package that was prepared by NUS and contains about 110 pages. Neither Appendix C nor Appendix D is enclosed.

Appendix C of the 1991 O'Mara report is an EPA form that doesn't add much to the narrative. Appendix D of O'Mara report is the raw analytical data from the samples analyzed by IEA.

There was no interpretation summary of the Geophysical Report (Appendix B of O'Mara report) found in any of the files (except in narrative of O'Mara).

Please note that the 1991 O'Mara report has two Figure 1(s). One is a topo location map; the other is a site layout and sampling map.

Three off-site potable wells appeared to have been sampled, but only two were analyzed (enclosed). The Halsbury Avenue well is located in northern Hendersonville according to MapQuest. No rationale was found in any of the field notes or files as to why the Halsbury Ave well was sampled and analyzed. The Cindy King well might be DW01 in the O'Mara report. Also enclosed are the re-sampling results of the Mark King well.

The following Two Appendices are not enclosed with this Greenhorne & O'Mara report:

Appendix C is an EPA form that doesnt add much to what is in the O'Mara narrative.

Appendix D was Analytical Data from the collected samples that were analyzed at IEA Laboratories. This data was not found in any of the Division of Waste Management files.
It was found in the Black & Veatch SIP report [Site Inspection Prioritization] as Reference 12 [Data Validation Package].

The Brownfields file lists this site as "Old WNC Fairgrounds". A more recent study (Southeast Soil Science for Alpha Environmental Services, October 2003) was found in this file regarding a proposal for the excavation and land application of the fire training area petroleum contaminated soil to an area along the railroad tracks at the southwest end of the site. This and other fire training area-related reports are presumed to be located at the Asheville Regional office. The file lists a timeline of events for this site. It lists a Phase I study by Froehling & Robertson (1996) and a Corrective Action Plan. Neither one of these two reports were found in any file at DWM.

In summary, no reports of any work related to the landfill area of this site were found beyond the 1994 SIP (enclosed) in any of the three file rooms of the respective DWM section.

Let me know if you need any of the references for the 1991 and 1994 reports or have further questions. You can reach me at 919-508-8455.

Sincerely,

S Franch

Serafino Franch
Environmental Chemist
NC Superfund Section

cc: Bruce Parris

U.S. ENVIRONMENTAL PROTECTION AGENCY

Superfund Information Systems

Superfund Site Information

Site Documents

Data Element Dictionary (DED)

Order Superfund Products

Superfund Site Information

OLD WESTERN NORTH CAROLINA FAIRGROUNDS

Site Information

Site Info | Aliases | Operable Units | Contacts
Actions | Contaminants | Site-Specific Documents

This site has been archived from the inventory of active sites.

Site Name: OLD WESTERN NORTH CAROLINA FAIRGROUNDS
Street: NCSR 1820 & NCSR 1819, INTERSECTION
City / State / ZIP: HENDERSONVILLE, NC 28726

NPL Status: Not on the NPL
Non-NPL Status: NFRAP

EPA ID: NCD986185411
EPA Region: 04
County: HENDERSON

Federal Facility Flag: Not a Federal Facility
Incident Category: Landfill

Return to Search Results

Return to Search Superfund Site Information

DISCLAIMER: Be advised that the data contained in these profiles are intended solely for informational purposes use by employees of the U.S. Environmental Protection Agency for management of the Superfund program. They are not intended for use in calculating Cost Recovery Statutes of Limitations and cannot be relied upon to create any rights, substantive or procedural, enforceable by any party in litigation with the United States. EPA reserves the right to change these data at any time without public notice.

URL: http://cfpub.epa.gov/supercpad/cursites/csitinfo.cfm
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U.S. ENVIRONMENTAL PROTECTION AGENCY

Superfund Information Systems

Superfund Site Information

OLD WESTERN NORTH CAROLINA FAIRGROUNDS

Actions

Site Info | Aliases | Operable Units | Contacts
Actions | Contaminants | Site-Specific Documents

OU	Action Name	Qualifier	Lead	Actual Start	Actual Completion
00	DISCOVERY		S		09/19/1990
00	PRELIMINARY ASSESSMENT	H	S	01/02/1991	02/05/1991
00	SITE INSPECTION	N	S		09/09/1991
00	ARCHIVE SITE		EP		08/17/1994

Return to Search Results

Return to Search Superfund Site Information

DISCLAIMER: Be advised that the data contained in these profiles are intended solely for informational purposes use by employees of the U.S. Environmental Protection Agency for management of the Superfund program. They are not intended for use in calculating Cost Recovery Statutes of Limitations and cannot be relied upon to create any rights, substantive or procedural, enforceable by any party in litigation with the United States. EPA reserves the right to change these data at any time without public notice.

EPA DID NOT MAIL
TO FACILITY

DATE: August 22, 1995

SUBJECT: REMOVAL FROM EPA'S CERCLIS INVENTORY

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

TO: OLD WESTERN NORTH CAROLINA FAIRGROUNDS
NCSR 1820 & NCSR 1819, INTERSECTION
HENDERSONVILLE
NC 28726

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

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

29 November 1994

Dr. Dan Lunsford, Superintendent
Henderson County Public Schools
414 Fourth Avenue West
Hendersonville, North Carolina 28739

Subject: Old Western North Carolina Fairgrounds
NCD 986 185 411

Dear Dr. Lunsford:

As per our telephone conversation this morning, I am writing to give to you additional explanation about the status of the subject site. I hope the information is useful to you.

First of all, the North Carolina Superfund Section administers two complementary programs for dealing with uncontrolled and unregulated hazardous waste sites.

> The federal program, mandated by Congress under the Comprehensive Environmental Response, Compensation, and Liability Act (commonly known as CERCLA or Superfund), operates as a cooperative program between the state and US EPA. Its aim is to assess and prioritize for clean up all potential uncontrolled and unregulated hazardous waste sites, based on their risk to human health and the environment.
>
> The state Inactive Hazardous Sites Program, established by the NC General Assembly, is designed to clean up those sites that may be of concern to the state but that are not federal priorities.

P.O. Box 27687, Raleigh, North Carolina 27611-7687 Telephone 919-733-4996 FAX 919-715-3605
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In the federal program, CERCLA and associated US EPA rules require that any site that is to be investigated or assessed must first be added to the CERCLA Information System (CERCLIS). A site which is added to CERCLIS remains there indefinitely, and can only be removed from the list if it is placed on the National Priorities List (NPL) and completely cleaned up. Therefore, CERCLIS is not a list of "superfund" sites, or of especially hazardous sites, but rather is an administrative system that tracks the investigations, assessments, and cleanups of sites that may be uncontrolled and unregulated hazardous waste sites. In fact, sites in North Carolina listed on CERCLIS range from essentially clean sites which contain very small amounts of contaminants to true NPL sites that are among the worse in the nation.

The state Inactive Hazardous Sites Program also maintains a list of sites, called the Inactive Hazardous Sites Inventory. This inventory includes all of the sites on CERCLIS as well as other sites that are not federal concerns but that are of concern to the state. The state program, in order to focus its limited resources toward cleaning up those sites that present the greatest risks to people and the environment, is in the process of prioritizing all sites on the inventory. Using only readily available site data, 160 of the more than 1100 sites on the inventory list have been prioritized so far. These prioritized sites are placed on a separate system called the Sites Priority List (SPL). Please keep in mind that the remainder of the 1100+ sites are still being prioritized and that the SPL sites are re-evaluated as new data becomes available. A particular site's position on the SPL is only indicative of its relative risk, based on the readily available data, compared to that of other sites that have been prioritized . The SPL, then, can best be described as a tool to direct resources toward site cleanup and not as a absolute ranking of the risks of sites.

Let me now summarize the status of the Old Western NC Fairgrounds site under the two programs. After its discovery in 1990, the site was added to CERCLIS and assessed under the federal CERCLA program. After three stages of investigation, the NC Superfund Section and US EPA determined that the site was of low risk to the public health and the environment and was not a potential NPL site, and concluded that no further remedial action by the CERCLA program was necessary at the time. The site remains on CERCLIS, however, as per the law and program rules, and may be re-evaluated at a later time if information becomes available that shows an increased risk. The site was also placed on the state inventory and was prioritized as # 30 out of the 160 sites on the SPL. Presently, the state is working toward remediation of the top 5 sites, and the owners of each of the remaining sites, including the Old Western NC Fairgrounds site, will likely be required to record on the property deed the location of any documented contamination found. The state is also prepared to work with site owners or responsible parties who want to conduct remediation of any site on the inventory.

As I explained yesterday, there is no prohibition by either the federal or state programs on selling or buying the site. Certainly any buyer needs to know the facts about any documented and potential contamination on the site, including the results of the environmental investigations. Usually a prospective buyer of commercial or industrial land will have a contractor conduct an environmental audit of the property, which should include a review of the site file here at the NC Superfund Section offices. Generally the buyer, like the property owner and the persons responsible for depositing the wastes, assumes some risk of being responsible for part or all of any clean up of a contaminated site. The amount of risk seems to depend somewhat on the diligence of the buyer in environmentally auditing the site before the sale, but I don't know of any guidelines that specifically define the amount of risk assumed.

Again, I hope this information is helpful. Please call me at 919 733-2801 if you have any more questions.

Sincerely,

Grover Nicholson, Head
Federal Contracts Branch
NC Superfund Section

X

REMEDIAL SITE ASSESSMENT DECISION - EPA REGION IV

Site Name: Old Western NC Fairgrounds **EPA ID#:** NCD 986 185 411

RECEIVED
OCT 03 1994
SUPERFUND SECTION

Alias Site Names: _____

City: Henderson **County or Parish:** Henderson **State:** NC

Refer to Report Dated: June 28, 1994 **Report type:** SIP

Report developed by: BVWS - Robert A. Martel

DECISION:

|XX| **1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:**

|XX| 1a. Site does not qualify for further remedial site assessment under CERCLA (No Further Remedial Action Planned - NFRAP)

| | 1b. Site may qualify for further action, but is deferred to: | | RCRA | | NRC

| | **2. Further Assessment Needed Under CERCLA:** 2a. (optional) Priority: | | Higher | | Lower

2b. Activity Type: | | PA | | ESI | | SI | | HRS evaluation

| | Other: _____

DISCUSSION/RATIONALE: In February 1991, Greenhorne & O'Mara collected samples from the site under EPA CLP protocol. Although, there is significant contamination of soil and ground water detected, due to low target values, a disposition of NFRAP has been assigned. The surface water and sediment samples collected in the surface water pathway and the two private drinking water wells were non-detect.

Report Reviewed and Approved by: Cynthia K. Gurley Signature: Cynthia K. Gurley Date: 08/17/94

Site Decision Made by: Cynthia K. Gurley Signature: Cynthia K. Gurley Date: 08/17/94

EPA Form # 9100-3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

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

September 29, 1994

RECEIVED
OCT 03 1994
SUPERFUND SECTION

4WD-WPB

Ms. Pat DeRosa, Head
CERCLA Branch
North Carolina Department of Environment,
Health and Natural Resources
Division of Solid Waste Management
P.O. Box 27687
Raleigh, North Carolina 27611-7687

Dear Ms. DeRosa:

The following reports have recently been reviewed and accepted by EPA - Region IV Site Assessment Section:

Site Inspections

Forbes Road Well Site	NFRAP
Spann Property	NFRAP

Site Inspection Prioritizations (SIPs)

Anilox Roll	NFRAP
Asheboro Municipal Landfill	NFRAP
Ashland Petroleum Company	NFRAP
BP Oil	NFRAP
Carochem	NFRAP
Cone Mills Corporation Plant	NFRAP
Croft Metals	NFRAP
Dayco Corporation	NFRAP
Eaton Corporation	NFRAP
Fasco Industries, Inc.	NFRAP
Gaston Co., Dyeing Machine Company	NFRAP
Gaston Co., Dyeing Machine Company (Stanley)	NFRAP
Greensboro City Landfill	NFRAP
Harrisburg Park Landfill	NFRAP
Henson Landfill	NFRAP
Highway 801 Barber	NFRAP
Holding Pond for Scrubber Waste	NFRAP
Honeywell Micro Switch Division	NFRAP
Kelly-Springfield Tire Company	Further Action
Lee County Landfill	NFRAP
Marantz Piano Company	NFRAP
Old Western NC Fairgrounds	NFRAP

Olin Corp. Ecusta Paper & Film Group	NFRAP
Pantasote, Inc.	NFRAP
REA Magnet Wire Company	Further Action
Rowe Corporation Property	NFRAP
S&S Metals Recycling Site	NFRAP
Scovill Inc.	NFRAP
Stewart-Warner Site	NFRAP
Superior Products Company	NFRAP
Texaco, Inc.	NFRAP
Torpedo Wire and Strip	NFRAP
Union County Landfill	Further Action
Uniroyal, Inc.	NFRAP

EXPANDED SITE INSPECTION

Davis Park Road TCE Site	Further Action

Enclosed please find the Remedial Site Assessment Decision Forms for each report generated by the North Carolina Superfund program and a copy of the actual report generated by the EPA Contractor.

If you have any questions concerning these site decisions, please call me at (404) 347-5059, Extension 6150.

Sincerely,

Cynthia K. Gurley

Cynthia K. Gurley
North Carolina, PO

Enclosures

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

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

RECEIVED
MAR 2 1992
SUPERFUND SECTION

4WD-WPB

MAR 19 1992

Mr. Grover Nicholson
Contracts Management Branch
North Carolina Department of Environment,
Health and Natural Resources
P.O. Box 27687
Raleigh, North Carolina 27611-7687

Dear Mr. Nicholson:

The following North Carolina contractor Site Inspection (SI) reports have been reviewed and accepted by the Region IV Site Assessment Section:

Site Name	Disposition
* Stewart-Warner Corp., Bassick-Sack Div. NCD024895864 SSI Phase I Report	ESI
* Statesville Road Landfill NCD000605097 SSI Phase I Report	SIP-High
* Old Western North Carolina Fairgrounds NCD986185411 SSI Phase II Report	ESI
* Monarch Furniture Corp. NCD990883001 SSI Phase I Report	ESI
* Aquair Corporation NCD074511361 SSI Phase II Report	SIP-High
* Hoover Repair Shop NCD003233673 SSI Phase II Report	NFRAP
* Winston Container Company NCD024477556 SSI Report	NFRAP

Printed on Recycled Paper

Although the Hoover Repair Shop site has been NFRAP'ed, the site has been referred to EPA's Emergency Response and Removal Branch in order to achieve onsite source stabilization to prevent the contamination from contributing further to the groundwater contamination which is already known to exist.

If you should have any questions, please feel free to contact me at (404) 347-5065.

Sincerely yours,

Craig A. Benedikt

Craig A. Benedikt
EPA NC CERCLA Project Officer

8 January 1992

MEMORANDUM

TO: File

FROM: Luanne K. Williams, Pharm.D. LW
Environmental Toxicologist

RE: Old Western North Carolina Fairgrounds
East Flat Rock, Henderson County

On 1/8/92, I received the well sampling analysis taken on 5 December 1991. No volatile compounds were identified. I contacted Mrs. Margaret King and informed her that previously detected trace amounts of chemicals (o-xylene and fuel oil) were not detected in the 5/12/91 sample.

Mrs. King informed me that the previous detection of these chemicals was most likely from the small oil spill in their backyard. I told her that we would no longer be sampling her well.

I also contacted Mr. Thomas Johnson from the Henderson County Health Department and informed him of the results. I told Mr. Thomas Johnson that I had informed Mrs. Margaret King of the results and that we would no longer be sampling her well.

LW/acr

RE[illegible]ED DEC 1 3 1991

N.C. Dept. of Environment, Health and Natural Resources
Division of Laboratory Services
State Laboratory of Public Health
P.O. Box 28047, Raleigh, N.C. 27611

RECEIVED VOC
DEC 19 1991
SUPERFUND SECTION

Environmental Sciences Analysis Report

Name of Owner, Patient or Supply: Mark & Margaret King

Note: per Harvey Allen Superfund - Resample

Address:

County: Henderson

Report To: Harvey Allen

Address: N.C. Superfund
Raleigh, N.C.

Date Collected: 12-5-91

Collected By: Robert Smith

Analysis Desired:

Please Read instruction sheet.
VOA vials contain 1:1 HCl.

Laboratory Number	Sample Number	Sample Description or Remarks	Results In
914282		Sample	NO VOLATILE COMPOUNDS IDENTIFIED
914283		Field Blank	NO VOLATILE COMPOUNDS IDENTIFIED

Date Received 12-9-91 AA

Date Reported 12-12-91

Date Extracted

Date Analyzed VOC 12/11/91 JM

Reported By: John R. Neal

DEHNR Form 2364 Revised (9-89)
Laboratory

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

November 15, 1991

Mr. Robert Smith
Henderson County Health Department
1347 Spartanburg Highway
Hendersonville, NC 28739

Old Western NC Fairgrounds

RE: Sampling of Mark and Margaret King's Residential Well
115 James Street
East Flat Rock, NC 28726
(704) 693-3391

Dear Mr. Smith:

As per our telephone conversations of 11/12/91 and 11/15/91, the above referenced residential well needs to be sampled this month. For logistical reasons, we are soliciting your department to obtain this sample for analysis.

Please find enclosed, three attachments:

1. Request for a Health Risk Assessment to the NC Environmental Epidemiology Section from the NC Superfund Section (8/8/91);

2. Health Risk Assessment to the NC Superfund Section from the NC Environmental Epidemiology Section (8/13/91);

3. Letter Mr. Thomas L. Johnson, Henderson County Health Department, discussing the King Well (8/20/91).

When sampling well, samples should be collected for Purgable Organics (Volatile Organics), Base-Neutral-Acid Extractables (Semi-Volatile Organics) and Inorganics. Should you have any questions concerning bottles, protocol, preservatives, etc., please do not hesitate to call me at (919) 733-2801. Additionally, please call me once you receive the analytical results and we will discuss whether a Health Risk Assessment is necessary and how to proceed from there.

Sincerely,

Harvey H. Allen

Harvey H. Allen, PE
Environmental Engineer

Enclosures

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

20 August 1991

Mr. Thomas L. Johnson
Henderson County Health Department
1347 Spartanburg Highway
Hendersonville, NC 28739

RE: Groundwater Sampling Results
Old Western North Carolina Fairgrounds Off-Site Drinking Water Well
East Flat Rock, Henderson County

Dear Mr. Johnson:

A representative from the North Carolina Superfund Section collected a drinking well water sample from the Mark and Margaret King residence in East Flat Rock, North Carolina. Analysis of this sample revealed the presence of a trace of o-xylene and other unidentified trace peaks which may indicate a "possible very low concentration of fuel oil."

The North Carolina Epidemiology Section has reviewed this data and has reported that the levels of xylenes and fuel oils are low and should not pose any health risk at this time upon continued water consumption.

During our telephone conversation on 20 August 1991, you agreed to contact Mark and Margaret King's residence of the laboratory results and North Carolina Epidemiology Section recommendations.

There will be additional water samples taken at Mark and Margaret King's residence, but before the water samples are taken the residents and county health department will be notified. After additional water samples are taken, the North Carolina Epidemiology Section will provide further recommendations. The results and recommendations will be reported to you.

If you have any further questions, please feel free to contact Harvey Allen, the project manager, at (919) 733-2801.

Sincerely,

Luanne Williams

Luanne Williams, Pharm.D.
Superfund Section

LW/acr

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Epidemiology
P.O. Box 27687 • Raleigh, North Carolina 27611-7687

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AUG 20 1991
SUPERFUND SECTION

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

J. N. MacCormack, M.D., M.P.H.
Director

August 13, 1991

MEMORANDUM

TO: Lee Crosby, Chief
Superfund Section

FROM: Kenneth Rudo, Ph.D., Toxicologist
Environmental Epidemiology Section

SUBJECT: Health Risk Assessments:
1. Ace Chemical Off-Site Drinking Water Wells, Charlotte, NC
2. Old Western North Carolina Fairgrounds, Residential Well - 303 James Street, East Flat Rock, NC

Ace Chemical off-site drinking water wells -- The samples for F. B. Youngblood and Fred Youngblood indicate significant chlorinated solvent contamination levels of 1,2-dichloropropane, tetrachloroethylene, and trichloroethylene which are well over the EPA MCL of 5 ppb for each compound (totals are 329 and 307 ppb respectively). In both well samples, any continued water use for any purpose may pose an increased long-term cancer risk. It is strongly recommended that the water from these two samples not be utilized by the residents. The sample results for Nancy Powers indicate a low level of tetrachloroethylene contamination which is below the EPA MCL. At this time, continued consumption of this well water should not pose any significant health risks. Please resample this well in six to eight months.

Old Western North Carolina Fairgrounds residential well at 303 James Street -- The levels of xylenes and fuel oils are low and should not pose any health risks at this time upon continued water consumption. Please resample this well in six to eight months.

If you have any further questions, please feel free to contact me at 733-3410.

KR:lp

FILE COPY

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 8, 1991

MEMORANDUM

TO: John Freeman, D.V.M., M.P.H., Chief
Environmental Epidemiology Section

THROUGH: William L. Meyer, Director WLM
Division of Solid Waste Management

FROM: Lee Crosby, Chief
Superfund Section

RE: Old Western North Carolina Fairgrounds
NCD 986 185 411
Residential Well at 303 James Street
East Flat Rock, NC

Please find attached an analysis of a ground water sample that shows a trace of o-xylene. The analysis also states that there are other unidentified trace peaks present, which may indicate "possible very low concentration of fuel oil." Since this sample is from a private drinking water well, the Superfund Section requests a health risk assessment and a recommendation on the continued use of the well.

If you have any questions concerning this matter, please contact Harvey Allen or me at 733-2801.

HA/ha

Attachment

N. [redacted] ENT OF ENVIRONMENT, [redacted] RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 90685 PURGEABLE COMPOUNDS Date of Analysis 3/20/91

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	
trans-1,2-Dichloroethylene	
Isopropyl ether	
1,1-Dichloroethane	
2,2-Dichloropropane	
cis-1,2-Dichloroethylene	
Chloroform	
(BCM) Bromochloromethane	
✓1,1,1-Trichloroethane	
1,1-Dichloropropane	
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	
✓Trichloroethylene	
1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
Toluene	
1,1,2-Trichloroethane	
Tetrachloroethylene	
1,3-Dichloropropane	
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	✓

COMPOUND	µg/l
Chlorobenzene	U
Ethylbenzene	
1,1,1,2-Tetrachloroethane	
p-Xylene	
m-Xylene	✓
o-Xylene	trace
Styrene	U
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	✓

RECEIVED
MAR [illegible] 1991
SUPERFUND SECTION

COMMENTS: Unidentified trace peaks present - possibly very low concentration of fuel oil.

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 1/91 Laboratory Services)

FILE COPY

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

Date: 6 August 1991

To: File

From: Grover Nicholson, Environmental Engineer
NC Department Environment, Health, and Natural Resources

RE: Old Western NC Fairgrounds

On 6 August 1991 I spoke on the telephone with Sherrill Barber, WLOS, Asheville, NC, 1-800-277-0013. I explained to him the PA/SI process, the contaminants found on-site and the location of the samples, the recommendation that we would make to United States Enviromental Protection Agency, and the nature of the next investigation (ESI).

FILE COPY

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

15 July 1991

Dr. Dan G. Lunsford, Superintendent
Henderson County Schools
125 East Allen Street
Hendersonville, NC 28792

RE: Old Western North Carolina Fairgrounds Site

Dear Dr. Lunsford:

The NC Superfund Section and the US EPA have jointly conducted a Screening Site Investigation (SSI) of the subject site. Data gathered during the investigation show that at least one part of the site, the fire training area, is contaminated. Soil in this area was found to contain ethylbenzene, xylene, and 2-methylnaphthalene. Groundwater beneath the fire training area contains benzene, toluene, ethylbenzene, xylene, naphthalene, 2-methylnaphthalene, lead, and chromium. Contamination was not found in other areas of the site. However, there is considerable evidence that waste material was buried in a ravine on-site and, perhaps, in other locations on-site. Since this waste is buried, and no drilling or excavating was done during the investigation, the investigation team may simply not have been able to find the waste. If there, it may eventually reveal itself as groundwater or leachate contamination.

Based on the results of the investigation, the potential hazard posed by the site is significant. In fact, the Hazard Ranking System score for the site exceeds 28.5, the number which describes any site that may be a candidate for the National Priorities List (NPL).

We believe that it will be necessary to further investigate the site to determine the extent of contamination and to evaluate the suspected waste burials that could not be sampled during the SSI, and we will make this recommendation to the US EPA. If further data keep the HRS score above 28.5, the site may be placed on the NPL and be cleaned up under Federal Superfund oversight. It is possible for the party responsible for disposal on site or for a site owner to begin remediation at any time. However, until a complete inventory of contamination sources is done and the impact of the sources calculated, any clean-up action may only be partly complete.

If you have any questions, please call me at (919) - 733-2801.

Sincerely,

Grover Nicholson, Head
Contracts Management Branch
Superfund Section

GN/gj

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

FAX TRANSMITTAL RECORD

From: _____, Solid Waste Management Division

_____, Solid Waste Section

_____, Hazardous Waste Section

GROVER Nicholson, Superfund Section

Date: 7-15-91

To: Dr. DAN G. Lunsford

Re: Old Western N.C. Fairgrounds Site

No. of Pages (Including Cover) 3

Confirm receipt of document(s)

Division of Solid Waste Management	(919)733-4996	_____
Hazardous Waste Section	(919)733-2178	_____
Superfund Section	(919)733-2801	✓
Solid Waste Section	(919)733-0692	_____

CONFIRMATION LIST 101 00 '00 00:00

SENDER:

RECEIVER: 1 704 692 7268

PAGES SENT: 03

DURATION: 00:00

Spoke with Tom Ledbetter and he received fax.

7/15/91

STATE OF NORTH CAROLINA

Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
Superfund Section

Western North Carolina Fairgrounds
EPA ID No. TBA

Phase II
Screening Site Inspection
Volume IIa
Appendix D
Case Narrative & Volatile Analytical Data

May 1991

Prepared by
Greenhorne & O'Mara, Inc.

STATE OF NORTH CAROLINA

Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
Superfund Section

Western North Carolina Fairgrounds
EPA ID No. TBA

Phase II
Screening Site Inspection
Volume IIb
Appendix D
Semi Volatile Analytical Data

May 1991

Greenhorne & O'Mara, Inc.

STATE OF NORTH CAROLINA

Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
Superfund Section

Western North Carolina Fairgrounds
EPA ID No. TBA

Phase II
Screening Site Inspection
Volume IIc
Appendix D
Metals Raw Data

May 1991

Greenhorne & O'Mara, Inc.

STATE OF NORTH CAROLINA

Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
Superfund Section

Western North Carolina Fairgrounds
EPA ID No. TBA

Phase II
Screening Site Inspection
Volume II
Appendix D
Metals Data

May 1993

Greensboro, North Carolina

STATE OF NORTH CAROLINA

Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
Superfund Section

Western North Carolina Fairgrounds
EPA ID No. TBA

Phase II
Screening Site Inspection
Volume III
Appendix D
Pesticides/PCB

May 1989

Greenhorne & O'Mara, Inc.

CERCLA

Chain of Custody Record

Hazardous Waste Materials

INORGANICS

Location of Sampling: ____ Generator ____ Transporter ____ Treatment Facil

____ Storage Facility ____ Disposal Facility ____ Landfill

✓ Other: Residential Well

Company's Name Old NC Western Fairgrounds Telephone( )

Address Hendersonville, NC

Collector's Name Harvey H. Allen (signature) Telephone(919) 733-2801

Date Sampled 2/28/91 Time Sampled 12:30

Type of Process Generating Waste

Field Information

Mark King Well & Pruitt Well

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SUPERFUND SECTION

Field Sample No. 15996 15997

Chain of Possession:

	signature	title	inclusive dates
1.	Harvey Allen	Env. Engineer	2/28 - 2/29/91
2.	[illegible]	Chemist	1 Mar 91
3.			

Results reported

signature	title	date
[illegible]	Chemist	13 Mar 91

Instructions: Complete all applicable information including signatures, and submit with analysis request forms.

1

N. C. Department of Human Resources
Division of Health Services

CERCLA

SAMPLE ANALYSES REQUEST

Analyte

State Laboratory of Public H
P. O. Box 2
306 N. Wilmington
Raleigh, 2

Site Number NCD TBA Field Sample Number 15996

Name of Site Old Western NC Fairgrounds Site Location

Collected By Harvey Allen ID# 76 Date Collected 2/28/91 Time 10:15

Type of Sample:

Environmental	Concentrate	Comments
✓ Groundwater (1)	Solid (5)	Pruitt Well Cubes
Surface Water (2)	Liquid (6)	
Soil (3)	Sludge (7)	
Other (4)	Other (8)	

RECEIVED
APR 2 1991
SUPERFUND SECTION

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/
Arsenic		✓ Arsenic	<0.01	✓ Silver	<0.05
Barium		✓ Barium	0.05	Sulfates	
Cadmium		✓ Cadmium	<0.005	Zinc	
Chromium		Chloride		Ph	
Lead		✓ Chromium	<0.01	Conductivity	
Mercury		Copper		TDS	
Selenium		Fluoride		TOC	
Silver		Iron			
		✓ Lead	<0.005		
		Manganese			
		✓ Mercury	<0.0002		
		Nitrate			
		✓ Selenium	<0.005		

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/
P&T:GC/MS		EDB		Methoxychlor	
Acid:B/N Ext.		PCB's		Toxaphene	
TOX		Petroleum		2,4-D	
		Endrin		2,4,5-TP (silvex)	
		Lindane			

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
Gross Alpha	
Gross Beta	

Date Received Date Reported

Date Extracted Date Analyzed

Reported By Lab Number 004477 MAR 191

DHS 3101 (R... 7/85)

2

N. C. Department of Human Resources
Division of Health Services

CEKLA

SAMPLE ANALYSES REQUEST

State Laboratory of Public H
P. O. Box 2
306 N. Wilmington
Raleigh, 2

Site Number: NCD TBA Field Sample Number: 15997

Name of Site: Old NC Western Fairgrounds Site Location: Hendersonville, NC

Collected By: Harvey Allen ID#: 76 Date Collected: 2/28/91 Time: 12:30

Type of Sample:

Environmental	Concentrate	Comments
✓ Groundwater (1)	Solid (5)	Mark King Well Cubes
Surface Water (2)	Liquid (6)	
Soil (3)	Sludge (7)	
Other (4)	Other (8)	

RECEIVED
APR 2 1991
SUPERFUND SECTION

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/
Arsenic		✓ Arsenic	<0.01	✓ Silver	<0.05
Barium		✓ Barium	<0.04	Sulfates	
Cadmium		✓ Cadmium	<0.005	Zinc	
Chromium		Chloride		Ph	
Lead		✓ Chromium	<0.01	Conductivity	
Mercury		Copper		TDS	
Selenium		Fluoride		TOC	
Silver		Iron			
		✓ Lead	<0.005		
		Manganese			
		✓ Mercury	<0.0002		
		Nitrate			
		✓ Selenium	<0.005		

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg.
P&T:GC/MS		EDB		Methoxychlor	
Acid:B/N Ext.		PCB's		Toxaphene	
TOX		Petroleum		2,4-D	
		Endrin		2,4,5-TP (silvex)	
		Lindane			

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
Gross Alpha	
Gross Beta	

Date Received: _____ Date Reported: _____

Date Extracted: _____ Date Analyzed: _____

Reported By: _____ Lab Number: 004478 MAR 191

DHS 3191 (R... 7/85)

3

N. C. Department of Human Resources
Division of Health Services

CERCLA

SAMPLE ANALYSES REQUEST

State Laboratory of Public H
P. O. Box 2
306 N. Wilmington S
Raleigh, 2

Site Number NCD TBA Field Sample Number 14524

Name of Site Old NC Western Fairgrounds Site Location Hendersonville, NC

Collected By Harvey Allen ID# 76 Date Collected 2/28/91 Time 10:15

Type of Sample:

Environmental	Concentrate	Comments
✓ Groundwater (1)	Solid (5)	Pruitt Well VOA
Surface Water (2)	Liquid (6)	
Soil (3)	Sludge (7)	
Other (4)	Other (8)	

RECEIVED
MAR 25 1991
SUPERFUND SECTION

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
Arsenic		Arsenic		Silver	
Barium		Barium		Sulfates	
Cadmium		Cadmium		Zinc	
Chromium		Chloride		Ph	
Lead		Chromium		Conductivity	
Mercury		Copper		TDS	
Selenium		Fluoride		TOC	
Silver		Iron			
		Lead			
		Manganese			
		Mercury			
		Nitrate			
		Selenium			

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/
✓ P&T:GC/MS		EDB		Methoxychlor	
Acid:B/N Ext.		PCB's		Toxaphene	
TOX		Petroleum		2,4-D	
		Endrin		2,4,5-TP (silvex)	
		Lindane			

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
Gross Alpha	
Gross Beta	

Date Received 3-1-91 WPS Date Reported 3-21-91

Date Extracted Date Analyzed VOC 3/20/91 JPM

Reported By John L. Neal Lab Number 910683

#910683 - 910686

4

N. C. Department of Human Resources
Division of Health Services

CERCLA

SAMPLE ANALYSES REQUEST

State Laboratory of Public H
P. O. Box 28
306 N. Wilmington S
Raleigh, 27

Site Number: NCD TBA Field Sample Number: 14525

Name of Site: Old NC Western Fairgrounds Site Location: Hendersonville, NC

Collected By: Harvey Allen ID#: 76 Date Collected: 2/28/91 Time: 10:15

Type of Sample:

Environmental	Concentrate	Comments
✓ Groundwater (1)	Solid (5)	Pruitt Well 2L
Surface Water (2)	Liquid (6)	
Soil (3)	Sludge (7)	
Other (4)	Other (8)	

RECEIVED
MAR 25 1991
SUPERFUND SECTION

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
Arsenic		Arsenic		Silver	
Barium		Barium		Sulfates	
Cadmium		Cadmium		Zinc	
Chromium		Chloride		Ph	
Lead		Chromium		Conductivity	
Mercury		Copper		TDS	
Selenium		Fluoride		TOC	
Silver		Iron			
		Lead			
		Manganese			
		Mercury			
		Nitrate			
		Selenium			

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
P&T:GC/MS		EDB		Methoxychlor	<0.001
✓ Acid:B/N Ext.		✓ PCB's	<0.0001	Toxaphene	<0.002
TOX		Petroleum		2,4-D	
✓ Pesticides		Endrin	<0.0001	2,4,5-TP (silvex)	
		Lindane	<0.0004		

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
Gross Alpha	
Gross Beta	

Date Received: 3-1-91 NCB Date Reported:

Date Extracted: PCBs+PEST 3-8-91 VPAA; BNA 3-11-91 BD,gm,NW Date Analyzed: PCBs+PEST 3-12-91 VP; BNA 3-14-91 BD

Reported By: Lab Number: 910684

5

N. C. Department of Human Resources
Division of Health Services

CERCLA

SAMPLE ANALYSES REQU

State Laboratory of Public H
P. O. Box 28
306 N. Wilmington S
Raleigh, 27

Site Number NCD TBA Field Sample Number 14526

Name of Site Old Western NC Fairgrounds Site Location Hendersonville, NC

Collected By Harvey Allen ID# 76 Date Collected 2/28/91 Time 12:30

Type of Sample:

Environmental	Concentrate	Comments
✓ Groundwater (1)	Solid (5)	Mark King Well VOA
Surface Water (2)	Liquid (6)	
Soil (3)	Sludge (7)	
Other (4)	Other (8)	

RECEIVED
MAR 25 1991
SUPERFUND SECTION

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
Arsenic		Arsenic		Silver	
Barium		Barium		Sulfates	
Cadmium		Cadmium		Zinc	
Chromium		Chloride		Ph	
Lead		Chromium		Conductivity	
Mercury		Copper		TDS	
Selenium		Fluoride		TOC	
Silver		Iron			
		Lead			
		Manganese			
		Mercury			
		Nitrate			
		Selenium			

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/
✓ P&T:GC/MS		EDB		Methoxychlor	
Acid:B/N Ext.		PCB's		Toxaphene	
TOX		Petroleum		2,4-D	
		Endrin		2,4,5-TP (silvex)	
		Lindane			

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
Gross Alpha	
Gross Beta	

Date Received 3-1-91 [illegible] Date Reported

Date Extracted Date Analyzed VOC 3/20/91 JPM

Reported By Lab Number 910685

DHS 3191 (R... 12/85)

6

N. C. Department of Human Resources
Division of Health Services

CERCLA

SAMPLE ANALYSES REQUEST

State Laboratory of Public H
P. O. Box 28
306 N. Wilmington S
Raleigh, 27

Site Number: NCD TBA Field Sample Number: 14527

Name of Site: Old NC Western Fairgrounds Site Location: Hendersonville, NC

Collected By: Harvey Allen ID#: 76 Date Collected: 2/28/91 Time: 12:30

Type of Sample:

Environmental	Concentrate	Comments
✓ Groundwater (1)	___ Solid (5)	Mark King Well 2L
___ Surface Water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

RECEIVED
MAR 25 1991
SUPERFUND SECTION

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
___ Arsenic		___ Arsenic		___ Silver	
___ Barium		___ Barium		___ Sulfates	
___ Cadmium		___ Cadmium		___ Zinc	
___ Chromium		___ Chloride		___ Ph	
___ Lead		___ Chromium		___ Conductivity	
___ Mercury		___ Copper		___ TDS	
___ Selenium		___ Fluoride		___ TOC	
___ Silver		___ Iron			
		___ Lead			
		___ Manganese			
		___ Mercury			
		___ Nitrate			
		___ Selenium			

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/
___ P&T:GC/MS		✓ EDB		___ Methoxychlor	<0.001
✓ Acid:B/N Ext.		✓ PCB's	<0.0001	___ Toxaphene	<0.002
___ TOX		___ Petroleum		___ 2,4-D	
✓ Pesticides		___ Endrin	<0.0001	___ 2,4,5-TP (silvex)	
		___ Lindane	<0.0004		

MICROBIOLOGY

Parameter
___ (MF) Coliform Colonies/100mls
___ (MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
___ Gross Alpha	
___ Gross Beta	

Date Received: 3-1-91 NCB Date Reported:

Date Extracted: PCB's + PEST 3-8-91 VP, AA BNA 3-11-91 BD, gm, TW Date Analyzed: PCB's + PEST 3-12-91 VP BNA 3-14-91 BD

Reported By: Lab Number: 910686

DHS 3191 (R... 7/85)

7

CERCLA

Chain of Custody Record

Hazardous Waste Materials

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MAR 25 1991
SUPERFUND SECTION

Location of Sampling: ____ Generator ____ Transporter ____ Treatment Facil
____ Storage Facility ____ Disposal Facility ____ Landfill
✓ Other: Residential Well

Company's Name Old NC Western Fairgrounds Telephone( )

Address Hendersonville, NC

Collector's Name Harley Allen (signature) Telephone(919) 733-2801

Date Sampled 2/28/91 Time Sampled 10:15

Type of Process Generating Waste

Field Information

Pruitt Well & Mark King Well

Field Sample No. ~~14524~~ 14525 14526 14527

Chain of Possession:

	signature	title	inclusive dates
1.	Harley Allen	Env. Engineer	2/28 - 2/29/91
2.	William C Glenn Jr	Chemistry Technician I	3-1-91
3.			

Results reported

signature	title	date
John R. Neal	Chemist	3-21-91

Instructions: Complete all applicable information including signatures, and submit with analysis request forms.

8

Semivolatiles Organics 1/2

STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES, N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	910684	910686				
	FIELD #	14525	14527				
COMPOUND	TYPE	(/)	(/)	( )	( )	( )	( )
	UNITS	µg/l ~~µg/kg~~	µg/l ~~µg/kg~~	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg
N-nitrosodimethylamine	10/330	U	U				
bis(2-chloroethyl)ether	↓	↓	↓				
2-chlorophenol	↓	↓	↓				
phenol	↓	↓	↓				
1,3-dichlorobenzene	↓	↓	↓				
1,4-dichlorobenzene	↓	↓	↓				
1,2-dichlorobenzene	↓	↓	↓				
bis(2-chloroisopropyl)ether	↓	↓	↓				
hexachloroethane	↓	↓	↓				
N-nitroso-di-n-propylamine	↓	↓	↓				
nitrobenzene	↓	↓	↓				
isophorone	↓	↓	↓				
2-nitrophenol	↓	↓	↓				
2,4-dimethylphenol	↓	↓	↓				
bis(2-chloroethoxy)methane	↓	↓	↓				
2,4-dichlorophenol	↓	↓	↓				
1,2,4-trichlorobenzene	↓	↓	↓				
naphthalene	↓	↓	↓				
hexachlorobutadiene	↓	↓	↓				
4-chloro-m-cresol	↓	↓	↓				
hexachlorocyclopentadiene	↓	↓	↓				
2,4,6-trichlorophenol	↓	↓	↓				
2-chloronaphthalene	↓	↓	↓				
acenaphthylene	↓	↓	↓				
dimethyl phthalate	↓	↓	↓				
2,6-dinitrotoluene	↓	↓	↓				
acenaphthene	↓	↓	↓				
2,4-dinitrophenol	50/1650	↓	↓				
2,4-dinitrotoluene	10/330	↓	↓				
4-nitrophenol	50/1650	↓	↓				
fluorene	10/330	↓	↓				
4-chlorophenylphenylether	↓	↓	↓				
diethyl phthalate	↓	↓	↓				
4,6-dinitro-o-cresol	50/1650	↓	↓				
diphenylamine	↓	↓	↓				
azobenzene	↓	↓	↓				
4-bromophenylphenylether	10/330	↓	↓				
hexachlorobenzene	10/330	↓	↓				
pentachlorophenol	50/1650	↓	↓				
phenanthrene	10/330	↓	↓				
anthracene	↓	↓	↓				
dibutyl phthalate	↓	↓	↓				
fluoranthene	↓	↓	↓				

MDL
H_2O/SOIL

RECEIVED
MAR 25 1991
SUPERFUND SECTION

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

N.C. Division of Health Services
DHS 3068-0 (4/86 Laboratory)

2/2

STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES, N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	910684	910686				
	FIELD #	14525	14527				
COMPOUND	TYPE	(I)	(I)	( )	( )	( )	( )
	UNITS	µg/l ~~µg/kg~~	µg/l ~~µg/kg~~	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg	µg/l µg/kg
pyrene	10/330	U	U				
benzidine	50/1650						
butyl benzyl phthalate	10/330						
benz(a)anthracene							
chrysene							
3,3-dichlorobenzidine	50/1650						
bis(2-ethylhexyl)phthalate	10/330						
di-n-octyl phthalate	10/330						
benzo(b)fluoranthene	50/1650						
benzo(k)fluoranthene							
benzo(a)pyrene							
indeno(1,2,3-cd)pyrene							
dibenzo(a,h)anthracene							
benzo(g,h,i)perylene							
aniline	50/1650	U	U				
benzoic acid							
benzyl alcohol							
4-chloroaniline							
dibenzofuran	10/330						
2-methylnaphthalene							
2-methylphenol							
4-methylphenol							
2-nitroaniline	50/1650						
3-nitroaniline							
4-nitroaniline							
2,4,5-trichlorophenol							

RECEIVED
MAR 25 1991
SUPERFUND SECTION

MDL
H_2O/ 50/L

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

N.C. Division of Health Services
DHS 3068-0 (4/86 Laboratory)

Volatile Organics

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 910683 PURGEABLE COMPOUNDS Date of Analysis 3/20/91

COMPOUND	µg/l
Dichlorodifluoromethane	u
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	
trans-1,2-Dichloroethylene	
Isopropyl ether	
1,1-Dichloroethane	
2,2-Dichloropropane	
cis-1,2-Dichloroethylene	
Chloroform	
(BCM) Bromochloromethane	
✓1,1,1-Trichloroethane	
1,1-Dichloropropene	
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	
✓Trichloroethylene	
1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
Toluene	
1,1,2-Trichloroethane	
Tetrachloroethylene	
1,3-Dichloropropane	
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	

COMPOUND	µg/l
Chlorobenzene	u
Ethylbenzene	
1,1,1,2-Tetrachloroethane	
p-Xylene	
m-Xylene	
o-Xylene	
Styrene	
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	✓

RECEIVED
MAR 25 1991
SUPERFUND SECTION

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 1/91 Laboratory Services)

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 910685 PURGEABLE COMPOUNDS Date of Analysis 3/20/91

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	
trans-1,2-Dichloroethylene	
Isopropyl ether	
1,1-Dichloroethane	
2,2-Dichloropropane	
cis-1,2-Dichloroethylene	
Chloroform	
(BCM) Bromochloromethane	
✓1,1,1-Trichloroethane	
1,1-Dichloropropene	
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	
✓Trichloroethylene	
1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
Toluene	
1,1,2-Trichloroethane	
Tetrachloroethylene	
1,3-Dichloropropane	
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	

COMPOUND	µg/l
Chlorobenzene	U
Ethylbenzene	
1,1,1,2-Tetrachloroethane	
p-Xylene	
m-Xylene	
o-Xylene	trace
Styrene	U
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	

RECEIVED
MAR 25 1991
SUPERFUND SECTION

COMMENTS: Unidentified trace peaks present - possibly very low concentration of fuel oil.

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 1/91 Laboratory Services)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

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

RECEIVED
FEB 01 1991
SUPERFUND SECTION

FEB 11 1991

4WD-WPB

Mr. Harvey Allen, P. E.
Waste Management Division
North Carolina Department of Environment,
Health and Natural Resources
Post Office Box 27687
Raleigh, North Carolina 27611-7687

Dear Mr. Allen:

The U. S. Environmental Protection Agency, Region IV has received and reviewed the Preliminary Assessment on the Old Western North Carolina Fairgrounds Site (NCD986185411) in Hendersonville, North Carolina. The Agency concurs with the findings and recommends a Screening Site Investigation for this site.

If you have any question, please call me at (404) 347-5065.

Sincerely yours,

Deborah A. Vaughn-Wright

Deborah A. Vaughn-Wright
Project Manager

Printed on Recycled Paper

Receipt for Samples

The samples described below were collected in connection with the administration, enforcement, and documentation of the:

( ) North Carolina Hazardous Waste Management Rules, 10 NCAC 10F

( ) North Carolina Solid Waste Management Rules, 10 NCAC 10G

(X) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

( ) Toxic Substances Control Act (TSCA). 15 U.S.C. §2601, et seq., specifically Section 11 of TSCA, 15 U.S.C. § 2610.

Harvey Allen
Inspector's Name

401 Oberlin Rd, Ral NC 27605
Inspector's Address

Cindy King
Name of Firm

303 James St. East Flat Rock, NC 28726
Firm Address

Cindy King
Firm Owner, Operator, or Agent

Rentor
Title

SAMPLE NUMBER	COLLECTED		SAMPLE TYPE			DUPLICATE SAMPLES			SAMPLE LOCATION	
	DATE	TIME	WATER	SOIL	OTHER	OFFERED	ACCEPTED	REJECTED	ON-SITE	OFF-SITE
Cindy King Well	2/28/91	2:45	X			X		X		X

Receipt for the sample(s) described above is hereby acknowledged:

Harvey Allen
Signature of Inspector

Env. Engineer
Title

Receipt/rejection of duplicate or split samples is hereby acknowledged:

Cindy M. King
Signature of Firm Owner, Operator, or Agent

Renter
Title

COMMENTS

Receipt for Samples

The samples described below were collected in connection with the administration, enforcement, and documentation of the:

( ) North Carolina Hazardous Waste Management Rules, 10 NCAC 10F

( ) North Carolina Solid Waste Management Rules, 10 NCAC 10G

(X) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

( ) Toxic Substances Control Act (TSCA). 15 U.S.C. §2601, et seq., specifically Section 11 of TSCA, 15 U.S.C. § 2610.

Harvey H. Allen
Inspector's Name

401 Oberlin Road, Ral. NC 27605
Inspector's Address

Margie Pruitt
Name of Firm

121 Halsbury Ave
Hendersonville, NC 28739
Firm Address

Same
Firm Owner, Operator, or Agent

Owner
Title

SAMPLE NUMBER	COLLECTED		SAMPLE TYPE			DUPLICATE SAMPLES			SAMPLE LOCATION	
	DATE	TIME	WATER	SOIL	OTHER	OFFERED	ACCEPTED	REJECTED	ON-SITE	OFF-SITE
Pruitt Well	2/28/91	10:15	X			X		X		X

Receipt for the sample(s) described above is hereby acknowledged:

Harvey H. Allen
Signature of Inspector

Env. Engineer
Title

Receipt/rejection of duplicate or split samples is hereby acknowledged:

Margie Pruitt
Signature of Firm Owner, Operator, or Agent

Owner
Title

COMMENTS

SOLID AND HAZARDOUS WASTE MANAGEMENT BRANCH

Receipt for Samples

The samples described below were collected in connection with the administration, enforcement, and documentation of the:

( ) North Carolina Hazardous Waste Management Rules, 10 NCAC 10F

( ) North Carolina Solid Waste Management Rules, 10 NCAC 10G

(X) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

( ) Toxic Substances Control Act (TSCA). 15 U.S.C. §2601, et seq., specifically Section 11 of TSCA, 15 U.S.C. § 2610.

Harvey Allen
Inspector's Name

401 Oberlin Rd, Ral. NC 27605
704-693-3391
Inspector's Address

Mark & Margaret King
Name of Firm

115 James St, East Flat Rock, NC 28726
Firm Address

Same
Firm Owner, Operator, or Agent

Owner
Title

SAMPLE NUMBER	COLLECTED		SAMPLE TYPE			DUPLICATE SAMPLES			SAMPLE LOCATION	
	DATE	TIME	WATER	SOIL	OTHER	OFFERED	ACCEPTED	REJECTED	ON-SITE	OFF-SITE
King Well	2/28/91	12:30	X			X		X		X

Receipt for the sample(s) described above is hereby acknowledged:

Harvey Allen
Signature of Inspector

Env. Engineer
Title

Receipt/rejection of duplicate or split samples is hereby acknowledged:

Mark King
Signature of Firm Owner, Operator, or Agent

Owner
Title

COMMENTS

SITE HEALTH AND SAFETY PLAN

A. General Information

Site Name Old Western NC Fairgrounds ID # NCD TBA

Location Intersection of SR 1820 and SR 1819, Hendersonville, NC Date February 26, 1991

Proposed Date of Investigation February 28, 1991

Date of Briefing February 27, 1991

Date of Debriefing February 29, 1991

Site Investigation Team: All site personnel have read the Site Health and Safety Plan and are familiar with its provisions.

	Personnel	Responsibilities	Signature
Team 1	Harvey Allen	team leader, sampling	Harvey H. Allen

Plan Preparation:

Prepared By: David Lilley, Industrial Hygienist

Reviewed By: Jack Butler, Environmental Engineer

David Lilley
Jack Butler

B. SITE/WASTE CHARACTERISTICS

Waste Type(s) X Liquid X Solid ___ Sludge ___ Gas

Characteristics ___ Corrosive X Ignitable ___ Radioactive

X Volatile X Toxic ___ Reactive ___ Other

List Known or Suspected Hazards (physical, chemical biological or radioactive) on Site and their toxicological effects. Also, if known, list chemical amounts

HAZARD	WARNING PROPERTIES	TLV
Tetrachloroethylene	Odor Threshold(OT)=4.68-50ppm PEL=	25 ppm
Trichloroethylene	OT = 0.2 - 400 ppm	50 ppm
Arsenic	OT = no data PEL=	0.2 mg/m^3
Chromium VI	OT = no data	0.05 mg/m^3

ID # NCD TBA

Facility Description: Size 27 acres Buildings 2

Disposal Methods Being Investigated Suspected burial of unknown quantities of 55-gallon drums containing unknown substances.

Unusual Features on Site (dike integrity, power lines, terrain, etc.): There is a depression approximately 75' x 75' located in the area where a fire training facility may have been located.

History of the Site: The site has been used for various functions ranging from its use as a fairgrounds to a possible manufacturing facility for hosiery. NCDEHNR received several reports from local residents concerning suspected burial of unknown quantities of 55-gallon drums containing unknown materials. The drums were reportedly disposed of from the mid 1970s to mid 1980s by the General Electric Company in East Flat Rock.

C. HAZARD EVALUATION

The site can be toured and sampled in level D protection. PE or PVC gloves will be worn while collecting water samples. Steel toed hiking boots may be worn while conducting tour or sampling on gravel, asphalt, or vegetated soil, steel toed work boots will be worn while conducting tour or sampling barren soil. Stay clear of contractors while they augur.

D. WORK PLAN INSTRUCTION

Map or Sketch Attached? yes

Perimeter Identified? no

Command Post Identified? no

Zones of Contamination Identified? no

Personal Protective Equipment/Level of Protection: ____ C _X_ D

Modifications Wear goggles, face shield, and PVC gloves while preparing acid preserved samples, goggles and PVC gloves while collecting acid preserved samples. Avoid breathing acid vapors. Rinse pipetts with deionized water before disposing of in trash bag.

ID # NCD TBA

Surveillance Equipment:

_____ HNU	_____ Detector Tubes and Pumps
_____ OVA	_____ 02 Meter
_____ Explosimeter	_____ Radiation Monitor

Decontamination Procedures

_____Level C Respirator wash, respirator removal, suit wash (if needed), suit removal, boot wash, boot removal and glove removal.

__X__Level D Boot wash and rinse and boot removal.

Modifications Dispose of trash properly, on-site if possible.

Work Schedule/Visit Objectives The purpose of this visit is to determine if the site poses a threat to the public health or environment because of releases of contaminants to soil, surface water, groundwater, or air. Sampling may consist of groundwater, surface water, surface and subsurface soil sampling.

EMERGENCY PRECAUTIONS

Route of Exposure	First Aid
Eyes	irrigate immediately
Skin	soap and water wash
Inhalation	fresh air and artificial respiration
Ingestion	get medical attention immediately

ID # NCD TBA

Location of Nearest Phone: unknown - nearby residences

Hospital (Address and Phone Number)

Margaret R. Pardee Memorial Hospital and Pardee Hospital, 715 Fleming St., Hendersonville, NC 28739 (704) 693-6522 - can handle chemically contaminated patients

Emergency Transportation Systems (Phone Numbers)

Fire 911

Ambulance 911

Rescue Squad 911

Emergency Route to Hospital Turn left onto Walker St. and travel to New Spartanburg Road (Route 176) and turn left (north) to Hendersonville. Exit onto Route 25 North and travel to 8th Avenue and turn left. The hospital will be a few blocks down 8th Ave. on the left.

PREVAILING WEATHER CONDITIONS AND FORECAST Cool with a chance of rain, highs in the upper 30s to low 40s.

EQUIPMENT CHECKLIST

	Air purifying respirator	X	First Aid Kit
	Cartridges for respirator	X	3 gal. Deionized H20
	Dust Mask	X	Rainsuit
	O_2 Indicator	X	Gloves (PE/PVC/nitrile/cloth)
X	Eye Wash Unit	X	Boots/Boot Covers
	H NU	X	Coveralls (tyvek/saranex)
	OVA	X	Eye Protection
	Explosimeter	X	Hard Hat
	Radioactive Monitor	X	Decontamination Materials.
	Detector Tubes and Pump		

Poison Control Center - State Coordinator
Duke University Medical Center
Telephone: 1-800-672-1697
Box 3024
Durham, NC 27710

ASHEVILLE 704-255-4490	Western NC Poison Control Center Memorial Mission Hosp. 509 Biltmore Ave. 28801	HENDERSONVILLE 704-693-6522 Ext. 555,556	Margaret R. Pardee Memorial Hospital Fleming St., 28739
CHARLOTTE 704-379-5827	Mercy Hospital 2001 Vail Ave, 28207	HICKORY 704-322-6649	Catawba Mem. Hosp. Fairgrove Chur. Rd 28601
DURHAM 1-800-672-1697	Duke Univ. Med. Center Box 3007, 27710	JACKSONVILLE 919-577-2555	Onslow Mem. Hospital Western Blvd. 28540
GREENSBORO 919-379-4105	Moses Cone Hospital 1200 N. Elm St. 27420	WILMINGTON 919-343-7046	New Hanover Mem. Hospital 2131 S. 17th St. 28401

change.081

TO BE COMPLETED BY PROJECT MANAGER

PROJECT MANAGER: Harvey Allen PROJECT: Old W. NC Fairground
INVESTIGATION DATE: February 28, 1991

Materials Used (Please insert a number in the blank)

Ø	Air Purifying respirator cartridges	Ø	Gloves (nitrile)
Ø	Detector tubes	Ø	Gloves (cloth)
Ø	Eye Wash Units	Ø	Boot covers
Ø	First Aid Kit	Ø	Coveralls (tyvek)
Ø	Gloves (polyethylene)	Ø	Coveralls (saranex)
8	Gloves(PVC)	Ø	Auger Brushes

Respirator Worn By: NA

Approximate Time in Respirator: NA

Air Monitoring Data (Include Calibration Reading)

HNU: NA

OVA: NA

Explosimter: NA

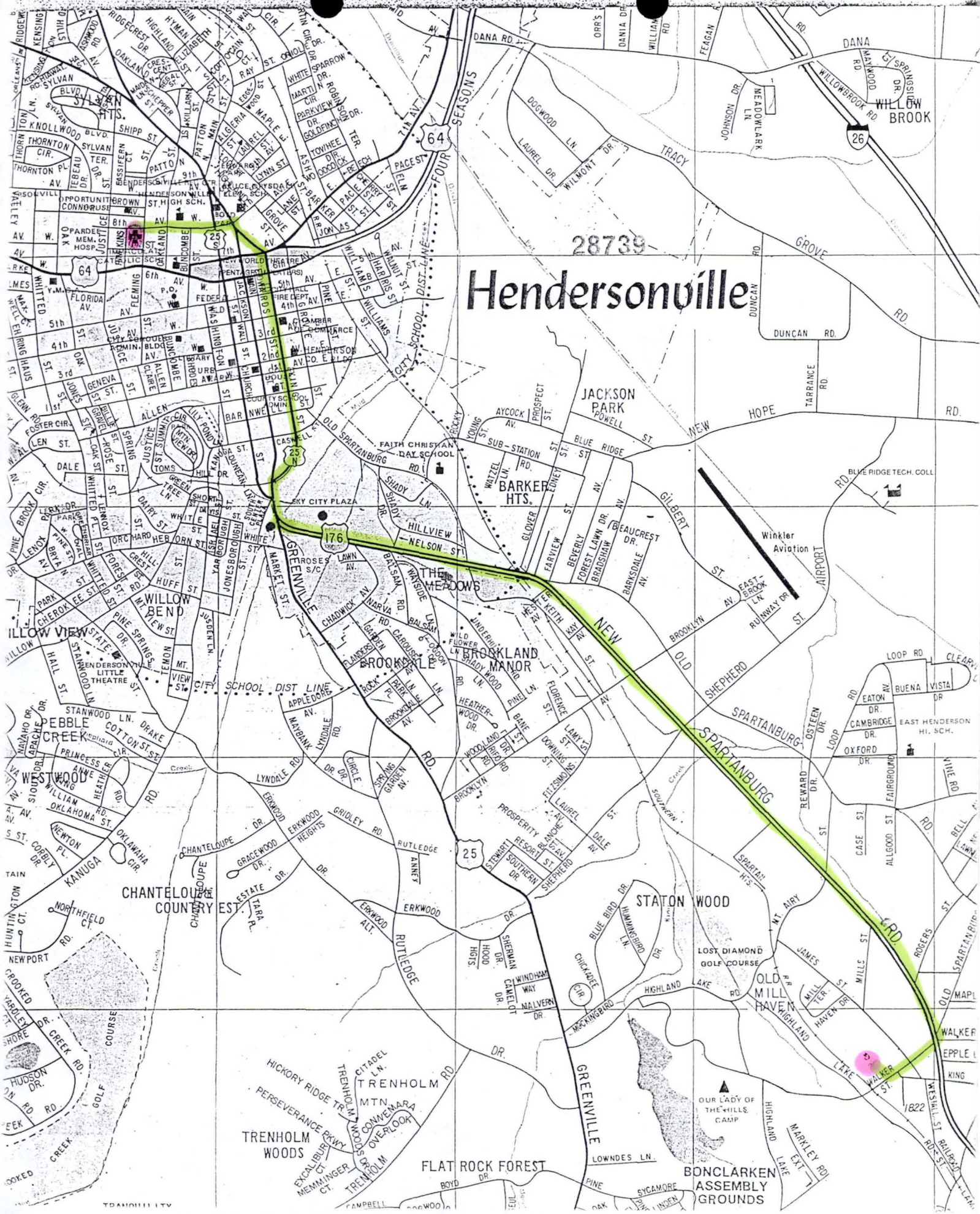
Radiation Meter: NA

If the maximum personal protective equipment as outlined in the Hazard Evaluation Section was not used, please justify:
No subsurface work by NCSS personnel.

Visitors Present	Organization Represented
Terry Johnson, Billy Dixon	G&O
Jeff Suhr, Jeff Tykurski	G&O
Tom Ledbetter	Henderson Co. Schools
Robert Smith, Jeff Goolsby,	Henderson Co. Health Dept.
Harvey Allen	NCSS

Harvey Allen
Signature

DL/ds/Revised 11-88


Hendersonville
28739
SYLVAN HTS.
WILLOW BROOK
FOUR SEASONS
JACKSON PARK
BARKER HTS.
SKY CITY PLAZA
FAITH CHRISTIAN DAY SCHOOL
BLUE RIDGE TECH. COLL.
Winkler Aviation
THE MEADOWS
BROOKLAND MANOR
BROOKVILLE
WILLOW BEND
WILLOW VIEW
HENDERSON LITTLE THEATRE
PEBBLE CREEK
WESTWOOD
CHANTELOUPE COUNTRY EST.
STATON WOOD
LOST DIAMOND GOLF COURSE
OLD MILL HAVEN
EAST HENDERSON HI. SCH.
TRENHOLM MTN.
TRENHOLM WOODS
FLAT ROCK FOREST
BONCLARKEN ASSEMBLY GROUNDS
OUR LADY OF THE HILLS CAMP
GREENVILLE
SPARTANBURG
NEW HOPE RD.
DANA RD.
GROVE RD.
DUNCAN RD.
TRACY
CITY SCHOOL DIST. LINE
64
25
26
176

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Perchloroethylene

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula C_2Cl_4	1
Natural Physical State at 25°C liquid	2
Vapor Pressure 14 mm Hg at 20°C	2
Melting Point -8 °F/°C Boiling Point 250 °F/°C	2
Flash Point (open or closed cup) N/A °C/°F	2
Solubility - H_2O 0.015%	2
Other misc with alcohol, ether, chloroform, benzene	1

Physical Features: (odor, color, etc.) colorless liquid with an odor like ether or chloroform IP=9.32 eV (2) OVA Relative Response = 70%

II. TOXICOLOGICAL DATA

Standards: 50 ppm(3) TLV 25 ppm (4) PEL suspect human carcinogen IDLH 2

Routes of Exposure: Inhalation, Ingestion, Skin and/or Eye Contact (2)

Acute/Chronic Symptoms: Irritation of eyes, nose, and throat, nausea, flushed face and neck, vertigo, dizziness, incoordination, headache, carcinogen (2)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: Perchloroethylene

III. HAZARDOUS CHARACTERISTICS — Reference

A. Combustibility Yes ___ No X — 2

Toxic by-products _____

B. Flammability LEL none UEL none — 2

C. Reactivity Hazard Incompatible with strong oxidizers, chemically active metals, such as barium, lithium, and beryllium — 2

D. Corrosivity Hazard yes/no pH: _____

Neutralizing agent: _____

E. Radioactive Hazard — Exposure Rate

Background	yes/no	
Alpha particles	yes/no	
Beta particles	yes/no	
Gamma radiation	yes/no	

IV. REFERENCES

1. The Merck Index, 11th Edition, 1989
2. NIOSH Pocket Guide to Chemical Hazards, 1987
3. Threshold Limit Values and Biological Exposure Indices for 1990-91, ACGIH.
4. CFR 1910.1000.

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Trichloroethylene

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula C_2HCl_3	1
Natural Physical State at 25°C liquid	1
Vapor Pressure 58 mm Hg at 20°C	2
Melting Point -123 °F/°C Boiling Point 188 °F/°C	2
Flash Point (open or closed cup) 32 °C/°F	3
Solubility - H_2O 0.1%	2
Other Ether, alcohol, chloroform	1

Physical Features: (odor, color, etc.) Colorless liquid (unless dyed) with a sweet odor like chloroform 1P = 9.47 eV (2)
OVA Relative Response = 70%

II. TOXICOLOGICAL DATA

Standards: 50 ppm (4) TLV 50 ppm (5) PEL potential human carcinogen(2) IDLH

Routes of Exposure: Inhalation, ingestion, skin and/or eye contact (2)

Acute/Chronic Symptoms: Acute: Headache, vertigo, visual disturbance, tremors, drowsiness, nausea, vomiting, eye irritation, dermititis, irregular heartbeat, skin irritation; chronic: carcinogenic (2)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: Trichloreothylene

III. HAZARDOUS CHARACTERISTICS — Reference

A. Combustibility Yes X No ____ — 2

Toxic by-products _____

B. Flammability LEL 12.5% UEL 90% — 3

C. Reactivity Hazard Incompatible with strong caustics: when acidic reacts with aluminum, chemically active metals, barium, lithium, sodium, magnesium, titanium. — 2

D. Corrosivity Hazard yes/no pH: _____

Neutralizing agent: _____

E. Radioactive Hazard

		Exposure Rate	
Background	yes/no		
Alpha particles	yes/no		
Beta particles	yes/no		
Gamma radiation	yes/no		

IV. REFERENCES

(1) The Merck Index, 11th Edition, 1989

(2) Pocket Guide to Chemical Hazards, NIOSH, 1987

(3) Chemical and Engineering News, December 12, 1988.

(4) Threshold Limit Values and Biological Exposure Indices for 1990-1991, ACGIH

(5) 29 CFR 1910.1000

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Arsenic

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula As	1
Natural Physical State at 25°C metal	1
Vapor Pressure _____ mm Hg at 20°C	2
Melting Point _____ °F/°C Boiling Point _____ °F/°C	
Flash Point (open or closed cup) _____ °C/°F	
Solubility - H_2O insoluble	
Other _____	

Physical Features: (odor, color, etc.) grey, metallic (1)

II. TOXICOLOGICAL DATA

Standards: 0.2 mg/m^3 (3) TLV 0.5 mg/m^3 (4) PEL potential human carcinogen (2) IDLH ____

Routes of Exposure: Inhalation, skin and or eye absorption, Ingestion (2)

Acute/Chronic Symptoms: Acute: ingestion-irritation of G.I. tract, vomiting diarrhea which can produce shock leading to death: Chronic: exfoliation and pigmentation of skin, herpes, polyneuritis, altered hematopoiesis, degenera- of liver and kidneys (1).

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: Arsenic

III. HAZARDOUS CHARACTERISTICS — Reference

A. Combustibility Yes ___ No X — 2

Toxic by-products _____

B. Flammability LEL none UEL none — 2

C. Reactivity Hazard _____

D. Corrosivity Hazard yes/no pH: _____

Neutralizing agent: _____

E. Radioactive Hazard — Exposure Rate

Background	yes/no	
Alpha particles	yes/no	
Beta particles	yes/no	
Gamma radiation	yes/no	

IV. REFERENCES

1. The Merck Index, 11th Edition, 1989.
2. The Pocket Guide to Chemical Hazards, NIOSH, 1987.
3. Threshold Limit Values and Biological Exposure Indices for 1990-91, ACGIH.
4. 29 CFR 1910.1000

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Chromium (VI), insoluble salts

I. PHYSICAL/CHEMICAL PROPERTIES

		Reference
Chemical Formula	varies with compound	1
Natural Physical State at 25°C	solid	1
Vapor Pressure	N/A mm Hg at 20°C	
Melting Point	°F/°C Boiling Point °F/°C	
Flash Point (open or closed cup)	N/A °C/°F	
Solubility - H_2O	not soluble in water	1
Other		

Physical Features: (odor, color, etc.) Properties vary depending upon specific compound. Compounds include: zinc chromate, lead chromate, calcium chromate, etc.

II. TOXICOLOGICAL DATA

Standards: 0.05 mg/m (2) TLV 0.5mg/m (4) PEL 500 mg/m IDLH 3

Routes of Exposure: Inhalation and ingestion

Acute/Chronic Symptoms: Chronic: fibrosis of the lung and epidemiological studies have shown increased incidence of lung cancer among workers in the manufacture of chrome pigments

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: Chromium (VI), insoluble salts

III. HAZARDOUS CHARACTERISTICS | Reference

A. Combustibility Yes ___ No X ___ _____

Toxic by-products _____ _____

_____ _____

B. Flammability LEL N/A UEL _____ _____

C. Reactivity Hazard strong oxidizers 3

D. Corrosivity Hazard yes/no pH: _____ _____

Neutralizing agent: _____ _____

E. Radioactive Hazard Exposure Rate

Background	yes/no	_____	_____
Alpha particles	yes/no	_____	_____
Beta particles	yes/no	_____	_____
Gamma radiation	yes/no	_____	_____

IV. REFERENCES

1. The Merck Index, 11th Edition, 1989.
2. Threshold Limit Values and Biological Exposure Indices for 1990-1991, ACGIH
3. Pocket Giude to Chemical Hazards, NIOSH, 1987
4. 29 CFR 1910.1000

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

February 4, 1991

Mr. Robert K. Smith
Environmental Health Supervisor
Henderson County Health Department
1347 Spartanburg Road
Hendersonville, North Carolina 28739

RE: Phase II
Screening Site Investigation
Old Western NC Fairgrounds
NCD TBA

Dear Mr. Smith:

David Lilley of the North Carolina Superfund Section spoke with Mary Dickon of your office today to notify you that the North Carolina Superfund Section's Contractors will conduct a screening site investigation of the subject site located in Henderson County, North Carolina. The investigation will be conducted on February 28, 1991 by Mark Bailey of Greenhorne and O'Mara, Inc.

The purpose of the investigation is to determine if the site poses a hazard to public health or the environment because of releases of contaminants to soil, surface water, groundwater, or air. The investigation team will take samples on and around the site to determine if a hazardous condition exists. Additionally, they will locate all nearby water supplies (surface and groundwater, community and private) and any close sensitive environments, schools, and day care centers.

This investigation is not an emergency situation but is a normal step in the evaluation of all uncontrolled and unregulated potential hazardous wastes sites in North Carolina. You may want to have your representative meet the investigation team at the site. If so, please contact Joe Skinner at (919) 782-9088 and he will coordinate a meeting. I am enclosing background data on the site for your information.

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

Sincerely,

Harvey Allen for

Grover Nicholson, Head
Contracts Management Branch
Superfund Section

Enclosures

cc: Jim Coffey
Doug Holyfield
Steve Reid
Patricia Bowden
Ann Rudd
David Lilley
File

Federal
Trip Notification & Authorization

Prepared by: Harvey Allen

Today's Date: 2/4/91

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

Site Trip

Date of Trip: 2/28/91

If trip date changed or cancelled note below:
Trip Date Changed To: _____ Cancelled: ___

NCD#: TBA Site Name: Old Western NC Fairgrounds
City: Hendersonville County: Henderson

Reason for Trip: Phase II, Screening Site Investigation

Name of Hotel (Overnight Trip): _____ Hotel Telephone Number: ( ) ___ - _____

Authorized by: David Lilly
Industrial Hygienist

Project Team Leader: Mark Bailey (G&O)

Assistants: Jeff Suhr, Jerry Johnson, Billy Dixon (G&O), Harvey Allen (NCSS)

Attach To Notification Form: 1 copy each:
Submit to the Industrial Hygienist

- Preliminary Assessment Form (First page only)
- 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. Robert Smith Title: Supervisor Env. Health
(Note if Dr., M.P., etc.)

Telephone Number: (704) 692- 4228

Notes: Health Department Official Contacted: Mary Dickson
Back Up Letter Required: Yes ✓ No ___

Notified Mary Dickson for Robert Smith on 2-4-91 (DBL)

Note: Signed original to Data Manager

NUS CORPORATION
1927 LAKESIDE PARKWAY
SUITE 614
TUCKER, GEORGIA 30084
404-938-7710

C-586-1-1-113

January 18, 1991

Mr. Harvey Allen
NC Superfund Section
NCDHNR
P. O. Box 27687
Raleigh, NC 27611-7687

RECEIVED
JAN 23 1991
SUPERFUND SECTION

Subject: Geophysical Survey
Old Western NC Fairgrounds
Hendersonville, Henderson County, NC
TDD No. F4-9012-11

Dear Mr. Allen:

Enclosed please find one (1) copy of the geophysical data that was generated from the survey at Old Western NC Fairgrounds (EPA ID No. NCD TBA) on January 7, 1991. I have included an explanation of geophysical methods, contour maps, and data sheets for each instrument that was utilized. There are three columns shown on the data sheets. From left to right, these columns represent the x-coordinate, y-coordinate, and the instrument reading.

Please contact me if you have any questions concerning the data or the survey.

Very truly yours,

James Miller

James Miller
Project Manager

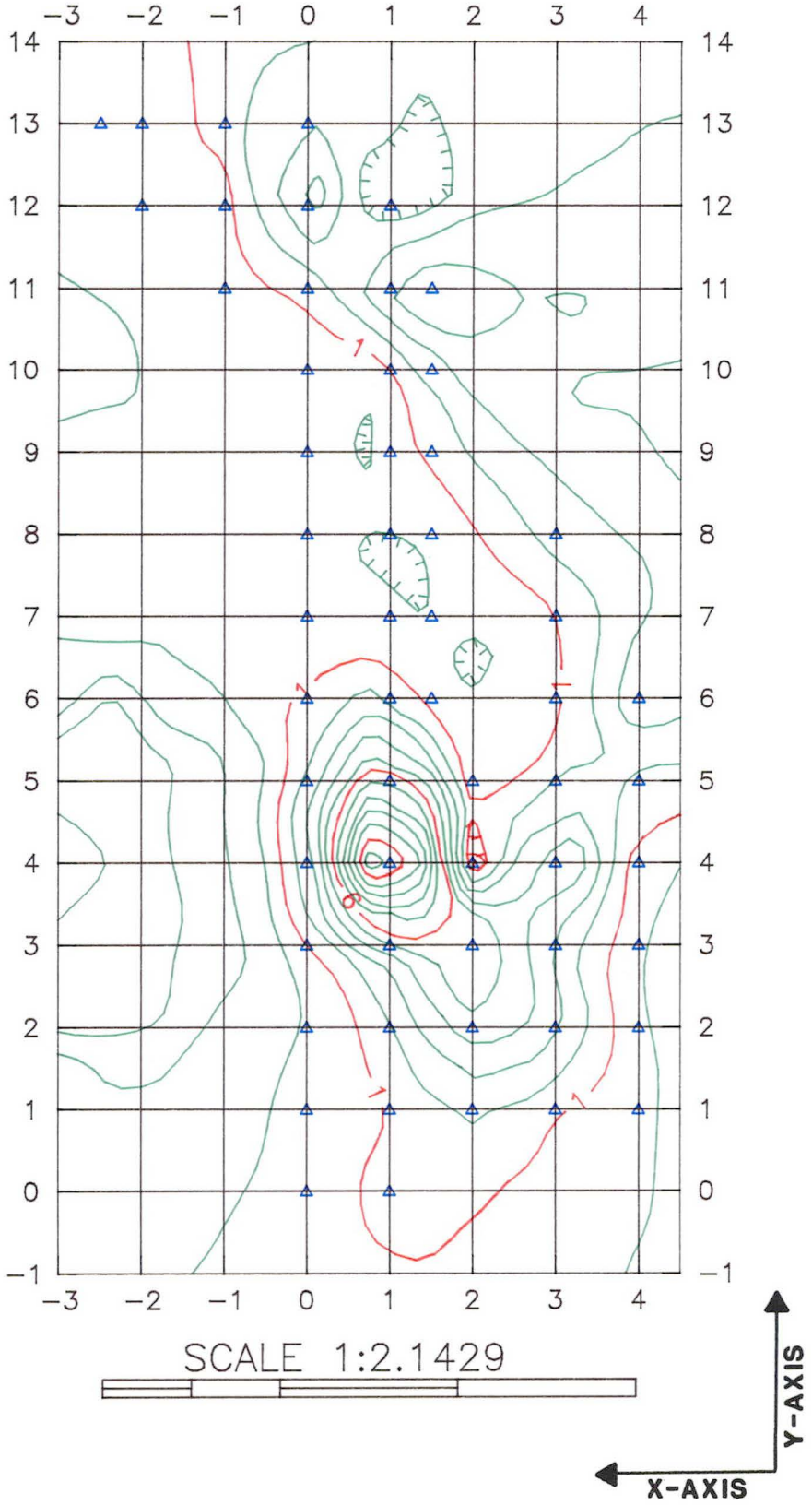
Approved:

Greg Schank

JM/tb

Enclosure (1)

ISOCONDUCTIVITY CONTOUR MAP (mmhos/meter)



```
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1 0 1.5
0 1 0.3
1 1 0.9
2 1 2.33
3 1 0.87
4 1 0.3
4 2 0
3 2 3.75
2 2 4.7
1 2 1.95
0 2 0
0 3 0.72
1 3 3.5
2 3 7
3 3 2.25
2 4 0
1 4 16.799999
0 4 1.65
0 5 1.65
1 5 7.5
2 5 0
0 6 1.05
1 6 2.6
1.5 6 0
0 7 0.3
1 7 0
1.5 7 0
0 8 0.23
1 8 0
1.5 8 0
0 9 0.15
1 9 0
1.5 9 1.45
0 10 0.6
1 10 0
1.5 10 2.8
0 11 1.05
1 11 4.5
1.5 11 5.4
0 12 5.2
1 12 0
0 13 3.1
-1 13 1.58
-2 13 0
-2.5 13 0
-1 12 0
-2 12 0.75
-1 11 0.45
4 3 0
4 4 0.3
3 4 6.45
4 5 1.65
3 5 1.95
3 6 0.53
4 6 4
3 7 0.75
3 8 2.55
```
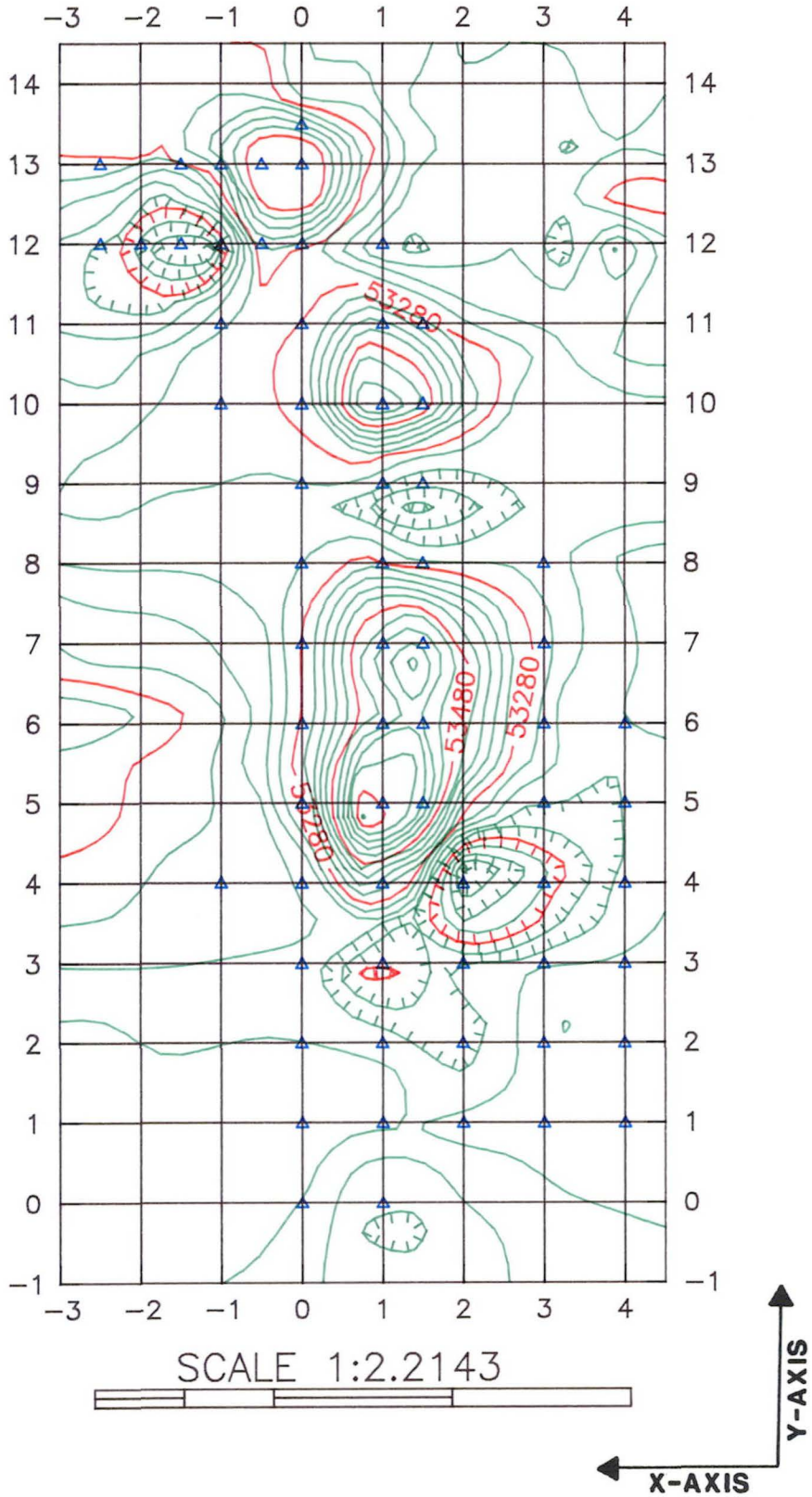

ISOMAGNETIC CONTOUR MAP (gammas)



3

0	0	53214
1	0	53079
0	1	53207
1	1	53216
2	1	53219
3	1	53220
4	1	53225
4	2	53231
3	2	53249
2	2	53093
1	2	53213
0	2	53205
0	3	53196
1	3	52994
2	3	53201
3	3	53202
2	4	52801
1	4	53452
0	4	53099
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1	5	53960
1.5	5	53582
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1	6	53529
1.5	6	53582
0	7	53244
1	7	53667
1.5	7	53652
0	8	53233
1	8	53320
1.5	8	53216
0	9	53228
1	9	53127
1.5	9	53080
0	10	53272
1	10	53728
1.5	10	53512
0	11	53245
1	11	53486
1.5	11	53282
0	12	53276
1	12	53056
0	13	53741
0	13.5	53221
-0.5	13	53593
-1	13	53429
-1.5	13	53220
-0.5	12	53352
-1	12	52996
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-2	12	53108
-2.5	12	53106
-2.5	13	53287
-1	11	53269
-1	10	53288
-1	4	53138
4	3	53206
4	4	53171
3	4	53015

3	5	53190
4	5	53156
4	6	53161
3	6	53193
3	7	53242
3	8	53226

END of DATA

SUMMARY OF GEOPHYSICAL METHODS

The following sections are from "Geophysical Techniques for Sensing Buried Wastes and Waste Migration" by Glaccum, R. A., and M. R. Noel, August, 1983, Technos, Inc., for Environmental Monitoring Systems Laboratory, ORD., USEPA, Las Vegas, Nevada.

ELECTROMAGNETICS (EM)*

The electromagnetic (EM) method provides a means of measuring the electrical conductivity of subsurface soil, rock, and ground water. Electrical conductivity is a function of the type of soil and rock, its porosity, its permeability, and the fluids which fill the pore space. In most cases the conductivity (specific conductance) of the pore fluids will dominate the measurement. Accordingly, the EM method is applicable both to assessment of natural geohydrologic conditions and to mapping of many types of contaminant plumes. Additionally, trench boundaries, buried wastes and drums, as well as metallic utility lines can be located with EM techniques.

Natural variations in subsurface conductivity may be caused by changes in soil moisture content, ground water specific conductance, depth of soil cover over rock, and thickness of soil and rock layers. Changes in basic soil or rock types, and structural features such as fractures or voids may also produce changes in conductivity. Localized deposits of natural organic, clay, sand, gravel, or saltrich zones will also affect subsurface conductivity.

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*The term electromagnetic has been used in contemporary literature as a descriptive term for other geophysical methods, including GPR and metal detectors which are based on electromagnetic principles. However, this document will use electromagnetic (EM) to specifically imply the measurement of subsurface conductivities by low-frequency electromagnetic induction. This is in keeping with the traditional use of the term in the geophysical industry from which the EM methods originated. While the authors recognize that there are many electromagnetic systems and manufacturers, the discussion in this section is based solely on instruments which are calibrated to read in electrical conductivity units and which have been effectively and extensively used at hazardous waste sites. There is only one manufacturer of such instruments at the time of this writing.

Many contaminants will produce an increase in free ion concentration when introduced into the soil or ground water systems. This increase over background conductivity enables detection and mapping of contaminated soil and ground water at Hazardous Waste Sites (HWS), landfills, and impoundments. Large amounts of organic fluids such as diesel fuel can displace the normal soil moisture, causing a decrease in conductivity which may also be mapped, although this is not commonly done. The mapping of a plume will usually define the local flow direction of contaminants. Contaminant migration rates can be established by comparing measurements taken at different times.

The absolute values of conductivity for geologic materials (and contaminants) are not necessarily diagnostic in themselves, but the variations in conductivity, laterally and with depth, are significant. It is these variations which enable the investigator to rapidly find anomalous conditions.

Since the EM method does not require ground contact, measurements may be made quite rapidly. Lateral variations in conductivity can be detected and mapped by a field technique called profiling. Profiling measurements may be made to depths ranging from 0.75 to 60 meters. The data is recorded using strip chart and magnetic tape recorders. This continuous measurement allows increased rates of data acquisition and improved resolution for mapping small geohydrologic features. Further, recorded data enhanced by computer processing has proved invaluable in the evaluation of complex hazardous waste sites. The excellent lateral resolution obtained from EM profiling data has been used to advantage in efforts to outline closely-spaced burial pits, to reveal the migration of contaminants into the surrounding soil, and to delineate fracture patterns.

Vertical variations in conductivity can also be detected by the EM method. A station measurement technique called sounding is employed for this purpose. Data can be acquired from depths by combining results from a variety of EM instruments, each requiring different field application techniques. Other EM systems are capable of sounding to depth of one-thousand feet or more, but have not yet been used at HWS and are not adaptable to continuous measurements.

Profiling is the most cost-effective use of the EM method. Continuous profiling can be used in many applications to increase resolution, data density, and permit total site coverage at critical sites.

At HWS, applications of EM can provide:

- Assessment of natural geohydrologic conditions;
- Locating and mapping of burial trenches and pits containing drums and/or bulk wastes;
- Determination of flow direction in both unsaturated and saturated zones;
- Rate of plume movement by comparing measurement taken at different times;
- Locating and mapping of utility pipes and cables which may affect other geophysical measurements, or whose trench may provide a permeable pathway for contaminant flow.

Although there is available a wide variety of EM equipment, most of it is intended for geophysical exploration of mineral deposits. These units have not been used at HWS and do not provide a simple conductivity reading. This document discusses only those instruments which are designed and calibrated to read directly in units of conductivity.

Conductance is measured with electronic instrumentation consisting of a transmitter coil and receiver coil. The transmitter coil radiates an electromagnetic field which induces eddy currents in the earth below the instrument. Each of these eddy current loops, in turn, generates a secondary electromagnetic field which is proportional to the magnitude of the current flowing within that loop. A part of the secondary magnetic field from each loop is intercepted by the receiver coil and produces an output voltage which (within limits) is linearly related to subsurface conductivity. This reading is a bulk measurement of conductivity, e.g., the cumulative response to subsurface conditions ranging all the way from the surface to the effective depth of the instrument.

The sampling depth of EM equipment is related to the instrument's coil spacing. Instruments with coil spacings of one, four, ten, twenty, and forty meters are commercially available. The nominal sampling depth of an EM system is taken to be approximately 1.5 times the coil spacing.

The EM sounding method can rarely identify more than two or three layers with reasonable confidence. The greater the contrast in the conductivity values of each layer, the better the results. Often, the more detailed resistivity sounding method is used to complement EM profiling data.

The results of sounding analysis are usually presented as a vertical section, in which the conductivity layers are identified as a function of depth. The analyst may be able to correlate these layers to geohydrologic units believed to exist at the site.

Although the EM technique can be used for profiling or sounding, profiling is the most effective use of the EM method. Profiling makes possible the rapid mapping of subsurface conductivity changes, and the location, delineation, and assessment of spatial variables resulting from changes in the natural setting or from many contaminants.

EM is a very effective reconnaissance tool. The use of qualitative non-recorded data can provide initial interpretation in the field. If site conditions are complex, the use of a high-density survey grid, continuously-recording instruments, and computer processing may be necessary, in order to properly evaluate subsurface conditions. When continuously-recording instruments are used, total site coverage is feasible. More quantitative information can be obtained by using conductivity data from different depth ranges. At present, three different systems must be used to acquire data from 0.75 to 60 meters. Very often, however, data from two standard depths, e.g. six and fifteen meters, is adequate to furnish depth information.

Capabilities

- The EM profile method permits rapid data acquisition, resulting in high-density and high-resolution surveys.
- Profiling data may be acquired from various discrete depths, ranging from 0.75 meters to 60 meters.
- Continuously-recording instruments (to fifteen meter depth) can increase survey speed, density, and resolution permitting total site coverage, if required.
- EM reads directly in conductivity units (mm/m) permitting use of raw data in the field, and correlation to specific conductance of ground water samples.
- EM can map local and general changes in the natural geohydrologic setting.
- EM can detect and measure the boundaries of a conductivity plume.
- Direction of plume flow can be determined from an EM conductivity map.
- EM measurements taken at different times can provide the means to compute movement rates of conservative contaminants.
- EM can detect and map burial pits and trenches of both bulk and drummed wastes.
- EM can detect and map the location of buried metallic utility lines.

Limitations

- EM has less sounding (vertical) resolution than the resistivity method due to its limited number of depth intervals.
- The acquisition of data from depths of 0.75 to 60 meters requires the use of three different EM systems.
- Continuous data can be obtained only to depths up to approximately fifteen meters.
- An EM measurement is influenced by the shallower materials more than the deeper ones; this must be considered when evaluating the data.
- EM measurements become non-linear in zones of very high conductivity.
- The EM method is susceptible to noise from a number of sources, including natural atmospheric noise, powerlines, radio transmitters, buried metallic trash, pipes, cables, nearby fences, vehicles, and buildings.

MAGNETOMETER

Magnetic measurements are commonly used to map regional geologic structure and to explore for minerals. They are also used to locate pipes and survey stakes or to map archeological sites. They are commonly used at HWS to locate buried drums and trenches.

A magnetometer measures the intensity of the earth's magnetic field. The presence of ferrous metals creates variations in the local strength of that field, permitting their detection. A magnetometer's response is proportional to the mass of the ferrous target. Typically, a single drum can be detected at distances up to six meters, while massive piles of drums can be detected at distances up to twenty meters or more.

Some magnetometers require the operator to stop and take discrete measurements; other instruments permit the acquisition of continuous data as the magnetometer is moved across the site. This continuous coverage is much more suitable for high resolution requirements and the mapping of extensive areas.

The effectiveness of a magnetometer can be reduced or totally inhibited by noise or interference from time-variable changes in the earth's field and spatial variations caused by magnetic minerals in the soil, or iron and steel debris, ferrous pipes, fences, buildings, and vehicles. Many of these problems can be avoided by careful selection of instruments and field techniques.

At HWS, magnetometers may be used to:

- Locate buried steel containers, such as 55-gallon drums;
- Define boundaries of trenches filled with ferrous containers;
- Locate ferrous underground utilities, such as iron piles or tanks, and the permeable pathways often associated with them;
- Select drilling locations that are clear of buried drums, underground utilities, and other obstructions.

A magnetometer measures the intensity of the earth's magnetic field. Variations in this field may be caused by the natural distribution of iron oxides within the soil and rock or by the presence of buried iron or steel objects. (The magnetometer does not respond to nonferrous metals such as aluminum, copper, tin, and brass).

The earth's magnetic field behaves much as if there were a large bar magnet embedded in the earth. Although the earth's field intensity varies considerably throughout the United States, its average value is approximately 50,000 gammas.* The angle of the magnetic field with respect to the earth's surface also varies. In the U.S., this angle of inclination ranges approximately sixty to seventy-five degrees from the horizontal.

The intensity of the earth's magnetic field changes daily with sunspots and ionospheric conditions which can cause large and sometimes rapid variations. With time, these variations produce unwanted signals (noise) and can substantially affect magnetic measurements.

If the magnetic properties of the soil and rock were perfectly uniform, there would be no local magnetic anomalies; however, a concentration of natural iron minerals, or a buried iron object, will cause a local magnetic anomaly which can be detected at the surface.

Typical magnetic anomalies at HWS will range from one to hundreds of gammas for small discrete targets, depending on their depth. Massive piles of buried drums will result in anomalies of from one-hundred to one-thousand gammas or more.

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*The unit of magnetic measurement is the gamma. Recently, the gamma unit has been renamed the Nano Tesla. At this time, most instruments are still labeled in gammas, as are specification sheets, existing literature, and field data; hence all references to magnetic data in this document are expressed in gammas.

While several factors influence the response of a magnetometer, the mass of a buried target and its depth are the most important. A magnetometer's response is directly proportional to the mass of ferrous metal present and varies by one over the distance cubed ($1/d^3$) for total measurements. If a gradiometer is used, the response falls off even faster, as one over the distance to the fourth power ($1d^4$). With sensors of equal sensitivity, the total field system provides the greater working range. Typically a single drum can be detected at distances up to six meters or more. There is a wide variety of magnetometers available commercially; specific performance is highly dependent upon the type of magnetometer and the field conditions. Theoretically, the number of drums may be calculated, however, such results should be considered only approximations because of the number of variables associated with targets, site conditions, and calculations. Actual results may vary considerably.

A magnetometer with continuous recording capabilities can be used to produce a strip chart of the field data, which is helpful in assessing signal-to-noise ratio, anomaly shape, target location, and provides a means of exercising quality control over field data. This continuous coverage is much more suitable for high-resolution requirements and the mapping of extensive areas.

The effectiveness of a magnetometer can be reduced or totally inhibited by noise or interference from time-variable changes in the earth's field and spatial variations caused by magnetic minerals in the soil, or iron and steel debris, ferrous pipes, fences, buildings, and vehicles. Many of these problems can be avoided by careful selection of instruments and field techniques.

Capabilities

- Magnetometers respond to ferrous metals (iron or steel) only.
- Individual drums can be detected at depths up to six meters.
- Large masses of drums can be detected at depths of six to twenty meters.
- Magnetometers can provide a greater depth range than metal detectors.
- Interpretation of their data may be used to provide estimates of the number and depth of buried drums.
- They can provide a continuous response along a traverse line.
- They may be mounted on vehicles for coverage of a large site.

Limitations

- In general, magnetometers are susceptible to noise from many different sources, including steel fences, vehicles, buildings, iron debris, natural soil minerals, and underground utilities.
- Low cost units are limited in depth range (but their limitations make them insensitive to many of the above sources of noise).
- Total field instruments are also sensitive to fluctuations in the earth's magnetic field which can seriously affect data.
- Data is of limited use in determining the number and depth of targets.
- Complex site conditions may require the use of highly skilled operators, special equipment, and the recording and processing of data, along with skilled interpretation.

TO BE COMPLETED BY PROJECT MANAGER

PROJECT MANAGER: Harvey Allen PROJECT: Old W. NC Fairground
INVESTIGATION DATE: January 7, 1991

Materials Used (Please insert a number in the blank)

∅	Air Purifying respirator cartridges	∅	Gloves (nitrile)
∅	Detector tubes	∅	Gloves (cloth)
∅	Eye Wash Units	∅	Boot covers
∅	First Aid Kit	∅	Coveralls (tyvek)
∅	Gloves (polyethylene)	∅	Coveralls (saranex)
∅	Gloves(PVC)	∅	Auger Brushes

Respirator Worn By
N/A

Approximate Time in Respirator

Air Monitoring Data (Include Calibration Reading)

HNU: N/A

OVA: N/A

Explosimter: N/A

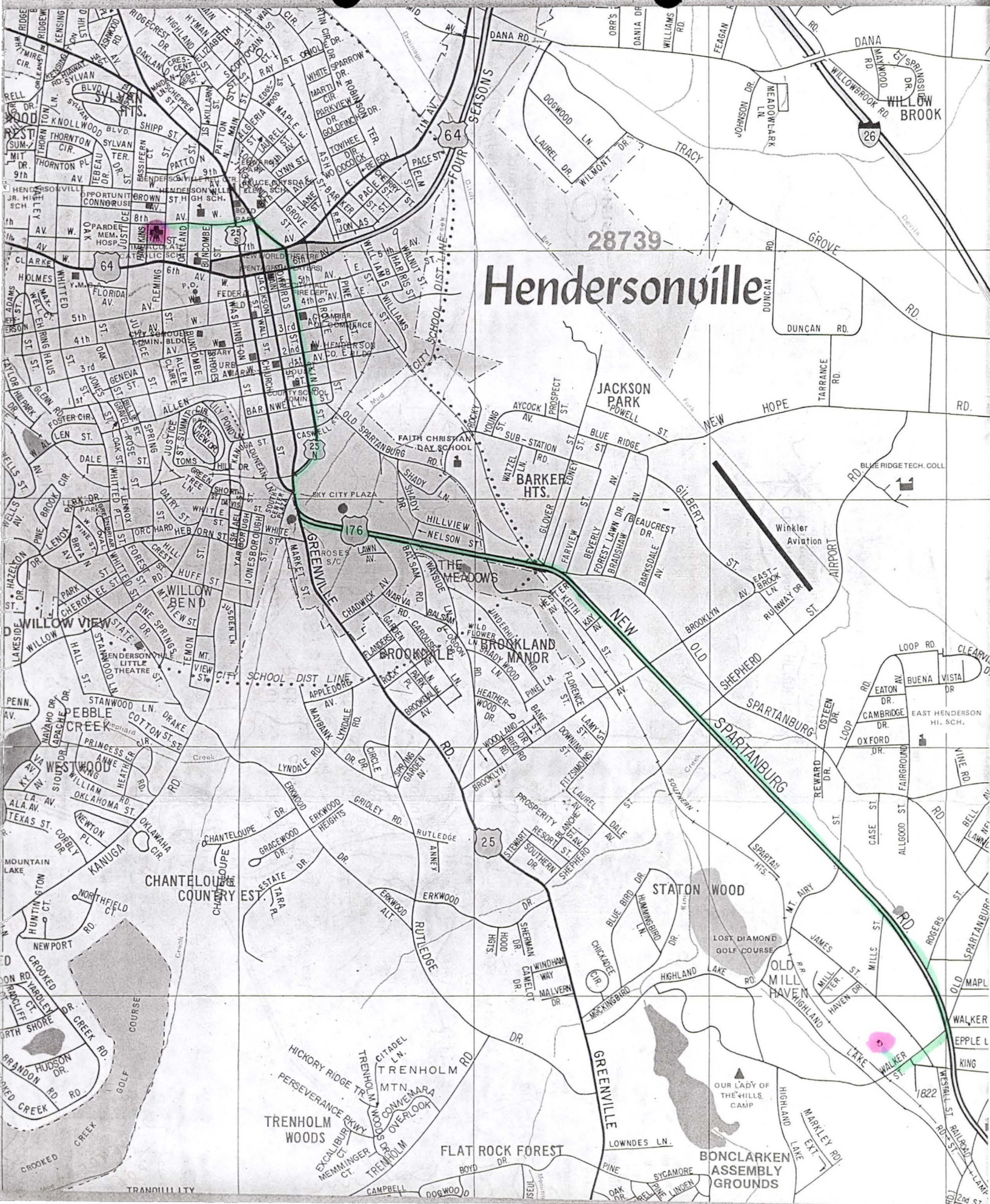
Radiation Meter: N/A

If the maximum personal protective equipment as outlined in the Hazard Evaluation Section was not used, please justify:
No SAMPLING PERFORMED @ SITE.

Visitors Present	Organization Represented
RICK HARDY & JIM MILLER	NUS CORP.
JOHN GOOLSBY	HENDERSON CO. HEALTH DEPT.
HARVEY ALLEN	NC Superfund Section

Harvey Allen
Signature

DL/ds/Revised 11-88


28739
Hendersonville
SYLVAN STTS.
WOODREST
HENDERSONVILLE JR. HIGH SCH.
HENDERSONVILLE HIGH SCH.
OPPORTUNITY CONNOR USE
PARDEE MEM. HOSP.
ST. JOSEPH'S CATHOLIC SCH.
NEW WORLD THEATRE (RENT, GERTIE CENTERS)
CITY HALL
FIRE DEPT.
CHAMBER OF COMMERCE
HENDERSON CO. BLDG.
CITY SCHOOL ADMIN. BLDG.
BUNCOMBE LIBRARY
COURTHOUSE
COUNTY SCHOOL ADMIN.
SKY CITY PLAZA
ROSES S/C
FAITH CHRISTIAN DAY SCHOOL
JACKSON PARK
BARKER HTS.
THE MEADOWS
WILLOW BEND
WILLOW VIEW
HENDERSONVILLE LITTLE THEATRE
BROOKVALE
BROOKLAND MANOR
PEBBLE CREEK
WESTWOOD
CHANTELOUPE COUNTRY EST.
STATON WOOD
LOST DIAMOND GOLF COURSE
OLD MILL HAVEN
OUR LADY OF THE HILLS CAMP
TRENHOLM MTN.
TRENHOLM WOODS
FLAT ROCK FOREST
BONCLARKEN ASSEMBLY GROUNDS
WILLOW BROOK
Winkler Aviation
BLUE RIDGE TECH. COLL.
EAST HENDERSON HI. SCH.
CITY SCHOOL DIST LINE
GREENVILLE
SPARTANBURG
NEW HOPE RD.
GROVE RD.
DUNCAN RD.
TRACY
DANA RD.
FOUR SEASONS
OLD SPARTANBURG RD.
NEW SPARTANBURG RD.
OLD SHEPHERD
GILBERT
AIRPORT
RUTLEDGE
ERKWOOD
LYNDALE RD.
GRIDLEY RD.
CHANTELOUPE
KANUGA
MOUNTAIN LAKE
NEWPORT
CROOKED CREEK
HIGHLAND LAKE RD.
LAKE WALKER
MARKLEY RD.
LOWNDES LN.
BOYD DR.
CAMPBELL
DOGWOOD
TRANQUILLITY
64
25
26
176

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Perchloroethylene

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula C_2Cl_4	1
Natural Physical State at 25°C liquid	2
Vapor Pressure 14 mm Hg at 20°C	2
Melting Point -8 °F/°C Boiling Point 250 °F/°C	2
Flash Point (open or closed cup) N/A °C/°F	2
Solubility - H_2O 0.015%	2
Other misc with alcohol, ether, chloroform, benzene	1

Physical Features: (odor, color, etc.) colorless liquid with an odor like ether or chloroform IP=9.32 eV (2) OVA Relative Response = 70%

II. TOXICOLOGICAL DATA

Standards: 50 ppm(3) TLV 25 ppm (4) PEL suspect human carcinogen IDLH 2

Routes of Exposure: Inhalation, Ingestion, Skin and/or Eye Contact (2)

Acute/Chronic Symptoms: Irritation of eyes, nose, and throat, nausea, flushed face and neck, vertigo, dizziness, incoordination, headache, carcinogen (2)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: Perchloroethylene

III. HAZARDOUS CHARACTERISTICS — Reference

A. Combustibility Yes ___ No X — 2

Toxic by-products _____

B. Flammability LEL none UEL none — 2

C. Reactivity Hazard Incompatible with strong oxidizers, chemically active metals, such as barium, lithium, and beryllium — 2

D. Corrosivity Hazard yes/no pH: _____

Neutralizing agent: _____

E. Radioactive Hazard — Exposure Rate

Background	yes/no	_____
Alpha particles	yes/no	_____
Beta particles	yes/no	_____
Gamma radiation	yes/no	_____

IV. REFERENCES

1. The Merck Index, 11th Edition, 1989
2. NIOSH Pocket Guide to Chemical Hazards, 1987
3. Threshold Limit Values and Biological Exposure Indices for 1990-91, ACGIH.
4. CFR 1910.1000.

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Trichloroethylene

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula C_2HCl_3	1
Natural Physical State at 25°C liquid	1
Vapor Pressure 58 mm Hg at 20°C	2
Melting Point -123 °F/°C Boiling Point 188 °F/°C	2
Flash Point (open or closed cup) 32 °C/°F	3
Solubility - H_2O 0.1%	2
Other Ether, alcohol, chloroform	1

Physical Features: (odor, color, etc.) Colorless liquid (unless dyed) with a sweet odor like chloroform 1P = 9.47 eV (2) OVA Relative Response = 70%

II. TOXICOLOGICAL DATA

Standards: 50 ppm (4) TLV 50 ppm (5) PEL potential human carcinogen(2) IDLH

Routes of Exposure: Inhalation, ingestion, skin and/or eye contact (2)

Acute/Chronic Symptoms: Acute: Headache, vertigo, visual disturbance, tremors, drowsiness, nausea, vomiting, eye irritation, dermititis, irregular heartbeat, skin irritation; chronic: carcinogenic (2)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: Trichloreothylene

III. HAZARDOUS CHARACTERISTICS — Reference

A. Combustibility Yes X No ____ — 2

Toxic by-products _____

B. Flammability LEL 12.5% UEL 90% — 3

C. Reactivity Hazard Incompatible with strong caustics: when acidic reacts with aluminum, chemically active metals, barium, lithium, sodium, magnesium, titanium. — 2

D. Corrosivity Hazard yes/no pH: _____

Neutralizing agent: _____

E. Radioactive Hazard

		Exposure Rate	
Background	yes/no		
Alpha particles	yes/no		
Beta particles	yes/no		
Gamma radiation	yes/no		

IV. REFERENCES

(1) The Merck Index, 11th Edition, 1989

(2) Pocket Guide to Chemical Hazards, NIOSH, 1987

(3) Chemical and Engineering News, December 12, 1988.

(4) Threshold Limit Values and Biological Exposure Indices for 1990-1991, ACGIH

(5) 29 CFR 1910.1000

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Arsenic

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula As	1
Natural Physical State at 25°C metal	1
Vapor Pressure _____ mm Hg at 20°C	2
Melting Point _____ °F/°C Boiling Point _____ °F/°C	
Flash Point (open or closed cup) _____ °C/°F	
Solubility - H_2O insoluble	
Other _____	

Physical Features: (odor, color, etc.) grey, metallic (1)

II. TOXICOLOGICAL DATA

Standards: 0.2 mg/m^3(3) TLV 0.5 mg/m^3 (4) PEL potential human carcinogen (2) IDLH ____

Routes of Exposure: Inhalation, skin and or eye absorption, Ingestion (2)

Acute/Chronic Symptoms: Acute: ingestion-irritation of G.I. tract, vomiting diarrhea which can produce shock leading to death: Chronic: exfoliation and pigmentation of skin, herpes, polyneuritis, altered hematopoiesis, degenera- of liver and kidneys (1).

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: Arsenic

III. HAZARDOUS CHARACTERISTICS — Reference

A. Combustibility Yes ___ No X — 2

Toxic by-products _____

B. Flammability LEL none UEL none — 2

C. Reactivity Hazard _____

D. Corrosivity Hazard yes/no pH: _____

Neutralizing agent: _____

E. Radioactive Hazard — Exposure Rate

Background	yes/no	
Alpha particles	yes/no	
Beta particles	yes/no	
Gamma radiation	yes/no	

IV. REFERENCES

1. The Merck Index, 11th Edition, 1989.
2. The Pocket Guide to Chemical Hazards, NIOSH, 1987.
3. Threshold Limit Values and Biological Exposure Indices for 1990-91, ACGIH.
4. 29 CFR 1910.1000

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Chromium (VI), insoluble salts

I. PHYSICAL/CHEMICAL PROPERTIES

		Reference
Chemical Formula	varies with compound –	1 –
Natural Physical State at 25°C	solid	1
Vapor Pressure	N/A mm Hg at 20°C	
Melting Point	°F/°C Boiling Point °F/°C	
Flash Point (open or closed cup)	N/A °C/°F	
Solubility - H_2O	not soluble in water	1
Other		

Physical Features: (odor, color, etc.) Properties vary depending upon specific compound. Compounds include: zinc chromate, lead chromate, calcium chromate, etc.

II. TOXICOLOGICAL DATA

Standards: 0.05 mg/m (2) TLV 0.5mg/m (4) PEL 500 mg/m IDLH 3

Routes of Exposure: Inhalation and ingestion

Acute/Chronic Symptoms: Chronic: fibrosis of the lung and epidemiological studies have shown increased incidence of lung cancer among workers in the manufacture of chrome pigments

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately

Chemical Name: Chromium (VI), insoluble salts

III. HAZARDOUS CHARACTERISTICS — Reference

A. Combustibility Yes ___ No X ___ _____

Toxic by-products _____ _____

_____ _____

B. Flammability LEL N/A UEL _____ _____

C. Reactivity Hazard strong oxidizers 3

D. Corrosivity Hazard yes/no pH: _____ _____

Neutralizing agent: _____ _____

E. Radioactive Hazard — Exposure Rate

Background	yes/no	_____	_____
Alpha particles	yes/no	_____	_____
Beta particles	yes/no	_____	_____
Gamma radiation	yes/no	_____	_____

IV. REFERENCES

1. The Merck Index, 11th Edition, 1989.
2. Threshold Limit Values and Biological Exposure Indices for 1990-1991, ACGIH
3. Pocket Giude to Chemical Hazards, NIOSH, 1987
4. 29 CFR 1910.1000

SITE HEALTH AND SAFETY PLAN

A. General Information

Site Name Old Western NC Fairgrounds ID # NCD TBA

Location Intersection of SR 1820 and SR 1819, Hendersonville, NC Date January 2, 1991

Proposed Date of Investigation January 7, 1991

Date of Briefing January 5, 1991

Date of Debriefing January 8, 1991

Site Investigation Team: All site personnel have read the Site Health and Safety Plan and are familiar with its provisions.

	Personnel	Responsibilities	Signature
Team 1	Harvey Allen	team leader, sampling	Harvey H. Allen

Plan Preparation:

Prepared By: David Lilley, Industrial Hygienist

Reviewed By: Jack Butler, Environmental Engineer

David Lilley

Jack Butler

B. SITE/WASTE CHARACTERISTICS

Waste Type(s) X Liquid X Solid ___ Sludge ___ Gas

Characteristics ___ Corrosive X Ignitable ___ Radioactive

X Volatile X Toxic ___ Reactive ___ Other

List Known or Suspected Hazards (physical, chemical biological or radioactive) on Site and their toxicological effects. Also, if known, list chemical amounts

HAZARD	WARNING PROPERTIES	TLV
Tetrachloroethylene	Odor Threshold(OT)=4.68-50ppm PEL=	25 ppm
Trichloroethylene	OT = 0.2 - 400 ppm	50 ppm
Arsenic	OT = no data PEL=	0.2 mg/m^3
Chromium VI	OT = no data	0.05 mg/m^3

ID # NCD TBA

Facility Description: Size 27 acres Buildings 2

Disposal Methods Being Investigated Suspected burial of undnown quantities of 55-gallon drums containing unknown substances.

Unusual Features on Site (dike integrity, power lines, terrain, etc.): There is a depression approximately 75' x 75' located in the area where a fire training facility may have been located.

History of the Site: The site has been used for various functions ranging from its use as a fairgrounds to a possible manufacturing facility for hosiery. NCDEHNR received several reports from local residents concerning suspected burial of unknown quantities of 55-gallon drums containing unknown materials. The drums were reportedly disposed of from the mid 1970s to mid 1980s by the General Electric Company in East Flat Rock.

C. HAZARD EVALUATION

The site can be toured in level D protection. The purpose of this phase of the investigation is to collect geophysical data to define areas of possible waste burial. No environmental sampling will be conducted at this time. Work boots will be worn on the site and decontaminated afterwards.

D. WORK PLAN INSTRUCTION

Map or Sketch Attached? yes

Perimeter Identified? no

Command Post Identified? no

Zones of Contamination Identified? no

Personal Protective Equipment/Level of Protection: ____ C ___X___ D

Modifications No environmental sampling will be conducted on this date.

ID # NCD TBA

Surveillance Equipment:

_____	HNU	_____	Detector Tubes and Pumps
_____	OVA	_____	02 Meter
_____	Explosimeter	_____	Radiation Monitor

Decontamination Procedures

_____ Level C Respirator wash, respirator removal, suit wash (if needed), suit removal, boot wash, boot removal and glove removal.

X Level D Boot wash and rinse and boot removal.

Modifications Dispose of trash properly, on-site if possible.

Work Schedule/Visit Objectives The purpose of this visit is to determine if the site poses a threat to the public health or environment because of releases of contaminants to soil, surface water, groundwater, or air. A geophysical survey of the site will be conducted during this investigation, no sampling will be done at this time.

EMERGENCY PRECAUTIONS

Route of Exposure	First Aid
Eyes	irrigate immediately
Skin	soap and water wash
Inhalation	fresh air and artificial respiration
Ingestion	get medical attention immediately

ID # NCD TBA

Location of Nearest Phone: unknown - nearby residences

Hospital (Address and Phone Number)

Margaret R. Pardee Memorial Hospital and Pardee Hospital, 715 Fleming St., Hendersonville, NC 28739 (704) 693-6522 - can handle chemically contaminated patients

Emergency Transportation Systems (Phone Numbers)

Fire 911

Ambulance 911

Rescue Squad 911

Emergency Route to Hospital Turn left onto Walker St. and travel to New Spartanburg Road (Route 176) and turn left (north) to Hendersonville. Exit onto Route 25 North and travel to 8th Avenue and turn left. The hospital will be a few blocks down 8th Ave. on the left.

PREVAILING WEATHER CONDITIONS AND FORECAST Cool with a chance of rain, highs in the 40s.

EQUIPMENT CHECKLIST

	Air purifying respirator	X	First Aid Kit
	Cartridges for respirator	X	3 gal. Deionized H20
	Dust Mask	X	Rainsuit
	O_2 Indicator	X	Gloves (PE/PVC/nitrile/cloth)
X	Eye Wash Unit	X	Boots/Boot Covers
	H NU	X	Coveralls (tyvek/saranex)
	OVA	X	Eye Protection
	Explosimeter	X	Hard Hat
	Radioactive Monitor	X	Decontamination Materials.
	Detector Tubes and Pump		

Poison Control Center - State Coordinator
Duke University Medical Center
Telephone: 1-800-672-1697
Box 3024
Durham, NC 27710

ASHEVILLE 704-255-4490	Western NC Poison Control Center Memorial Mission Hosp. 509 Biltmore Ave. 28801	HENDERSONVILLE 704-693-6522 Ext. 555,556	Margaret R. Pardee Memorial Hospital Fleming St., 28739
CHARLOTTE 704-379-5827	Mercy Hospital 2001 Vail Ave, 28207	HICKORY 704-322-6649	Catawba Mem. Hosp. Fairgrove Chur. Rd 28601
DURHAM 1-800-672-1697	Duke Univ. Med. Center Box 3007, 27710	JACKSONVILLE 919-577-2555	Onslow Mem. Hospital Western Blvd. 28540
GREENSBORO 919-379-4105	Moses Cone Hospital 1200 N. Elm St. 27420	WILMINGTON 919-343-7046	New Hanover Mem. Hospital 2131 S. 17th St. 28401

safeform.081

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

December 21, 1990

Mr. Robert K. Smith
Environmental Health Supervisor
Henderson County Health Department
1347 Spartanburg Highway
Hendersonville, North Carolina 28739

RE: Phase II Screening Site Investigation
Old Western NC Fairgrounds
NCD TBA

Dear Mr. Smith:

David Lilley of the North Carolina Superfund Section spoke with you today to notify you that the North Carolina Superfund Section will conduct a screening site investigation of the subject site located in Henderson County, North Carolina. The visit will be conducted on January 7, 1991 by Harvey Allen of the North Carolina Superfund Section.

The purpose of the visit is to determine if the site poses a hazard to public health or the environment because of releases of contaminants to soil, surface water, groundwater, or air. The investigation team will take samples on and around the site to determine if a hazardous condition exists. Additionally, they will locate all nearby water supplies (surface and groundwater, community and private) and any close sensitive environments, schools, and day care centers.

This visit is not an emergency situation but is a normal step in the evaluation of all uncontrolled and unregulated potential hazardous waste sites in North Carolina. You may want to have your representative meet the investigation team at the site. If so, please contact Harvey Allen (919) 733-2801 and he will coordinate a meeting.

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

Sincerely,

Pat DeRon for

Grover Nicholson, Head
Contracts Management Branch
Superfund Section

cc: Jim Coffey
Doug Holyfield
Steve Reid
Pat Bowden
David Lilley
Ann Rudd
File

Federal
Trip Notification & Authorization

Prepared by: Harvey Allen

Today's Date: 12/21/90

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

Site Trip

Date of Trip: 1/7/90

If trip date changed or cancelled note below:
Trip Date Changed To: _____ Cancelled: ___

NCD#: TBA Site Name: Old Western NC Fairgrounds
City: Hendersonville County: Henderson

Reason for Trip: Phase II, Screening Site Investigation (Geophysical Survey)

Name of Hotel (Overnight Trip): _____ Hotel Telephone Number: ( ) ___ - _____

Authorized by: David B. [illegible]
Industrial Hygienist

Project Team Leader: Jim Miller (NUS)

Assistants: Rick Hardy (NUS), Harvey Allen (NCSS), _____

Attach To Notification Form: 1 copy each:
Submit to the Industrial Hygienist

Preliminary Assessment Form (First page only)
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. Robert K. Smith Title: Env. Health Supervisor
(Note if Dr., M.P., etc.)

Telephone Number: (704) 692 - 4228

Notes: Health Department Official Contacted: Mr. Robert K. Smith
Back Up Letter Required: Yes ✓ No ___

Notified Mr. Smith on 12-21-90 (DBC)

Note: Signed original to Data Manager

Carolina CLIPPING SERVICE
1115 HILLSBORO
RALEIGH, NC 27603
TEL. (919) 833-2079

TIMES-NEWS
HENDERSONVILLE, N. C.
17,707

DEC 20 90

State OKs tests for site of school

By RACHAEL BISHOP
Times-News Staff Writer

EAST FLAT ROCK – A preliminary decision to proceed with a geophysical survey to locate possible hazardous wastes on the Fairgrounds site was announced Wednesday by state officials.

The site is slated for a new county elementary school.

Grover Nicholson of the Superfund staff with the N.C. Department of Environment, Health and Natural Resources said he discussed doing further studies on the site with Environmental Protection Agency officials Tuesday and they have initially agreed to begin work in January.

"I think it's necessary," Nicholson said in a telephone interview. "It's just a matter of getting it funded and doing it."

Nicholson recommended to the EPA a further study of the site after an initial investigation earlier in the fall. The investigation turned up no obvious physical evidence, but drew residents who recalled seeing GE employees place drums containing liquid in trenches on the property.

A GE spokesman issued a press release Tuesday that said "GE Lighting Systems has no records to indicate that we ever took anything that might be considered hazardous waste to the Fairgrounds."

State officials will conduct a magnetic survey and electrical resistivity survey to determine where possible chemicals may have been deposited.

"It won't tell us the types of chemicals that might be there, but it sure will tell us where something could be," Nicholson said.

Should state officials recommend doing core samples of the site, the geophysical survey will be used to help plan where to take samples and protect them from unforeseen buried materials.

"It's very scary to go into a site that is basically a complete unknown. You might take a sample with a hand augur and run into something you didn't know was there," Nicholson said.

Part of the reason for doing the geophysical survey is that the Fairgrounds site has been graded so many times that possible trenches and ravines are no longer externally visible.

Nicholson said he figures it will take a week to

Please see STATE, Page 15

State approves testing for site of new school

From Page 1

collect data and another week to translate the information into a report.

Thomas Ledbetter, assistant superintendant of Henderson County Schools, said Wednesday he was glad state officials had come to a decision.

"We're glad to find out. We need to get on with the testing. And if they're going to test that means they're going to pay for it," he said.

He said if work on the site goes beyond January that will conflict with efforts to complete construction of the elementary school. The school board has hired an architect and planned to have the school finished and ready for use by the fall of 1993.

"If it goes too much beyond January that might hold us up, but then we'll have to make a decision as to whether or not to look at private testing or the board will have to consider what to do with the site," Ledbetter said.

"If the site is not safe we'll choose another site, but I don't anticipate having to do that because I don't think there is anything there," Ledbetter said.

Greenhorne & O'Mara, Inc.
4101 LAKE BOONE TRAIL • THE SUMMIT – SUITE 111 • RALEIGH, NC 27607 • (919) 782-9088
ENGINEERS ARCHITECTS PLANNERS SCIENTISTS SURVEYORS PHOTOGRAMMETRISTS

November 5, 1990

Mr. Harvey H. Allen, P.E.
North Carolina Department of Environment, Health and Natural Resources
Division of Solid Waste Management - Superfund Section
401 Oberlin Road
Raleigh, N.C. 27605

RE: Phase I Screening Site Inspection and Recommendations for the Western North Carolina Fairgrounds Site (WNCFS)

Dear Mr. Allen:

Enclosed please find the HRS Scoring and Documentation Package, and a proposed method of determining the location of suspected buried waste. The HRS Scoring and Documentation Package was compiled from information obtained from the NCDEHNR files, interviews with local residents as well as a site visit. Based on the HRS pre-score and information received from local residents concerning suspected burial of materials that are potentially hazardous substances, Greenhorne & O'Mara, Inc. (G & O) is recommending that the site be further investigated through a Phase II screening site Inspection (SSI), under CERCLA.

At the time of G & O's site inspection the site was abandoned. There were two large buildings on the site that were used as exhibit buildings when the fair was in progress; however, they have not been used in several years. Also, there were several smaller buildings on the site not being used. A portion of the site was apparently used in the past as an automobile "demolition derby" track as part of the fair activities. Electric power poles and lights associated with the tract still exist on the site.

The southern portion of the site is mostly cleared and vegetation consists mostly of meadow grasses and weeds. Some hardwood trees exist in the northeastern part of this section with a cluster of mixed hardwoods and evergreens present in a gully-like depression in the southern portion of the site adjacent to the railroad.

Based on the information obtained to date the site has been used for various functions ranging from its use as a fairgrounds to a possible manufacturing facility for hosiery dating back to the turn of the century; however, there is no present evidence of the manufacturing facility.

The NCDEHNR has received several reports from local citizens concerning the suspected burial of unknown quantities of 55-gallon drums in a trench 25-30 feet deep on the WNCF site. Reportedly, trucks from the General Electric Lighting Manufacturing Facility in East Flat Rock were seen entering the site and disposing of the 55-gallon drums. Reportedly, the material was disposed of at the WNCF site from the mid 1970's until the mid

1980's. General Electric has denied the disposal of any hazardous material on the property.

In addition to the suspected burial of unknown materials on the site there also was a fire training facility located in the southeast corner of the property. This area was used by local fire departments as an area to practice fire fighting procedures. The fire training facility is reported to have been a concrete lined depression; however, no physical evidence of the concrete facility presently exists. There is a depression approximately 75' X 75' located in the area reported to have been the facility location. A local resident living adjacent to the site reported seeing 55-gallon drums stored near the site and seeing a "gooey substance" leaking from them and draining to a nearby ditch. It is suspected these materials were used as an ignition source for fire training activities.

To determine if and locate where there has been burial of drums and other materials on the WNCF site, G & O proposes that geophysical surveys of the site consisting of: 1) total field magnetic survey, and 2) ground-penetrating radar survey be performed. Field instruments used for the surveys will include:

- Proton Precession Magnetometer: Model G-846, Manufactured by EG & G Geometric, having a 1 gamma accuracy.

- Ground-penetrating Radar (GPR): GPR instruments employed for this survey consist of the following units: SIR System - 3, manufactured by GSSI, Inc; Model PR-8304 Profiling Recorder: Model 3102 transducer with a center frequency of 500 MHZ and 2 ns pulse width; cc-30/11 Control Cable with a 30 m length, and Model 10 Remote Marker.

Magnetic data will be collected at approximately 20 foot intervals across the site. Based on the interpreted results of the magnetic data, limited GPR will be conducted in the attempt to clarify the nature of the most prominent targets identified.

The geophysical surveys will be performed by Geoflex, Ltd. of Raleigh, N.C. Geoflex estimates that it will take one week to gather field data with preliminary results following the next week.

Geoflex's estimated fee is twelve thousand dollars ($12,000) to perform the aforementioned scope of services. G & O will provide a field engineer to accompany Geoflex during the first two days of field work. Additionally, G & O will prepare a letter report describing the results of the geophysical survey and make recommendations concerning additional sampling if required. The estimated fee for G & O's portion of this work is three thousand dollars ($3,000), for a total estimated fee of fifteen thousand dollars ($15,000).

Based on approval to proceed no later than November 7, 1990 G & O and

Geophlex are prepared to begin work on November 12, 1990.

Based on the results of the geophysical survey, G & O will determine if actual field sampling is warranted.

If you have further questions or need additional information, please call Bill Piske or Billy Dixon at (919) 782-9088.

Sincerely,

GREENHORNE & O'MARA, INC.

William H. Dixon, P.E.
Project Manager

William E. Piske, P.E.
Division Manager
Environmental and Hazardous Waste Engineering

WHD/plp

Enclosures

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

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

4WD-WPB

OCT 15 1990

RECEIVED
OCT 17 1990
SUPERFUND SECTION

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

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.

Site Name	EPA ID #	Disposition
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	TBA	SSI PHASE II
Carochem	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

Printed on Recycled Paper

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,

Robert Morris

Robert Morris

Attachment

cc: Kelly Cain
Harvey Allen, NCDEHNR

Form PS-5 (Rev. 8-1-79)

Lab - 250-4175
Ann Jessup

N. C. DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS
P. O. BOX 25201
RALEIGH, N. C. 27611

52652

Photogrammetric Laboratory Work Order

Date Notified to Pick Up Work _____

Requested by NC Dept. of EHNR
Super Fund Section
411 Merlin Rd. Rnl. NC 27605

Department Attn: Grace Nicholson

Signature X Grace Nicholson

Tel. 733-2801

Project No. _____ Ident. No. _____

AERIAL PHOTOGRAPHY

	Quantity	Mission	Exposures		Instructions	
Contact Prints ☐						
Enlargement % of Original ☒	1	623	21-69	1" = 200'	5X	crop right
Reduction % of Original ☐	1	770	53	1" = 200'	2½X	
Film Diapositive	1	1096	3	1" = 700'	5X	crop bottom
Mosaic						
Photo Plan						
Mylar ☐ Paper ☒						

COPY CAMERA AND OTHER REPRODUCTIONS

Detailed Instructions

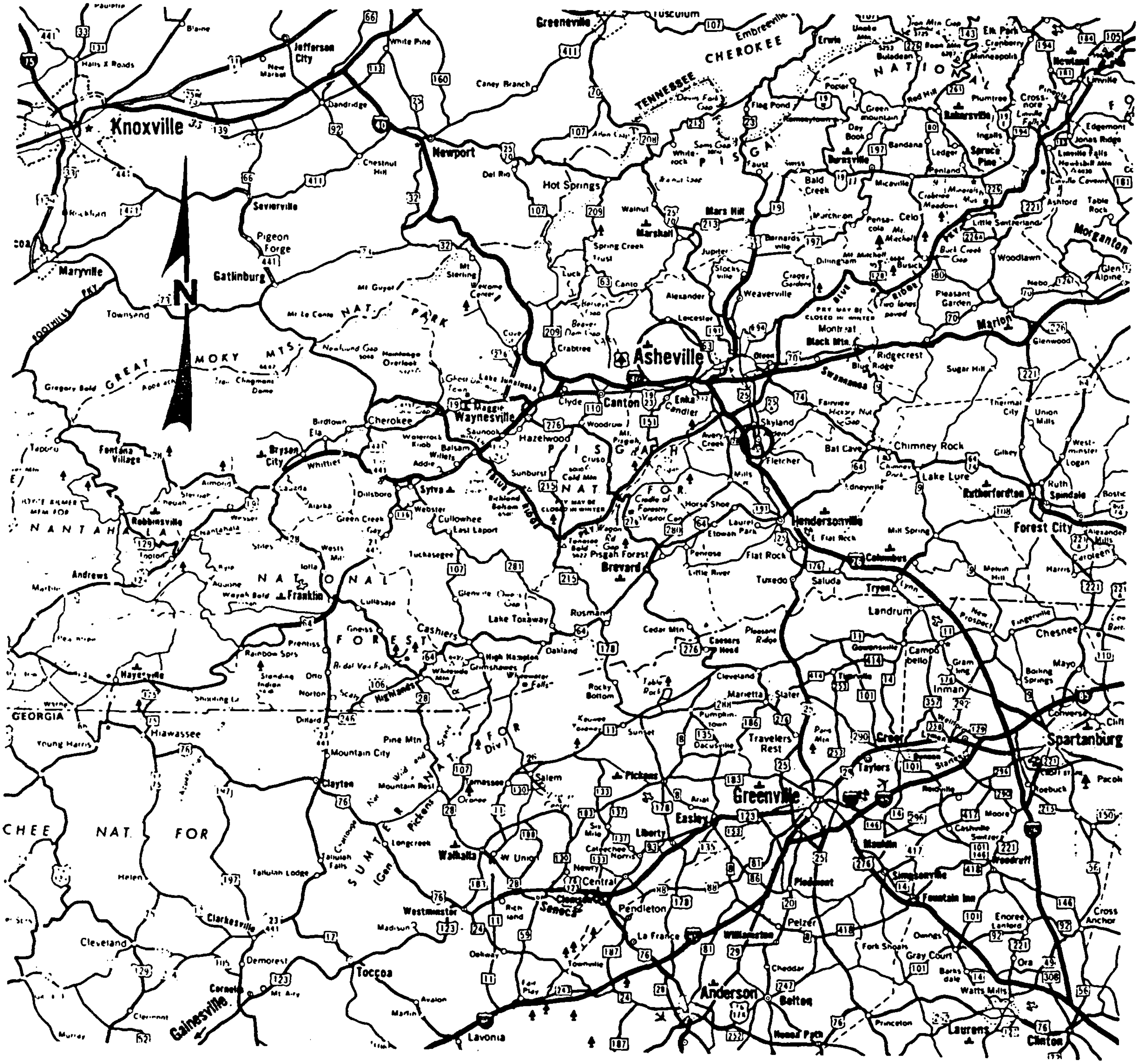
Enlargement ☐ 2 - 5X Sals - $ 64
Reduction ☐ 1 - 2½X Sal 17
Same Size ☐ Subtotal - $ 81

Mylar ☐ Paper ☐ Negative Only ☐

Order Taken By _____ Date 10-11-90

Completed Work Received By _____ Date _____

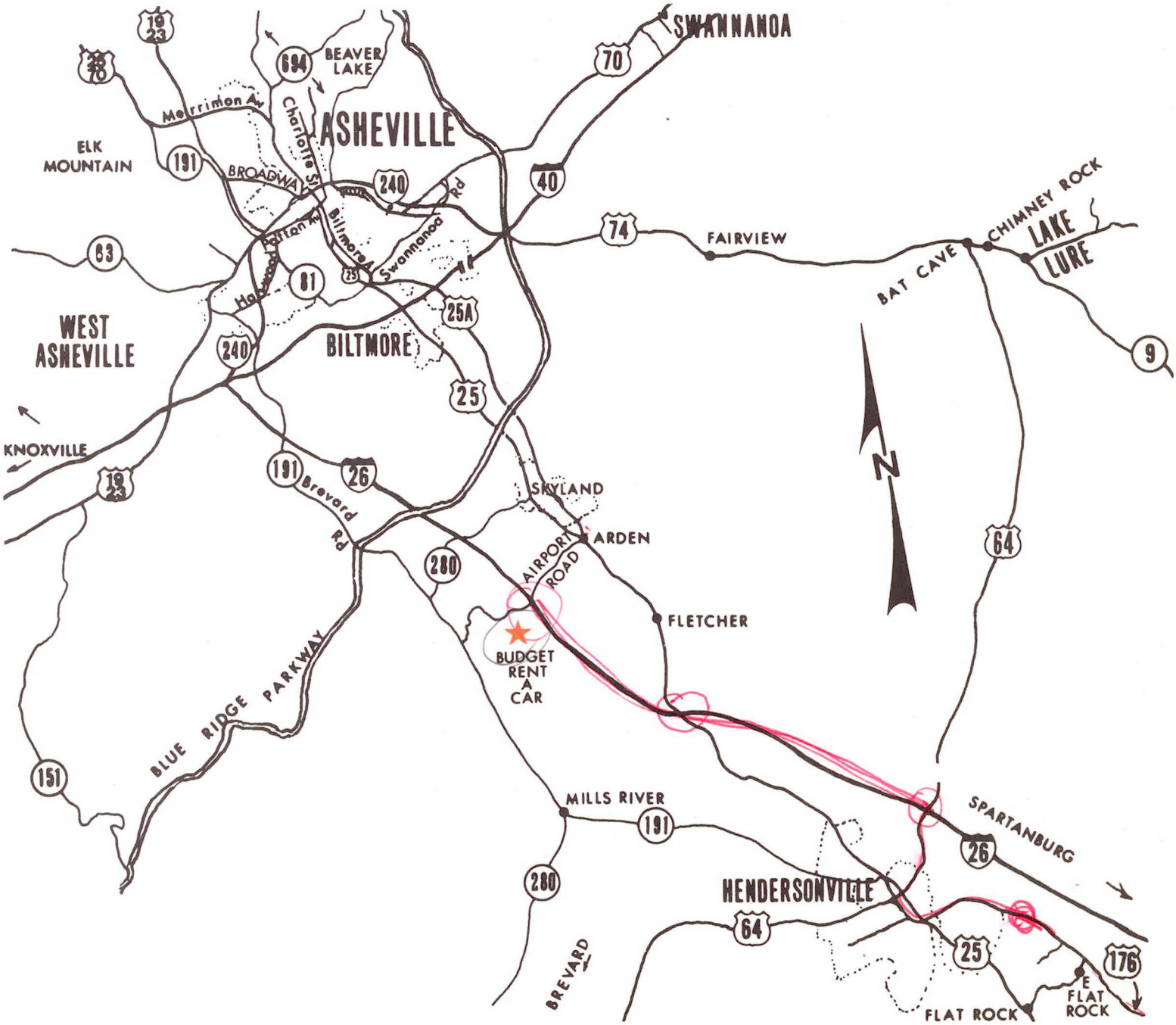
Original, Blue & Yellow Copy forwarded to Photogrammetry Unit: Pink Copy retained by Dept. requesting order



Knoxville
Jefferson City
Newport
Dandridge
Sevierville
Pigeon Forge
Gatlinburg
Maryville
Townsend
Greeneville
Hot Springs
Marshall
Mars Hill
Weaverville
Asheville
Black Mtn.
Ridgecrest
Marion
Morganton
Burnsville
Spruce Pine
Bakersville
Erwin
Canton
Clyde
Waynesville
Hazelwood
Cherokee
Bryson City
Fontana Village
Robbinsville
Andrews
Franklin
Sylva
Cullowhee
Cashiers
Highlands
Brevard
Hendersonville
Fletcher
Chimney Rock
Lake Lure
Rutherfordton
Forest City
Columbus
Tryon
Saluda
Flat Rock
Landrum
Campobello
Inman
Spartanburg
Greer
Taylors
Greenville
Easley
Pickens
Liberty
Clemson
Seneca
Walhalla
Westminster
Pendleton
Anderson
Williamston
Piedmont
Pelzer
Belton
Honea Path
Simpsonville
Fountain Inn
Mauldin
Laurens
Clinton
Woodruff
Toccoa
Lavonia
Clayton
Mountain City
Dillard
Hiawassee
Hayesville
Clarkesville
Cleveland
Demorest
Cornelia
Gainesville
GEORGIA
TENNESSEE
CHEROKEE NAT. FOR
GREAT SMOKY MTS NAT. PARK
PISGAH NAT. FOR.
NANTAHALA NATIONAL FOREST
SUMTER NAT. FOR
N

Budget rent a car

I-26 and Airport Road
Fletcher, NC
704/684-2272



Date: 5 October 1990

To: Lee Crosby

From: Grover Nicholson gcn

Re: Investigation of Old Western NC Fairground Site

In late September, the NC Superfund Section requested that a suspected disposal site be added to CERCLIS. This site, the Old Western NC Fairgrounds, had been reported by local residents to have been a dumping site for wastes from the nearby General Electric plant.

The site is located along US 176 just south of Hendersonville. One large trench, about 25 to 30 feet deep, was dug on the property and filled with old cars, refrigerators, stoves, pallets, old lights, and paint wastes. Some drums, both empty and full, were buried in the trench. The property is being considered as the location for a new elementary school. In addition, there is significant groundwater usage around the site. There is considerable concern about the use of this site for a school; therefore the NC Superfund Section has planned an immediate investigation.

On 12 October 1990, Harvey and I will meet with Greenhorne & O'Mara engineers, the Henderson County Health Department, and the Henderson County School Board representative in Hendersonville. We will discuss the Fairground site and then conduct a reconnaissance of the area in order to generate enough data to develop a good study/sampling plan.

GN/ef/memos.gn

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

William L. Meyer
Director

October 5, 1990

Mr. Tom Johnson
Health Director
Henderson County Health Department
1347 Spartanburg Highway
Hendersonville, NC 28792

RE: Phase I Screening Site Investigation
Off-Site Reconnaissance
Old Western NC Fairgrounds
NCD TBA

Dear Mr. Johnson:

Grover Nicholson of the North Carolina Superfund Section spoke with you today to notify you that the North Carolina Superfund Section's Contractor will conduct an off-site reconnaissance of the subject site located in Henderson County, North Carolina. The reconnaissance will be conducted on October 12, 1990 by Greenhorne and O'Mara, Inc.

The purpose of the reconnaissance is to determine if the site poses 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.

This reconnaissance is not an emergency situation but is a normal step 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 site. If so, please contact Joe Skinner at (919) 782-9088 and he will coordinate a meeting. I am enclosing background data on the site for your information.

If the reconnaissance indicates the need for future study of the site, we will contact your office to advise. If you have any questions, 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
Pat Bowden
Ann Rudd
David Lilley
File

Federal
Trip Notification & Authorization

Prepared by: G. Nicholson

Today's Date: 5 OCT 90

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

Site Trip

Date of Trip: 12 OCT 90

If trip date changed or cancelled note below:
Trip Date Changed To: _____ Cancelled: ____

NCD#: TBA Site Name: OLD WESTERN NC FAIRGROUNDS
City: EAST FLAT ROCK County: HENDERSON

Reason for Trip: PHASE I SSI - OFFSITE RECON

Name of Hotel (Overnight Trip): _____ Hotel Telephone Number: ( ) ___ - _____

704 692-4228
HENDERSON CO. HD

Authorized by: David B. [illegible]
Industrial Hygienist

Project Team Leader: G&O ENGR

~~Assistants:~~ Harvey Allen, G. Nicholson, _____

Attach To Notification Form: 1 copy each:
Submit to the
Industrial Hygienist

- Preliminary Assessment Form (First page only)
- 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: Tom Johnson Title: Health Director
(Note if Dr., M.P., etc.)
Telephone Number: (704) 692- 4228

Notes: Health Department Official Contacted: Tom Johnson
Back Up Letter Required: Yes ✓ No ____

Grover Nicholson notified Tom Johnson on October 5, 1990.

Note: Signed original to Data Manager

Date: 5 October 1990

To: Lee Crosby

From: Grover Nicholson gcn

Re: Investigation of Old Western NC Fairground Site

In late September, the NC Superfund Section requested that a suspected disposal site be added to CERCLIS. This site, the Old Western NC Fairgrounds, had been reported by local residents to have been a dumping site for wastes from the nearby General Electric plant.

The site is located along US 176 just south of Hendersonville. One large trench, about 25 to 30 feet deep, was dug on the property and filled with old cars, refrigerators, stoves, pallets, old lights, and paint wastes. Some drums, both empty and full, were buried in the trench. The property is being considered as the location for a new elementary school. In addition, there is significant groundwater usage around the site. There is considerable concern about the use of this site for a school; therefore the NC Superfund Section has planned an immediate investigation.

On 12 October 1990, Harvey and I will meet with Greenhorne & O'Mara engineers, the Henderson County Health Department, and the Henderson County School Board representative in Hendersonville. We will discuss the Fairground site and then conduct a reconnaissance of the area in order to generate enough data to develop a good study/sampling plan.

GN/ef/memos.gn

2nd Red Light
Left @ Video Store (Upper Rd)
2 miles
Left to Asheville

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 September 1990

Ms. Kelly Cain
NC CERCLA Project Manager
Waste Management Division
Environmental Protection Agency, Region IV
345 Courtland Street, NE
Atlanta, Georgia 30365

SUBJECT: CERCLIS Site Addition
Old Western NC Fairgrounds
East Flat Rock, NC 28726

Dear Ms. Cain:

Please add the subject site to CERCLIS. Preliminary data gathering has established the following about the site.

1. The site is located on the grounds of the old western NC Fairgrounds between US 176 and the Southern railroad line. The latitude is 35° 17' 07" and the longitude is 82° 25' 53".

2. Reportedly, the disposal of wastes from the General Electric plant in East Flat Rock occurred there. One large trench, about 25 to 30 feet deep, was dug on the property in the vicinity of the telephone poles, downhill from the barns toward the railroad tracks. This trench was filled with old cars, refrigerators, stoves, pallets, and other wastes. Some drums, both empty and full, were buried in the trench.

3. This property is being considered as the location for a new elementary school. In addition, there is significant groundwater usage around the site.

Attached ia a CERCLIS site addition form and location map. I recommend that this site be addressed during the investigation of the General Electric facility, the nearby plant which probably produced the wastes.

If you have any questions, please call Grover Nicholson or me at (919) 733-2801.

Sincerely,

Lee Crosby

Lee Crosby, Chief
NC Superfund Section

attachment

LC/ef

ROUTING AND TRANSMITTAL SLIP

Date 9/18/90

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. Grover Nicholson, NC		
2.		
3.		
4.		
5.		

	Action		File		Note and Return
	Approval		For Clearance	X	Per Conversation
	As Requested		For Correction		Prepare Reply
	Circulate		For Your Information		See Me
	Comment		Investigate		Signature
	Coordination		Justify		

REMARKS

As discussed in telephone conversation of today.

RECEIVED
SEP 25 1990
SUPERFUND SECTION

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)	Room No.—Bldg.
Robert Morris, EPA	Phone No. (404) 347-5064

5041-102 ★ U.S. GPO: 1988 — 196-509

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

September 7, 1990

Mr. Robert Morris
Waste Program Branch
US Environmental Protection Agency
345 Courtland Street NE
Atlanta, Ga 30365

1804 Old Spartanburg Hwy

Dear Sir,

Enclosed are a clipping concerning General Electric in East Flat Rock, North Carolina. Also the person who buried the dump at the proposed elemenary school site (~~Old Fair~~ground Property)....is willing to talk to anyone ...his name is David Brown . lives on Old Spartanburg Hwy.. Phone 704-692-0436...he currently ~~is a security~~ guard at the General Electric Company. His name has also been given to Grover Nicholson. I was told he indicated that barrels of paint, old lights, pallets, cars were a few of items dumped. I would like to express my concern about what could have been poured out on the property that was not in location of the dump. My concern reflect what EPA have found with ~~the~~ front lawn and soil around the plant site. I have two children who will be attending this school site.

Please send me a copy of the Listing of the site investigation report on the General Electric, as soon as its is available.

We appreciate all your effort in finding the problems that exsist surrounding General Electric and the community.

Sincerely,

Evelyn Nichols

Evelyn Nichols
Co-Chair Person Of
General Electric
107 Maplewood Drive
East Flat Rock, NC 28726
704-693-3370

Old GE dump may lie below proposed Flat Rock school site

by Andrea Helm

The Hendersonville Board of Education is planning to build a new school on James Street, but not if the concerns of a few East Flat Rock residents are borne out by the results of an environmental site assessment. The school board has initiated that assessment process.

Betty Edwards, who has lived at James Street for 24 years, claims that during the 1970s General Electric dumped 55-gallon drums into a 30-foot hole, then filled it with dirt. "We were young and we'd go over and scavenge through what they'd dumped," she said. "Some of those drums were empty but some were so full we couldn't move them. They had something in them — they [GE] might say it was rainwater but those barrels were full. We rolled a couple of the empty barrels over to our house and used them as burning barrels for our garbage.

"The trucks came in the daytime and they had the GE labels," she said. "They'd be loaded down with barrels and big wooden crates and when they'd leave the trucks would be empty. Then we'd go over and see the new stuff they'd dumped. This went on not every day but at least a few times a week, we know, from 1971 to 1975."

The Henderson County Board of Education, current owners of the property, has contacted an assessment firm to perform environmental testing on the site but "the contract hasn't been signed yet so I can't say who [will perform the assessment]," said school board director Dr. Tom Ledbetter.

The American Legion at one time owned the James Street property. American Legion Manager Don Sprouse, who has been with the organization for five years, said the land was "not a dump site, never has been. We sold it about seven or eight years ago. It was an old fairgrounds where we had fairs every year and we had some buildings on the property for the animal exhibits. GE did have some stuff stored in some of our buildings for about two or three months, but that's gone now. I never saw any 55-gallon drums."

When asked about a ditch on the property, Sprouse said, "I wasn't around then. I'm just repeating what was told to me when I came here. I was told there was a gully and it was covered up but that it was filled with trash from the fair every year." He did not remember any names of people who were connected with the American Legion during that time.

GE management has denied the company dumped on the 29-acre piece of land. Edwards said GE representative Lamar Jordan "told us all there had been no dumping" during a public hearing called to discuss the East Flat Rock school referendum.

"I'm worried for the children who will go there in the future," Edwards said. "I'm hoping that by raising some of these questions some testing will be done before it's too late. I think we owe it to the children to make sure it's safe before we build a school there."

Edwards' house is a little more than a mile from the GE Hendersonville plant. The alleged dump site is 300 yards from her house, right across the street. A road separates her yard from the place she says GE dumped the barrels.

Another East Flat Rock resident, who spoke on condition that his name not be published, said he knows GE dumped there throughout the 1970s because he witnessed some of the burying. They quit dumping after they covered it all up. That gully was at least 30 feet deep and I don't know how long. They only put about six or eight feet of dirt over the barrels."

He was born in East Flat Rock and has lived there "off and on for about 67 years." He said he was sure the barrels he saw contained paint because of the "yellow paint spilled all over the barrels. There's also stumps from trees and old rotten shipping pallets down there," he said. "I don't know for sure what all they dumped there but I do know I wouldn't want to build a school over it because I've done some construction work and I know eventually those stumps will rot out and it will cave in. I don't drink the water out here, either."

Tom Haas, General Electric Lighting Systems manager of community relations, said GE had "no knowledge or any records of any dumping on the site." However, Haas said GE did have three occasions on which they used the site for several years: GE company picnics were held there until about four years ago; after renovation of their offices old office furniture was sold in the exhibit buildings at the site (no landfilling was involved); and the Henderson County Firefighter's Association and the GE fire brigade held firefighting exercises during the 70s on the property.

Haas said GE "provided the materials that were set afire as part of the exercises." When the fire training facility at the Blue Ridge Community College completed its drills in approximately 1985, GE returned to the site and removed any GE materials used in the training.

"If materials are found at the site and can be connected to GE," Haas added, "they were disposed there by companies under contract to GE, would not be hazardous, and the disposal would not have been carried out with GE's knowledge."

Environmental site assessments are typically performed in two phases. The first include a walk-through inspection of the site by professional engineers and hydrogeologists, review of environmental records at pertinent industrial facilities and regulatory agencies, and a survey of activities in adjacent areas that may affect the environmental quality at the site under study.

If information surfaces during the Phase I study that indicates possible problems, then a Phase II study is implemented. This information may include records or reliable hearsay evidence of chemical spills, disposals or other unsafe practices. A Phase II assessment includes drilling test borings and sampling soil and surface and ground water for laboratory analysis.

On the James Street property, Ledbetter said, "I do know there were some old building materials dumped there. Our maintenance supervisor covered it up about four years ago but there were no barrels in it." He said that if the board is able to build a school there only a portion of the property will be used. A fence is planned to keep students away from the old drainage ditch and a nearby railroad track.

"I don't know how long it will take the site assessment people to do their job," Ledbetter said. "If they find the land is unsafe then we'll find another place."

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

26 February 1990

Mr. Robert Morris
NC Project Officer
EPA Region IV Waste Division
345 Courtland St., NE
Atlanta, GA 30365

SUBJECT: General Electric Company and related sites
Herdersonville, North Carolina

Dear Mr. Morris:

As we discussed last week, there have been several sites in the Hendersonville area reported to us as possible old disposal sites for GE wastes. I want to make you aware of these sites since it may be more efficient to investigate all of them during the LSIE of Shepherd Farm, another GE related site. These three sites have not yet been evaluated nor have they been added to CERCLIS, but they will need to be looked into either by EPA or by us. I will attached all information that I have about the sites, as well as a map showing the described locations. The sites are:

(1) Seldon Clark's land in the northeast quadrant of the intersection of US 176 and Tabor Road:

(2) The site near Grandview Memorial Gardens on Tracy Grove Road:

(3) The Old Western NC Fairgrounds.

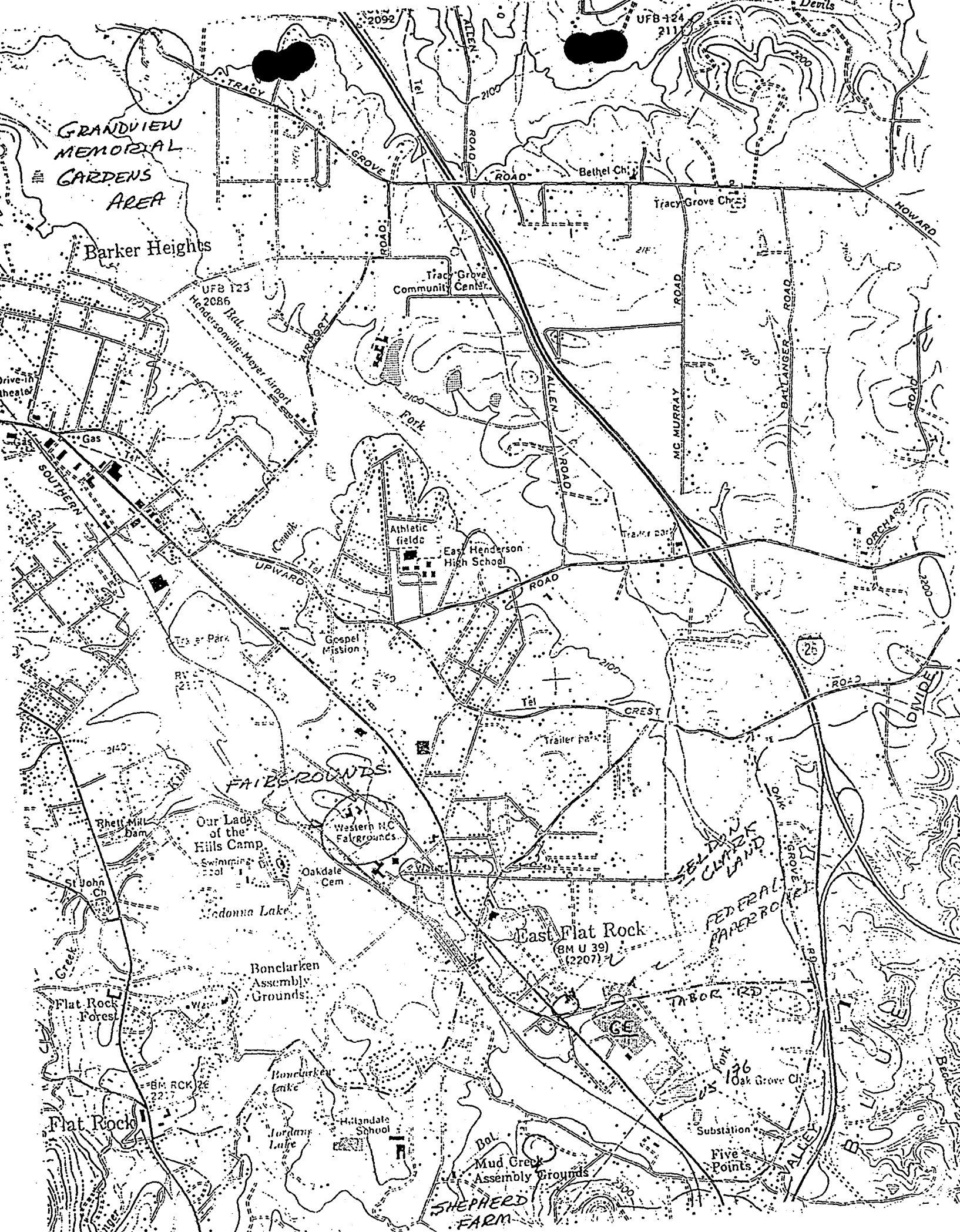
If you have any question, please call me at (919) 733-2801.

Sincerely,

Grover Nicholson, Head
CERCLIS Branch
Superfund Section

Attachments

GN/db/GEHender.gn


GRANDVIEW MEMORIAL GARDENS AREA
Barker Heights
TRACY
GROVE
ROAD
Bethel Ch
Tracy Grove Ch
HOWARD
Tracy Grove Community Center
UFB 123
2086
Hendersonville-Meyer Airport
Brd.
AIRPORT
ALLEN
MC MURRAY
BALLANGER
Drive-in theater
Gas
SOUTHERN
Fork
Athletic fields
East Henderson High School
Trailer park
UPWARD
Creek
Gospel Mission
ORCHARD
CREST
DIVIDE
FAIRGROUNDS
Rhett Mill Dam
Our Lady of the Hills Camp
Swimming Pool
Western N.C. Fairgrounds
Oakdale Cem
St John Ch
Madonna Lake
East Flat Rock
(BM U 39)
(2207)
ELDIN CLARK LAND
FEDERAL PAPERBOARD
Bonclarken Assembly Grounds
Flat Rock Forest
TABOR RD
GE
BM RCK 26
2217
Bonclarken Lake
US 176
Oak Grove Ch
Flat Rock
Jordan Lake
Hillandale School
Substation
Bal.
Mud Creek Assembly Grounds
Five Points
SHEPHERD FARM

Date: 19 January 1990

TO: File

FROM: Grover Nicholson G. Nicholson

RE: Possible site in East Flat Rock

On 17 January 1990 I received a call from Lucy King of Oak Grove Road in East Flat Rock, (704) 693-8991. She reports that General Electric Co. in East Flat Rock buried wastes, including drums, on land belonging to Seldon Clark. The land is located in the NE part of the intersection of US 176 and Tabor Road. Mr. Clark's telephone number is (704) 693-6878.

On 19 January 1990 I spoke with Bob Dooley of NUS Corporation. He is the project manager for the GE SSI. He said that he had no knowledge of this burial and it was not investigated during the SSI.

Ms. King, on 17 January 1990, also said that burials were possible just across US 176 from the GE plant in an area once used for storage by GE. She also questioned why no monitoring wells were constructed on the southern border of the GE property near the GE recreation area. She believes there are wastes buried in this area.

I spoke with Diane Eskanasy of the Asheville DEM office, on 18 January 1990. She has no knowledge of the alleged burial on Mr. Clark's land. She does know that the land across US 176 from GE belongs to Cecil Cantrell, (704) 697-7635. Mr. Cantrell owns Skyland Petroleum and Oak Grove Shell Station. Diane believes the GE has never owned this land. Diane also says that capacitors were reported to have been buried at the GE recreation area. She says that DEM will request that GE install a well in that area.

GN/db/eastflat.roc

November 8, 1989

TO: Grover Nicholson
FR: Martin Richmond
RE: Information on Report of Buried Drums, Henderson County

I spoke today with Mrs. Betty Edwards who lives near the old Western NC Fairgrounds in Hendersonville, NC. She told me she remembers trucks from the GE Facility to the Fairgrounds facility to load and unload materials. She stated that GE formerly leased buildings at the fairgrounds for storage.

Mrs. Edwards also told me she remembers GE workers burying barrels at the Fairgrounds. She described the area as a "huge gulley", which they filled with drums and barrels, covered with trees and stumps, then filled and graded the entire area. She also stated that her family used to go and get empty barrels from this dump to use for burning trash. She does not know what was in the barrels, nor if they were empty or full. She stated that the barrels had a "gunky" substance on them.

The Fairgrounds property has since been sold by the American Legion to the Henderson County Board of Education, and plans are being made to construct a new school on this site. It is possible the area she is talking about is either in the fairgorunds or adjacent to the fairgrounds property. Mrs. Edwards has not seen any trucks from GE on the site since they prepared the property to be sold (approximately 5 years ago). She estimated the dumping went on for 10 years.

MR/screen1.045

November 7, 1989

MEMORANDUM

TO: Grover Nicholson

FR: Martin Richmond

RE: Site Screening, Henderson County

I spoke today with Mrs. Evelyn Nichols about the reports of buried waste in Henderson County. These reports came to this office via letter from Diane Eskanasy, DEM/Asheville. Mrs. Nichols reported hearing of three different burial sites. All these reports are unsubstantiated, and appear to be based on "what she heard".

One site is located at the Old Western NC Fairgrounds in Hendersonville, NC. Mrs. Nichols heard of this site from Mrs. Betty Edwards, who lives next to the fairgrounds and reports seeing trucks from General Electric unloading drums into open ravines at the fairgrounds and burying them. Mrs. Edwards reportedly obtained a drum from GE workers to use for burning materials in her yard. There is no report as to what GE may have been burying at the Fairgrounds. This property has since been bought by the Henderson County School Board and is the future site of new school construction. This property is approximately one mile from the GE Facility. It is assumed that any dumping by GE in this area would be unauthorized.

Another site is located on Tracy Grove Road, next to the Grandview Memorial Gardens. This location is approximately 5 miles from the GE Facility. Mrs. Nichols claims to have heard that Mr. Gene Shepard used to dump waste from the GE plant in a field in this area. She believes an engineer from GE told her about this site.

A third site is reportedly located across the road from the GE Facility, on property owned by Mr. Seldon Clark. She reports that Mr. Clark used to work at GE and allowed the plant to dump waste in a gully along this vacant lot. Any waste disposed of on this lot has since been buried. She did not know what types of waste or how Mr. Clark could be contacted.

MR/screen1.doc

H

State of North Carolina
Department of Environment, Health, and Natural Resources
Asheville Regional Office

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

Ann B. Orr
Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION

November 2, 1989

Mr. Grover Nicholson
Superfund Section
Post Office Box 27687
Raleigh, North Carolina 27611-7687

Dear Mr. Nicholson:

Subject: Reports of Buried Drums
Henderson County, North Carolina

On the morning of October 31, 1989, Mrs. Evelyn Nichols called this office to report that Mrs. Betty Edwards had told her she remembered that trucks from General Electric Company (GE) had, in the past, carried barrels of unknown contents to the old fairgrounds next to the armory in Henderson County, and buried them on that property in large holes. Mrs. Nichols indicated that GE used to have picnics on that property but she did not know if they ever owned the site.

Mrs. Nichols is particularly concerned about the former fairground property as she said the county has purchased it and intends to construct a school there.

While she was giving me this information, she said she also remembered Mr. Gene Shepherd (Shepherd's Garbage Service) carrying trash that may have come from GE and may have included barrels, to an area near Grandview Memorial Gardens in the Tracy Grove Community in Henderson County.

I told Mrs. Nichols that I would contact the appropriate officials to handle this matter, and I am referring it to you. As the information she passed on to me is fairly sketchy, I suggest you contact her for further details. Mrs. Nichols' telephone number is 704-693-3370. Mrs. Edward's telephone number is 704-692-9594. 107 Maple Wood Dr James Street

Thank you for your assistance. If you have any questions, do not hesitate to contact me or Don Link at 704-251-6208.

Sincerely,

Diane Eskenasy

Diane M. A. Eskenasy, P. G.
Hydrogeological Technician

DMAE/gc

cc: Robert Morris
Evelyn Nichols

SITE DISCOVERY FORM

Part I: Information necessary to add a site to CERCLIS

ACTION: A

EPA ID:

SITE NAME: Old Western NC Fairground SOURCE: T (R=EPA, T=STATE)

STREET: Between US 176 & Southern RR CONG DIST: 11 (optional)

CITY: East Flat Rock NC ZIP: 28726

CNTY NAME: Henderson CNTY CODE: 45 (optional)

LATITUDE: 35/17 /07 LONGITUDE: 082 /25 /53 (optional)

INVENTORY IND: Y REMEDIAL IND: Y REMOVAL IND: N FED FAC IND: N

RPM NAME: RPM PHONE: - - (EPA Project Officer)

SITE DESCRIPTION: (optional)

This site is reported to be an old dumping ground for wastes from the General Electric facility in East Flat Rock. The Site is the old western NC Fairgrounds and a potential location for a new school.

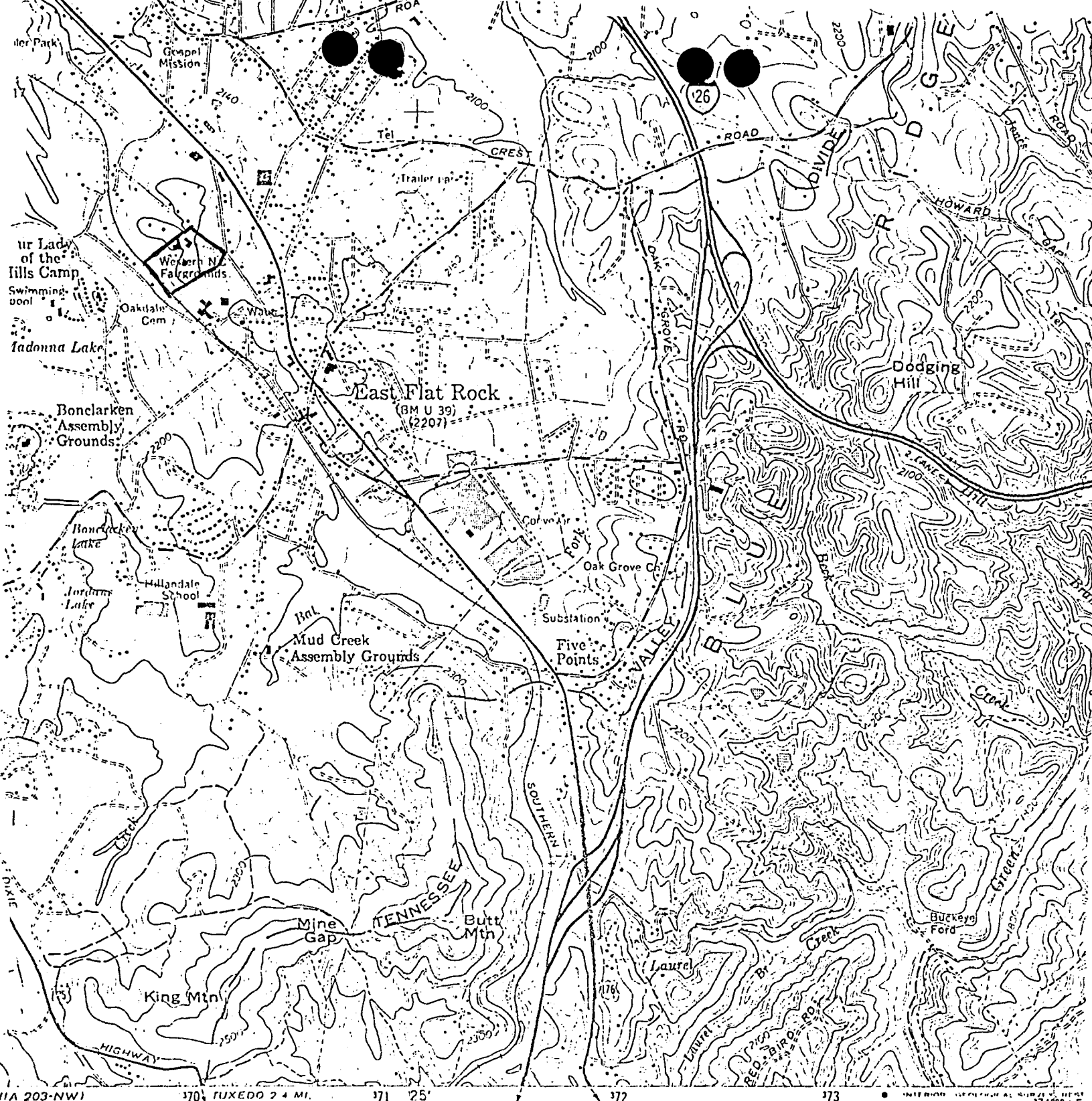
Part 2: Other site information

DATE SITE FIRST

REPORTED: / / REPORTED BY:

REASON FOR LISTING:

The site is reportedly an old dumping and burial area for wastes from the General Electric facility in East Flat Rock.



IIA 203-NW)
4 III NW

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1 MILE
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1 KILOMETER

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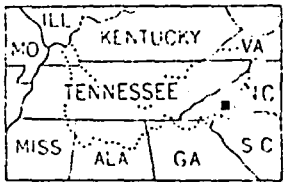
VERTICAL DATUM OF 1929



QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty ..... Poor mot
Medium-duty ..... Wagon an
Light-duty ..... Foot trail
Interstate Route U. S. Rout
In developed areas, only through roads

IONAL MAP ACCURACY STANDARDS
SURVEY, RESTON, VIRGINIA 22092
TTANOOGA, TENN. 37401 OR KNOXVILLE, TENN. 37902
APS AND SYMBOLS IS AVAILABLE ON REQUEST

HENDERSC
N3515—

PHOTOR