725SERBSF10,639

725SERBSF10,639

Site Name (Subject):	VC CHEMICAL
Site ID (Document ID):	NCSFN0406924
Document Name (DocType):	Removal (RMVL)
Report Segment:	
Description:	Immediate Removal, 1999 - 2001
Date of Document:	9/5/2001
Date Received:	9/18/2001
Box: *Enter SF and # with no spaces*	SF10,639
Access Level:	PUBLIC
Division:	WASTE MANAGEMENT
Section:	SUPERFUND
Program (Document Group):	SERB (SERB)
Document Category:	FACILITY

Print Report for Record

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de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
FAX (865) 691-6485
Acct. FAX (865) 691-9835

September 5, 2001

John Nolen, OSC
USEPA, Region IV
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303

Reference: Monthly Progress Report for August 2001
Virginia-Carolina Chemical Company Site
Wadesboro, North Carolina

Dear Mr. Nolen:

Enclosed is the monthly progress report for August 2001 pursuant to the Administrative Order of Consent (AOC) dated December 22, 2000.

If you or your staff have questions concerning this report, please contact Michael Miller at (865) 691-5052.

Sincerely,
de maximis, inc.

John Stiles for MAM
Michael A. Miller
Project Coordinator

MAM:JS:mpl

Enclosure

cc: Geoff Germann, Blasland, Bouck & Lee
Dan LaMontagne, NCDENR
Michael Skinner, Michael Skinner Consulting
John Stiles, *de maximis, inc.*

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Virginia-Carolina Chemical Company Site
Wadesboro, North Carolina

Progress Report

PROJECT NAME: Virginia-Carolina Chemical Company Site
Wadesboro, North Carolina

TIME PERIOD COVERED: August 1–31, 2001

ACTIONS TAKEN TOWARD COMPLIANCE WITH ORDER:

- The Site Characterization Report was previously submitted on July 19, 2001.

ACTION ITEMS FOR FOLLOWING MONTH:

- It is anticipated that the Site Characterization Report will be discussed upon agency review of the report.

ANTICIPATED DELAYS/PROBLEMS:

- None.

RESULTS OF SAMPLING/TESTING/FIELD MEASUREMENTS:

- A summary of the analytical data for the soil, groundwater, and sediment sampling activities for site characterization was included in the July 19, 2001 submittal of the Site Characterization Report.

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
FAX (865) 691-6485
Acct. FAX (865) 691-9835

August 2, 2001

John Nolen, OSC
USEPA, Region IV
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303

Reference: Monthly Progress Report for July 2001
Virginia-Carolina Chemical Company Site
Wadesboro, North Carolina

Dear Mr. Nolen:

Enclosed is the monthly progress report for July 2001 pursuant to the Administrative Order of Consent (AOC) dated December 22, 2000.

If you or your staff have questions concerning this report, please contact Michael Miller at (865) 691-5052.

Sincerely,
de maximis, inc.

Michael A. Miller
Project Coordinator

MAM:JS:mpl

Enclosure

cc: Geoff Germann, Blasland, Bouck & Lee
Dan LaMontagne, NCDENR
Michael Skinner, Michael Skinner Consulting
John Stiles, *de maximis, inc.*

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Virginia-Carolina Chemical Company Site
Wadesboro, North Carolina

Progress Report

PROJECT NAME: Virginia-Carolina Chemical Company Site
Wadesboro, North Carolina

TIME PERIOD COVERED: July 1–31, 2001

ACTIONS TAKEN TOWARD COMPLIANCE WITH ORDER:

- BB&L submitted the Site Characterization Report on July 19, 2001. The report included a discussion of the results of the site sampling activities, a summary of all analytical data, and the well and boring logs.

ACTION ITEMS FOR FOLLOWING MONTH:

- It is anticipated that the Site Characterization Report will be discussed upon agency review of the report.

ANTICIPATED DELAYS/PROBLEMS:

- None.

RESULTS OF SAMPLING/TESTING/FIELD MEASUREMENTS:

- A summary of all the analytical data for the soil, groundwater, and sediment sampling activities for site characterization was included in the July 19, 2001 submittal of the Site Characterization Report.

Can

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Transmitted Via FedEx

July 19, 2001

Mr. John Nolen
On-Scene Coordinator
USEPA Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street SW
Atlanta, GA 30303-8960

Re: Site Characterization Report, Former VCC Site, Wadesboro, North Carolina
BBL Project #: 54626

Dear Mr. Nolen:

On behalf of Exxon Mobil Corporation (ExxonMobil) and de maximis, attached for your review are two copies of the document *Site Characterization Report for the Former Virginia-Carolina Chemical Company Phosphate/Fertilizer Plant, Wadesboro, North Carolina*. This report presents the results of the data collection efforts implemented in accordance with the requirements of the project work plan and presents recommendations for future actions at the Site.

The data collected during the site investigation show that shallow soils, located primarily in the southern portion of the Site, contain elevated concentrations of arsenic and lead. The data also show that groundwater, surface water, and sediment do not contain elevated concentrations of Site-related metals. Therefore, shallow soil containing elevated concentrations of arsenic and lead is the matrix of concern at the site and the groundwater, surface water, and sediments can be eliminated from further investigation.

Upon your review of the attached report, ExxonMobil and de maximis would like to meet with you to discuss the generated data and the course of future actions at this site. To that end, Mr. Michael Miller of de maximis will be contacting you to schedule a meeting, after you have had a chance to review the attached report. In the interim, please contact Mr. Miller at (865) 691-5052 if you have any questions on the attached report.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Geoffrey G. Germann, P.E.
Manager/Senior Engineer I

3700 Regency Parkway • Suite 140 • Cary, NC 27511-8574
Tel (919) 469-1952 • Fax (919) 469-5676 • www.bbl-inc.com • offices nationwide

GGG:gg
Enclosures - 2

cc: 2 – D. LaMontagne, NCDENR ✓
1 – M. Skinner, ExxonMobil
1 – M. Miller, de maximis
1 – J. Stiles, de maximis
1 – A. Hackenburg, BBL

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
FAX (865) 691-6485
Acct. FAX (865) 691-9835

July 9, 2001

John Nolen, OSC
USEPA, Region IV
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303

Reference: Monthly Progress Report for June 2001
Virginia-Carolina Chemical Company Site
Wadesboro, North Carolina

Dear Mr. Nolen:

Enclosed is the monthly progress report for June 2001 pursuant to the Administrative Order of Consent (AOC) dated December 22, 2000,

If you or your staff have questions concerning this report, please contact Michael Miller at (865) 691-5052.

Sincerely,
de maximis, inc.

John Stiles for MAM
Michael A. Miller
Project Coordinator

MAM:JS:mpl

Enclosure

cc: Geoff Germann, Blasland, Bouck & Lee
Dan LaMontagne, NCDENR
Michael Skinner, Michael Skinner Consulting
John Stiles, *de maximis, inc.*

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Virginia-Carolina Chemical Company Site
Wadesboro, North Carolina

Progress Report

PROJECT NAME: Virginia-Carolina Chemical Company Site
Wadesboro, North Carolina

TIME PERIOD COVERED: June 1–30, 2001

ACTIONS TAKEN TOWARD COMPLIANCE WITH ORDER:

- BB&L has completed data validation and compilation of the results. The Site Characterization Report will be forwarded by July 27 and will include all of the analytical data. Analytical data from soil samples at the 4–6 foot depth at locations SB-15, SB-19, and SB-20 indicated no impacted soils at the 4–6 foot depth.

ACTION ITEMS FOR FOLLOWING MONTH:

- The Site Characterization Report will be submitted to the agencies by July 27, ahead of the scheduled submittal date.

ANTICIPATED DELAYS/PROBLEMS:

- None.

RESULTS OF SAMPLING/TESTING/FIELD MEASUREMENTS:

- Sampling results will be forwarded with the Site Characterization Report.

Dan

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
FAX (865) 691-6485
Acct. FAX (865) 691-9835

February 22, 2001

John Nolen, OSC
USEPA, Region IV
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303

Reference: VC Chemical Company Site
Wadesboro, North Carolina
Progress Report

Dear Mr. Nolen:

Pursuant to the Administrative Order of Consent (AOC) dated December 22, 2000, enclosed is one (1) copy of the progress report through February 16, 2001.

If you or your staff have questions concerning this report, please contact Michael Miller at (865) 691-5052.

Sincerely,
de maximis, inc.

John P. Stiles for MAM
Michael A. Miller
Project Coordinator

MAM:JS:mpl

Enclosure

cc: Geoff Germann, Blasland, Bouck & Lee
Dan LaMontagne, NC DENR
Michael Skinner, ExxonMobil
John Stiles, *de maximis, inc.*

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VC Chemical Company Site
Wadesboro, North Carolina

PROGRESS REPORT

PROJECT NAME: Virginia-Carolina Chemical Company Site
Wadesboro, North Carolina

TIME PERIOD COVERED: January 29 through February 16, 2001

ACTIONS TAKEN TOWARD COMPLIANCE WITH ORDER :

- The Respondent submitted on February 9, 2001 a draft Site Characterization Work Plan regarding preliminary site investigation work.

- Contractor completed demolition of remaining concrete structure from fertilizer production facilities on February 2, 2001. The demolition piles were segregated into metal debris and brick and concrete debris. Contractor continued to segregate brick and concrete debris for off-site disposal as characteristically nonhazardous materials. Contractor has completed demolition of the various site concrete and brick buildings. The old trailer and car abandoned by Carl Weston have also been demolished and removed.

- Contractor placed additional gravel in the area around the concrete acid chamber structure to prevent and minimize disturbance of site surface soils.

- There was a delay in off-site shipment of the characteristically nonhazardous brick and concrete debris from the site demolition work. The local Anson County/Allied Waste Industries/BFI subtitle D landfill is relatively new and had not obtained previous approvals from EPA to receive nonhazardous materials from a CERCLA site. These approvals have now been obtained and off-site shipment of the brick and concrete debris will begin the week of February 19, 2001.

- Contractor completed backfilling the site reservoir area with clean brick from demolition and off-site clean soils. The reservoir area is now level.

- Contractor completed installation of the 6-foot chain link fence around the entire boundary of the Weston property on February 5, 2001 to secure the site. Warning signs have been posted along the fence and a larger sign has been posted at the gate describing the site and EPA personnel (John Nolen) to contact in case of questions.

- Contractor completed a resurvey of the site on February 16, 2001 to establish security fence location and other points of interest for site plans.

ACTION ITEMS FOR FOLLOWING MONTH :

- Complete off-site disposal of clean brick and concrete demolition debris the week of February 19, 2001.
- Finalize off-site disposal issue regarding capacitors (containing PCBs) from Carl Weston's electric furnace.

ANTICIPATED DELAYS/PROBLEMS

- None.

RESULTS OF SAMPLING/TESTING/FIELD MEASUREMENTS

- None.

de maximis, inc.

450 Montbrook Lane
Knoxville, TN 37919
(865) 691-5052
FAX (865) 691-6485
Acct. FAX (865) 691-9835

January 29, 2001

John Nolen, OSC
USEPA, Region IV
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303

Reference: VC Chemical Company Site
Wadesboro, North Carolina
Progress Report

Dear Mr. Nolen:

Pursuant to the Administrative Order of Consent (AOC) dated December 22, 2000, enclosed is one (1) copy of the progress report through January 28, 2001.

If you or your staff have questions concerning this report, please contact me or Michael Miller at (865) 691-5052.

Sincerely,
de maximis, inc.

Michael A. Miller
Project Coordinator

JS/mw

Enclosure

cc: Geoff Germann, Blasland, Bouck & Lee
Dan LaMontagne, NC DENR
John Stiles, *de maximis, inc.*
Michael Skinner, ExxonMobil

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VC Chemical Company Site
Wadesboro, North Carolina

PROGRESS REPORT

PROJECT NAME: VC Chemical Company Site
Wadesboro, North Carolina

TIME PERIOD COVERED: January 15 through January 28, 2001

ACTIONS TAKEN TOWARD COMPLIANCE WITH ORDER :

- The Respondent submitted work plan for phase I activities associated with site survey, site security and demolition of site structures. The work plan for phase I activities was approved by the EPA.
- The Respondent submitted the site Health and Safety Plan (HASP) associated with phase I and II work activities. The HASP was approved by the EPA.
- Completed survey of Carl Weston's property on January 2, 2001. The site survey figure is attached.
- Contractor for phase I security and demolition work mobilized to the site on January 15, 2001 and began site clearing for installation of six (6) foot chain link fence around the site.
- Representatives of USEPA, NCDENR, and the Respondent met at the site on January 17, 2001. The installation of the site security fence was discussed in walking the site property boundaries. The preliminary site investigation work was discussed relative to the preparation of the phase II work plan to evaluate the nature and extent of soil and groundwater contamination.
- Completed the placement of gravel and stone along the dirt entrance road to the site on January 18, 2001. The gravel road will allow for entrance of trucks for offsite removal of building demolition materials and minimize cross contamination from site soils along the entrance road.
- Site contractor sampled the brick material and concrete material from the site structures for characterization of these materials for offsite disposal.
- Met with Landon Scarborough and obtained permission to cross his property to gain access to the site.
- Discussed immediate phase I site work activities with Chris Wease, Anson county manager and Ellen Huntley, Wadesboro town manager.
- Site contractor completed installation of fence posts around the southern, eastern and northern perimeter of Weston's property.

- Contractor demolished the elevated steel tank. The tank was found to contain clean sand for making the sand casting molds found in the brick building. The inside of the steel tank was very clean and did not have any other materials, residues or films.

- Contractor completed the demolition and sorting of brick and metals from the demolition of site brick buildings. Some of the clean metal debris has been shipped offsite as non-hazardous materials to the local BFI Subtitle D landfill.

- Drained site reservoir of rainwater and began backfilling the reservoir with the clean brick from the building demolition. The reservoir will be filled with clean offsite soils as needed and the area leveled. The reservoir did not contain any drums or other waste. The reservoir had a concrete bottom.

- It was found that there were 14 large capacitors, labeled as containing PCBs, in the electrical cabinet for the electric furnace used by Carl Weston. The capacitors were about 3 by 9 by 12 inch, self sealed units, and the capacitors could not be drained.

ACTION ITEMS FOR FOLLOWING MONTH :

- Complete installation of site security fence the week of February 5, 2001.

- Begin demolition of remaining concrete structure from fertilizer production facilities.

- Continue to backfill and level the reservoir area with clean debris materials (brick) and offsite clean soil as required.

- Determine appropriate disposal and disposal site for the capacitors containing PCB materials.

ANTICIPATED DELAYS/PROBLEMS

- None.

RESULTS OF SAMPLING / TESTING / FIELD MEASUREMENTS

- See attached for the analytical data results of the TCLP analysis of composite sample from the brick in the site buildings and the acid chamber concrete material.

LINE	BEARING	DISTANCE
1	N 06°55'32"W	91.14
2	N 68°[illegible]0"E	25.36
3	N 68°[illegible]7"E	99.84
4	S 21°02'08"E	254.70
5	N 48°08'49"E	108.33
6	S 46°27'43"W	49.96
7	S 32°52'20"W	90.77

MAGNETIC 1985

BOUNDARY SURVEY FOR

CARL WESTON

WADESBORO TWP. [illegible]SON CO N.C.
SCALE 1" = 200' JANUARY 2ND, 2001

JAMES R. HARRINGTON & ASSOCIATES
JAMES RICHARD HARRINGTON NCRLS L-2511, SCRLS 10037
P.O. BOX 362, WADESBORO, N.C. 28170
VOICE (704) 694-3116 FAX (704) 694-7823

DRAWING # 00313 | DRAWN BY: JRH

200 100 0 200

SCALE IN FEET

CSX RAILROAD
200' R/W

IRS — N 87°54'52"E 748.00 — IRS
CONCRETE FENCE POST ON LINE

IRS — L1 — IRS

IRS — S 39°37'01"W 240.00 — IRS

IRS — TEAL HEIRS — 412.39 — S 09°40'13"E — IRF

SCARBOROUGH 219/190 — 686.07 — N 13°55'32"W (CHORD)

10.42 ACRES

IRF — L3 — IRF — L2 — IRF

IRF — 217.17 — S 20°55'32"E — IRS

CONCRETE FENCE POSTS ON LINE — S 46°04'11"W 569.41

KNOTTS 337/258

WALL 354/276

WALL 337/263

TYSON 396/38

IRS — L4 — IRF — L5 — IRF

S 20°55'32"E (TIE LINE) 889.94

S 17°06'44"E (TIE LINE) 693.52

NAIL FOUND C/L

C/L EXIST. TRACTS — L6 — L7 — M.H.

STANBACK FERRY ROAD 60' R/W

I, JAMES RICHARD HARRINGTON, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL FIELD SURVEY CONDUCTED UNDER MY SUPERVISION AND THE RATIO OF PRECISION, BEFORE ADJUSTMENT, IS 1:10,000+.

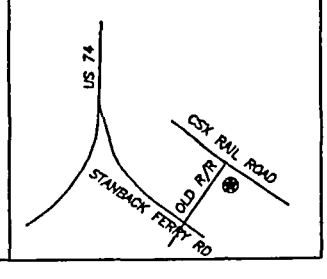
SEAL

JAMES RICHARD HARRINGTON, NCRLS 2511

NOTES...
1. THIS MAP NOT FOR RECORDATION.
2. IF THIS MAP DOES NOT HAVE AN ORIGINAL SIGNATURE AND SEAL, IT IS NOT VALID.
3. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES.
4. EASEMENTS AND RIGHT-OF-WAYS NOT SURVEYED, UNLESS NOTED OTHERWISE.
5. UNDERGROUND UTILITIES, TANKS, AND OR LINES NOT SURVEYED UNLESS NOTED OTHERWISE.
6. THIS MAP IS FOR THE EXCLUSIVE USE OF THE ORIGINAL PURCHASER OF THIS SURVEY AND IS NOT TRANSFERABLE TO SUBSEQUENT OWNERS OR ADDITIONAL INSTITUTIONS.
7. AREA COMPUTED BY COORDINATE METHOD.
8. NO NCGS MONUMENT FOUND WITHIN 2000'.
9. SEE DEED BOOK 202 PAGE 153.

LEGEND...
C/L = CENTERLINE
R/W = RIGHT-OF-WAY
SR = STATE ROAD
N/F = NOW OR FORMERLY
IRS = IRON ROD SET
IRF = IRON ROD FOUND
IPF= IRON PIPE FOUND
D.B. = DEED BOOK
P.B. = PLAT BOOK
PG. = PAGE
NSCL = NAIL SET IN C/L
NFCL = NAIL FOUND IN C/L
OUL = OVERHEAD UTILITY LINE
M.H. = MAN HOLE

LOCATION MAP
NOT TO SCALE



SEVERN TRENT SERVICES

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921-5947

Tel: 865-291-3000
Fax: 865-584-4315
www.stl-inc.com

ANALYTICAL REPORT

Monroe, North Carolina

Lot #: H1A180119

Mark Kaye

SEC Business Center
2800 Solway Road
Knoxville, TN 37931

SEVERN TRENT LABORATORIES, INC.

Jamie A. McKinney
Project Manager

January 23, 2001

SAMPLE SUMMARY

H1A180119

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DTR0L	001	1321-001	01/16/01	14:30
DTR0N	002	1321-002	01/16/01	14:35
DTR0Q	003	1321-003	01/16/01	14:40
DTR0T	004	1321-004	01/16/01	14:45
DTR0V	005	1321-005	01/16/01	14:55

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot test, solids, solubility, temperature, viscosity, and weight.

ANALYTICAL METHODS SUMMARY

H1A180119

PARAMETER	ANALYTICAL METHOD
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

PROJECT NARRATIVE
H1A180119

The results reported herein are applicable to the samples submitted for analysis only.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control

All holding times and QC criteria were met.

Comments

The serial dilution of sample 1321-003 was outside control limits for Barium due to physical or chemical matrix interferences.

The results for Arsenic, Cadmium and Chromium in sample 1321-001 were reported from a 1:2 dilution due to interfereces from saturated Calcium in the undiluted sample.

SAFETY & ECOLOGY CORPORATION

Client Sample ID: 1321-001

TCLP Metals

Lot-Sample #...: H1A180119-001 **Matrix.....:** SOLID
Date Sampled...: 01/16/01 **Date Received..:** 01/18/01
Leach Date.....: 01/18/01 **Leach Batch #..:** P101802

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1021092						
Arsenic	ND	1.0	mg/L	SW846 6010B	01/21-01/22/01	DTR0L1AA
		Dilution Factor: 2		Analysis Time..: 14:10		
Barium	ND	10.0	mg/L	SW846 6010B	01/21-01/22/01	DTR0L1AC
		Dilution Factor: 1		Analysis Time..: 13:24		
Cadmium	ND	0.20	mg/L	SW846 6010B	01/21-01/22/01	DTR0L1AD
		Dilution Factor: 2		Analysis Time..: 14:10		
Chromium	ND	1.0	mg/L	SW846 6010B	01/21-01/22/01	DTR0L1AE
		Dilution Factor: 2		Analysis Time..: 14:10		
Lead	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0L1AF
		Dilution Factor: 1		Analysis Time..: 13:24		
Selenium	ND	0.25	mg/L	SW846 6010B	01/21-01/22/01	DTR0L1AG
		Dilution Factor: 1		Analysis Time..: 13:24		
Silver	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0L1AH
		Dilution Factor: 1		Analysis Time..: 13:24		
Prep Batch #...: 1021113						
Mercury	ND	0.0020	mg/L	SW846 7470A	01/22-01/23/01	DTR0L1AJ
		Dilution Factor: 1		Analysis Time..: 08:56		

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

SAFETY & ECOLOGY CORPORATION

Client Sample ID: 1321-002

TCLP Metals

Lot-Sample #...: H1A180119-002 **Matrix.....: SOLID**
Date Sampled...: 01/16/01 **Date Received..: 01/18/01**
Leach Date.....: 01/18/01 **Leach Batch #..: P101802**

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1021092						
Arsenic	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0N1AA
		Dilution Factor: 1		Analysis Time..: 13:29		
Barium	ND	10.0	mg/L	SW846 6010B	01/21-01/22/01	DTR0N1AC
		Dilution Factor: 1		Analysis Time..: 13:29		
Cadmium	ND	0.10	mg/L	SW846 6010B	01/21-01/22/01	DTR0N1AD
		Dilution Factor: 1		Analysis Time..: 13:29		
Chromium	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0N1AE
		Dilution Factor: 1		Analysis Time..: 13:29		
Lead	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0N1AF
		Dilution Factor: 1		Analysis Time..: 13:29		
Selenium	ND	0.25	mg/L	SW846 6010B	01/21-01/22/01	DTR0N1AG
		Dilution Factor: 1		Analysis Time..: 13:29		
Silver	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0N1AH
		Dilution Factor: 1		Analysis Time..: 13:29		
Prep Batch #...: 1021113						
Mercury	ND	0.0020	mg/L	SW846 7470A	01/22-01/23/01	DTR0N1AJ
		Dilution Factor: 1		Analysis Time..: 09:03		

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

SAFETY & ECOLOGY CORPORATION

Client Sample ID: 1321-003

TCLP Metals

Lot-Sample #...: H1A180119-003 **Matrix.....: SOLID**
Date Sampled...: 01/16/01 **Date Received..: 01/18/01**
Leach Date.....: 01/18/01 **Leach Batch #..: P101802**

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1021092						
Arsenic	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0Q1AA
		Dilution Factor: 1		Analysis Time..: 13:33		
Barium	ND	10.0	mg/L	SW846 6010B	01/21-01/22/01	DTR0Q1AC
		Dilution Factor: 1		Analysis Time..: 13:33		
Cadmium	ND	0.10	mg/L	SW846 6010B	01/21-01/22/01	DTR0Q1AD
		Dilution Factor: 1		Analysis Time..: 13:33		
Chromium	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0Q1AE
		Dilution Factor: 1		Analysis Time..: 13:33		
Lead	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0Q1AF
		Dilution Factor: 1		Analysis Time..: 13:33		
Selenium	ND	0.25	mg/L	SW846 6010B	01/21-01/22/01	DTR0Q1AG
		Dilution Factor: 1		Analysis Time..: 13:33		
Silver	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0Q1AH
		Dilution Factor: 1		Analysis Time..: 13:33		
Prep Batch #...: 1021113						
Mercury	ND	0.0020	mg/L	SW846 7470A	01/22-01/23/01	DTR0Q1AJ
		Dilution Factor: 1		Analysis Time..: 09:05		

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

SAFETY & ECOLOGY CORPORATION

Client Sample ID: 1321-004

TCLP Metals

Lot-Sample #...: H1A180119-004 Matrix.....: SOLID
Date Sampled...: 01/16/01 Date Received..: 01/18/01
Leach Date.....: 01/18/01 Leach Batch #..: P101802

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1021092						
Arsenic	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0T1AA
		Dilution Factor: 1		Analysis Time..: 13:51		
Barium	ND	10.0	mg/L	SW846 6010B	01/21-01/22/01	DTR0T1AC
		Dilution Factor: 1		Analysis Time..: 13:51		
Cadmium	ND	0.10	mg/L	SW846 6010B	01/21-01/22/01	DTR0T1AD
		Dilution Factor: 1		Analysis Time..: 13:51		
Chromium	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0T1AE
		Dilution Factor: 1		Analysis Time..: 13:51		
Lead	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0T1AF
		Dilution Factor: 1		Analysis Time..: 13:51		
Selenium	ND	0.25	mg/L	SW846 6010B	01/21-01/22/01	DTR0T1AG
		Dilution Factor: 1		Analysis Time..: 13:51		
Silver	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0T1AH
		Dilution Factor: 1		Analysis Time..: 13:51		
Prep Batch #...: 1021113						
Mercury	ND	0.0020	mg/L	SW846 7470A	01/22-01/23/01	DTR0T1AJ
		Dilution Factor: 1		Analysis Time..: 09:07		

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

SAFETY & ECOLOGY CORPORATION

Client Sample ID: 1321-005

TCLP Metals

Lot-Sample #...: H1A180119-005 Matrix.....: SOLID
Date Sampled...: 01/16/01 Date Received..: 01/18/01
Leach Date.....: 01/18/01 Leach Batch #..: P101802

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1021092						
Arsenic	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0V1AA
		Dilution Factor: 1		Analysis Time..: 13:55		
Barium	ND	10.0	mg/L	SW846 6010B	01/21-01/22/01	DTR0V1AC
		Dilution Factor: 1		Analysis Time..: 13:55		
Cadmium	ND	0.10	mg/L	SW846 6010B	01/21-01/22/01	DTR0V1AD
		Dilution Factor: 1		Analysis Time..: 13:55		
Chromium	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0V1AE
		Dilution Factor: 1		Analysis Time..: 13:55		
Lead	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0V1AF
		Dilution Factor: 1		Analysis Time..: 13:55		
Selenium	ND	0.25	mg/L	SW846 6010B	01/21-01/22/01	DTR0V1AG
		Dilution Factor: 1		Analysis Time..: 13:55		
Silver	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR0V1AH
		Dilution Factor: 1		Analysis Time..: 13:55		
Prep Batch #...: 1021113						
Mercury	ND	0.0020	mg/L	SW846 7470A	01/22-01/23/01	DTR0V1AJ
		Dilution Factor: 1		Analysis Time..: 09:10		

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

METHOD BLANK REPORT

TCLP Metals

Client Lot #...: H1A180119 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: H1A180000-198 **Prep Batch #...:** 1021092						
Leach Date.....: 01/18/01 **Leach Batch #..:** P101802						
Arsenic	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR5A1AA
		Dilution Factor: 1				
		Analysis Time..: 13:15				
Barium	ND	10.0	mg/L	SW846 6010B	01/21-01/22/01	DTR5A1AC
		Dilution Factor: 1				
		Analysis Time..: 13:15				
Cadmium	ND	0.10	mg/L	SW846 6010B	01/21-01/22/01	DTR5A1AD
		Dilution Factor: 1				
		Analysis Time..: 13:15				
Chromium	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR5A1AE
		Dilution Factor: 1				
		Analysis Time..: 13:15				
Lead	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR5A1AF
		Dilution Factor: 1				
		Analysis Time..: 13:15				
Selenium	ND	0.25	mg/L	SW846 6010B	01/21-01/22/01	DTR5A1AG
		Dilution Factor: 1				
		Analysis Time..: 13:15				
Silver	ND	0.50	mg/L	SW846 6010B	01/21-01/22/01	DTR5A1AH
		Dilution Factor: 1				
		Analysis Time..: 13:15				
MB Lot-Sample #: H1A180000-198 **Prep Batch #...:** 1021113						
Leach Date.....: 01/18/01 **Leach Batch #..:** P101802						
Mercury	ND	0.0020	mg/L	SW846 7470A	01/22-01/23/01	DTR5A1AJ
		Dilution Factor: 1				
		Analysis Time..: 08:51				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TCLP Metals

Client Lot #...: H1A180119 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H1A210000-092 **Prep Batch #...:** 1021092							
Arsenic	5.00	5.06	mg/L	101	SW846 6010B	01/21-01/22/01	DTXV71AA
			Dilution Factor: 1				
			Analysis Time..: 13:19				
Barium	50.0	48.7	mg/L	97	SW846 6010B	01/21-01/22/01	DTXV71AC
			Dilution Factor: 1				
			Analysis Time..: 13:19				
Cadmium	1.00	0.984	mg/L	98	SW846 6010B	01/21-01/22/01	DTXV71AD
			Dilution Factor: 1				
			Analysis Time..: 13:19				
Chromium	5.00	4.91	mg/L	98	SW846 6010B	01/21-01/22/01	DTXV71AE
			Dilution Factor: 1				
			Analysis Time..: 13:19				
Lead	5.00	4.85	mg/L	97	SW846 6010B	01/21-01/22/01	DTXV71AF
			Dilution Factor: 1				
			Analysis Time..: 13:19				
Selenium	1.00	1.08	mg/L	108	SW846 6010B	01/21-01/22/01	DTXV71AG
			Dilution Factor: 1				
			Analysis Time..: 13:19				
Silver	1.00	0.984	mg/L	98	SW846 6010B	01/21-01/22/01	DTXV71AH
			Dilution Factor: 1				
			Analysis Time..: 13:19				
LCS Lot-Sample#: H1A210000-113 **Prep Batch #...:** 1021113							
Mercury	0.00500	0.00477	mg/L	95	SW846 7470A	01/22-01/23/01	DTXW21AA
			Dilution Factor: 1				
			Analysis Time..: 08:54				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TCLP Metals

Client Lot #...: H1A180119 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H1A210000-092 **Prep Batch #...:** 1021092					
Arsenic	101	(80 - 120)	SW846 6010B Dilution Factor: 1 Analysis Time..: 13:19	01/21-01/22/01	DTXV71AA
Barium	97	(80 - 120)	SW846 6010B Dilution Factor: 1 Analysis Time..: 13:19	01/21-01/22/01	DTXV71AC
Cadmium	98	(80 - 120)	SW846 6010B Dilution Factor: 1 Analysis Time..: 13:19	01/21-01/22/01	DTXV71AD
Chromium	98	(80 - 120)	SW846 6010B Dilution Factor: 1 Analysis Time..: 13:19	01/21-01/22/01	DTXV71AE
Lead	97	(80 - 120)	SW846 6010B Dilution Factor: 1 Analysis Time..: 13:19	01/21-01/22/01	DTXV71AF
Selenium	108	(80 - 120)	SW846 6010B Dilution Factor: 1 Analysis Time..: 13:19	01/21-01/22/01	DTXV71AG
Silver	98	(80 - 120)	SW846 6010B Dilution Factor: 1 Analysis Time..: 13:19	01/21-01/22/01	DTXV71AH
LCS Lot-Sample#: H1A210000-113 **Prep Batch #...:** 1021113					
Mercury	95	(80 - 120)	SW846 7470A Dilution Factor: 1 Analysis Time..: 08:54	01/22-01/23/01	DTXW21AA

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921-5947
Phone: (865) 291-3000
Fax: (865) 584-4315

HIA180119

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 7008
Page 1 of 1

Project Name/No.[1] dc maximus #1321
Sample Team Members[2] Aikins
Profit Center No.[3]
Project Manager[4] Kaye
Purchase Order No.[6]
Required Report Date[11] ASAP

Samples Shipment Date[7] 1-16-01
Lab Destination[8] STL Knoxville
Lab Contact[9]
Project Contact/Phone[12] Kaye 690-0501
Carrier/Waybill No.[13] Aikin 865-548-9805 FedEx 825127994356

Bill to:[5] Safety + Ecology Corp
2800 Solway Rd
Knoxville, TN 37931

Report to:[10] Same as above
Attn: Mark Kaye

ONE CONTAINER PER LINE

Sample Number[14]	Sample Description/Type[15]	Date/Time Collected[16]	Container Type[17]	Sample Volume[18]	Preservative[19]	Requested Testing Program[20]	Condition on Receipt[21]	Disposal Record No.[22]
1321-001	Concrete	1-16-01 1430	250 ml Glass	150ml	None	TCLP - Metals		
1321-002	Concrete	1-16-01 1435	250 ml Glass	150ml	None	TCLP - Metals		
1321-003	Concrete	1-16-01 1440	250 ml Glass	150ml	None	TCLP - Metals		
1321-004	Brick	1-16-01 1445	250 ml Glass	150ml	None	TCLP - Metals	Read temp. Ambient	
1321-005	Brick/Concrete	1-16-01 1455	250 ml Glass	150ml	None	TCLP - Metals	Custody Seals intact	
							DF 1-16-01	

Special Instructions:[23]

Possible Hazard Identification:[24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal:[25]
Return to Client ☒ Disposal by Lab ☒ Archive (mos.)

Turnaround Time Required:[26]
Normal ☐ Rush ☒

QC Level:[27]
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by[28] (Signature/Affiliation) WEAir SEC	Date: 1/16/01 Time: 1800 1/17/01	1. Received by[28] (Signature/Affiliation) David D. Flores	Date: 1-18-01 Time: 0840
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments:[29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

SAFETY AND ECOLOGY CORPORATION
SEC BUSINESS CENTER
2800 Solway Road
Knoxville, TN 37931
(865) 690-0501 Business
(865) 539-9868 Fax

To: Mike Miller From: Mark Kaye

Company: de Maximus Date: 1-25-1

Department: _____ Time: _____

Fax: 691-6485 # of Pages: 16 (including cover sheet)

Mike,

ATTACHED IS THE PACKAGE SUBMITTED TO THE DISPOSAL facility.

Mak

Ken Mallary

01/26/2001 11:00 AM

To: Dan.LaMontagne@ncmail.net, jeanette.stanley@ncmail.net

cc: Philip Vorsatz/R4/USEPA/US@EPA, Ken Mallary/R4/USEPA/US@EPA

Subject: Update on VC Chemical Initiative

As you probably already know, Mobil-Exxon submitted the "Site Universe Report" to EPA recently, which includes a table showing an inventory of the former VC Chemical sites in Region 4 they came up with. I will FEDEX a copy of this Site Universe Report to you today.

EPA's project team met yesterday. Here's a summary of what we discussed. Between now and February 16, 2001, team members from each section agreed to refine the Mobil-Exxon's inventory of sites. The objective of the "refinement process" to locate all sites, determine CERCLIS status if any, conduct file review if necessary, contact States for information, and make recommendations for each. Once the "refinement" document has been reviewed internally and mailed out to Mobil-Exxon, we plan to meet with Mobil-Exxon in early March to discuss the site inventory and begin prioritizing the work. Obviously, if we determine other potential VC Chemical sites not included in their inventory, we need to identify those.

To my knowledge, of the 13 sites identified in NC, we already know about the sites in Durham, Selma, Wadesboro, and the two in Wilmington. The two remaining sites on their inventory with acid chambers were located in Charlotte and Winston-Salem. The inventory shows the remaining sites were located in Greenville, New Bern, Raleigh, Salisbury, Washington, and Whiteville, and were mixing plants during specific time periods. We need to determine if these sites had acid chambers prior to or after the time periods shown on the inventory (e.g., prior to 1926 or after 1942 for the Washington, NC site).

I've been tasked by the team to complete this "refinement process" in the next three weeks for the NC sites, including contacting you'all to determine what information you may have regarding these sites. NOTE - I'm not sure the our Cooperative Agreement includes hours for this effort, so before you spend time on this effort, Dan - please contact Phil to discuss. Talk with you soon.

Craig Zeller

01/25/2001 04:19 PM

To: Kevin Beswick/R4/USEPA/US@EPA, Jennifer Lewis/R4/USEPA/US@EPA, Loften Carr/R4/USEPA/US@EPA, Ken Mallary/R4/USEPA/US@EPA, John Nolen/R4/USEPA/US@EPA, Maher Budeir/R4/USEPA/US@EPA

cc: Philip Vorsatz/R4/USEPA/US@EPA, Michael Norman/R4/USEPA/US@EPA, Mario Villamarzo/R4/USEPA/US@EPA, Harold Taylor/R4/USEPA/US@EPA, Joanne Benante/R4/USEPA/US@EPA, Craig Zeller/R4/USEPA/US@EPA

Subject: Summary of 1/25 VCC Mtg.

To All:

Just a quick note to summarize what we discussed today.

The inventory list will be refined to eliminate those sites, where warranted, from further consideration under this initiative. 40 site summaries will be prepared using the following general format:

I. Site Name & Location: Utilize Sanborn Maps, discussions with States (see below), or other practical means.

II. CERCLIS Status: Try to identify site name (or alias) and determine CERCLIS history. If not listed on CERCLIS, just state so.

III. Summary of File Review: Provide brief description of site history, operational status, contaminants present, past investigation/cleanup actions, etc.

IV. Summary of State Involvement: Work with appropriate State contacts to gather any relevant information. List point of contacts for future efforts.

V. Recommendation: Provide your best proposal.

Ken Mallary will work on the 13 NC Sites. Loften will address KY (1), TN (2), and work on the AL/GA/MS sites. Maher Budeir will address Florida (2). Craig Z. will take care of SC (4), and work with Loften on AL/GA/MS. Mario V. will also assist Craig/Loften and secure assistance from his State counterparts. John N., Kevin B., and Jennifer L., if you have time and are interested in helping with this initial research step, just let me know and we'll give you some sites.

Once the 40 summaries are completed, I will compile into an general report and route internally for review/comment/concurrence, before I send to ExxonMobil for review. Possibly shoot for a meeting with ExxonMobil in March. Looks like we're off to a good start. Try to get your summaries to me by 02/16/01. Thanks for your participation and efforts!

Craig Zeller

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

January 23, 2001

4WD-NSMB

MEMORANDUM

SUBJECT: Transmittal of Initial "Site Universe Report", Former Virginia-Carolina Chemical Corporation Phosphate/Fertilizer Manufacturing Facilities in Region 4.

TO: Richard D. Green, Director
Waste Management Division

Russ Wright, Acting Director
Waste Management Division

Robert Jourdan, Chief
North Site Management Branch

Jesse Baskerville, Chief
South Site Management Branch

Myron D. Lair, Chief
Emergency Response and Removal Branch

FROM: Craig Zeller, P.E.
Remedial Project Manager

This memorandum is written to formally transmit the initial inventory report that was prepared by ExxonMobil regarding the former Virginia-Carolina Chemical (VCC) Corporation facilities in EPA-Region 4.

As you recall, a project team was established during the last quarter of Fiscal Year 2000 to develop a proactive strategy to inventory, prioritize, and implement adequately protective response actions at former VCC facilities located in Region 4. Based upon input from involved Superfund programs, this process was divided into two distinct phases. Phase I involved developing a inventory of former VCC facilities (i.e. defining the potential "site universe") and establishment of initial site prioritization. Phase II was intended to focus on site characterization and cleanup activities via the development of adequately protective site management strategies. For you convenience, I have also enclosed copies of relevant background correspondence.

With the submittal of the enclosed report, ExxonMobil has fulfilled their initial obligations of this voluntary agreement. Recent work conducted by ExxonMobil and their designated representatives at the established pilot projects in Charleston, South Carolina (3 EE/CA Starts) and Wadesboro, North Carolina (Time Critical Removal Action) indicate that ExxonMobil is committed to this settlement framework. I would like to organize an internal meeting among all involved programs to discuss the next steps forward in this process. I propose a meeting on Thursday, January 25, 2001 or during the week of January 29-February 2, 2001. Please notify me of your interest and/or availability in participating in such a meeting and I will coordinate the logistics. Thank you for your time and interest in this matter.

Enclosures:
1 - January 18, 2001 VCC Inventory Report
2 - August 17, 2000 Letter from Michael Skinner (ExxonMobil) to Craig Zeller
3 - August 22, 2000 Internal EPA-Region 4 Memorandum
4 - September 11, 2000 Letter from Craig Zeller to Michael Skinner (ExxonMobil)

cc. Don Rigger
Mike Norman
Phil Vorsatz
Harold Taylor
Joanne Benante
Mario Villamarzo
Jim McGuire
Ken Mallary
John Nolen
Loften Carr
Rick Leahy
Kevin Beswick
Jennifer Lewis

ExxonMobil
Refining and Supply Company
Environmental Remediation
600 Billingsport Road
Paulsboro, New Jersey 08066-0310

ExxonMobil
Refining & Supply

January 18, 2001

Craig Zeller
United States Environmental Protection Agency
Sam Nunn Federal Center
61 Forsyth St, SW
Atlanta, GA 30303

Dear Craig:

My letter to you dated August 17, 2000 set forth ExxonMobil's proposal for a global project with respect to the Virginia-Carolina Chemical Company's (VCC) operations. One of the primary components of the proposal was a commitment by ExxonMobil to engage a consultant to prepare an investigative report on the historic locations and types of operations by VCC in Region IV.

I am pleased to report that the investigative report has been completed by Online Security, and a copy is enclosed with this letter. This report should form the basis of further discussions between EPA and ExxonMobil for the prioritization of additional VCC sites for future analysis, as necessary. As I mentioned the other day, ExxonMobil believes one site in particular (Nichols, FL) should not be included in the global VCC project. This is based on our understanding that the Florida Department of Environmental Protection is actively overseeing all environmental and health related issues at the facility and that the current owner/operators have the financial viability to perform remediation actions as required.

As EPA and ExxonMobil continue their cooperative efforts to pursue additional response actions for the VCC sites, these efforts will be conducted under mutually agreed AOCs. ExxonMobil's willingness to pursue such AOCs and the submission of the enclosed investigative report shall not be construed as or constitute admission of liability under any applicable law for any response costs, damages, penalties, or claims caused by or arising out of conditions at or from any such VCC sites. ExxonMobil reserves all of its rights to assert all defenses regarding any claims of liability at any such VCC sites.

I look forward to working with you further to analyze the results of the investigative report and develop the next action steps for the global VCC project.

Sincerely,

Michael J. Skinner
Superfund Response Consultant

Cc: Shelby Moore, Esq.
011801~VCC Investigative rpt.doc

Michael J. Skinner
Superfund Response Consultant
Ofc 856/224-4659
Fax: 856/429-3479
michael_j_skinner@email.mobil.com

Confidential

January 16, 2001

Michael J. Skinner
Exxon Mobil Corporation
P.O. Box 310
600 Billingsport Road
Paulsboro, NJ 08066

Re: Virginia-Carolina Chemical: USEPA Region IV Facilities

Dear Michael:

As part of ExxonMobil's Virginia Carolina Chemical project with Region IV of the United States Environmental Protection Agency ("USEPA"), you asked us on behalf of ExxonMobil to conduct an investigation to determine the location of all historical fertilizer facilities operated by Virginia Carolina Chemical Company (also known as V-C Corporation in its later years, and collectively referred to herein as "VCC") located in USEPA Region IV.

Within Region IV, we conducted an investigation to determine:

- the physical location and nature of historical operations of VCC's fertilizer plants and facilities which were in operation between 1926 (after the bankruptcy reorganization of VCC); and the subsequent merger with Socony Mobil in November 1963; and

- the subsequent (post Socony Mobil ownership) owners/operators of those facilities.

The focus of our investigation was on those facilities located in USEPA Region IV, including Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

The investigation covered the time period from 1926, which was the year VCC emerged from bankruptcy reorganization, to 1970, which is the year after Socony Mobil sold its operating fertilizer facilities to Swift.

OVERVIEW

As discussed below, we developed information from numerous sources pertaining to historical fertilizer plants and facilities owned or operated by VCC

in USEPA Region IV. We focused on identifying VCC facilities that operated after 1926, and for each facility we attempted to determine:

1. the approximate years of operations;

2. if the individual plants manufactured sulphuric acid or produced superphosphate utilizing sulfuric acid; and

3. whether Socony/Mobil Oil, Swift & Co., or another entity, eventually acquired the plant.

We have prepared a VCC Historical Operations chart (Tab 1), which summarizes the information developed to date pertaining to VCC facilities we identified as having operated in US EPA Region IV. The information entered into the database reflects entries from:

A. the Commercial Fertilizer Yearbooks[1] ("CFY," herein) from 1926 through 1970 (approximately every third year within that time period was reviewed);

B. VCC Annual Report summaries of plant locations from 1946, and 1950 through 1963;

C. newspaper clippings from the Richmond Plain Dealer files from the 1950s through the 1970s;

D. volumes of historical Polk's Directories[2]; and

E. excerpts from a publication addressing VCC's history from its inception in 1895, through VCC's sixtieth anniversary in 1955.

The information on the years of operation of the plants in the attached chart is limited by the accuracy of the information sources, the time period covered, and by the reference materials we researched in preparing the chart.

---

[1] The Commercial Fertilizer Yearbooks were an annual publication published from the 1920s through approximately 1970. The yearbooks provided a geographical directory of fertilizer plants, and an overview of the nature of their operations, for facilities located in the U.S., Canada, Puerto Rico and Cuba.

[2] The Polk's Directories are historical reverse telephone directories providing key information about a company's location and frequently the types of operations conducted at a facility.

In addition to the location and nature of historical operations for each Region IV VCC facility, we have researched general materials on VCC's operations and corporate history via the Annual Reports cited above, as well as newspaper clippings and other industrial directories

HISTORICAL HIGHLIGHTS

The following is a summary of some of the historical highlights pertaining to VCC and its subsequent merger into Exxon/Mobil:

Despite growth since its inception in 1895, VCC's road was not always smooth. The company went into receivership in1924, and reorganization was completed in 1926.

On November 20, 1963 Stockholders of VCC Corp. voted to merge into Socony Mobil Oil and the merger was scheduled to occur November 29, 1963. Under the terms of the merger, one share of VCC stock was to be exchanged for 1.2 shares of Socony Mobil stock.

On May 1, 1964, Virginia-Carolina Chemical Company, a division of Socony Mobil Oil, changed its name to V-C Chemical Company, and continued to operate as a division of Socony Mobil Oil.

On November 4, 1969, Swift & Co. announced that it acquired, for $40 million, a major portion of the fertilizer business (the Agricultural Minerals Division) of Mobil Chemical Co. Mobil took an extraordinary write off of $22 million because of the sale of its fertilizer assets.

TAB 1: VCC HISTORICAL OPERATIONS CHART

The attached VCC Historical Operations Chart contains information on forty facilities which were in operation in Region IV between 1926 – 1970, of which twenty-one of those facilities, according to the CFY listings and information obtained to date, had sulphuric acid plants and/or superphosphate acid facilities at some point in their history. As noted above, the information was developed for the 1926 to 1970 time period, reflecting the time period from VCC's bankruptcy reorganization to the year after Socony Mobil sold its fertilizer assets to Swift.

The "Products" column of the chart provides information gleaned to date from various document sources as to the types and years of historical manufacturing operations and whether a facility used the lead and acid chamber production process.

CLASSIFICATION OF VCC FACILITIES

The following is a breakdown, from the VCC Plant Chart information, providing classification of the VCC Sites identified during the 1926 – 1970 time period we addressed, as having operated in EPA Region IV:

VCC Facilities – Sulphuric Acid Plants

According to information developed to date, the following facilities had sulphuric acid plants at some point during their operation:

	Plant	Owner/Transferee
1.	Birmingham, AL	SWIFT 1970
2.	Dothan, AL	SWIFT 1970
3.	Mobile, AL	VCC 1926-59
4.	Opelika, AL	VCC 1926
5.	Wylam, AL	VCC 1946-57
6.	Nichols, FL	VCC, then Socony Mobil (1950–70)
7.	Augusta, GA	VCC, 1926-57
8.	Macon, GA	VCC 1926
9.	Rome, GA	SWIFT 1970
10.	Savannah, GA	SWIFT 1970
11.	Charlotte, NC	VCC, then Socony Mobil (1926–64)
12.	Durham, NC	VCC, then Socony Mobil (1926-64)
13.	Selma, NC	SWIFT 1970
14.	Wadesboro, NC	VCC 1926-57
15.	Wilmington, NC	SWIFT 1970
16.	Winston-Salem, NC	VCC 1926
17.	Blacksburg, SC	VCC 1926-40
18.	Greenville, SC	SWIFT 1970
19.	Charleston, SC	SWIFT 1970
20.	Memphis, TN	SWIFT 1970
21.	Mt. Pleasant, TN [3]	SWIFT 1970

[3] The Mt. Pleasant, TN facility is listed in the CFY as having an acid chamber for only one year, in 1932. All of the other CFY listings for this facility for the 1926 – 1970 time period indicate that the facility did not have an acid chamber.

VCC Facilities – Non-Sulphuric Acid Plants

The following VCC fertilizer facilities were not known to have sulphuric acid plants, according to information we have developed to date:

22.	Montgomery, AL	SWIFT 1970
23.	Union Springs, AL	VCC 1926
24.	Jacksonville, FL	VCC, then Socony Mobil (1926-67)
25.	Albany, GA	SWIFT 1970
26.	Americus, GA	VCC 1926
27.	Athens, GA	VCC, then Socony Mobil (1926-64)
28.	Atlanta, GA	VCC 1926-56
29.	Newnan, GA	VCC 1926
30.	Social Circle, GA	VCC 1926
31.	Hopkinsville, KY	VCC 1954-63
32.	Jackson, MI	SWIFT 1970
33.	Greenville, NC	VCC 1926-63
34.	New Bern, NC	VCC 1926-53
35.	Raleigh, NC	VCC 1926
36.	Salisbury, NC	VCC 1926
37.	Washington, NC	VCC 1926-42
38.	Whiteville, NC	VCC 1960-63
39.	Wilmington, NC (Almont)	VCC 1932-37
40.	Columbia, SC	VCC 1926

SUMMARY

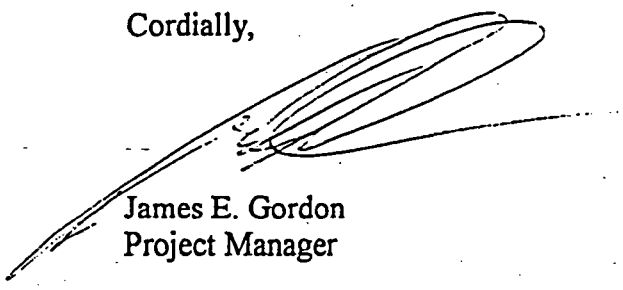
During the course of our investigation, we developed information for the 1926 to 1970 time period from information available in CFY yearbooks, VCC annual reports, newspaper archives, Polk's Directories and other sources.

A total of 40 VCC fertilizer facilities were identified in Region IV, of which 21 of those facilities had sulfuric acid plants at some point in time during their operation. Of those 21 facilities, 10 were not shown to be operating after 1964, and 10 were sold to Swift in 1969 and shown to be operated by Swift in 1970.

Further detailed information summarizing the results of our investigation is included in our VCC Historical Operations Chart attached at Tab I.

Thank you for the opportunity to work with you on this matter. Please feel free to contact me with any questions.

Cordially,



James E. Gordon
Project Manager

JEG:mc
Enclosure

VIRGINIA-CAROLINA CHEMICAL CORP. PLANTS - CONFIDENTIAL - EPA Region IV Plants - January 16, 2001

	Company N	State	Address	Years	Acid	Products	Info Source	Comments
1	VCC Corp.	Alabama	3700 14th Ave North ('63 Polks Directory), Birmingham	1926-70	Y	Complete Plant with no acid chambers in '26-37/Sulphur Burners only in '42 /Complete Fertilizer Plant with acid, 42-70.	CFY & ARs '46, 50-63	A fire practically destroyed the plant on May 23, 1958 according to a news article. Owned by VCC, Div. of Socony Mobil Oil in '64. Owned by Mobil Chemical Co., Div of Mobil Oil Corp. in '67. Owned by Swift Ag. Chemicals Corp in "70.
2	VCC Corp.	Alabama	1401 E. Burdeshaw St., Dothan	1926-70	Y	Complete plant with no acid chambers in '26-29/Sulphur Burner Only-40/ Complete Fertilizer Plant with acid 32-67.	CFY,ARs '46, '50-63	Owned by VCC Co., Div of Socony Mobil Oil in '64. Owned by Mobil Chemical Co, Div of Mobil Oil in '67. Owned by Swift Ag. Chemicals Corp in '70.
3	VCC Corp.	Alabama	Mobile	1926-59	Y	Factory selling complete goods made under their brand name in '26/Sulphur Burners Only, 40/ Complete Fertilizer Plant with acid, 42-58/ Manufactured Super and Mixed but no acid in '59.	CFY, ARs'46, '50-59	VCC closed Mobile plant due to unprofitable conditions per 1961 AR. Plant not listed in '63 Polks; only one in yellow pgs. is McMillan & Harrison Fertilizer Co., at 957 McGowin Ave.
4	VCC Corp.	Alabama	1645 N. Court St. Montgomery	1926-70	N	Complete plant but no acid, 26-70.	CFY & ARs '46, '50-63	Owned by VCC Co., Div. of Socony Mobil Oil in '64. Owned by Mobil Chemical Co. Div of Mobil Oil in '67. Owned by Swift Ag. Chemicals Corp. in '70.
5	VCC Corp.	Alabama	Opelika	1926	Y	Complete plant with acid chambers in '26 with sulphur burners.	CFY	This plant is not listed in 29-32, and it was listed in '34 as a plant for which no information was furnished by VCC.
6	VCC Corp.	Alabama	Union Springs	1926	N	Complete plant with no acid chambers in '26.	CFY	No further information obtained to date.
7	VCC Corp.	Alabama	Wylam	1946-57	Y	Acid Plant Only	CFY, ARs '52-57	The 1959 AR reported settlement on insurance claims for a 1958 fire at the plant.
8	VCC Corp.	Florida	2722 Buckman ("63 Polks Directory) Jacksonville	1926-67	N	Complete Plant mixed but no acid	CFY,'63 Polks, 'ARs '46,'50-63	Owned by VCC Co., Div of Socony Mobil Oil in '64. Owned by Mobil Chemical Co, Div of Mobil Oil in '67. Not listed in '70.

VIRGINIA-CAROLINA CHEMICAL CORP. PLANTS - CONFIDENTIAL - EPA Region IV Plants - January 16, 2001

	Company N	State	Address	Years	Acid	Products	Info Source	Comments
9	VCC Corp.	Florida	Nichols	1950-70	Y	Complete Fertilizer Plant with acid in '52-58/ Complete plant with acid, Super, Mixed Solid by ammoniate process/plant nutrients in '60/ mines, concentrated & triple super plant; phosphate acid unit/ diammonium phos unit in '64. Acids and mixed goods produced in '70.	CFY & ARs '46, '50-63	A Dec. 1951 news article announced VCC plans to construct in Nichols a contact sulphuric acid plant for the manufacture of concentrated superphosphate by wet acid process. The plant was in full production by 1955, and was expanded siginficantly in 1959 and 1965. Owned by VCC Co., Div of Socony Mobil Oil in '64. Owned by Mobil Chemical Co, Div of Mobil Oil in '67 AND "70.
10	VCC Corp.	Georgia	Albany	1926-70	N	Complete Plant except no acid chamber in 1926-52/ Mixed Solids by ammoniate process (and granulate process also in '64), no acid in '60-64. Mixed Goods, granulation process in '70.	CFY,ARs '46, 50-63	Owned by VCC Co., Div of Socony Mobil Oil in '64. Owned by Mobil Chemical Co, Div of Mobil Oil in '67. Owned by Swift Ag. Chemicals Corp in '70.
11	VCC Corp.	Georgia	Americus	1926	N	Dry Mixing Plant	CFY	Listed in '34 CFY as a plant for which no information was furnished by VCC.
12	VCC Corp.	Georgia	Whitehall Road, Athens	1926-64	N	Dry Mixing Plant in '26-34/ Dry Mixing Plant not operated in '34-58 per CFY/ Mixed Solids via ammoniate process in '60-64.	CFY,ARs 60-63	The 1960 AR reported VCC's purchase of existing fertilizer operations in Athens. Owned by VCC Co., Div of Socony Mobil Oil Co. in '64.
13	VCC Corp.	Georgia	Atlanta	1926-56	N	Complete plant with no acid chambers in '26-29/ Dry Mixing Plant in1932-'46/ Manufactured fertilizer but not Super or Acid in '52. Listed as complete plant in '55 CFY, not listed in '58 CFY	CFY, ARs '46, '50-56	July 25, 1957 news article stated Atlanta plant had been closed.

VIRGINIA-CAROLINA CHEMICAL CORP. PLANTS - CONFIDENTIAL - EPA Region IV Plants - January 16, 2001

	Company N	State	Address	Years	Acid	Products	Info Source	Comments
14	VCC Corp.	Georgia	Augusta	1926-57	Y	Complete Fertilizer Plant with acid chambers in 1926-'57. No longer listed in '58 CFY.	CFY& AR '46, '50-56	July 25, 1957 news article stated that Augusta plant had been closed. Per the book "Superphosphate: It's History, Chemistry and Manufacture," Georgia Chemical Works erected the plant in 1872, sulphuric acid and superphos were being made by 1880, VCC later acquired the plant, and manufacturing of acid and superphos ceased and the plant was closed about 1957.
15	VCC Corp.	Georgia	Old Lindale Road, Rome	1926-70	Y	Complete Fertilizer Plant wiith acid chambers 1926-58 Complete Plant with acid, Super, Mixed Solids by ammoniate process (and granulate process also in '64) in '60-64. Sulphuric and phos plant in "70.	CFY, ARs '46, '50-63	Owned by VCC Co., Div of Socony Mobil Oil in '64. Owned by Mobil Chemical Co, Div of Mobil Oil Corp in '67. Owned by Swift Ag. Chemicals Corp. in '70.
16	VCC Corp.	Georgia	1206 Lathrop Ave, Savannah	1926-70	Y	Complete Plant with acid chambers 1926-52 (with sulphur burners indicated in '26)/ Complete Plant with acid, Super, Mixed Solids by ammoniate process in '60-64. Entry not updated in '67. Sulphuric acid plant in '70.	CFY, ARs'46, '50-63	Owned VCC Co. Div of Socony Mobil Oil in '64. Owned by Mobil Chemical Co, Div of Mobil Oil Corp in '67. Owned by Swift Ag. Chemicals Corp in '70.
17	VCC Corp.	Georgia	Macon	1926	Y	Complete Plant with acid chambers and sulphur burners in '26. No subsequent listings found.	CFY	No further information obtained to date.
18	VCC Corp.	Georgia	Newnan	1926	N	Dry Mixing Plant. No listings found after 1926.	CFY	No further information obtained to date.
19	VCC Corp.	Georgia	Social Circle	1926	N	Dry Mixing Plant in '26, no subsequent listings found.	CFY	No further information obtained to date.

	Company N	State	Address	Years	Acid	Products	Info Source	Comments
20	VCC Corp.	Kentucky	Hopkinsville	1954-63	N	Mixed Solids by ammoniate process, no acid '58-'60.	CFY,ARs '54-63	A news article in May 1954 announced that VCC purchased the fertilizer plant owned by Cumberland Chemical Company at Hopkinsville, KY, to begin operations by VCC July 1, 1954.
21	VCC Corp.	Mississippi	Jackson	1926-70	N	Complete Plant with no acid chamber in '26-34/ Manufactured Super and Mixed but no acid in '40-'70.	CFY & ARs '46, '50-63	Owned by VCC Co, Div of Socony Mobil Oil in '64. Owned by Mobil Chemical Co, Div of Mobil Oil in '67. Owned by Swift Ag. Chemicals Corp in '70.
22	VCC Corp.	N. Carolina	301 W, Tremont Ave., Charlotte	1926-64	Y	Complete Plant with acid chambers in '26-34/ Complete plant except no acid chamber in '37-58/ Super and Mixed Solids by ammoniate process,(and granulate process in '64), no acid chambers in '60-64.	CFY & ARs '46,'50-63	Owned by VCC Co. Div of Socony Mobil in '64.
23	VCC Corp.	N. Carolina	2700 Anzier Ave, Durham	1926-64	Y	Complete Fertilizer Plant with acid chambers 1926-52/ Complete Plant with acid, Super and Mixed by ammoniate process (and granulate process also in '64) in '60-64.	CFY, ARs '46, '50-63	Owned by VCC Co., Div of Socony Mobil Oil in '64.
24	VCC Corp.	N. Carolina	Greenville	1926-63	N	Dry Mixing Plant	CFY & ARs '46, '50-53, then in '63 (did not appear on '54-62 AR list, although Greenville, S.C. plant was listed)	No further information obtained to date.
25	VCC Corp.	N. Carolina	New Bern	1926-53	N	Dry Mixing Plant	CFY, AR '46, '50-53	No further information obtained to date.

	Company N	State	Address	Years	Acid	Products	Info Source	Comments
26	VCC Corp.	N. Carolina	Raleigh	1926	N	Dry Mixing Plant	CFY	No further information obtained to date.
27	VCC Corp.	N. Carolina	Salisbury	1926	N	Dry Mixing Plant	CFY	No further information obtained to date.
28	VCC Corp.	N. Carolina	Preston St., Selma	1926-70	Y	Complete Fertilizer Plant with acid chambers '26-52/Complete Plant with acid, Super, and Mixed Solids by ammoniate process in '60-70.	CFY, ARs'46, '50-63	Owned by VCC Co., Div of Socony Mobil Oil in '64. Owned by Mobil Chemical, Div of Mobil Oil in '67. Owned by Swift Ag. Chemicals Corp in '70.
29	VCC Corp.	N. Carolina	Wadesboro	1926-57	Y	Complete Fertilizer Plant with acid chambers 1926-46 / Manufactured Super and Mixed but no acid in '52-'55. No listing in '58.	CFY, ARs '46, '50-56	July 25, 1957 news article stated that Wadesboro plant had been closed.
30	VCC Corp.	N. Carolina	Washington	1926-42	N	Dry Mixing Plant in '26-'42.	CFY	No further information obtained to date.
31	VCC Corp.	N. Carolina	Whiteville	1960-63	N	Mixed Solids	CFY, AR '63	VCC purchased an existing fertilizer operation in Whiteville per 1960 AR.
32	VCC Corp.	N. Carolina	Wilmington	1926-70	Y	Complete Fertilizer Plant with acid chambers 1926-58)/ Complete plant with acids, Super, Mixed Solids by granulate process in '60-70.	CFY, ARs '46, '50-63	Owned by VCC Co., Div of Mobil Oil in '64. Owned by Mobil Chemical Co, Div of Mobil Oil in '67. Owned by Swift Ag. Chemicals Corp. in '70. This plant may have been called the "Navassa" factory, according to one reference.
33	VCC Corp.	N. Carolina	Almont Factory, Wilmington	1932-37	N	Complete Plant with no acid chambers. '32-'37.	CFY	No further information obtained to date.
34	VCC Corp.	N. Carolina	Winston-Salem	1926	Y	Complete Plant with acid chambers and sulphur burners in '26.	CFY	In 1929 CFY, the only plant in Winston-Salem was an acid plant owned by Union Guano Co.
35	VCC Corp.	S. Carolina	Blacksburg	1926-40	Y	Complete Plant with acid chambers in '26-29/ Complete Plant with no acid chambers in '32./ Plant listed as not operated in '34-'37 CFY, listed in '40 as complete plant with no acid chambers. No listing in '42.	CFY	No further information obtained to date.

	Company N	State	Address	Years	Acid	Products	Info Source	Comments
36	VCC Corp.	S. Carolina	Old Anderson Road, Greenville	1926-70	Y	Complete Fertilizer Plant with acid chambers in '26-52/ Complete Plant with acid, Super, Mixed Solids by ammoniate process in '60-64. Mixed goods by ammoniate and granulation process in '70.	CFY & '57, ARs '46, '50-62	Owned by VCC Co. Div of Socony Mobil Oil in '64. Owned by Mobil Chemical Co, Div of Mobil Oil in '67. Owned by Swift Ag. Chemicals Corp. in '70.
37	VCC Corp.	S. Carolina	King Street Highway(listed in '67 as King Street Extension), Charleston	1926-70	Y	Complete Fertilizer Plant with acid chambers in '26-52/ Complete Plant with acids, Super, and Mixed Solids by ammoniate process(and granulate process also in '64-70) in '60-70.	CFY & ARs '46, '50-63	Per '57,60,62 ARs there was also a chemical plant here. **Per '34-37 CFY there were three factories in Charleston. Owned by VCC Co. Div of Socony Mobil Oil in '64. Owned by Mobil Chemical Co, Div of Mobil Oil in '67. Owned by Swift Ag. Chemicals Corp in '70.
38	VCC Corp.	S. Carolina	Columbia	1926	N	Dry Mixing Plant in '26/ In '29-52 this is shown only as a sales office.	CFY	No further information obtained to date.
39	VCC Corp.	Tennessee	152 Collins St, Memphis	1926-70	Y	Complete Fertilizer Plant with acid chambers in '26-52 (with sulphur burners indicated in '26-29,'34)/ Complete Plant with acid, Super, Solid Mixed by granulate process in '60-70.	CFY & '61 Polks, ARs '46, '50-63	Owned by VCC Co, Div of Socony Mobil Oil in '64.Owned by Mobil Chemical, Div of Mobil Oil in '67. Owned by Swift Ag. Chemicals Corp. in '70.
40	VCC Corp.	Tennessee	Mt. Pleasant	1926-70	Y ?	The Mt. Pleasant facility is listed in the CFY as having an acid chamber for only one year, in 1932. All of the other CFY listings for this facility for the 1926-70 time period indicate that the facility did not have an acid chamber.	CFY, ARs'46, '50-63	Owned by VCC Co. Div of Socony Mobil Oil in '64. Owned by Mobil Chemical Co. Div of Mobil Oil in '67. Owned by Swift Ag. Chemicals Corp. in '70.

ExxonMobil
Refining and Supply Company
Environmental Remediation
600 Billingsport Road
Paulsboro, New Jersey 08066-0310

ExxonMobil
Refining & Supply

Michael J. Skinner
ofc: 856/224-4659
fax: 856/429-3479
michael_j_skinner@email.mobil.com

August 17, 2000

Craig Zeller, PE
U. S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303

Dear Craig:

We wanted to thank you and the Region 4 team that met with us on July 24, 2000 in Atlanta. We are very encouraged by the discussion and agree that there is great advantage to both ExxonMobil and the EPA in attempting to resolve outstanding environmental issues with respect to the Virginia-Carolina Fertilizer operations. By using the almost completed Administrative Order on Consent (AOC) as a foundation, we firmly believe and are committed to negotiating a "model" AOC that would direct future work. Obviously there are internal matters that both ExxonMobil and the EPA need to work out and in the spirit of this cooperative effort, we offer a framework for these discussions and the future work.

Attached to this letter is a conceptual flow diagram of how the work on a global project could flow. Based on our understanding of the discussions at our meeting, we view the global project to consist of two phases. Phase I would consist of a VCC facility inventory and prioritization based on previous site operations, past/current site status, existing available data, and potential risks posed. Phase II would begin under the "Future Site Actions" block on the attached flow diagram and would focus on site characterization and implementation of adequately protective response actions where warranted. This proposed workflow raises several issues as to implementation, responsibility, and team structure. The following are key items/issues that need to be addressed.

- **Project Team:** A project team needs to be established so there is efficient communication and accountability. We propose the ExxonMobil team to be: Michael Skinner (Company Lead), Shelby Moore (Counsel to ExxonMobil), and Michael Miller (Technical support and lead for ExxonMobil). We suggest that the EPA team include an appropriate mix of Remedial Project Managers (RPMS), On-Scene Coordinators (OSCs), attorneys and EPA staff familiar with the Site Assessment process.
- **Universe of VCC Sites:** The "universe" of VCC sites needs to be defined. Mobil would, working with the EPA, hire the appropriate consultants to investigate and compile a database of VCC properties.

- **AOC Negotiations:** A model AOC needs to be negotiated that could be used for the universe of sites in implementing the two-phased global strategy. Modifications could then be made that would address the unique characteristics for each of the sites in the project. For example sections could be drafted in the AOC for Time Critical Removal Actions, Non-Time Critical Removal Actions, and/or other NCP equivalent response actions as appropriate for specific sites. This approach could save ExxonMobil and EPA countless resource hours when compared to the traditional approach of dealing with sites on an individual basis.
- **Prioritization of Work:** ExxonMobil would complete the prioritization of sites by performing the appropriate site characterization investigation. This effort would also aid in prioritizing the actual work needed to be performed at each site.
- **Coordination with Stakeholders:** As appropriate, other state/local governmental agencies would be involved but the EPA would be the lead agency.

These items do not comprehend all aspects of the proposed work. The project team using a performance-based approach will determine the specific tasks and issues associated with this effort. The objective is to develop actions that are protective of human health and the environment as defined by CERCLA.

The three Ashley River AOCs for performance of Engineering Evaluation/Cost Analysis (EE/CA) will likely be signed in the very near future. ExxonMobil has recently received a Draft AOC for performance of a Time Critical Removal Action at the Wadesboro, North Carolina VCC facility. We believe it would be appropriate to kickoff the global approach by using these above sites as pilots to give us a real-time opportunity to test all of the decision points proposed in the attached flow diagram (e.g. Phase II/Future Site Actions).

We believe the approach that is outlined would be more cost effective and productive for both EPA and ExxonMobil than dealing with the VCC sites on a strictly individual basis. It would allow EPA to develop a consolidated and streamlined approach to EPA's oversight of the Virginia-Carolina sites, and prioritize the ExxonMobil work efforts to focus on any sites that may need interim on-site actions. If we were to address all of the individual sites on a site by site basis, the transactional costs and resource drain on both ExxonMobil and the EPA would be significant and the work would progress at a fraction of the speed and at a much greater cost.

Thank you for the opportunity to present the proposal and we look forward to receiving comments from appropriate EPA management. Please call if you have any questions.

Sincerely,

Michael J. Skinner
Superfund Response Consultant

attachment

Cc: S. Moore

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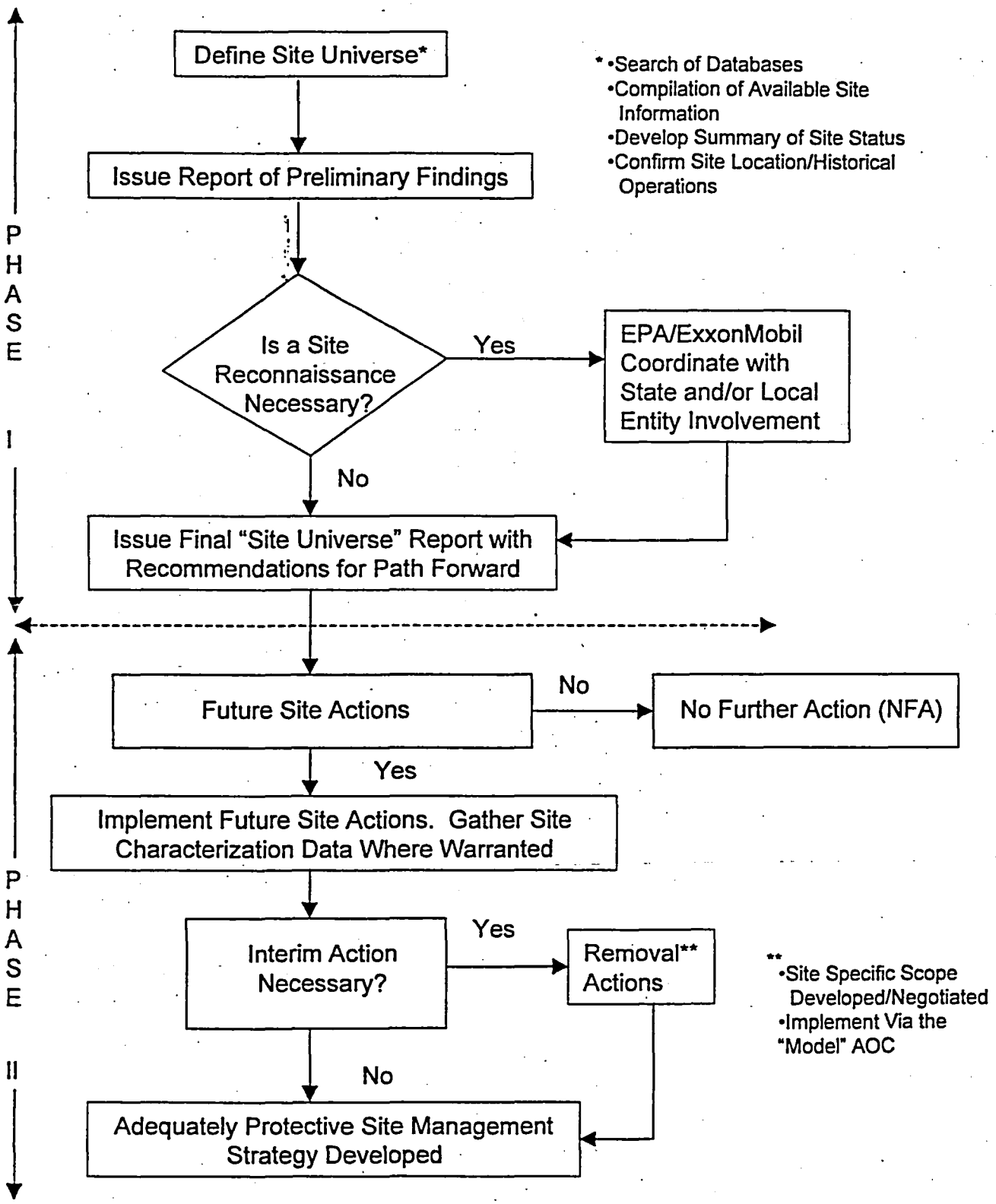
CONCEPTUAL MODEL FOR INTEGRATED SITE ASSESSMENT AND RESPONSE ACTION FORMER VIRGINIA-CAROLINA CHEMICAL FACILITIES US EPA REGION 4



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

August 22, 2000

4WD-NSMB

MEMORANDUM

SUBJECT: Former Virginia-Carolina Chemical Corporation Phosphate/Fertilizer Manufacturing Facilities in Region 4; Framework for Settlement Negotiations with ExxonMobil.

TO: Richard D. Green, Director
Waste Management Division

Robert Jourdan, Chief
North Site Management Branch

Curt Fehn, Chief
South Site Management Branch

Myron D. Lair, Chief
Emergency Response and Removal Branch

FROM: Craig Zeller, P.E.
Remedial Project Manager

This memorandum is written to provide you an update and gain your concurrence regarding a framework for settlement negotiations with ExxonMobil for former Virginia-Carolina Chemical Corporation facilities in EPA-Region 4.

BACKGROUND

In early 1998, I initiated a geographic initiative in a 7.5 square mile area of the Charleston, South Carolina peninsula that focused on the area's former phosphate/fertilizer manufacturing industry. This effort was an integral component of EAD's Community Based Environmental Protection (CBEP) initiative in the Charleston/North Charleston area. The goal of the phosphate/fertilizer effort was straight forward; produce results for the surrounding community as measured by site characterization and cleanup efforts. By utilizing the full complement of technical and statutory mechanisms available, CERCLA's contributions to the CBEP have been significant. To date, the phosphate/fertilizer initiative in Charleston has produced one Time Critical Removal Action (Enforcement), one Fund-Lead RI/FS, three Non-Time Critical Removal Actions (Enforcement), one State-Lead RI/FS (Enforcement), and one State-Lead Voluntary Cleanup Contract.

Through the Charleston, South Carolina phosphate/fertilizer initiative, we have learned a great deal regarding the manufacturing processes employed and the primary entities engaged in the production of phosphate-based fertilizer from the early 1900's to the mid-1970's. In general, phosphate-based fertilizer manufacturing involved reacting phosphate ores with sulfuric acid to produce phosphoric acid, the building block of Nitrogen-Phosphorus-Potassium (N-P-K) agricultural fertilizers. In the early years of production (< 1925), locally mined phosphate rock was often utilized in the manufacturing processes. Due to its superior quality, phosphate ore from the vast deposits east of Tampa, Florida was later substituted as feed stock. Sulfuric acid was manufactured at the facility using the lead-chamber process. Sulfur was burned in the presence of oxygen to produce sulfur trioxide gas (SO_3). Before 1935, pyrite ores (FeS_2) were a common source of sulfur. Elemental sulfur was later substituted in the process due to economic advantages in product purity. Sulfur trioxide gas (SO_3) was reacted with water mist (H_2O) by passing through a Glover Tower to produce sulfuric acid (H_2SO_4). Sulfuric acid was stored in lead-lined chambers for use in the production of superphosphate.

The phosphate/fertilizer industry in the Southeastern United States grew rapidly. By the late 1930's and early 1940's, the top three phosphate-based fertilizer producing states by ton were North Carolina, South Carolina and Georgia. Superphosphates represented the primary agricultural fertilizer produced through the early 1960's. Subsequent to this time period, the industry started to decline due to the emergence of ammonium phosphates and solid/liquid mixed fertilizers. These newly developed fertilizers offered a more complete product containing all three nutrients in varying N-P-K ratios and eventually gained preference in the marketplace over normal superphosphates.

Environmental impacts typically associated with the above described process include acidic pH conditions and elevated concentrations of lead and arsenic in soil, sediment, shallow groundwater, and surface water in close proximity to the former location of the acid chambers. Acidic pH conditions tend to increase the solubility of some inorganic constituents, thus facilitating contaminant transport pathways that may adversely impact human health and/or the environment.

One of the primary entities involved in the production of superphosphates was the Virginia-Carolina (VC) Chemical Corporation. Extensive research conducted by Kevin Beswick, Assistant Regional Counsel, identified the principal plants and properties of VC Chemical Corporation in EPA-Region 4. A summary list is enclosed to this memorandum that identifies former VC facilities in 27 cities. By way of corporate mergers and acquisitions, the ExxonMobil Corporation is successor in interest to environmental liabilities of the VC Chemical Corporation.

RECENT DEVELOPMENTS

Over the past several months, Kevin Beswick and I have been conducting negotiations with ExxonMobil representatives regarding the performance of Non-Time Critical Removal Actions (Engineering Evaluation/Cost Analysis) under a Removal Action Administrative Order on Consent (AOC) for three former VC facilities along the Ashley River corridor in Charleston, South Carolina. The Draft AOC has been revised pursuant to several iterations of comments and is expected to be Final by the end of August 2000. In addition, a Draft Removal Action AOC for a Time-Critical Removal Action at the Wadesboro, North Carolina VC facility was prepared by John Nolen (OSC) and Jennifer Lewis (Assistant Regional Counsel), and submitted to ExxonMobil on August 7, 2000. Ken Mallary (RPM) has also been actively involved with site characterization and response efforts at former phosphate/fertilizer facilities in the Wilmington, North Carolina area. As a result of these recent negotiations and developments, ExxonMobil has submitted a proposal to me regarding a framework by which EPA and ExxonMobil can work together collaboratively to resolve outstanding environmental issues with regard to historical VC fertilizer operations. This letter, dated August 17, 2000, is enclosed for your review and information.

The enclosed proposal envisions a two-phased approach. Phase I involves defining the "universe" of VC facilities utilizing existing information, and new information generated by consultants hired by ExxonMobil. Phase II would focus on site characterization and cleanup activities on those sites where warranted using Time-Critical Removal Actions (referred to as "interim actions"), Non-Time Critical Removal Actions, and other NCP equivalent actions. The scope and type of future site actions would be determined by a dedicated project team consisting of ExxonMobil and EPA-Region 4 representatives.

I believe there several readily apparent advantages to this conceptual strategy. First, "model" AOC agreements could be developed from the Charleston, SC and Wadesboro, NC efforts that are well underway. As we progress through the pipeline of prioritized sites in Phase II, we could utilize the "model" agreements to eliminate unnecessary wrangling over legal language and simply tailor the "Statement of Facts" and "Work to be Performed" sections to the site-specific conditions. Second, given the similarity and our sound understanding of manufacturing processes employed, a site characterization strategy could be standardized that would eliminate duplication of effort each time the need arises to investigate contaminant distribution. Finally, these concepts could lead to the development of a presumptive remedy approach that would build consistency in our program and expedite remedy selection and implementation.

PATH FORWARD

I believe implementation of the above framework could best be accomplished by the formation of an EPA project team. I would like to propose the following multi-disciplined individuals based on their past experience relative to phosphate/fertilizer facilities, and their expressed desire to work together in the team environment:

Craig Zeller - Team Leader/Remedial Project Manager
Ken Mallary - Remedial Project Manager
John Nolen - On-Scene Coordinator
Loften Carr - Site Assessment Expertise
Kevin Beswick - Assistant Regional Counsel
Jennifer Lewis - Assistant Regional Counsel

Please note the above proposed individuals would form the "core" team that should be sufficient to complete the Phase I effort. Other appropriate staff could be added when the future work load is better defined in Phase II.

In conclusion, I would like to schedule a meeting next week to discuss compiling a unified EPA response to the August 17, 2000 ExxonMobil letter. I can meet anytime August 28-29 and before lunch on August 30. Please notify me at extension 2-8827 if you are interested in participating in such a meeting and I will arrange the logistics. Thank you for your time and consideration.

Enclosures

cc. Don Rigger
Mike Norman
Phil Vorsatz
Harold Taylor
Joanne Benante
Mario Villamarzo
Jim McGuire
Ken Mallary
John Nolen
Loften Carr
Rick Leahy
Kevin Beswick
Jennifer Lewis

PRINCIPAL VCC FERTILIZER PLANTS & PROPERTIES
U.S. EPA - Region 4

ALABAMA:	Birmingham, Dothan, Mobile, Montgomery, Wylam
FLORIDA:	Jacksonville, Nichols
GEORGIA:	Albany, Athens, Atlanta, Augusta, Rome, Savannah
KENTUCKY:	Hopkinsville
MISSISSIPPI:	Jackson
NORTH CAROLINA:	Charlotte, Durham, Greenville, New Bern, Selma, Wadesboro, Washington, Wilmington
SOUTH CAROLINA:	Charleston, Greenville
TENNESSEE:	Memphis, Mount Pleasant

Reference: Moody's Manual of Investments, Industrial Securities (Years 1940, 1950 , 1954, 1955, 1956, 1957, 1958, 1959, 1960).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

September 11, 2000

4WD-NSMB

Mr. Michael J. Skinner
Superfund Response Consultant
ExxonMobil Refining and Supply Company
Environmental Remediation
600 Billingsport Road
Paulsboro, NJ 08066-0310

SUBJ: Framework for Environmental Settlement Negotiations; Former Virginia-Carolina Chemical Corporation.

Dear Mr. Skinner:

Thank you for your letter dated August 17, 2000 which presented a proposed framework to address potential environmental liabilities associated with phosphate-based fertilizer manufacturing conducted by the former Virginia-Carolina (VC) Chemical Corporation in EPA-Region 4. In general, the concepts delineated in your letter involved a proactive strategy to inventory, prioritize, and implement adequately protective response actions, where warranted, via a two-phased approach. Phase I would consist of developing an inventory of former VC facilities utilizing existing information, and new information generated by consultants retained by ExxonMobil. Phase II would focus on site characterization and cleanup activities on those sites where warranted using Time-Critical Removal Actions (i.e. Interim Actions), Non-Time Critical Removal Actions, and other NCP equivalent actions. The two-phased strategy would be implemented by a dedicated project team consisting of appropriate ExxonMobil and EPA-Region 4 representatives.

I have presented and discussed the conceptual framework delineated in your August 17, 2000 letter with appropriate management officials in the CERCLA Removal and Remedial Programs of EPA-Region 4. Since the potential universe of VC sites could encompass many States within the Region, there are obviously some details that need to be addressed regarding how sites will be handled in Phase II of the process. However, EPA believes these details can best be resolved by proceeding with the Phase I effort, and concurrently conducting the planned Engineering Evaluation/Cost Analysis (EE/CA) efforts on the three Ashley River facilities in Charleston, SC and the Time Critical Removal Action at the Wadesboro, NC facility. EPA agrees with ExxonMobil that by using these sites as Phase II pilots, it will provide us all a real-time opportunity to test the decision points encountered throughout implementation. Given the similarity of phosphate-based fertilizer manufacturing conducted by these facilities, the advantages to both EPA and ExxonMobil are readily apparent with regard to: 1) development of "model" legal agreements that are mutually acceptable; 2) standardized characterization and cleanup

strategies; 3) efficient use of available resources and reduction of transactions costs; and 4) timely implementation of adequately protective and cost-effective response actions, where necessary.

EPA has formed a core team to begin implementation of the Phase I effort, and to complete the anticipated work to be performed at the above referenced Phase II pilot sites. These individuals are Craig Zeller (EPA Technical Lead), Ken Mallary (NC Remedial Project Manager), John Nolen (On-Scene Coordinator for Wadesboro, NC), Loften Carr (Site Assessment Expertise), Kevin Beswick (Associate Regional Counsel), and Jennifer Lewis (Associate Regional Counsel). I would like to invite you and your established project team to an initial kick-off meeting at EPA's Regional Office in Atlanta, GA on September 27, 2000. The purpose of this meeting will be to discuss the draft Administrative Order on Consent (AOC) for the Wadesboro, NC facility, finalize the Ashley River AOCs, and to begin addressing issues associated with implementation of this global strategy. Please contact me at (404) 562-8827 regarding your interest and availability in attending such a meeting so that the logistics can be worked out.

Thank you for your efforts and willingness to work in a collaborative and cooperative manner with the Agency.

Sincerely,

Craig Zeller, P.E.
Remedial Project Manager

cc. Robert Jourdan; Chief, North Site Management Branch
Curt Fehn; Chief, South Site Management Branch
Myron D. Lair; Chief, Emergency Response and Removal Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

FEB 29 2000

RECEIVED

MAR 09 2000

SUPERFUND SECTION

4WD-ERRB

Mr. Jack Butler, Chief
Superfund Section
North Carolina Division of
Solid Waste Management
P.O. Box 27687
Raleigh, N.C. 27611-7687

SUBJ: V.C. Chemical - Wadesboro Site, Anson County, North Carolina

Dear ~~Mr. Butler~~ Jack:

The U.S. Environmental Protection Agency's Emergency Response and Removal Branch (ERRB) conducted a site investigation at the above referenced site for potential removal action eligibility under the National Contingency Plan (NCP). The Site was referred by the North Carolina Superfund Section during a site investigation in July 1999.

The V.C. Chemical Site was formerly owned by Virginia Carolina Chemical Company (1908-1945) who operated a fertilizer manufacturing facility. The property has since changed ownership and has been abandoned for approximately ten years. Operations at the Site involved super-phosphate fertilizer production utilizing the lead-lined acid chamber process.

Three residences adjoin the Site, the closest is within two-hundred fifty feet. There are no barriers to access between the residences and Site. At one time a gate was installed at the Site, but has since been removed by trespassers. City and county water lines do not service this area.

On December 3, 1999, On-Scene Coordinator (OSC) John Nolen conducted a site investigation. Soil sampling from the investigation revealed the presence of lead in surface soil with levels ranging from 1,000 ppm to 29,700 ppm and arsenic as high as 965 ppm. Therefore, based on the elevated levels of contaminants, easy accessibility to the Site (especially for children) and potential groundwater migration to potable drinking water wells, this site has been assigned a high priority for a removal action. For all removal actions an Action Memorandum outlining the Site threats and removal activities will be prepared and a copy forwarded to the State.

Should the OSC make a final determination that a removal action is not warranted, you will be subsequently notified of the change in prioritization at the Site.

Should you have any questions concerning ERRB's determination, please contact John Nolen, OSC, at (404) 562-8750 or Don Rigger, Chief of Removal Operations Section, at (404) 562-8744.

Sincerely,

Myron D. Lair, Chief
Emergency Response & Removal Branch

cc: Phil Vorsatz, NSMB

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

NCDENR

JAMES B. HUNT JR.
GOVERNOR

WAYNE MCDEVITT
SECRETARY

WILLIAM L. MEYER
DIRECTOR

October 22, 1999

Mr. Myron D. Lair, Chief
Emergency Response and Removal Branch
US EPA Region IV Waste Division
61 Forsyth Street, 11th Floor
Atlanta, Georgia 30303

Subject: Immediate Removal Evaluation Request
V.C. Chemical – Wadesboro (VCC)
NCSFN 0406 924
Wadesboro, Anson County, NC

Dear Mr. Lair:

The NC Superfund Section requests that the EPA evaluate V.C. Chemical – Wadesboro site for a possible removal action. The site is located approximately ¼ mile off highway 74, on Stanback Ferry Road in Wadesboro, Anson County, NC (Attachment 1). The site is comprised of approximately 10.38 acres of woodlands. There are several remaining buildings in various stages of decay. The most pronounced feature is the fire pond. The geographic coordinates of the site are 34° 58' 22" north latitude by 80° 03' 26" west longitude (Attachment 2) as measured from the fire pond. The area is mixed commercial/residential.

Mr. Carl Weston (903-813-1950) currently owns the site. This site was formerly owned by the Virginia Carolina Chemical Company (1908 to 1945) who operated a fertilizer manufacturing facility utilizing lead-lined, acid chambers. An operational history of the site from 1945 to the time that Mr. Weston purchased the site at auction from Anson County in early 1980 is not available at this time. The site has been abandoned for approximately 10 years.

The site was discovered by Ms. Irene Williams of the NC Superfund Section during a routine site investigation of another property previously owned and operated by the V.C. Chemical Company. Analysis of the magenta colored soils found at that site indicated the presence of elevated lead and arsenic levels. Further investigation lead to the discovery that the lead in the soils was due to the processes used to make super-phosphate fertilizers utilizing lead-lined, acid chambers. On May 26, 1999, NC Superfund conducted a site inspection of the Wadesboro site and discovered the same magenta colored soils. On July 26, 1999, NC Superfund conducted a combined

401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE 919-733-4996 FAX 919-715-3605

PA/SI sampling trip in which surface soil samples were collected from an area of discolored soil, absent of vegetation, approximately 20 feet wide by 60 feet long. The results of the sample analysis (Attachment 3) revealed elevated concentrations of lead (3361 mg/kg), arsenic (92 mg/kg) and copper (1042 mg/kg).

The site investigation indicated that the area adjacent to the magenta colored soils was being used as a dump. Local citizens who own the adjoining property have complained about the teenagers and others who were "visiting" the area during the night. The adjoining property owners erected a gate across the access road to prevent access, but it was quickly torn down. Also adjoining the site are three residences. The residence closest to the site, within 250 feet, has two small children (one and six years of age) and the mother is expecting. There are no barriers between the site and the residences and the magenta soils are visible from the closest residence.

City and County water lines do not service this area. Sampling analysis of the potable wells did not indicate the presence of any elevated metals or other compounds.

Due to the high levels of lead and arsenic detected in the surface soils at the site, the proximity of the site to neighboring homes and the evidence of public access to the site, the NC Superfund Section requests that EPA evaluate the V.C. Chemical - Wadesboro site for a removal action.

State funds for this removal are not available at this time. Please let us know if and when a field evaluation can be conducted so we may coordinate your site visit with our staff. Please feel free to contact me at (919) 733-2801 ext. 290 or Dan.LaMontagne@ncmail.net if you have any questions.

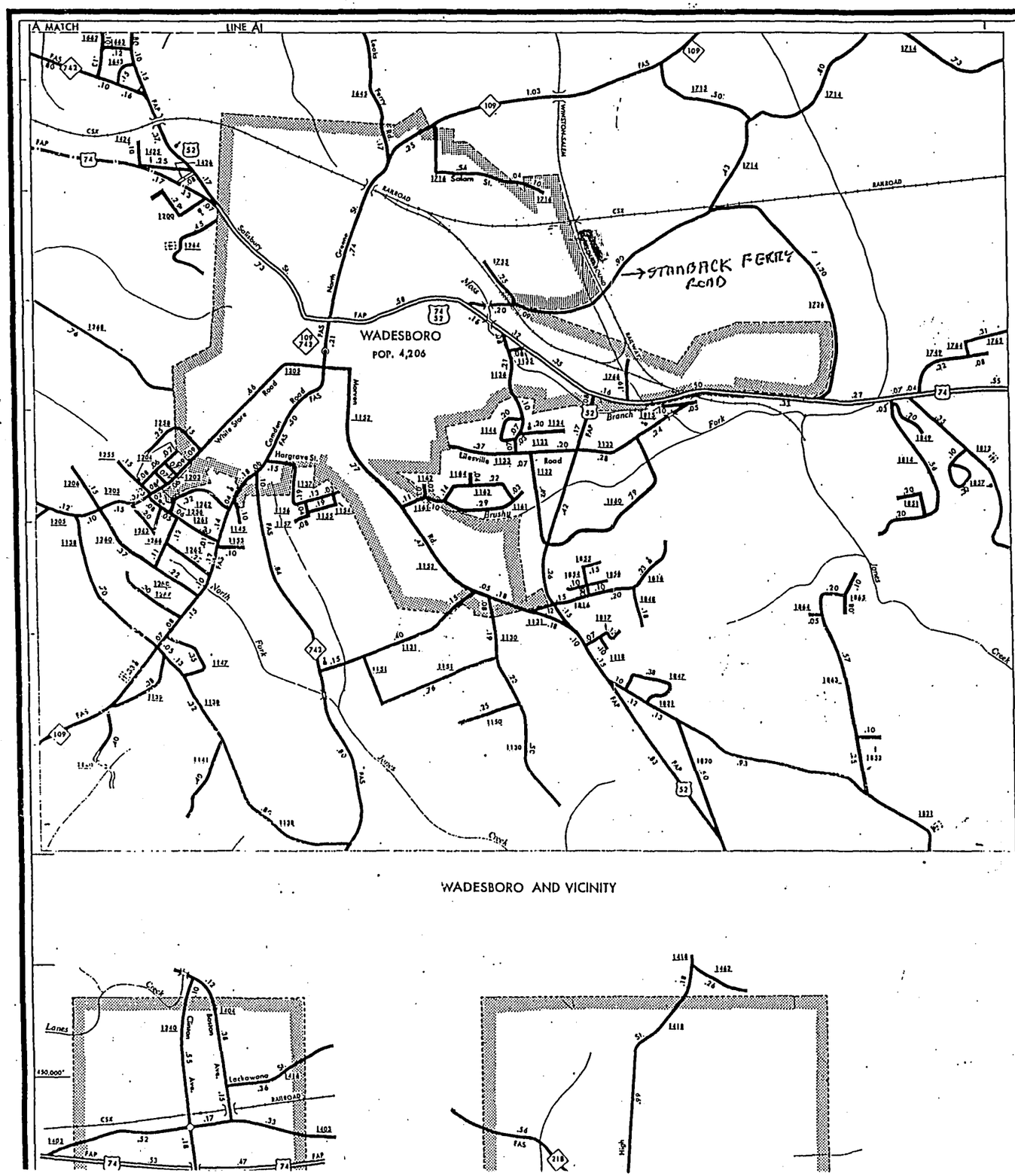
Sincerely,

Dan LaMontagne, Head
Site Evaluation and Removal Branch
NC Superfund Section

Attachments
1. Road Map to Site
2. Site Lat. / Long. Worksheet
3. Metals Analysis Results

cc: w/ attachments
File
Scott Ryals, DWM
Don Rigger, US EPA
Mr. Carl Weston, Property Owner
Carol Gibson, Anson County Health Department
Jennifer Wendel, US EPA
Ken Mallory, US EPA

letter only
Jack Butler, DWM
Charlotte Jesneck, DWM
Phil Vorsatz, US EPA



WADESBORO AND VICINITY

LATITUDE AND LONGITUDE CALCULATION WORKSHEET #2
LI USING ENGINEER'S SCALE (1/60)

SITE NAME: VC Chemical - Wadesboro CERCLIS #: NCSFN 0406 924

AKA: _____ SSID: _____

ADDRESS: Starbuck Ferry Rd

CITY: Wadesboro STATE: NC ZIP CODE: _____

SITE REFERENCE POINT: North edge of Fire Pond

USGS QUAD MAP NAME: _____ TOWNSHIP: ____ N/S RANGE: ____ E/W

SCALE: 1:24,000 MAP DATE: 1956/1978 SECTION: ____ 1/4 ____ 1/4 ____ 1/4

MAP DATUM: (1927) 1983 (CIRCLE ONE) MERIDIAN: _____

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP (attach photocopy):

LONGITUDE: 80° 00' 00" LATITUDE: 34° 52' 30"

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' GRID CELL:

LONGITUDE: 80° 02' 30" LATITUDE: 34° 57' 30"

CALCULATIONS: LATITUDE --(7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM LATITUDE GRID LINE TO SITE REF POINT: 156

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A x 0.3304 = 51.54"

C) EXPRESS IN MINUTES AND SECONDS (1' = 60"): .52."

D) ADD TO STARTING LATITUDE: 34° 57' 30." + .52. =

SITE LATITUDE: 34° 58' 22."

CALCULATIONS: LONGITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM RIGHT LONGITUDE LINE TO SITE REF POINT: 169

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A x 0.3304 = 55.89"

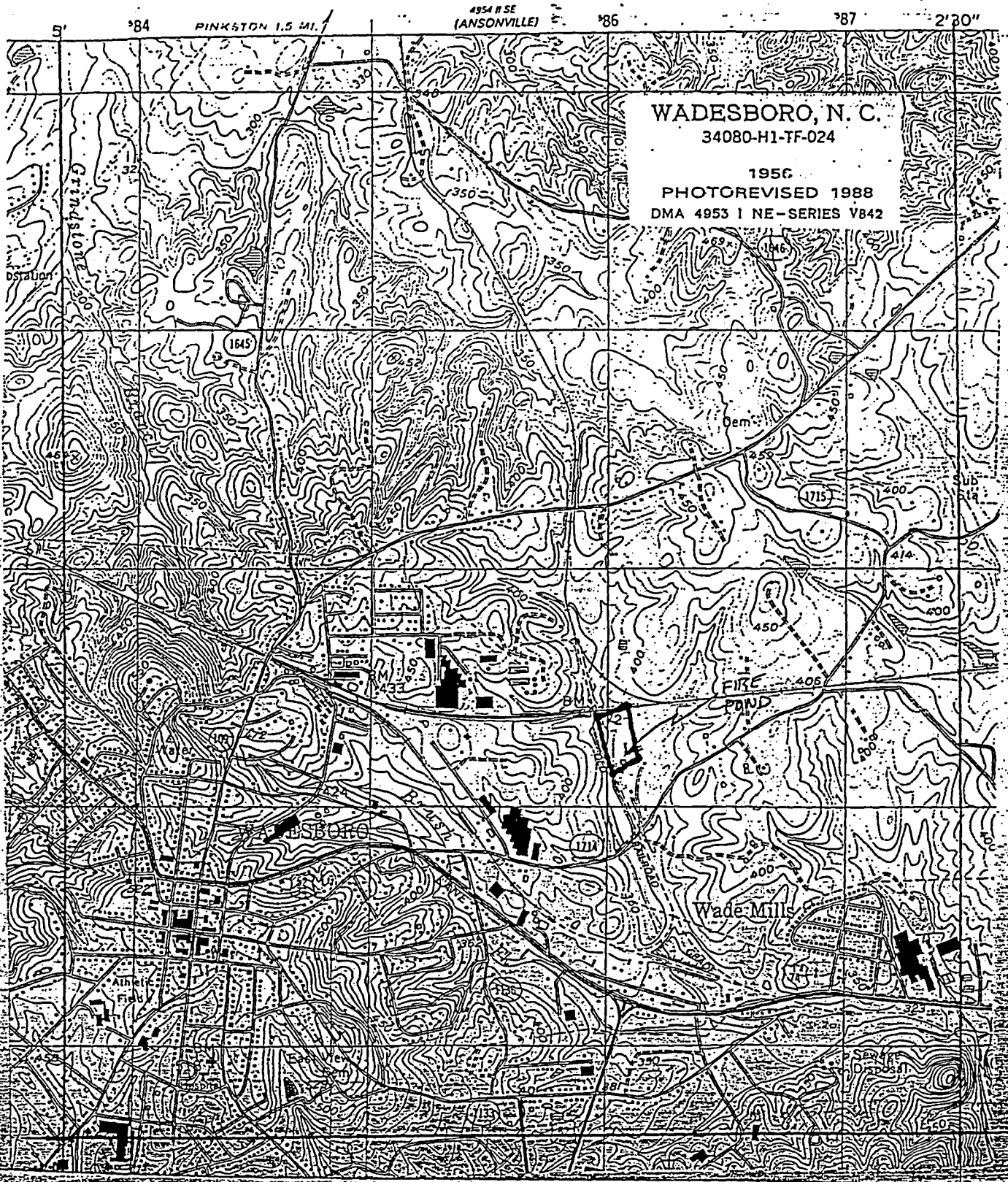
C) EXPRESS IN MINUTES AND SECONDS (1' = 60"): .56."

D) ADD TO STARTING LONGITUDE: 80° 02' 30." + .56. =

SITE LONGITUDE: 80° 03' 26."

INVESTIGATOR: Scott C. Lyle DATE: 10/20/99

SITE NAME: VC Chemical - Wadesboro NUMBER: _____



TOPOGRAPHIC MAP QUADRANGLE NAME: Wadesboro SCALE: 1:24,000

COORDINATES OF LOWER RIGHT-HAND CORNER OF 7.5-MINUTE GRID:

LATITUDE: 34° 57' 30" LONGITUDE: 80° 02' 30"

Health & Natural Resources
Solid Waste Management Division

P.O. Box 29047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCS FNO 4906 924 Sample ID Number VC-001-SL 07/26/99 1220 GRAB
VC072699, NC S. RYALS

Name of Site Virginia Carolina Chemical Collected By INORG-CLP METALS Soil
VCW-27 59

Site Location Hopewell, NC Date Collected

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	
___ Surface Water (2)	___ Liquid (6)	
✓ Soil (3)	___ Sludge (7)	Background
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	
___	
___	
___	
___	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___	
___	
___	
___	

Inorganic Chemistry

Parameter	Results(mg/l) (mg/kg)
___ antimony	
✓ arsenic	<4
✓ barium	20
✓ beryllium	<6
✓ cadmium	<4
___ chloride	
✓ chromium	8
___ cobalt	
✓ copper	<10
___ fluoride	
___ iron	
✓ lead	4
___ manganese	
✓ mercury	<0.20
___ nickel	
✓ nitrate(as N)	<20
✓ selenium	<2
✓ silver	<4
✓ sulfates	<100
___ thallium	
✓ vanadium	10
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	
___	
___	
___	
___	
___	
___	

Organic Compounds

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	1
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received

Date Extracted

Date Analyzed

Reported By DM

Date Reported 8/25/99

Lab Number 010983 JUL2799

DHS 3191 (Revised 12/93)

Department of Environment, Health, & Natural Resources
Solid Waste Management Division

RMP E ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCS FNO 406 924 Sample ID Number/I VC-003-SL 07/26/99 ____ GRAB
VC072699, NC S. RYALS

Name of Site Virginia Carolina Chemical Collected By

Site Location Wadesboro, NC Date Collected INORG-CLP METALS Soil
VCW-35 76

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	
___ Surface Water (2)	___ Liquid (6)	
✓ Soil (3)	___ Sludge (7)	Background
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	
___	
___	
___	
___	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___	
___	
___	
___	

Inorganic Chemistry

Parameter	Results(mg/l) (mg/kg)
___ antimony	
✓ arsenic	<4
✓ barium	28
✓ beryllium	<6
✓ cadmium	<4
___ chloride	
✓ chromium	6
___ cobalt	
✓ copper	<10
___ fluoride	
___ iron	
✓ lead	12
___ manganese	
✓ mercury	<0.20
___ nickel	
✓ nitrate(as N)	<10
✓ selenium	<2
✓ silver	<4
✓ sulfates	<50
___ thallium	
✓ vanadium	10
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	
___	
___	
___	
___	
___	
___	

Organic Compounds

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received ____

Date Extracted ____

Date Analyzed ____

Reported By DAM

Date Reported 8/25/99

U10986 JUL 2799

Lab Number ____

DHS 3191 (Revised 12/93)

NC Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NC SFN 0406924 Sample ID Number/N. VC-002-SL 07/26/99 1305 GRAB
VC072699, NC S. RYALS

Name of Site Virginia Carolina Chemical Collected By _____ INORG-CLP METALS Soil
VCW-31 67

Site Location Wadesboro, NC Date Collected _____

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	
___ Surface Water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	

Inorganic Chemistry

Parameter	Results(mg/l)	(mg/kg)
___ antimony		
✓ arsenic	32	
✓ barium	349	
✓ beryllium	<6	
✓ cadmium	<4	
___ chloride		
✓ chromium	<4	
___ cobalt		
✓ copper	95	
___ fluoride		
___ iron		
✓ lead	3002	
___ manganese		
✓ mercury	0.30	
___ nickel		
✓ nitrate(as N)	<10	
✓ selenium	6	
✓ silver	10	
✓ sulfates	559	
___ thallium		
✓ vanadium	<6	
___ zinc		
___ pH		
___ conductivity		
___ TDS		
___ flash point		

TCLP Compounds

Inorganic Compounds	Results(mg/l)
✓ arsenic	<0.02
___ barium	
___ cadmium	
___ chromium	
✓ lead	36.6
___ mercury	
___ selenium	
___ silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received _____
Date Extracted _____
Date Analyzed _____
Reported By DJM
Date Reported 8/25/99
Lab Number 10984 JUL 27 99

DHS 3191 (Revised 12/93)

SAMPLE ANALYSIS REQUEST

epartment of Environment,
Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NCS FNO 4069Z4 Sample ID Number/N VC-102-SL 07/26/99 1305 -GRAB
VC072699, NC S. RYALS

Name of Site Virginia Carolina Chemical Collected By

Site Location Fiddlestown, NC Date Collected

INORG-CLP METALS Soil
VCW-95 216

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	
___ Surface Water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___	
___	
___	
___	

Inorganic Chemistry

Parameter	Results(mg/l) (mg/kg)
___ antimony	
✓ arsenic	30
✓ barium	441
✓ beryllium	<6
✓ cadmium	<4
___ chloride	
✓ chromium	<4
___ cobalt	
✓ copper	108
___ fluoride	
___ iron	
✓ lead	3361
___ manganese	
✓ mercury	0.30
___ nickel	
✓ nitrate(as N)	167
✓ selenium	4
✓ silver	10
✓ sulfates	610
___ thallium	
✓ vanadium	<6
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	
___	
___	
___	
___	
___	
___	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ arsenic	
___ barium	
___ cadmium	
___ chromium	
___ lead	
___ mercury	
___ selenium	
___ silver	
___	
___	
___	
___	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received

Date Extracted

Date Analyzed

Reported By DM

Date Reported 8/25/99

Lab Number 010985 JUL 2799

DHS 3191 (Revised 12/93)

NC Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NC SFN 0406924 Sample ID Number VC-006-SL 07/26/99 1318 GRAB
VC072699, NC S. RYALS

Name of Site Virginia Carolina Chemical Collected By ___ INORG-CLP METALS Soil

Site Location Wadesboro, NC Date Collected VCW-47 108

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	
___ Surface Water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
✓ arsenic	<0.02
___ barium	
___ cadmium	
___ chromium	
✓ lead	5.00
___ mercury	
___ selenium	
___ silver	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	

Inorganic Chemistry

Parameter	Results(mg/l)	(mg/kg)
___ antimony		
✓ arsenic	12	
✓ barium	134	
✓ beryllium	<6	
✓ cadmium	<4	
___ chloride		
✓ chromium	6	
___ cobalt		
✓ copper	51	
___ fluoride		
___ iron		
✓ lead	591	
___ manganese		
✓ mercury	<0.20	
___ nickel		
✓ nitrate (as N)	<10	
✓ selenium	<2	
✓ silver	<4	
✓ sulfates	90	
___ thallium		
✓ vanadium	10	
___ zinc		
___ pH		
___ conductivity		
___ TDS		
___ flash point		

Organic Compounds

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received ___

Date Extracted ___

Date Analyzed ___

Reported By DJM

Date Reported 8/25/99

Lab Number 010989 JUL 2799

DHS 3191 (Revised 12/93)

NC Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington St.
Raleigh, North Carolina 27611-8047

Site Number NC SFN 0406924 Sample ID Number/i VC-008-SL 07/26/99 1240 GRAB
VC072699, NC S. RYALS

Name of Site Virginia Carolina Chemical Collected By ____ INORG-CLP METALS Soil

Site Location Wadesboro, NC Date Collected ____ VCW-51 116

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground Water (1)	___ Solid (5)	
___ Surface Water (2)	___ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
✓ arsenic	<0.02
___ barium	
___ cadmium	
___ chromium	
✓ lead	0.02
___ mercury	
___ selenium	
___ silver	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS.	
___ Acid:B/N Ext.	
___ 2,4-D	
___ 2,4,5-TP(Silvex)	
___ chlordane	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	

Inorganic Chemistry

Parameter	Results(mg/l) (mg/kg)
___ antimony	
✓ arsenic	92
✓ barium	371
✓ beryllium	<6
✓ cadmium	4
___ chloride	
✓ chromium	<4
___ cobalt	
✓ copper	1042
___ fluoride	
___ iron	
✓ lead	329
___ manganese	
✓ mercury	<0.20
___ nickel	
✓ nitrate (as N)	<10
✓ selenium	<2
✓ silver	4
✓ sulfates	7480
___ thallium	
✓ vanadium	6
___ zinc	
___ pH	
___ conductivity	
___ TDS	
___ flash point	

Organic Compounds

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dichloroethylene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

FOR LAB USE ONLY

Date Received ____

Date Extracted ____

Date Analyzed ____

Reported By [illegible]

Date Reported 8/25/99

Lab Number 010990 JUL 2799

DHS 3191 (Revised 12/93)