



USEPA / South Carolina
Self-Directed Work Team

Site Discovery Initiative

Part I

Jonathan McInnis

June 29, 2004

National Site Assessment Symposium
SC Department of Health & Environmental Control



Site Discovery Initiative

Overview

- Why did we start?
- How have we done it?
- What have we learned?
- Future?



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Discovery Initiative: Super Phosphate Fertilizer Manufacturers



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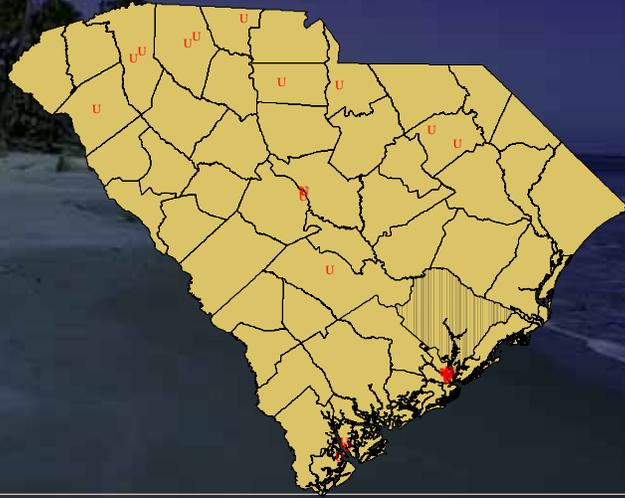
Discovery Initiative: Super Phosphate Fertilizer Manufacturers

- SC leading producer of super-phosphate fertilizer in late 1800's
- Involved on-site production of sulfuric acid
- Problems:
 - High levels of lead & arsenic in soils & sediments
 - Low pH groundwater ($\sim < 2$)



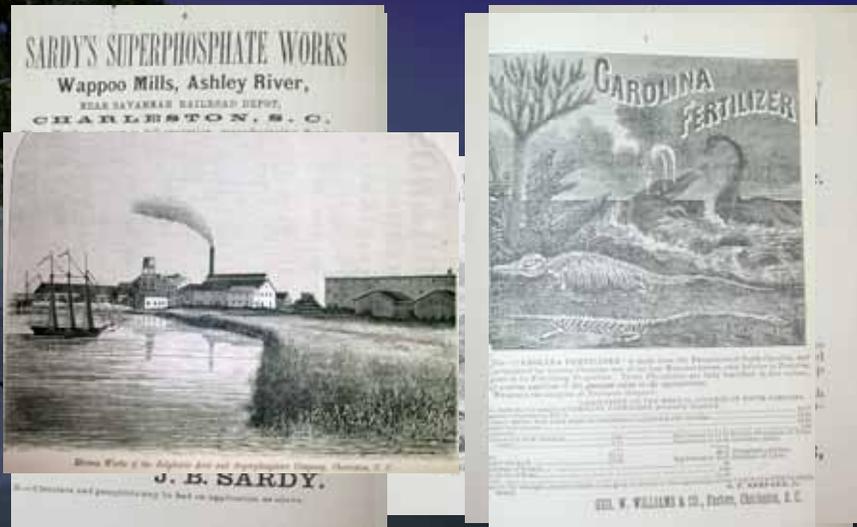
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Discovery Initiative: Super Phosphate Fertilizer Manufacturers



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Phosphate Ads from 1870



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USEPA/SCDHEC Self-Directed Work Team

Representation:

- EPA Remedial Project Managers
- EPA OSC
- EPA Science & Ecosystem Support Division
- SCDHEC Site Assessment
- SCDHEC State Superfund Remedial
- SCDHEC Superfund Hydrogeology
- SCDHEC Bureau of Water
- SCDHEC Health Hazard Assessment (ATSDR)



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Potential Site Discovery Focus Areas

- Manufactured Gas Plants
- Specialty Chemical
- Tanneries
- Wood Treaters
- Junkyards
- Metal Plating
- Aerial Spraying
- Waste Disposal (septic)
- Iron/Lead Mines
- Pesticide Manufacturing/Blending
- Gold Mines
- Kaolin Mines
- Metal Forging/Foundry
- RR/Truck Washout
- Closed Textile Mills
- Closed WW Lagoons
- RCRA (Interim Status)



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Deciding Factors on Site Discovery Focus Areas

- Site Inventory
- Environmental Legacy – what did they leave behind?
- Impact of Sites – “targets” – HRS and Public Health



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Selected Focus Areas 2001-current

- Manufactured Gas Plants
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Research

- Industrial Directories
- City Directories
- Trade Publications
- Agency files
- Sanborn Maps
- Historical Aerial Photography
- Local Libraries
- Local Historical Societies/Museums
- People: Employees/Retirees of facility & regulators, local historians



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Industrial Directories

1952

VI. CHEMICAL AND ALLIED PRODUCTS—Cottonseed Oil Mills

Name of Plant	Post Office	County	Product	Employees
Southern Cotton Oil Co., The	Laurens	Laurens	Cottonseed oil, meal, hulls, linters	1-25
Southern Cotton Oil Co., The	Orangeburg	Orangeburg	Cottonseed oil, cake, meal, hulls, linters, soybean oil and meal	25-50
Southern Cotton Oil Co., The	Spartanburg	Spartanburg	Cottonseed oil, meal, hulls, linters and notes	1-25
Southern Cotton Oil Co., The	Sumter	Sumter	Cottonseed oil, cake, meal, hulls, linters, flax and notes	25-50
Swift & Co., Oil Mill	Columbia	Richland	Cottonseed oil, meal, hulls, cotton linters, and notes	25-50
Swift & Co., Oil Mill	Greenwood	Greenwood	Cottonseed oil, meal, hulls, linters, notes, soybean oil, soybean meal	20-75
*Union Oil Mills	Union	Union	Cottonseed products; fertilizer	20-75
Victor Oil Mill, Inc.	Gaffney	Cherokee	Cottonseed oil, hulls, meal, linters	1-25

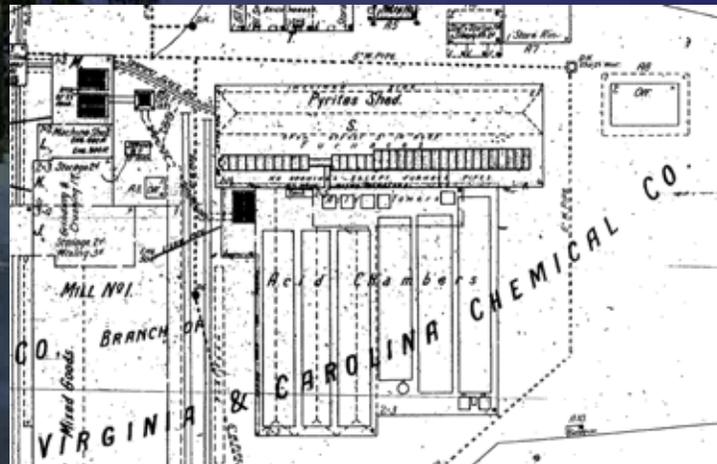
FERTILIZER

Allen Fertilizer Company	Allen	Allen	Dry mixing plant	1-25
Allendale Fertilizer Co.	Allendale	Allendale	Mixed fertilizer	1-25
American Agricultural Chemical Co., The	Cayce	Lexington	Sulphuric acid, super-phosphate complete fertilizer	75-100
American Agricultural Chemical Co., The	Charleston	Charleston	Sulphuric acid, super-phosphate complete fertilizer	100-150
American Agricultural Chemical Co., The	Spartanburg	Spartanburg	Complete fertilizer	25-50
Anderson Fertilizer Co., Inc.	Anderson	Anderson	Sulphuric acid, super-phosphate and mixed fertilizers	75-100
Anderson Gesso Co.	Timonnetville	Florence	Fertilizers	1-25
Armour Fertilizer Works	Columbia	Richland	Commercial fertilizer	25-50
Armour Fertilizer Works	St. Matthews	Catharine	Mixed fertilizers	1-25



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Sanborn Fire Insurance Maps



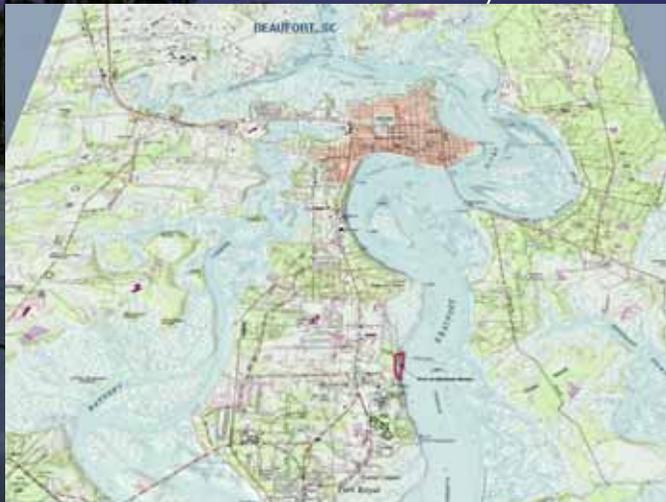
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Case Study: Beaufort, SC



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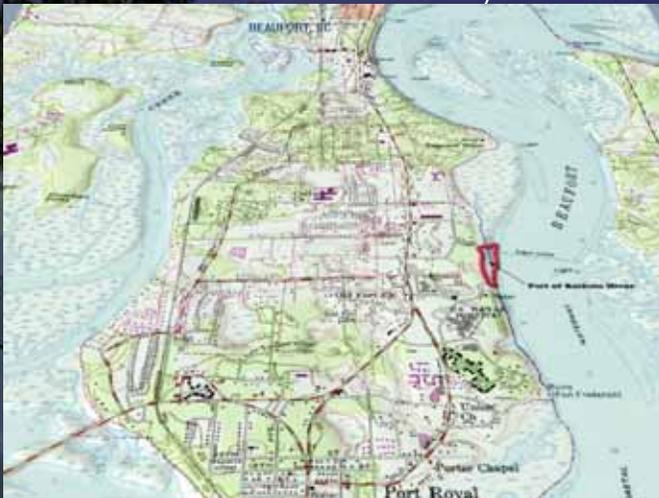
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