Kearney/Centaur Division
A.T. Kearney, Inc.
225 Reinekers Lane
P.O. Box 1438
Alexandria, Virginia 22313
703 548 4700
Facsimile 703 683 2407

Management
Consultants

AT KEARNEY

February 25, 1991

Mr. Ben Singh
Regional Project Officer
U.S. Environmental Protection Agency
Region II
26 Federal Plaza, Room 907
New York, NY 10278

Reference: EPA Contract No. 68-W9-0040; Work Assignment No. R02-10-01; Ashland Chemical, Inc.; Binghamton, New York; EPA I.D. NYD049253719; RCRA Facility Assessment; Visual Site Inspection Summary Report; Final Deliverable

Dear Mr. Singh:

Enclosed please find the Visual Site Inspection (VSI) Summary Report for the above referenced facility. This report summarizes the findings and observations pertaining to the VSI conducted on November 5, 1990. The Summary Report also includes consideration of the information provided by the facility in response to the list of information needs identified during the Preliminary Review (PR).

A total of 13 Solid Waste Management Units (SWMUs) were identified at the Ashland facility. The majority of SWMUs identified are associated with the former operations conducted at the facility when it operated as a solvent/acid redistribution plant. Past operations primarily consisted of packaging solvents and acids from bulk storage tanks into 55-gallon drums. The only operation conducted at the facility at the time of the VSI was the maintenance of an interim status drum storage facility. The facility is presently one of three transport and storage facilities in New York State's Region VII.

Several units identified in the Preliminary Review Report were eliminated SWMUs after the VSI. These include the Solvent Drumming Area, Warehouse No. 3; the Solvent Drumming Area, Warehouse No. 4; the Acid Drumming Area; Drum Storage Areas; the Solvent Tanks; and the Acid Tanks. These areas identified as SWMUs in the Preliminary Review Report, were eliminated since they managed product only. In addition, the drum storage and drumming areas were located indoors with adequately impermeable floor materials thus limiting any routine and/or systematic releases of hazardous constituents

by the environment. The Solvent Tank Truck Unloading/Loading Area (for Tks 101-103); the Sump for Tanks 101-103; and the Solvent Blend Tanks 101-103 were never used and subsequently dismantled. The Stormwater Sewer Lines were eliminated since they do not manage hazardous wastes. The Old Gas Distribution/Petroleum Facility is not located at the Binghamton facility but is located at Ashland Petroleum's Vestal Facility. Ashland's Vestal facility has been closed since June 1987. The Old Tanks (Tks 7-14) identified as SWMUs 7-14 in the Preliminary Review Report, have been renamed the Old Underground Storage Tank Area (SWMU 7).

The Process Sewer identified in the Preliminary Review Report was split into two separate units to reflect the wastes received before and after neutralization. These units are the Process Pipeline (SWMU 6) and the Post Treatment Sewer (SWMU 11) respectively. The Dumpster (SWMU 12) and the Drains (SWMU 13) were identified during the VSI.

There is documented soil contamination at the facility from past practices of storing solvents in underground tanks. In addition, contaminated soil identified during the excavation activities was stock piled at an unknown on-site location and returned to the excavation pit. Facility representatives were not able to provide the exact location of the staging area(s) for the waste piles during the VSI.

Due to the documented soil contamination in the excavation and the past practice of disposing soil contaminated with solvents in the excavation pit, an RFI is suggested. In addition, it is suggested that the facility locate the former waste pile staging areas and conduct soil sampling.

During the VSI, facility representatives provided the results of soil analysis for soil sampling conducted at the Neutralization Pit (SWMU 2). The soil samples were analyzed for formaldehyde, mineral salts, and pH. However, no specific quality assurance/quality control documentation was provided. Unless specific quality assurance/quality control procedures can be documented by the facility, it is suggested that additional soils sampling be conducted at this unit as part of the RFI. Additional samples should be analyzed for formaldehyde.

For the Drains (SWMU 13), it is suggested that the facility provide more detail on the composition of the washwaters regarding hazardous constituents. If hazardous constituents were present in the washwaters, an integrity assessment of the

units and associated pipelines is suggested. Integrity testing is also suggested for the Process Pipeline (SWMU 6) and the Post Treatment Sewer (SWMU 11).

If you would like to discuss this or if you have any questions, please feel free to call me at (703) 548-4700, or Gayle Kline the Kearney Team Work Assignment Manager at (703) 671-0400.

Sincerely,

J.A. Atchue, III
Technical Director

Enclosure

cc: C. Stein, EPA Region II
A. Glazer
L. Poe
J. Atlas
B. Smith
S. Johnson
G. Kline, MRI

FINAL VSI SUMMARY REPORT

FOR THE

ASHLAND CHEMICAL, INC.
BINGHAMTON, NEW YORK
EPA. I.D. No. NYD049253719

Submitted by:

Kearney/Centaur Division
A.T. Kearney, Inc.
225 Reinekers Lane
Alexandria, Virginia 22313

Submitted to:

Mr. Ben Singh
U.S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10278

In Response to:

EPA Contract No. 68-W9-0040
Work Assignment No. R02-10-01

February 1991

FINAL VSI SUMMARY REPORT

ASHLAND CHEMICAL, INC.
BINGHAMTON, NEW YORK
EPA I.D. No. NYD049253719

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF FIGURES

I. INTRODUCTION

The Visual Site Inspection (VSI) of Ashland Chemical's Binghamton facility was conducted on November 5, 1990. The VSI Team consisted of Mr. Terry Schmitt and Mr. Jeff Evans of Midwest Research Institute and Mr. Joseph Galloway of the New York State Department of Environmental Conservation (NYSDEC). The VSI Team was accompanied by Mr. Michael Maier representing the Ashland Chemical's Binghamton facility and Mr. Eldon Ronning representing Ashland's engineering office in Columbus, Ohio.

A total of 13 Solid Waste Management Units (SWMUs) were identified at Ashland's Binghamton facility as a result of the VSI. The majority of the SWMUs are inactive and were associated with the facility's former operations. The former operations consisted of repackaging and blending virgin solvents and acids for redistribution. In addition, the facility operated the Hazardous Waste Storage and Staging Area (SWMU 1) for hazardous wastes generated by their customers. The repackaging operations ceased during February 1990. Since 1990, the facility's activities have been limited to transporting and storing drums containing hazardous wastes generated by former customers and other off-site generators. The facility's interim status unit, the Hazardous Waste Container Storage and Staging Area (SWMU 1), has been active since 1985. The approximate locations of the SWMUs are presented in Figure I-1.

The facility is situated on 2.7 acres in a northeast section of Binghamton zoned for general industrial use. Ashland is bounded to the north by Systems Manufacturing and to the east by a quarry. The facility is bounded to the west by railroad tracks. Residential housing is located to the south and west of the facility.

The facility consists of four warehouses. Warehouse No. 1 and Warehouse No. 2 are located in the north section of the facility. Warehouse No. 3 is located in the west section of the facility and Warehouse No. 4 is located in the southwest section of the facility. An asphalt parking lot occupies the center of the facility. The remaining area to the southeast is vegetated with grass. Warehouse No. 1 is the location of the Hazardous Waste Container Storage and Staging Area (SWMU 1). Warehouse No. 2 is inactive and was previously utilized for drummed product storage. Warehouse No. 3 was the former location of the acid and solvent drumming operations. This warehouse is also the location of the former neutralizing activities. Aboveground solvent and acid tanks which were situated south of Warehouse No. 3 were removed from the facility during early 1990.

Warehouse No. 4 was the location of solvent drumming and drum reconditioning activities until 1986. Facility representatives could not provided information pertaining to the drum reconditioning activities. Four, double compartment, underground

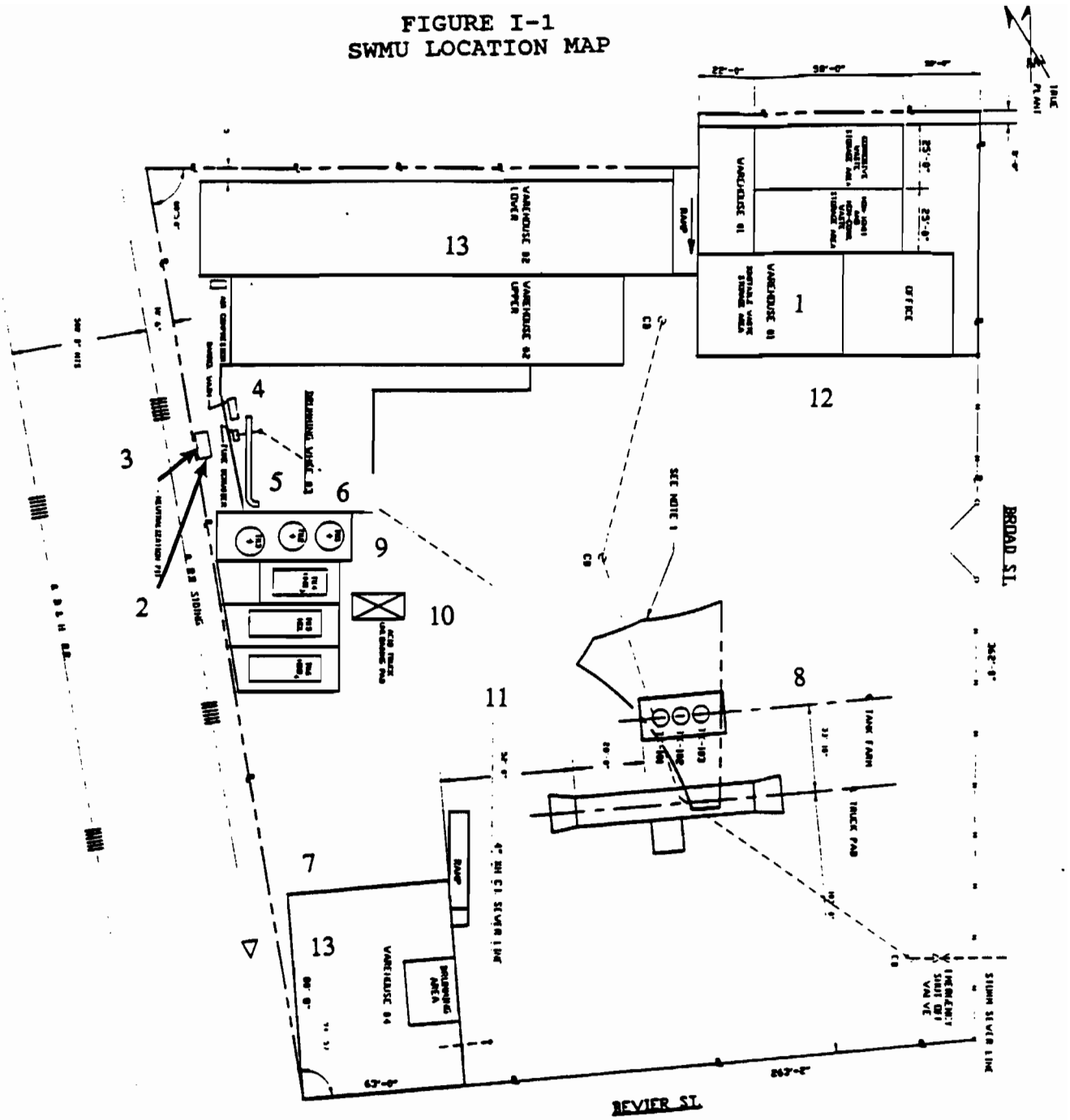
solvent tanks were located immediately to the north of Warehouse No. 4. The tanks were excavated and removed, during April 1986, as part of a Corporate decision to remove existing underground tanks. Soil contamination was discovered during the removal and excavation activities. The contamination was reportedly centered around the tank pump pits. The excavated soil was stockpiled on plastic at two unspecified locations at the facility and were covered with plastic tarps. The soil was returned to the underground tank excavation pits during 1989. Neither facility representatives present during the VSI worked at the Binghamton plant when the excavation and stockpiling activities were conducted. The exact location of the staging areas for the Former Waste Piles (SWMU 8) could not be determined during the VSI. An area northeast of Warehouse No. 4 was identified as a possible location for the piles and is shown on the SWMU map presented on page I-3.

Additional solvent blending tanks were installed north of Warehouse No. 4 during 1987. These tanks were to replace the underground tanks excavated in 1986. However, the new tanks were never used. According to facility representatives, the tanks were never approved by the local fire marshall. The tanks, associated piping, and recovery sumps were dismantled during 1990.

Several units identified in the Preliminary Review Report were eliminated as SWMUs after the VSI. These include the Solvent Drumming Area, Warehouse No. 3; the Solvent Drumming Area, Warehouse No. 4; Old Solvent Drumming Area Warehouse No. 4; the Acid Drumming Area; Drum Storage Areas; the Solvent Tanks; and the Acid Tanks. These areas were eliminated since they managed product only. In addition, the drum storage and drumming areas were located indoors with adequately impermeable floor materials thus limiting any routine and/or systematic releases of hazardous constituents to the environment. The Solvent Tank Truck Unloading/Loading Area (for Tks 101-103); the Sump for Tanks 101-103; and the Solvent Blend Tanks 101-103 were never used and subsequently dismantled. The Stormwater Sewer Lines were eliminated since they do not manage hazardous wastes. The Old Gas Distribution/Petroleum Facility is not located at the Binghamton facility but is located at Ashland Petroleum's Vestal facility. Ashland's Vestal facility has been closed since June 1987. The Old Tanks (Tks 7-14) identified as SWMUs 7-14 in the PR, have been renamed the Old Underground Storage Tank Area (SWMU 7).

The Process Sewer identified in the PR was split into two separate units to reflect wastes received before and after neutralization. These SWMUs are the Process Pipeline (SWMU 6) and the Post Treatment Sewer (SWMU 11) respectively. The Dumpster (SWMU 12) and the Drains (SWMU 13) were identified during the VSI.

FIGURE I-1
SWMU LOCATION MAP



LIST OF SOLID WASTE MANAGEMENT UNITS

1 Hazardous Waste Container Storage and Staging Area
2 Neutralization Pit
3 Old Neutralization Pit
4 Barrel Wash Station
5 Fume Scrubber
6 Process Pipeline
7 Old Underground Storage Tank Area
8 Former Waste Piles
9 Solvent Tank Truck Loading/Unloading Area
10 Acid Truck Unloading Pad
11 Post Treatment Sewer
12 Dumpster
13 Drains

Chapter II presents the visual observations of the SWMUs made during the VSI and Chapter III provides the suggested further actions for SWMUs that may impact human health or the environment. Copies of the VSI logbooks are provided in Appendix A and photographs documenting the condition of the SWMUs, during the VSI, are presented in Appendix B.

II. VSI OBSERVATIONS OF SWMUS

Hazardous Waste Container Storage and Staging Area (SWMU 1)

Photograph Number: 1, 2, 3, 4, 7 and 34

The unit is located inside Warehouse No. 1 in the northeast section of the facility. This active, interim status unit consists of three compartments utilized to segregate ignitable, corrosive, noncorrosive, and non-hazardous wastes. The unit has been active since 1985 and has a combined storage area of approximately 5,500 square feet. Wastes stored at the unit include Ignitable wastes, halogenated toxic wastes, EP toxic wastes, spent commercial solvents, corrosive wastes, toxic wastes, plating/metal wastes acutely toxic wastes, and New York Non-Hazardous Wastes. Approximately 98 percent of the wastes are stored in 55-gallon drums with the remaining two percent consisting of storage in fiber drums and five-gallon pails. Drums are stored on wooden pallets stacked two high. The concrete floor is coated with a polyester resin that is corrosive resistant. The wastes are received by the facility via trucks which are unloaded through two loading docks situated on the south side of Warehouse No. 1. There are no bulking or analytical activities conducted at this unit or at the facility. The VSI Team observed approximately 350 drums stored at this unit.

Neutralization Pit (SWMU 2)

Photograph Number: 21 and 23

The inactive unit is located outdoors on the west side of Warehouse No. 3 in the northwest section of the facility. This unit replaced the Old Neutralization Pit (SWMU 3). Both neutralization pits occupied the same location and were used to neutralize wastewater and spillage generated at the Barrel Wash Station (SWMU 4), the Fume Scrubber (SWMU 5), the Acid Truck Unloading Pad (SWMU 10), and the acid drumming operations, which were conducted in Warehouse No. 3. The unit received the wastewaters and spillage via the Process Pipeline (SWMU 6). The inactive Neutralization Pit (SWMU 2) was installed during June 1987 and was used until February 1990. The pit was observed to be covered with a plastic tarp at the time of the VSI. The unit consists of an in-ground, precast concrete septic tank, with walls eight inches thick. The tank is 11 feet long, seven feet wide, and five feet deep and has been lined with a corrosive resistant polyester resin (Hetron). The capacity of the tank is 2000 gallons. The wastewaters previously received by the unit contained dilute amounts of muriatic, nitric, sulfuric, and hydrochloric acid; caustic rinseate from drum washing operations; and formaldehyde rinseate. Drums that had contained

formaldehyde were reportedly rinsed during one operation at the Barrel Wash Station (SWMU 4). Therefore at one time the wastewater contained dilute amounts of formaldehyde in addition to the acidic and alkaline wastewaters. The neutralization operations conducted at the pit consisted of adding caustics or acids to the wastewater to maintain a pH range of six to nine. Following neutralization, the contents of the pit were discharged to the Post Treatment Sewer (SWMU 11) via a portable pump and hoses. The Post Treatment Sewer (SWMU 11) intake point is located inside Warehouse No. 3. The Neutralization Pit (SWMU 2) developed a leak in 1988. After the unit was repaired, soil sampling was conducted by the facility. The samples were analyzed for formaldehyde, mineral salts, and pH. The results of the analysis indicated no concentrations of formaldehyde above the detection limit of 10 ppm. Up to 350 ppm nitrate, 95 ppm chloride, and 2000 ppm sulfate were detected. The pH range of the soil samples was 4.7 to 7.3.

Old Neutralization Pit (SWMU 3)

Photograph Number: 21 and 23

This now dismantled unit occupied the same location as the Neutralization Pit (SWMU 2) in the northwest section of the facility. The unit operated from 1976 to 1987 and was replaced by the Neutralization Pit (SWMU 2). The unit was an in-ground, concrete tank with a fiberglass lining. The facility representatives indicated the unit's dimensions were slightly smaller than the Neutralization Pit (SWMU 2) presently on-site. An inspection of the tank during 1987, revealed the liner had deteriorated, causing the unit to be replaced. The wastes managed and neutralization techniques for this unit are the same as those described for the Neutralization Pit (SWMU 2). However, the unit did not receive formaldehyde rinseate.

Barrel Wash Station (SWMU 4)

Photograph Number: 12, 13, and 14

The inactive unit is located inside Warehouse No. 3 in the northwest section of the facility. The station consists of a concrete sump used to collect rinseate from empty drum rinsing operations. The empty drums were generated by the facility's customers. The concrete sump is approximately four feet long, three feet wide, and one foot deep. The approximate capacity of the unit is 75 gallons. Empty drums that previously contained acids and caustics were rinsed with stationary spray nozzles located at the unit. The rinseate collected by the sump drained into the Neutralization Pit (SWMU 2) via the Process Pipeline (SWMU 6). The rinseate contained dilute amounts of muriatic, nitric, sulfuric, and hydrochloric acids as well as caustic. Drums that

contained formaldehyde were also reportedly rinsed, one time, at this location.

Fume Scrubber (SWMU 5)

Photograph Number: 15, 23, and 24

The inactive unit was located inside Warehouse No. 3 in the northwest section of the facility. The unit was used to treat the acid vapors generated by the acid drum filling operations, truck unloading operations, and the barrel washing operations. At the time of the VSI, all that remained of the unit was an exhaust pipe approximately 10 inches in diameter. Facility representatives could not provide operational details for the unit. The unit operated from 1976 to 1990. The unit discharged scrubber water into the Neutralization Pits (SWMUs 2 and 3) via the Process Pipeline (SWMU 6).

Process Pipelines (SWMU 6)

Photograph Number: 15

The inactive unit consists of pipes used to transfer wastewater from the Barrel Washing Station (SWMU 4) and the Fume Scrubber (SWMU 5) as well as spillage from the Acid Truck Unloading Pad (SWMU 10) to the Neutralization Pits (SWMUs 2 and 3). The pipes are located above and below-ground. The wastewater contained dilute amounts of caustic; muriatic, nitric, sulfuric, hydrochloric acid; and small amounts of formaldehyde. The unit is located throughout the immediate vicinity of Warehouse No. 3. There is approximately 150 feet of pipe. Some sections of pipe have been removed since some of the units, previously connected to the lines, have been dismantled. The unit operated from 1976 to 1990. Soil samples were taken from the vicinity of where the pipes connect to the Acid Truck Unloading Pad (SWMU 10) and where the pipes connect to the Neutralization Pit (SWMU 2). These samples were taken at the time the Neutralization Pit (SWMU 2) investigation was conducted. A pH of 7.2 was indicated for the soil sample taken near the pit and a pH of 4.7 was indicated for the soil sample taken near the unloading pad.

Old Underground Storage Tank Area (SWMU 7)

Photograph Number: 29

This unit is the area formerly occupied by four underground solvent storage tanks in the immediate vicinity of Warehouse No. 4 in the southwest section of the facility. The tanks were constructed of steel and had two 7,500 gallon compartments each. The tanks were

anchored to a concrete pad reportedly situated above the water table. The tanks were three feet below grade. The tanks were excavated in April 1986 and had been operating since at least 1969. The tanks contained mineral spirits, toluene, methyl ethyl ketone (MEK), acetone, methanol, xylene, and isopropyl alcohol. Excavation activities were monitored with an HNu meter. Soils that registered twice the ambient background on the HNu meter or soils that appeared discolored were stockpiled. Two piles of contaminated soil approximately 10 cubic yards each were generated from these activities. The two piles are referred to in this report as the Former Waste Piles (SWMU 8) and consist of the soils that were closest to the pump pits associated with the tanks. During the excavation of the tanks, composite soil samples were collected from beneath the concrete pad; from the Former Waste Piles (SWMU 8); and from the soils intended for backfill. The samples were analyzed for mineral spirits, toluene, MEK, acetone, methanol, xylenes, and isopropyl alcohol. Results of the analysis indicated 0.008 to 0.21 ppm toluene in the samples from beneath the concrete pad; 0.22 ppm acetone from the backfill; and 2.2 to 310 ppm mineral spirits, 0.007 to 1.95 ppm toluene, and 0.28 to 0.34 ppm acetone from the Former Waste Piles (SWMU 8). The Former Waste Piles (SWMU 8) were staged at unknown locations on plastic liners and covered with plastic tarps for two years. The Former Waste Piles (SWMU 8) were returned to the Old Underground Storage Tank Area (SWMU 7) during the summer of 1988. The excavated area had been filled, leveled, and was covered with a gravel/soil mix at the time of the VSI.

Former Waste Piles (SWMU 8)

Photograph Number: 29, 33, and 34

This unit consists of two piles of contaminated soil excavated from the Old Underground Storage Tank Area (SWMU 7) in 1986. The piles were staged on plastic and covered with plastic tarps for two years. The exact location of the waste pile staging areas could not be determined during the VSI. Eventually, the piles were respread over the Old Underground Storage Tank Area (SWMU 7). Each pile consisted of approximately 10 cubic yards of soil contaminated with toluene, acetone, and mineral spirits. The results of the soil samples collected from the two piles indicated 2.2 to 310 ppm mineral spirits, 0.007 to 1.95 ppm toluene, and 0.28 to 0.34 ppm acetone. The analysis was conducted in 1986. No additional sampling was conducted. A suspected staging area, identified during the VSI, is located next to the unused blending tanks 101-103 in the east section of the facility. The suspected staging area, identified by the facility representatives, is shown in photographs 33 and 34.

Solvent Tank Truck Loading/Unloading Area (SWMU 9)

Photograph Number: 18

This inactive unit is located outdoors on the east side of Warehouse No. 3 in the northwest section of the facility. The unit consists of a small concrete pad approximately 10 feet long, five feet wide, surrounded by a concrete curb approximately six inches high. The pad was used to stage solvent transfer hoses during unloading operations. The unit had a belt of new asphalt around the outside of the curbing at the time of the VSI. Minor cracks were also observed. However, no stains were observed on the concrete. The unit operated from approximately 1987 to February 1990 and may have received small amounts of drippage consisting of various solvents including, but not limited to, acetone, toluene, and xylene.

Acid Truck Unloading Pad (SWMU 10)

Photograph Number: 19

This unit is located outdoors on the southeast side of Warehouse No. 3 in the west section of the facility. The unit consists of a concrete pad approximately 12 feet long, six feet wide, and four inches deep. The pad is equipped with a small metal pipe drain connected to the Process Pipeline (SWMU 6). The drain was filled with water and leaves and the west end of the pad was covered with an asphalt patch, at the time of the VSI. The unit received nitric, sulfuric, and hydrochloric acid drippage from the truck unloading activities. The unit operated from 1976 to February 1990. Soil samples were collected from the immediate vicinity of the unit during 1988. Results of the analysis indicated a pH of 4.7.

Post Treatment Sewer (SWMU 11)

Photograph Number: 9 and 27

This inactive unit consists of four inch, heavy gauge, cast iron pipe located below-ground between Warehouse No. 3 and the municipal sewer located on Bevier Street on the facility's south border. The unit received neutralized wastewater from the Neutralization Pits (SWMUs 2 and 3) from 1976 to 1990. The unit may also have received small amounts of formaldehyde. Since the unit is located below-ground it could not be observed during the VSI.

Dumpster (SWMU 12)

Photograph Number: 7

This active unit is a self-contained metal container located outside Warehouse No. 1 in the northeast section of the facility. Units of this type have been operating at the facility since at least 1976. The unit is approximately five feet long, four feet wide, and four feet tall. The unit is elevated above the asphalt via metal legs and wheels. The unit receives domestic refuse.

Drains (SWMU 13)

Photograph Number: 9 and 27

The unit consists of two drains observed during the VSI. One drain was identified inside Warehouse No. 2 and was reportedly designed to collect emergency sprinkler water in the event of a fire. The other drain was located in the immediate vicinity of an old paint booth inside Warehouse No. 4. The paint booth was reportedly used for drum reconditioning activities. Both drains appeared to have received building/equipment washdown that may have contained hazardous constituents. Facility representatives were unable to provide information pertaining to the disposition of the drains or wastes managed.

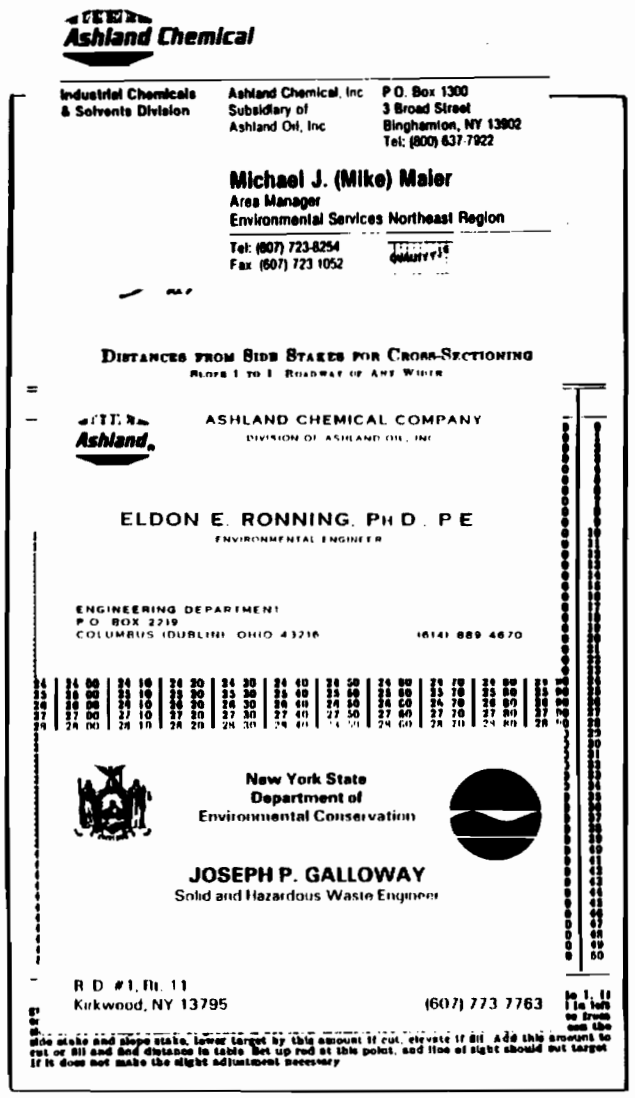
III. SUGGESTED FURTHER ACTIONS

An RFI is suggested for the Old Underground Storage Tank Area (SWMU 7) due to the documented soil contamination discovered during the tank excavation activities. In addition soil contaminated with mineral spirits, acetone, and toluene was staged at an unknown on-site location and later returned to the former underground tank area. As part of the RFI investigation for the Old Underground Storage Tank Area (SWMU 7), it is suggested the facility locate and sample the staging areas for the Former Waste Piles (SWMU 8).

For the Drains (SWMU 13), it is suggested that the facility provide more detail on the composition of the washwaters regarding hazardous constituents. If it is determined that hazardous constituents were in the washwater, an integrity assessment of the drains and associated piping is suggested. Integrity testing of the Process Pipeline (SWMU 6) and the Post Treatment Sewer (SWMU 11) is also suggested.

During the VSI, facility representatives provided the results of soil analysis for soil sampling conducted at the Neutralization Pit (SWMU 2). The soil samples were analyzed for formaldehyde, mineral salts,m and pH. The results of analysis indicated formaldehyde below the detection limit. However, no specific quality assurance/quality control documentation was provided. Unless specific quality assurance/quality control procedures can be documented by the facility, it is suggested that additional soil sampling be conducted at this unit as part of the RFI. Additional samples should be analyzed for formaldehyde.

A. Field Log



Ashland Chemical

Industrial Chemicals & Solvents Division

Ashland Chemical, Inc
Subsidiary of
Ashland Oil, Inc

P.O. Box 1300
3 Broad Street
Binghamton, NY 13902
Tel: (800) 637-7922

Michael J. (Mike) Maier
Area Manager
Environmental Services Northeast Region

Tel: (607) 723-8254
Fax (607) 723 1052

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING
SLOPE 1 TO 1 ROADWAY OR ANY WIDTH

ASHLAND CHEMICAL COMPANY
DIVISION OF ASHLAND OIL, INC

ELDON E. RONNING, PH.D., P.E.
ENVIRONMENTAL ENGINEER

ENGINEERING DEPARTMENT
P.O. BOX 2219
COLUMBUS (DUBLIN), OHIO 43216 (614) 889 4670

New York State
Department of
Environmental Conservation

JOSEPH P. GALLOWAY
Solid and Hazardous Waste Engineer

R.D. #1, Rt. 11
Kirkwood, NY 13795 (607) 773 7763

side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary

CONSTRUCTION BOOK

TERENCE J. SCHMITT
MIDWEST RESEARCH INSTITUTE
5109 LEESBURG PIKE
SUITE 414
FALLS CHURCH, VA 22041
703 - 671 - 0400

LITHOGRAPHED WITH WATERPROOF INK ON HIGH GRADE 50% RAG 24 LB WATER REPELLANT PAPER AND SEWED WITH NYLON WATERPROOF THREAD

MADE IN U.S.A.

ASHLAND CHEMICAL, BINGHAMTON, NY

RCRA FACILITY ASSESSMENT (RFA)

VISUAL SITE INSPECTION (VSI) LOG BOOK

WORK ASSIGNMENT NO. ~~R04-10-09~~ R02-10-01 TS

MRI PROJECT NO. 9380-96-31

NOVEMBER 5, 1990

INITIAL MEETING SCHEDULED: 8:30 AM 11-5

PARTICIPANTS:

JEFF EVANS, MRI
TERRY SCHMITT, MRI
MICHAEL J. MAIER, ASHLAND
ELDON RONNING, ASHLAND
JOE GALLOWAY, NYSDEC

MAIER - 8 MONTHS

ASHLAND OIL - 1969 PRODUCTS NEEDS (COLLIER) FROM ANOTHER COMPANY IN SOLVENTS + CHEMICALS (MAYBE LOCAL SOLVENTS)

UPGRADE 1976 - DRUMMING OF PRODUCTS FOR BULK TANKS

1986 - 4 TANKS PULL OUT
1987 - [redacted]3 REPLACED
3 BLEND TANK + PAD (MAYBE NEVER USED)
FEB. 1990 - INACTIVATED EXCEPT WASTE STORAGE AREA, PLANS TO USE THIS AS A REGIONAL WASTE STORAGE AREA

2 PARCELS OF LAND PURCHASED IN 1969, 1 PARCEL IN 1983

1969 - 1990 SELLING, REDISTRIBUTING SOLVENTS

SUPERVISION OF REMOVAL OF TANKS BY STATE (NOT J. CALLOWAY) BECAUSE IT WAS NOT RCRA

~~FIRST KNOW~~ WHEN EXPANDED STORAGE OF HAZ. WASTE FROM CUSTOMERS TO ALL INDUSTRIES?

~ 1986, 1987 ACCEPTING

1985 - APPROVAL FROM STATE FOR HAZ. WASTE STORAGE

ASHLAND ONE OF THREE PERMITTED HAZ. WASTE STORAGE IN REGION 7

Process

PICK-UP WASTE FROM CUSTOMERS
SOME ON COMMON CARRIERS, MOST ON THEIR TRUCKS
98 % OF 55 - GALLONS DRUM, SOME IN OVER-PACKED, SOME 30 - OR 5 - GALLON PACKS, NO BULK
NO COMBINING OFF WASTES
CHARACTERIZATION - SAMPLING AT CUSTOMERS FACILITIES
SAMPLING HERE VERY INFREQUENTLY, NO LAB HERE, SEND IT OFF FOR TESTING

STILL ONLY STORING IN WAREHOUSE #1
NO PLANS FOR 2 - 4

ATTACHMENT II of VSI NOTIF.

INITIAL PART A (1983) NOTED ANOTHER WASTE STORAGE AREA IN NORTH WAREHOUSE #4, BUT JOE DOESN'T THINK IT WAS EVER USED

JOE - 1986 - RCRA, ONLY HAZ. STORAGE AREA IN WARE #1

ABOVE OF 1980 - GEN + STORAGE
1ST NOT.
1983 - FIRST PART A
1985 - APPROVED BY STATE

NO LESS 90 DAY STORAGE AREAS
NO SUMPS

5. APRIL 1986 - REMOVAL OF 4 TANKS
NO FORMAL INSPECTIONS
OPERATING RECORDS, MAYBE
ENG. TYPE INSPECTION OF TANK MAYBE
NO RECORD OF RELEASES, SPILLS
SOME MONITORING AFTER REMOVAL
+ SOIL SAMPLING BY CONSULTANTS;
LOW READINGS AT REMOVAL
15,000 GALLON UNDERGROUND TANKS
STEEL
DOUBLE COMPARTMENT
8 CHEMICALS STORED

6. NO SOIL BORINGS
NO HYDRO DATA

GIVEN TO US FROM ASHLAND, PRELIMINARY INFORMATION NEEDS FOR RFA PACKAGE

SWMU 17-33 POSSIBLE SAME THING

AOC A - NEVER BEEN ANYTHING LIKE THAT HERE, CERTAINLY NOT ASHLAND, DON'T KNOW ANYTHING PRIOR TO 1969, TANKS WERE HERE

EASTERN CHEMICAL MAY HAVE BEEN LEASING THE LAND FROM COLLIER (REED) ASHLAND BOUGHT SOME EASTERN PROPERTIES IN 1969 AND THAT IS MAYBE HOW THE LAND WAS ACQUIRED

JOE
VESTAL TERMINAL IS PROBABLY ASHLAND PETROLEUM IN THE TOWN OF VESTAL
5 MILES WEST IN THE SOUTH SIDE OF THE RIVER, ASHLAND CHEMICAL NEVER IN THAT AREA THAT HE KNOWS OF

SWMU 1

LIST OF WASTES IN PART B IS ACCURATE, LAST SUBMISSION 1988 + 1989
NO UPDATES TO LIST OF WASTES

NO HISTORY OF RELEASES

SWMU 2

STILL THERE, NOT OPERATED SINCE FEB. 1990, NO PLANS FOR OPERATING, CAP OFF

DIMENSIONS IN PACKAGE
11 x 7 x 5 DEEP, 2000 GALLON UNIT

A NEUTRALIZATION UNIT SINCE 1976

THIS UNIT SINCE 1987
BEFORE UNIT SINCE 1984
SO POSSIBLE A THIRD UNIT OR MORE

PUT IN SAME PLACE AS OLD ONE
PLOT PLAN SHOWING 2 NEXT TO EACH OTHER IS WRONG
ONLY ONE SPOT

S-6 UNIT COMING INTO IT

THE ACIDS WOULD BEEN THE PREDOMINANT WASTES TO THE UNITS

FORMALDEHYDE DRUMS WHERE ONCE WASHED IN THIS AREA

SOIL TESTS FOR BASED ON RELEASE POSSIBILITY

EMPLOYEE CHARGED ASTRAND OF ILLEGAL DISCHARGE, SHUT DOWN + CLEANED IT OUT, CLEANED MATERIALS WERE SUPPOSEDLY THROWN ON DIRT, NO EVIDENCE OF RELEASE THOUGH

SWMU 3

UNGROUND CONCRETE TANK, LINED WITH FIBERGLASS LINER, CAPACITY + DIMENSIONS, SLIGHTLY SMALLER THAN UNIT NOW, SAME SERVICE AS SWMU 2, ELIMENTARY NEUTRALIZATION, 1976 - SEWER LINE TO SANITARY SEWER LINE TO [illegible] / JOHNS. CITY WENT PLANT PUMP OUT (NO DRAINING) TO SEWER LINE UNDER SUPERVISION

NO HISTORY OF RELEASES, LINER FAILED INTEGRITY TEST

SWMU 4

NO LONGER THERE

CONCRETE STATION, FLOOR-METAL LINER

CAPACITY FOR PROBABLY ONE-2 DRUMS
GRAVITY DRAINING TO NEXT. PIT

RINSING RETURNED DRUMS, DRUM PUT ON TOP OF STATION-MAY HAVE SPRAY NOZZLES
WASHWATERS TO NEXT. PIT

INSTALLED IN 1976
CLOSED 1990

PURE WATER FROM SPRAY NOZZLES

IRA BOILER - PLAN VIEW 1975

DRUMS ARE RE-USED

NO HISTORY OF RELEASES

SWMU 5

FUME SCRUBBER CLOSED FEB. 1990
REMNANTS

SCRUBBING ACIDS, COLLECT ACID FUMES FROM ACID STORAGE TANKS, ACID DRUMMING STATION, BARREL WASH, NEUT. UNIT

START-UP 1976

SWMU 6

NEVER HOOKED INTO ANYTHING ACTIVE

FACILITY MAP SHOWS LOCATIONS

SWMU 7

FROM NEUT. PIT, PUMPED OUT TO SEWER LINE, POTABLE PUMP + HOSES

PLOT PLAN LOOKS LIKE IT COMES FROM FUME SCRUBBER BUT IT DOESN'T IT COMES FROM N. P.

1976 MADE HOOK UPS

RELEASE CONTROLS, CHECK OF NEUT. UNIT

SWMUs 8-15

TALK ABOUT EARLY
4 15,000 GALLON TANKS
2 7500 COMPARTMENTS

START-UP UNKNOWN
NO INSTALLATION RECORDS
PROBABLY 20 + YEARS OLD

SOILS DATA IN PACKAGE

TANKS ABOVE GROUNDWATER

DISPOSITION OF SOILS - 2 STOCK PILES

SOILS > AMBIENT ~ 20 CUBIC YARDS

MAINTAINED ON SITE FOR 2 YEARS
PLACED BACK WHERE TANKS WERE
NO RESAMPLING
~~no trouble~~ STORED ON A LINER

2 COMPOSITES FROM EXCAVATION
SAMPLES PUT BACK IN HOLE
SAMPLE FROM HOLE

NO SAMPLES SINCE APRIL 1986

1999 SPREAD/PUT BACK

REST OF SWMUs

GO OUT AND LOOK AT

SWMUs 30-32 PROBABLY NEVER USED
WAS TO BE USED FOR PRODUCT
NOT WASTE

VSI - 10:15 AM

SWMU 1

TRUCKS PULL UP TO GATE, HILO
OR PALLET PUSHER TO UNLOAD

CORROSIVE
&
OTHER

CONCRETE FLOORS + DIKES

FLAMMABLE

STORED ON PALLETS
NO MORE THAN
TWO HIGH, 4 TO
A PALLET

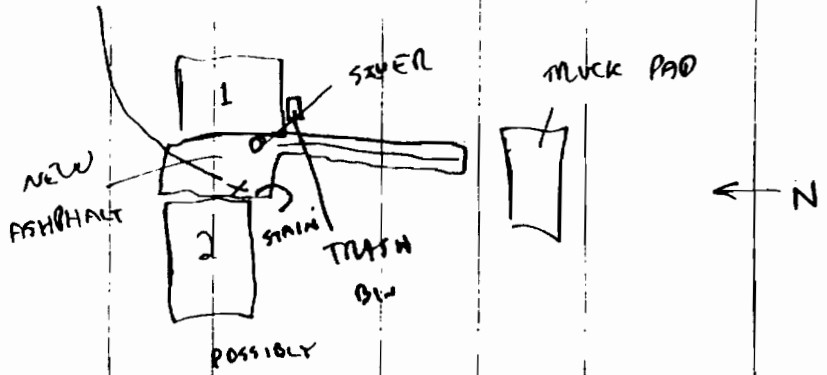
NO EVIDENCE OF STAINING

Process

2 TRUCKS, OUT ALL THE TIME
GOING TO VARIOUS AREAS
PICKING-UP & DROPPING OFF WASTES

SEWER LINE RECENTLY WORKED ON

OLD FUEL OIL TANK REMOVED



?? ONCE DID RECEIVE CHEMICALS BY RAIL CAR

MAYBE NOT

NO KNOWN RAIL CAR TRANSFER STATIONS

BARE #2

SEWER IN LOWER W #2 IS CONCRETE & FILLED

NOT TO MGMT. BUT THAT THEY KNOW OF

SPRINKLERS IN THE WAREHOUSE SO MAYBE FOR THAT PURPOSE

VIRGIN PRODUCT STORAGE

CONCRETE FLOORS

POSSIBLE UNLOADING OF RAIL CAR AT ONE PT.

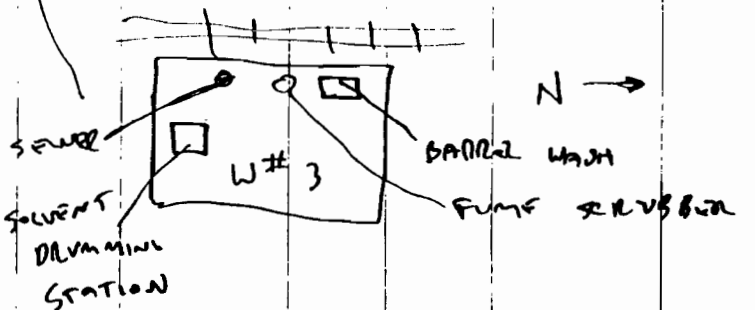
COLLECTION SUMP FROM BLENDING TANK

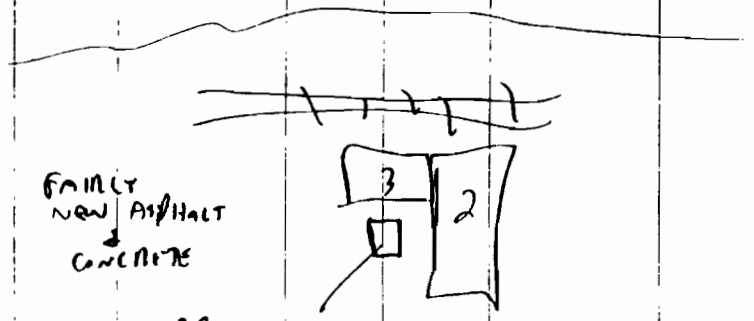
AREA IN UPPER W #2 SITTING ON 2 PALLETS

SCRUBBER - MATL OF CONC, PLASTIC

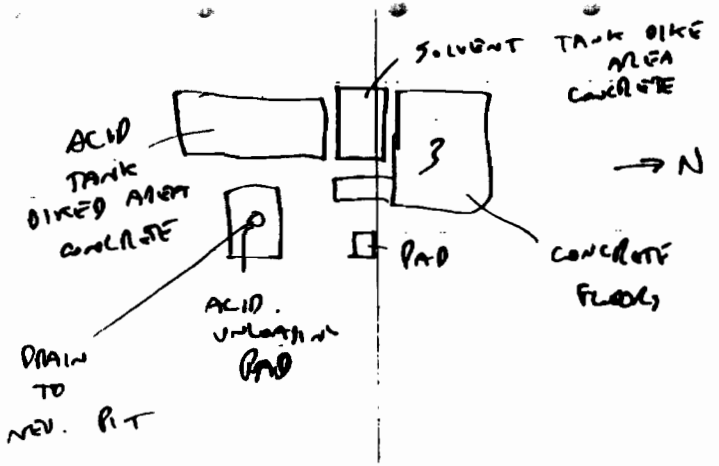
ONLY REMNENT OF ACID DRUMMING STATION & BARREL WASH

IS SEWER NEXT TO BARREL WASH + FUME SCRUBBER





DRUM UNLOADING PAD OR FOR PUTTING HOSES + LINES OUT FOR SOLVENT TRUCKS UNLOADING

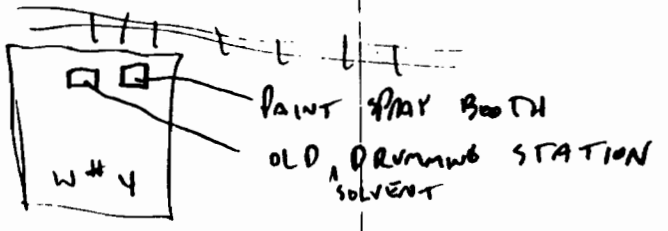


~~ACID~~ ALL 9 TANKS REMOVED

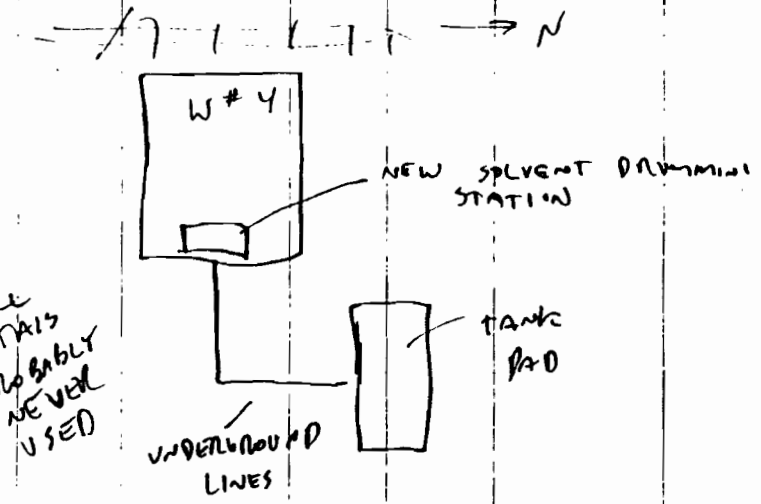
FEB. 1990

NEUT. PIT CAPPED WITH BLUE PLASTIC LINER, UNIT ALWAYS IN ONE SPOT, NO EVIDENCE OF RELEASE/STAINING

PAINT APPEAR TO HAVE UNLOADED OFF RAIL CARS IN MANY YEARS

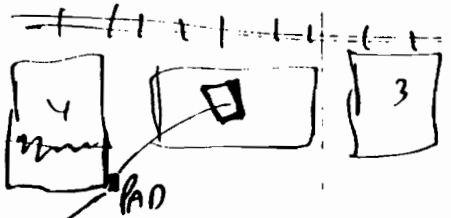


OLD SOL. DRUMMING STATION WAS PROBABLY USED W/ 4 TANKS THAT WERE REMOVED. PROBABLY TAKEN OUT OF SERVICE SOME TIME

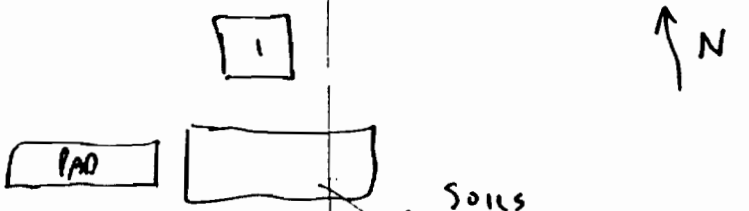


✡ ALL THIS PROBABLY NEVER USED

UST EXCAVATION AREA HAS A RECENTLY NEW CONCRETE PAD ~ 10 x 3 FT. IN SIZE, BURIED UNDER ROCKS



SEWER DRAINS DIRECTLY TO STORM SEWER LINE BY REMER ST.



SOILS PROBABLY STOCKPILED IN THIS AREA

Jeff Evans

MRI

VSI Ashland

11/5/90

ROA-10-01

11/5

Purchased facility 1969 from chem + sol business. Upgraded in 1976

Ferros facility was bulk ashland added drum handlg

1986 for UST solvent tanks.

1987 3 blend tanks in Feb 1990

Neutralization last used Feb 1990

only waste storage.

Ashland customers

Property deeds show Collier Chemicals as original deed

No records of improvmt until 1976

Collier was mostly solvents

2 parcels in 69 (bulk of operating facility) additional property purchased in 1983

Solvents sold until 1990

Tank pulled out Notified state some supervision
Above-ground - acid tanks 5 6
solvent tanks +3
blend tanks

USTs

1985 Approval from state @ 86, 87 expanded to include other people outside Ashland about customers

only 3 facilities receive waste for transport in Region 7 of NY.

Now

recent waste pick-up on Ashland trucks log in, store, then ship.

@98% 55 gallon drums some w overpacks some fibers — NO bulk.

no bulking, mixing, or neutralizing wastes

They take sample send to disposal facility for analysis. pull samples only. no-on-site lab.

No further plans for improvement or demolition.

Warehouse 4 was applied for but not used.

Part A gen + storage no permits to operate until 198

Warehouse 4 was proposed never used.

USTs in 1986 no formal inspection maintained weekly inventory.

Plant service group that inspected them.

No records of releases or loss. company policy pulled out tanks not needed. some monitoring some soil sample w/ HNu + some soil sample of areas where double background HNu measurements, were taken

15000 gallon UST steel tanks

No site specific study other than soil monitoring.

Products stored in UST Are provided in the sample analytical results given by reps at VSI.

swmus 17 + 33 may be the same.

(3)

Former facility (Collier)
Had tanks (USTs) NO good facility background
beyond 1969 so they are at least as old as 21yrs

Collier may have been also involved w/
Eastern Chemical . . Ashland did buy some
Eastern chemicals (which are not on deed)

Ashland was only chemical . . AOC A

cannot be verified by facility reps.

unlikely may be the other ashland petroleum

facility. Vestle

① Soda ash, dry clay, well bermed + over packs.

② Not operated since 1990
covered up + capped no lines to it.
dimensions 11 x 7 x 5' deep

2000 gallon capacity

old vent tank was in same spot but
was smaller (but not 1000)
did not cut in 76

(4)

only two neutralization tanks to best of facility knowledge (may be three) Terry check dates.

also for acid + caustic drumming lines + scrubber discharged to it. all neutralization tanks in one area.

some sulfuric, muriatic, nitric acid washwaters. some formaldehyde was washed into area. some sample + salts, pH, formaldehyde, found no evidence

former employee complained that neut tank received haz waste. may have been sump line. mineral salts above background. Acid drum line was removed and neut pit used somewhat.

(3) in-ground concrete tank w/ resin coating was slightly smaller but they don't have details. received washwaters from drum rinse for simple neutralization.

was pumped to the sewer in 1976 tied into warehouse tk 4

(5)

Bill Thrgan supervisor POTW

basically it is pumped out w/ portable pump to sewer line

The liner did fail integrity test.

source (4) NO barrel wash concrete station floor lined w/ hetron (polyester resin - acid resist)

consists of concrete station for 1 - 2 drums drained to vent t.

had stationary spray nozzles.

1976 - 2/90

source (5) The remains of the unit (a portion) are still at the unit. standard unit for fumes from barrel wash & Acid dumming + off loading activities. 1976 associated with Acid above-ground tanks

(6)

Storm

@ Storm water only

Storm

⑦ line for vent. tank

pumped to sewer line utilizing portable pump + hoses. to possible warehouse 3 pvc + ci 4"

8-15 - 4 tanks w/ double capacity
5000 gal tanks 7500 gal compartments

- start up ? may go beyond 1969

on liner for 2 years @ 10B

- NOR records indicating Ashland installed the at removal. soils was samples soils above ambient were stockpiled ne from pump pits (soaa contam) tanks above groundwater when removed

- soils above Ambient we stockpiled @ 20 cu yds (310 ppm mineral spirits)

maintain stock pile + sample for 2 years were redistributed same place w/ te

the case has been lifted.

⑦

Took composite for backfill

composite above ballast pad.

sample put back in hole

samples for top dressing.

NO samples since 1984. @ 1988 summer

respread over former UST area.

began tour 10:15

on Hazardous Waste Storage Area

Photo # 1-1 view of Hazardous Waste Storage Area

18 drums of D001 Flam

7 pallets of D001 flam

19 pallets

8 carboys of Flam solids
F003 F005

7 pallets of flam

8

had waste solvin because
was isopropanol / perchloroethyle.
@ 55 pallets of materials
Ferric chlor.de

appeared to be well managed.

1-5 of storm sewer was a fuel oil tank here.

Ice may have been rerouted to make way to construct the tanks. cut-off at corner of dikes

1-6 view of storm sewer facing south.

1-7 view of loading dock + Dumpster facing north

Warehouse #

1-8 Product storage Area

1-9 drain floors probable drain for fire water somewhat stained. white chunky

1-10 chunky area of upper level warehouse #2 likely drain to ?

1-11 former sump situated in upper level of warehouse #2

old sump for collection tanks may never have been used.

1-12 close-up of Drum station
1-13 overview of Drum station.

1-14 Drum station + scrubber

1-15 sump in vicinity

1-16 scale at old Drum station
1-17 vent at old Drum station

1-18 facing southwest
1-19 west unloading area

(10)

1-20 solvent tanks

1-21 Neutralization tank Areas and rail unloading Areas.

1-22, 23 Neutralization Area + Scrubber Area

1-24 old paint booth Air recondition + lines for USTs

1-25 possible drain in front of booth filters ?

1-26 New Drawing showing may not have been used IPA, Misc, methanol will find out if was ever us

1-27 vent + new drum sto.

1-28 UST Area + unused unloading pad

Don't know what pit is

1-29 sump at loading area goes into

1-30 Pipe in lines to warehouse

1-31, 32 Tank area + stand face north

1-33 North side of east facility shows possible location of waste pile

facing north

1-34 Storm sewer shut off valve

Ended tour @ 11:30 sunny cool in @ 3-5 mph @ 50 F

B. Photograph Log

1. View inside Warehouse No. 1 showing the drum storage area for flammable (ignitable) wastes at the Hazardous Waste Container Storage and Staging Area (SWMU 1). The unit is located in the northeast section of the facility.

2. View of additional drum storage for flammable wastes at the Hazardous Waste Container Storage and Staging Area (SWMU 1).

3. View of the corrosive waste storage area located at the Hazardous Waste Container Storage and Staging Area (SWMU 1). The non-ignitable and non-corrosive waste storage area for this unit is located to the immediate right of the photograph.

4. Close-up of the floor in the vicinity of the corrosive waste storage area at the Hazardous Waste Container Storage and Staging Area (SWMU 1). The floor is coated with a polyester resin that is corrosive resistant. The cracks are reportedly sealed and appeared to be filled with an absorbent.

5. View of the ramp between Warehouse No. 1 and 2 showing the catch basin connected to the storm sewer. The red building on the right is Warehouse No. 1.

6. Overview of the south section of the facility facing south. The view shows Warehouse No. 4 on the right and the former location of the Solvent Blending Tanks 101, 102, and 103 in the center of the photograph. Another catch basin connected to the storm sewer is located at the end of the newer asphalt shown in the foreground.

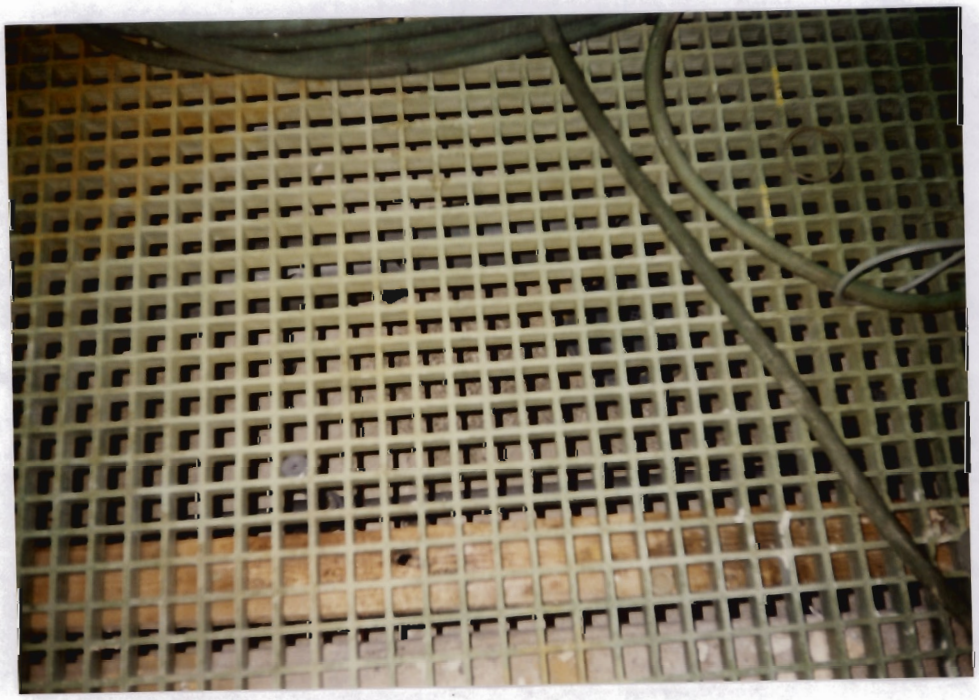
7. View of the loading docks for the Hazardous Waste Container Storage and Staging Area (SWMU 1) facing north. The general refuse Dumpster (SWMU 12) is shown on the right.

8. View inside Warehouse No. 2 located in the north section of the facility. The view shows the lower, product storage section of the warehouse. Note the rust stains in the foreground.

9. Close-up of the floor inside Warehouse No. 2 showing a Drain (SWMU 13). The drains inside Warehouse No. 2 were reportedly installed for drainage in the event the emergency fire sprinklers were used.

10. Interior view of Warehouse No. 2 showing a ramp connecting the upper and lower levels. The Drain (SWMU 13) that was featured in Photograph 9 is in the center of the photograph (indicated by an arrow).

11. Interior view of Warehouse No. 2 showing the Solvent Recovery Sump identified as a SWMU in the PR. The sump was never used.



12. Close-up of the Barrel Wash Station (SWMU 4) grate located inside Warehouse No. 3 in the northwest section of the facility.

13. View of the Barrel Wash Station (SWMU 4). Note the eroded concrete filled with water in the top center of the photograph.

14. View of the Barrel Wash Station (SWMU 4) facing west. The current Neutralization Pit (SWMU 2) is located outside the green corrugated fiberglass wall shown in the center of the photograph.

15. View of the immediate vicinity of the Barrel Wash Station (SWMU 4) showing a drain connected to the Process Sewer (SWMU 6). The view also shows the former location of the Fume Scrubber (SWMU 5).

16 View inside Warehouse No. 3 showing a scale previously used at the Acid Drumming Station. The station was identified as a SWMU in the PR report. However the station was for product drumming activities.

17. View inside Warehouse No, 3 showing a vent in the top of the photograph.

18. View of Warehouse No. 3. showing Solvent Tank Truck Loading/Unloading Area (SWMU 9) identified by the small concrete pad shown in the foreground. The view is facing west.

19. View of the Acid Truck Unloading Pad (SWMU 10) located in the vicinity of the Solvent Tank Truck Loading/unloading Area (SWMU 9) in the west section of the facility. The view is facing west. The former Acid Tanks (Tks 4-6), identified as SWMUs in the PR, were supported by the concrete structure shown in the background of the photograph.

20. View outside Warehouse No. 3 showing the location of the former Solvent Tanks (Tks 1-3) facing east. These tanks were identified as SWMUs in the PR.

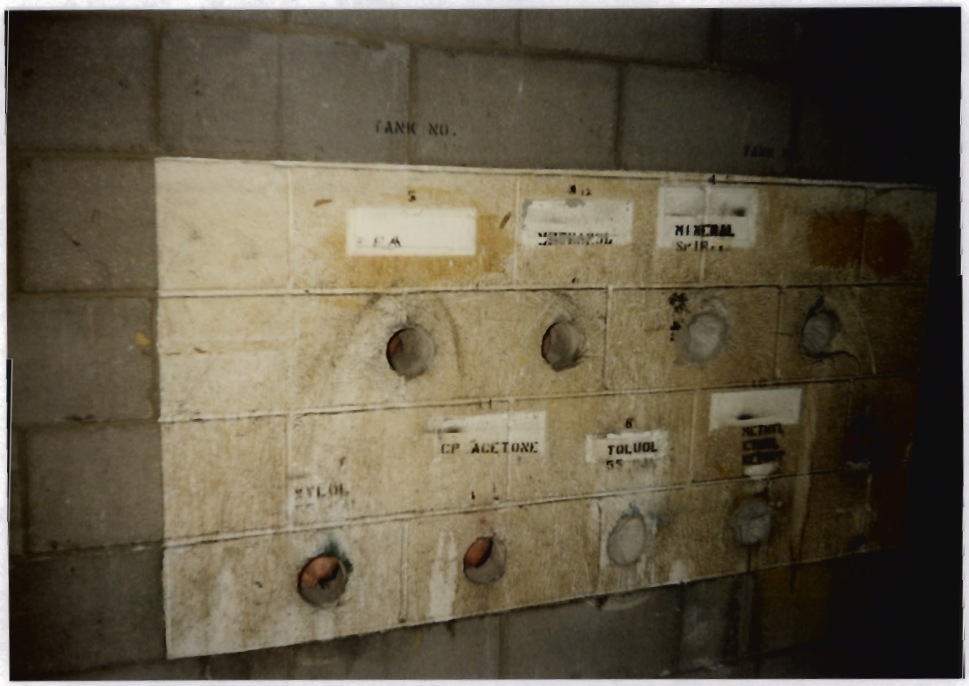
21. View of the Neutralization Pit (SWMU 2) located outside Warehouse No. 3 in the northwest section of the facility. The view is facing northeast. The Old Neutralization Pit (SWMU 3) was also situated at this location.

22. View of Warehouse No. 2 facing northeast showing what appeared to be railcar loading bays. According to facility representatives, Ashland only received materials via trucks.

23. View of the Neutralization Pit (SWMU 2) facing east. The Fume Scrubber (SWMU 5) was located inside the wall shown in the center of the photograph.

24. Continuation of photograph 23 showing the remains of the Fume Scrubber (SWMU 5). The view is facing east.

25. View inside Warehouse No. 4 showing an inactive paint booth previously used to paint drums. The former location of the intake pipes that were connected to the Old Tanks (Tks 7-14) is shown to the left of the booth (identified by the white square--see next photograph).



26. Close-up of the location of the former intake pipes that were connected to the underground product tanks (Old Tanks). The location formerly occupied by the Old Tanks is identified in this report as the Old Underground Storage Tanks Area (SWMU 7).

27. Close-up of a Drain (SWMU 13) in the vicinity of the paint booth shown in photograph 25. Note the stained floor.

28. View of the east interior wall of Warehouse No. 4 showing the former intake pipes to the Solvent Blending Tanks in the lower right-hand corner of the photograph. According to facility representatives, the solvent tanks were never used. This area was designated to be the new solvent drumming station.

29. View of the southwest section of the facility showing the location of the Old Underground Storage Tanks Area (SWMU 7). This unit is the location of the former underground solvent storage tanks. This area is also the disposal location of the two former Waste Piles (SWMU 8).

30. Close-up of a catch basin located outside Warehouse No. 4 in the southwest section of the facility.

31. View of the east wall of Warehouse No. 4 showing the former intake lines from the Solvent Blend Tanks (Tks 101-103) in the center of the photograph. The view is facing southwest.

32. Overview of the facility facing north. The unused Solvent Tank Truck Loading/Unloading Area (for Tks 101-103) is shown in the center of the photograph. Warehouse No. 1 and Warehouse No. 2 are shown in the background. The black objects in the foreground are part of the pipe stand that was part of the Solvent Blend Tanks (Tks 101-103).

33. Overview of the east section of the facility facing northeast. The area to the right of the yellow poles (indicated by an arrow) is a suspected staging area for the Waste Piles (SWMU 8). The facility beyond the fence is a quarry.

34. Close-up of the suspected staging area (indicated by an arrow) for the Waste Piles (SWMU 8) shown in photograph 33. The view is facing north.

35. View of the emergency storm sewer control valve located in the southeast section of the facility.