# TSD File Inventory Index

Date: September 3, 2008

Initial: CMKeenan

| | | | |
|---|---|---|---|
| Facility Name: | Delta Hayes (O'Hare Field - One Folder Site) | | |
| Facility Identification Number: | ILD 112 359 799 | | |
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| | | 5. RFI QAPP | |

Total 7

| | | | |
|---|---|---|---|
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| .4 CMI Draft/Final Reports | | .7 Corrective Action/Remediation Implementation | |
| .5 CMI QAPP | | .8 Endangered Species Act | |
| .6 CMI QAPP Correspondence | | .9 Environmental Justice | |
| 1. | | | |

Note: Transmittal Letter to Be Included with Reports.
Comments: Ore folder site.

A.2 Part A/
Interim Status

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:
RCRA ACTIVITIES

Delta Air Lines - Chicago
Dept. 581 - Atlanta Intl. Airport
Atlanta, GA 30320

10 FEB 1987

RE: EPA ID #: ILD112359799

In response to your request of 7-18-86 the following information has been updated:

Name of installation
Mailing Address
Ownership
Wastecodes

If you have any questions, please contact Sharon Kiddon (3P) at 886-6173.

Sincerely,

Arthur S. Kawatachi
Information Unit
Program Management Section

cc: State Agency
File

8/29/96 7:40 AM

0316765005

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form approved, OMB No. 2050-0028 Expires 8-30-96
GSA No. 0246-EPA-GT

Please refer to the instructions for Filling Notification before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).

# EPA Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received (For Official Use Only)
RECEIVED
SEP 17 1996

**I. Installation's EPA ID Number** (Mark "X" in the appropriate box)

[ ] A. First Notification [XX] B. Subsequent Notification (Complete item C)

C. Installation's EPA ID Number: ILD 112 359 799

**II. Name of Installation** (Include company and specific site name)

Delta Air Lines, Inc. - ORD

**III. Location of Installation** (Physical address not P.O. Box or Route Number)

Street: O'Hare International Airport

Street (Continued):

City or Town: Chicago

State: IL

Zip Code: 60666

County Code: 031

County Name: Cook

**IV. Installation Mailing Address** (See Instructions)

Street or P.O. Box: 16138

SAME

City or Town: ATLANTA

State: GA

Zip Code: 30320

**V. Installation Contact** (Person to be contacted regarding waste activities at site)

Name (Last): Allison

(First): Dave

Job Title: Environmental Project Manager

Phone Number (Area Code and Number): 404-714-3988

**VI. Installation Contact Address** (See Instructions)

A. Contact Address: Location [ ] Mailing [XX] Other [ ]

B. Street or P.O. Box: Dept 885, TOC - 1 Hartsfield International Airport

City or Town: Atlanta

State: GA

Zip Code: 30320

**VII. Ownership** (See Instructions)

A. Name of Installation's Legal Owner: City of Chicago

Street, P.O. Box, or Route Number: O'Hare International Airport

City or Town: Chicago

State: IL

Zip Code: 60666

Phone Number (Area Code and Number):

B. Land Type: S

C. Owner Type: S

D. Change of Owner Indicator: Yes [ ] [XX] No

(If Yes, Date Change) Month Day Year

EPA Form 8700-12 (Rev. 11-30-93) Previous edition is obsolete.

Continued on Reverse

RECEIVED
WMD RECORD CENTER
NOV 07 1996

8/29/96 7:40 AM

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028 Expires 8-30-96
GSA No. 0246-EPA-GT

DELTA AIR LINES INC - ORD

**ID - For Official Use Only**

**VIII. Type of Regulated Waste Activity** *(Mark 'X' in the appropriate boxes; Refer to instructions)*

**A. Hazardous Waste Activity**

1. Generator (See instructions)
   - [ ] a. Greater than 1000kg/mo (2,200 lbs.)
   - [ ] b. 100 to 1000 kg/mo (200-2,200 lbs.)
   - [X] c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - [ ] a. For own waste only
   - [ ] b. For commercial purposes

   Mode of Transportation
   - [ ] 1. Air
   - [ ] 2. Rail
   - [ ] 3. Highway
   - [ ] 4. Water
   - [ ] 5. Other - specify
3. [ ] Treater, Storer, Disposer (at installation) Note: A permit is required for this activity; see instructions.
4. Hazardous Waste Fuel
   - [ ] a. Generator Marketing to Burner
   - [ ] b. Other Marketers
   - [ ] c. Boiler and/or Industrial Furnace
     - [ ] 1. Smelter Deferral
     - [ ] 2. Small Quantity Exemption

     Indicate Type of Combustion Device(s)
     - [ ] 1. Utility Boiler
     - [ ] 2. Industrial Boiler
     - [ ] 3. Industrial Furnace
5. [ ] Underground Injection Control

**B. Used Oil Recycling Activities**

1. Used Oil Fuel Marketer
   - [ ] a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
   - [ ] b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device(s)
   - [ ] a. Utility Boiler
   - [ ] b. Industrial Boiler
   - [ ] c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Activity(ies)
   - [ ] a. Transporter
   - [ ] b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - [ ] a. Process
   - [ ] b. Re-refine

**IX. Description of Hazardous Wastes** *(Use additional sheets if necessary)*

A. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)*

| 1. Ignitable (D001) | 2. Corrosive (D002) | 3. Reactive (D003) | 4. Toxicity Characteristic |
|---|---|---|---|
| XX | | | XX |

(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))

D006 | D007 | D008 | 

B. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| F001 | F003 | F002 | F005 | | |
| 7 | 8 | 9 | 10 | 11 | 12 |
| | | | | | |

C. Other Wastes. *(State or other wastes requiring a handler to have an I.D. number; See instructions.)*

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| | | | | | |

**X. Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| Signature | Name and Official Title *(Type or print)* | Date Signed |
|---|---|---|
| Dave Allison | Dave Allison Environmental Project Mgr | 8/29/96 |

**XI. Comments**

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section III of the booklet for addresses.)*

EPA Form 8700-12 (Rev. 11-30-93) Previous edition is obsolete.

RECEIVED
WMD
NOV 07 1996

Please print or type with ELITE type *(12 characters per inch)* in the unshaded areas only

*rm Approved. OMB No. 2050-0028. Expires 9-30-88.*
*GSA No. 0246-EPA-OT*

United States Environmental Protection Agency
Washington, DC 20460

NPDL

# EPA Notification of Hazardous Waste Activity

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

**For Official Use Only**

Comments

| Installation's EPA ID Number | Approved | Date Received (yr. mo. day) |
|---|---|---|
| F ILD112359799 T/A C 1 | | |

RECEIVED JUL 31 1986

**I. Name of Installation**

DELTA AIR LINES - CHICAGO

**II. Installation Mailing Address**

Street or P.O. Box: DEPT 581-ATLANTA INTL AIRPORT

| City or Town | State | ZIP Code |
|---|---|---|
| ATLANTA | GA | 30320 |

**III. Location of Installation**

Street or Route Number: O'HARE INTL [redacted] AIRPORT

| City or Town | State | ZIP Code |
|---|---|---|
| CHICAGO | IL | 60666 |

**IV. Installation Contact**

| Name and Title *(last, first, and job title)* | Phone Number *(area code and number)* |
|---|---|
| THOMAS, A - MTC FRMN | 312 767 4870 |

**V. Ownership**

| A. Name of Installation's Legal Owner | B. Type of Ownership *(enter code)* |
|---|---|
| CITY OF CHICAGO | M |

**VI. Type of Regulated Waste Activity** *(Mark 'X' in the appropriate boxes. Refer to instructions.)*

**A. Hazardous Waste Activity**

- [X] 1a. Generator
- [X] 1b. Less than 1,000 kg/mo.
- [ ] 2. Transporter
- [ ] 3. Treater/Storer/Disposer
- [ ] 4. Underground Injection
- [ ] 5. Market or Burn Hazardous Waste Fuel *(enter 'X' and mark appropriate boxes below)*
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [ ] c. Burner

CODE 2

**B. Used Oil Fuel Activities**

- [ ] 6. Off-Specification Used Oil Fuel *(enter 'X' and mark appropriate boxes below)*
  - [ ] a. Generator Marketing to Burner
  - [ ] b. Other Marketer
  - [ ] c. Burner
- [ ] 7. Specification Used Oil Fuel Marketer *(or On site Burner)* Who First Claims the Oil Meets the Specification

RECEIVED JUL 25 1986 U.S. EPA REGION V

**VII. Waste Fuel Burning: Type of Combustion Device** *(enter 'X' in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.)*

[ ] A. Utility Boiler [ ] B. Industrial Boiler [ ] C. Industrial Furnace

**VIII. Mode of Transportation** *(transporters only — enter 'X' in the appropriate box(es)*

[ ] A. Air [ ] B. Rail [ ] C. Highway [ ] D. Water [ ] E. Other *(specify)*

**IX. First or Subsequent Notification**

Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.

[X] A. First Notification [ ] B. Subsequent Notification *(complete item C)*

C. Installation's EPA ID Number

| ID — For Official Use Only | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | | | | | | | | | | | | | T/A | C |
| W | | | | | | | | | | | | | | 1 |

## X. Description of Hazardous Wastes *(continued from front)*

**A. Hazardous Wastes from Nonspecific Sources.** Enter the four-digit number from 40 *CFR* Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| F001 | F003 | F005 | | | |
| 7 | 8 | 9 | 10 | 11 | 12 |
| | | | | | |

**B. Hazardous Wastes from Specific Sources.** Enter the four-digit number from 40 *CFR* Part 261.32 for each listed hazardous waste from specific sources your installation handles. Use additional sheets if necessary.

| 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|
| | | | | | |
| 19 | 20 | 21 | 22 | 23 | 24 |
| | | | | | |
| 25 | 26 | 27 | 28 | 29 | 30 |
| | | | | | |

**C. Commercial Chemical Product Hazardous Wastes.** Enter the four-digit number from 40 *CFR* Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

| 31 | 32 | 33 | 34 | 35 | 36 |
|---|---|---|---|---|---|
| | | | | | |
| 37 | 38 | 39 | 40 | 41 | 42 |
| | | | | | |
| 43 | 44 | 45 | 46 | 47 | 48 |
| | | | | | |

**D. Listed Infectious Wastes.** Enter the four-digit number from 40 *CFR* Part 261.34 for each hazardous waste from hospitals, veterinary hospitals, or medical and research laboratories your installation handles. Use additional sheets if necessary.

| 49 | 50 | 51 | 52 | 53 | 54 |
|---|---|---|---|---|---|
| | | | | | |

**E. Characteristics of Nonlisted Hazardous Wastes.** Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 — 261.24)*

- [X] 1. Ignitable *(D001)*
- [ ] 2. Corrosive *(D002)*
- [ ] 3. Reactive *(D003)*
- [X] 4. Toxic *(D000)*

## XI. Certification

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

| Signature | Name and Official Title *(type or print)* | Date Signed |
|---|---|---|
| | R. Lamar Durrett - Vice President<br>Engineering & Technical Services | 7-18-86 |

DELTA AIR LINES INC.
GENERAL OFFICES
HARTSFIELD ATLANTA INTERNATIONAL AIRPORT
ATLANTA, GEORGIA 30320-6001 U.S.A.



November 1, 1992

0316765005
Look - Co
Compliance

Illinois Environmental Protection Division
Division of Land Pollution Control
2200 Churchill Road
Springfield, IL 60604

ATTN: EPA ID NUMBER

Dear Sir:

At this time the following Delta Air Lines station is no longer generating hazardous waste. The stations and EPA ID number is:

O'Hare Int'l Airport ILD112359799 - Chicago, IL

Please deactivate the above mentioned Delta Air Lines EPA ID number. If there are any questions, please contact me at (404) 714-4364.

Sincerely,

B Nozaki

Brent Nozaki
Environmental Analyst
Department 594

ilepa

cc: Maintenance - General Foreman, ORD

NNG
deactivate

IEPA
JLP

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
RCRA ACTIVITIES
P.O. BOX A3587
CHICAGO, ILLINOIS 60690

January 4, 1993

DELTA AIRLINES INC
ATTN BRENT NOZAKI
HARTSFIELD ATLANTA INT'L AIRPORT
ATLANTA GA 30320-6001 USA

This is in response to your letter of ~~NOV 11 1992~~ regarding the following installation:

**U.S. EPA ID NUMBER:** ILD 112 359 799

**LOCATION OF INSTALLATION:** O'HARE INT'L AIRPORT
CHICAGO IL

According to the information submitted, you have indicated that this facility is no longer in need of the U.S. EPA ID number. Your ID number has been coded as an inactive number. DO NOT USE this number without re-notifying the U.S. EPA of your activity.

If you have any questions or need further assistance, please contact me at (312) 886-6173.

Sincerely,

Sharon Kiddon

Sharon Kiddon
RCRA Notifications Coordinator
Waste Management Division

Enclosure

cc: State Agency
File

Beverly

MAY 11 1990

# DELTA AIR LINES INC.

0316765005

Cook - Co

GENERAL OFFICES
HARTSFIELD ATLANTA INTERNATIONAL AIRPORT
ATLANTA, GEORGIA 30320-6001 U.S.A.

April 10, 1990

Permit Section
Division of Land Pollution control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Reference: Delta Air Lines, Chicago, EPA ID # ILD112359799

Dear Sir:

At this time Delta Air Lines is reconfirming its continual status as a small quantity generator at the O'Hare International Airport in Chicago, Illinois.

During the past year the amount of waste generated was less than 1000 kilograms per month. If there is any change in Delta's current status as a small quantity generator your department will be notified immediately.

If you have any questions please contact me in Atlanta at (404) 765-3977.

Very truly yours,

Gerry Allen
Environmental Analyst

GA/dah

cc: Bob Elliot, Dept. 440 - ORD

APR 20 1990

U. S. EPA, REGION V
SPS — PUS

RECEIVED

APR 16 1990

IEPA-DLPC

SMALL QUANTITY GENERATOR

Please print or type with ELITE type (12 characters/inch) in the unshaded areas only.

Form Approved OMB No. 2000-0098
OMB No. 0246-EPA-OT Expiration Date 12/31/86

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

# NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTALLATION'S EPA I.D. NO.

I. NAME OF INSTALLATION

II. INSTALLATION MAILING ADDRESS

III. LOCATION OF INSTALLATION

RECEIVED
NOV 22 1985
PLEASE PLACE LABEL IN THIS SPACE
SHE 413
U.S. EPA, REGION V
SMALL QUANTITY GENERATOR

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law (Section 3010 of the Resource Conservation and Recovery Act).

DETACH

## FOR OFFICIAL USE ONLY

COMMENTS

| INSTALLATION'S EPA I.D. NUMBER | APPROVED | DATE RECEIVED (yr., mo., & day) |
|---|---|---|
| FILD112359799 | A | 851122 |

## I. NAME OF INSTALLATION

DELTA AIRLINES

## II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: OHARE INTL AIRPORT BOX 66138

| CITY OR TOWN | ST. | ZIP CODE |
|---|---|---|
| CHICAGO | IL | 60666 |

## III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: OHARE INTL AIRPORT

| CITY OR TOWN | ST. | ZIP CODE |
|---|---|---|
| CHICAGO | IL | 60666 |

## IV. INSTALLATION CONTACT

| NAME AND TITLE (last, first, & job title) | PHONE NO. (area code & no.) |
|---|---|
| ANDY THOMAS | 312-686-4871 |

## V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: DELTA AIRLINES INC

B. TYPE OF OWNERSHIP (enter the appropriate letter into box.)

F = FEDERAL
M = NON-FEDERAL

## VI. TYPE OF HAZARDOUS WASTE ACTIVITY (enter "X" in the appropriate box(es))

- [X] A. GENERATION
- [ ] B. TRANSPORTATION (complete item VII)
- [ ] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

## VII. MODE OF TRANSPORTATION (transporters only – enter "X" in the appropriate box(es))

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER (specify):

## VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION (complete item C)

C. INSTALLATION'S EPA I.D. NO.

## IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.



CONTINUE ON REVERSE

I.D. - FOR OFFICIAL USE ONLY

W

## IX. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

**A. HAZARDOUS WASTES FROM NON-SPECIFIC SOURCES.** Enter the four-digit number from 40 CFR Part 261.31 for each listed hazardous waste from non-specific sources your installation handles. Use additional sheets if necessary.

| | | | | | |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 |

**B. HAZARDOUS WASTES FROM SPECIFIC SOURCES.** Enter the four-digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

| | | | | | |
|---|---|---|---|---|---|
| 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 |

**C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES.** Enter the four-digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

| | | | | | |
|---|---|---|---|---|---|
| 31 | 32 | 33 | 34 | 35 | 36 |
| 37 | 38 | 39 | 40 | 41 | 42 |
| 43 | 44 | 45 | 46 | 47 | 48 |

**D. LISTED INFECTIOUS WASTES.** Enter the four-digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

| | | | | | |
|---|---|---|---|---|---|
| 49 | 50 | 51 | 52 | 53 | 54 |

**E. CHARACTERISTICS OF NON-LISTED HAZARDOUS WASTES.** Mark "X" in the boxes corresponding to the characteristics of non-listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 – 261.24.)*

- [X] 1. IGNITABLE (D001)
- [ ] 2. CORROSIVE (D002)
- [ ] 3. REACTIVE (D003)
- [ ] 4. TOXIC (D004)

## X. CERTIFICATION

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

| SIGNATURE | NAME & OFFICIAL TITLE *(type or print)* | DATE SIGNED |
|---|---|---|
| Andy R. Thomas | Andy Thomas<br>General Foreman A/C Maintenance | 11-18-85 |

DETACH HERE

# A.4 Closure/ Post-Closure

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

FILE

USEPA

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/524-3300

November 14, 1995

Delta Air Lines, Incorporated
Attn: Mr. David R. Hesterlee
General Manager, Environmental
and Corporate Affairs
Hartsfield Atlanta International Airport
Atlanta, Georgia 30320

Re: 0326765005--Cook County
Delta Air Lines
ILD112359799
Log # C-575, PCB 93-152
RCRA-Closure

Dear Mr. Hesterlee:

This letter is a correction of the closure certification approval letter dated November 1, 1995. The first paragraph of the referenced letter correctly identified the closed units, but the second paragraph incorrectly identified an SO4 unit. The following is a corrected version of the referenced letter:

This is in response to the certification of closure submitted by David A. Schlott, P.E. of ERM EnviroClean on behalf of Delta Air Lines(Delta) for two hazardous waste Storage Tanks (S02), identified by Delta as the "Waste Oil Tank" and the "Oil Accumulation Tank"; and the hazardous waste treatment tank (T01), identified by Delta as the "Oil-Water Separator" at the above referenced facility. This certification, signed by yourself as a representative of Delta and Mr. Schlott as an independent registered professional engineer indicated that the subject hazardous waste management units had been closed in accordance with the approved closure plan.

The subject hazardous waste management units were inspected by a representative of this Agency on September 12, 1995. The inspection revealed that the units were closed in accordance with the approved closure plan. In addition, a review of the closure certification and accompanying closure documentation report also indicates that the unit was closed in accordance with the approved closure plan. Therefore, the Agency has determined that closure of the two hazardous waste storage tanks (SO2), and one hazardous waste trteatment tank (TO1) unit at the above referenced facility have apparently met the requirements of 35 IAC 725, and the closure certification is hereby approved subject to Delta's withdrawal and dismissal of their appeal before the Illinois Pollution Control Board (Docket Number PCB 93-152).

Should you have any questions regarding this matter, please contact Mark L. Crites of my staff at 217/524-3269.

Sincerely,

Edwin C. Bakowski

Edwin C. Bakowski, P.E. by JHK
Manager, Permit Section
Bureau of Land

ECB:MLC\mls\95818.WPD

cc: USEPA Region V -- Hak Cho ✓
USEPA Region V -- Kelley Moore

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/524-3300

FILE

USEPA
K. Moore

November 1, 1995

Delta Air Lines, Incorporated
Attn: Mr. David R. Hesterlee
General Manager, Environmental
and Corporate Affairs
Hartsfield Atlanta International Airport
Atlanta, Georgia 30320

Re: 0326765005--Cook County
Delta Air Lines
ILD112359799
Log # C-575, PCB 93-152
RCRA-Closure

Dear Mr. Hesterlee:

This is in response to the certification of closure submitted by David A. Schlott, P.E. of ERM EnviroClean on behalf of Delta Air Lines(Delta) for two hazardous waste Storage Tanks (S02), identified by Delta as the "Waste Oil Tank" and the "Oil Accumulation Tank"; and the hazardous waste treatment tank (T01), identified by Delta as the "Oil-Water Separator" at the above referenced facility. This certification, signed by yourself as a representative of Delta and Mr. Schlott as an independent registered professional engineer indicated that the subject hazardous waste management units had been closed in accordance with the approved closure plan.

The subject hazardous waste management units were inspected by a representative of this Agency on September 12, 1995. The inspection revealed that the units were closed in accordance with the approved closure plan. In addition, a review of the closure certification and accompanying closure documentation report also indicates that the unit was closed in accordance with the approved closure plan. Therefore, the Agency has determined that closure of the S04 unit at the above referenced facility have apparently met the requirements of 35 IAC 725, and the closure certification is hereby approved subject to Delta's withdrawal and dismissal of their appeal before the Illinois Pollution Control Board (Docket Number PCB 93-152).

Should you have any questions regarding this matter, please contact Mark L. Crites of my staff at 217/524-3269.

Sincerely,

Edwin C. Bakowski, P.E.
Manager, Permit Section
Bureau of Land

ECB:MLC\mls\95818.WPD

cc: USEPA Region V -- Hak Cho
USEPA Region V -- Kelley Moore

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director
217/524-3300

2200 Churchill Road, Springfield, IL 62794-9276

US EPA

A.4.1.

February 25, 1993

Delta Airlines
O'Hare International Airport
P.O. Box 66138
Chicago, Illinois 60666

Re: 0316765005 -- Cook County
Delta Airlines
ILD112359799
RCRA-Closure
Log No. C-575-M-1
IPCB Docket No. 92-41

Dear Sirs:

The closure plan submitted on your behalf by David A. Schlott of Environmental Resources Management Enviroclean-North Central, Inc., dated November 11, 1991 along with modifications to the sampling plan dated February 16, 1993, have been reviewed by this Agency. This letter, stating the Agency determination regarding your proposed plan, supercedes the previous closure plan approval letter dated February 7, 1992 and becomes effective only upon the voluntary dismissal of Delta Airlines v. IEPA, PCB 92-41. Your final closure plan to close the two hazardous waste storage tanks (SO2), referred to as the "Waste Oil Tank" and the "Oil Accumulation Tank"; and the hazardous waste treatment tank (TO1) referred to as the "Oil-Water Separator" is hereby approved subject to the following conditions and modifications.

1. Closure activities must be completed by July 31, 1993. When closure is complete the owner or operator must submit to the Agency certification both by the owner or operator and by an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan. This certification must be received at this Agency within sixty (60) days after closure, or by September 30, 1993.

   The attached closure certification form must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 702.126. The independent engineer should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for the units approved for closure herein until the Agency approves the facility's closure certification.

The Illinois Professional Engineering Act (Ill. Rev. Stat., Ch. 111, par. 5101 et. seq.) requires that any person who practices professional engineering in the State of Illinois or implies that he (she) is a professional engineer must be registered under the Illinois Professional Engineering Act (par. 5101, Sec. 1). Therefore, any certification or engineering services which are performed for a closure plan in the State of Illinois must be done by an Illinois P.E.
Plans and specifications, designs, drawings, reports, and other documents rendered as professional engineering services, and revisions of the above must be sealed and signed by a professional engineer in accordance with par. 5119, sec. 13.1 of the Illinois Professional Engineering Act.

As part of the closure certification, to document the closure activities at your facility, please submit a Closure Documentation Report which includes:

a. The volume of waste and waste residue removed. The term waste includes wastes resulting from decontamination activities.

b. A description of the method of waste handling and transport.

c. The waste manifest numbers.

d. Copies of the waste manifests.

e. A description of the sampling and analytical methods used including sample preservation methods and chain-of-custody information.

f. A chronological summary of closure activities and the cost involved.

g. Color photo documentation of closure. Document conditions before, during and after closure.

h. Tests performed, methods and results.

The original and two (2) copies of all certifications, logs, or reports which are required to be submitted to the Agency by the facility should be mailed to the following address:

Illinois Environmental Protection Agency
Division of Land Pollution Control -- #24
Permit Section
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

2. If the Agency determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code, Section 725.211, the Agency reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.

3. If additional contamination is detected, the Agency must be notified in writing within fifteen (15) days. A revised closure plan addressing remediation of the contamination detected must be submitted within time frames established by the Agency.

4. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

5. If the concrete surface at the bottom of the excavation is left in place, it shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the concrete surface must be steam cleaned and triple rinsed. All wash and rinse water shall be collected. If analysis of the wash or rinse water samples detect the presence of constituents of a listed hazardous waste above the constituent's PQL identified in SW-846 (Third Edition), then that material must be managed as a hazardous waste. If the wash or rinse water samples exhibit a characteristic of hazardous waste then that material must be managed as a hazardous waste. In any event the material must be managed as a special waste. If, after cleaning the concrete surface, any cracks, joints or other defects are found that would allow waste to migrate through the concrete into the underlying soil, a closure plan modification request addressing soil sampling at those locations must be submitted to this Agency within sixty (60) days of such a finding.

6. All samples shall be analyzed individually (i.e., no compositing). Sampling and analytical procedures shall be conducted in accordance with Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Final Update I (SW-846) and Attachment 7 to this Agency's closure plan instruction package. When a SW-846 analytical method is specified, all the chemicals listed in the Quantitation Limits Table for that method shall be reported unless specifically exempted in writing by the Agency. When visually discolored or contaminated material exists within an area to be sampled, horizontal placement of sampling locations shall be adjusted to include such visually discolored and/or contaminated areas. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the sample portion of the interval to be analyzed. To demonstrate a parameter is not present in a sample, analysis results must show a detection limit at least as low as the PQL for that

parameter in the third edition of SW-846. For inorganic parameters, the detection limit must be at least as low as the RCRA Groundwater Detection Limits, as referenced in SW-846 Volume 1A, pages TWO-29 and TWO-30, Table 2-15. If possible, your sampling program should be extensive enough to determine the lateral and vertical extent of contamination to the detection limit (PQLs) referenced above.

7. A Photoionization Detector (PID) is not adequate for purposes of determining whether excavated soil is a hazardous waste. Many hazardous constituents are not detected by such a device. Accordingly, all soil removed from the tank excavation must be managed as a hazardous waste until analytical results demonstrate that the soil is not hazardous by characteristic or by the presence of any constituent of a listed hazardous waste at levels greater than the quantitation limit for that constituent as listed in SW-846.

8. Removal and disposal of tanks must be performed in accordance with all applicable regulations and standards including, but not limited to those of the State Fire Marshal, and OSHA.

9. Any tank systems that will remain in the excavation after closure must be decontaminated by steam cleaning and triple rinsing. See Item 5 for information regarding management of rinse water.

10. The proposed background sampling program is not approved. If Delta wishes to have cleanup objectives based upon background concentrations of constituents, a minimum of 10 background samples per soil stratum must be taken. Additionally, more information must be provided as to the activities conducted near the proposed sampling locations so that the Agency can determine whether the location is potentially affected by onsite activities. Finally, the proposed statistical method for comparing actual values observed in samples from the tank area and background values as proposed on Page 11 is not acceptable. Specifically, no information was provided to demonstrate use of this procedure will ensure the requirements of 35 Ill. Adm. Code 725.211, 725.214 and 725.297(a) are met. An acceptable method for making this comparison can be found in Chapter 9 of SW-846.

11. All soil samples must be analyzed for (1) all parameters of SW-846 Method 8240A and 8270A; and (2) arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver by the Toxicity Characteristic Procedure (TCLP), Method 1311 of SW-846.

12. No information was provided to demonstrate that use of a carcinogen risk of $10^{-4}$ and a non-carcinogenic health hazard of 1.0 to calculate cleanup objective will ensure that the requirements of 35 Ill. Adm. Code 725.211, 725.214 and 725.297(a) are met. The Agency will establish cleanup objectives to be used to determine if "clean" closure (closure by removal) has been achieved upon receipt and review of the sampling and analytical

results required in the approved closure plan. A report documenting the results of the required sampling/analysis effort must be submitted to the Agency by April 30,1993. This report must include:

a. A summary of the results.

b. An accurate scaled drawing showing the locations of the samples obtained and the associated unit;

c. The depth intervals of samples taken;

d. A description of the soil sampling procedures and sample preservation/chain of custody methods;

e. The test methods used and detection limits achieved;

f. Actual laboratory reports (copies are acceptable);

g. A discussion of the results;

h. A log of each boring made;

i. A proposal for background sampling locations (if desired - see Item 10);

j. A proposal for site specific cleanup objectives (if you wish to propose them);

k. A plan for determining the extent of contamination.

Each of the borings along the perimeter of the tank excavation must be located within one to two feet of the excavation. Samples must be collected continuously from each boring and field classified in accordance with ASTM Method D-2488. The boring logs submitted must contain the results of these field classification efforts.

13. If clean closure cannot be achieved pursuant to 35 IAC 725.297(a) then a modified closure plan and a post-closure plan prepared pursuant to 35 IAC Section 725.297(b) must be submitted to the Agency for review and approval within 60 days of such a determination.

14. In accordance with a negotiated appeal settlement (IPCB 91-222), Delta Airlines may dispose of any contaminated soil removed as a result of this closure as a U-Listed waste.

15. To avoid creating another regulated storage unit during closure, it is recommended that you obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than ninety (90) days. Do not create

regulated waste pile units by storing the excavated hazardous waste in piles. The ninety (90) day accumulation time exemption (35 IAC 722.134) only applies to containers and tanks.

16. Please be advised that the requirements of the Responsible Property Transfer Act (Public Act 85-1228) may apply to your facility due to the management of RCRA hazardous waste. In addition, please be advised that if you store or treat on-site generated hazardous waste in containers or tanks pursuant to 35 IAC 722.134, those units are subject to the closure requirements identified in 35 IAC 722.134(a)(1).

17. All hazardous wastes that result from this project are subject to annual reporting as required in 35 IAC 722.141 and shall be reported to the Agency by March 1 of the following year for wastes treated and left on-site or shipped off-site for storage, treatment and/or disposal during any calendar year. Additional information and appropriate report forms may be obtained from the Agency by contacting:

    Facility Reporting Unit
    Division of Land Pollution Control
    Illinois Environmental Protection Agency
    P.O. Box 19276
    Springfield, Illinois 62794-9276

Should you have any questions regarding this matter, please contact Mark L. Crites at 217/524-3300.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:MLC/mls/sp0302r/1-6

Attachment

cc: USEPA Region V -- George Hamper

ATTACHMENT

This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. Submit one copy of the certification with original signatures and three additional copies.

Closure Certification Statement

Closure Log C-575-M-1

The two hazardous waste management SO2 units and one TO1 unit at the facility described in this document have been closed in accordance with the specifications in the approved closure plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| | |
|---|---|
| USEPA ID Number | Facility Name |
| Signature of Owner/Operator | Name and Title |
| Signature of Registered P.E. | Name of Registered P.E. and Illinois Registration Number |
| Date | |

MLC/mls/sp0302r/7

USEPA

Illinois Environmental Protection Agency · P. O. Box 19276, Springfield, IL 62794-9276

217/782-6762

Date Received: February 6, 1991
Log #C-575

Refer to: 0316765005 -- Cook County
Delta Airlines
ILD112359799
RCRA-Closure

May 1, 1991

Delta Airlines
O'Hare International Airport
P.O. Box 66138
Chicago, Illinois 60666

Dear Sirs:

The closure plan for the tank storage (SO2) units submitted by Delta Airlines and prepared by ERM-North Central has been reviewed.

Due to the following deficiencies, the plan has been disapproved.

1. DETAILED DRAWING OF THE UNIT(S) - Submit plan views of the units, showing dimensions, appurtenant structures and relationship to other points or structures on the facility property, at a minimum. The scale of the drawing must be specified. These drawings must include all piping and fixtures related to the tanks, and the oil-water separator unit undergoing closure.

2. DECONTAMINATION OF TANKS, STRUCTURES AND SOILS (35 IAC 725.212 and 725.214) - The owner/operator should describe all efforts to clean or decontaminate hazardous waste and its residues and constituents from tanks, paved areas, containment areas, equipment, structures, pipes, pumps, sumps and any other appurtenances to the hazardous waste management unit. The owner/operator may be requested to use any reasonable means to clean or decontaminate, including pressure washing, steam cleaning, scraping or other means. A description of how waste material (rinse water, etc.) from decontamination will be managed should also be provided. Please note that residue from listed hazardous waste must be managed as a hazardous waste unless it is delisted under the provisions of 35 IAC 720.120 and 720.122 or is exempt under 721.103(a)(2)(D). The decontamination should include the oil-water separator unit and all piping and fixtures related to it, and the tanks going through closure.

   a. Tanks containing hazardous waste must be subjected to all reasonable means of decontamination before they should be considered "clean". This includes pressure rinses, steam cleaning, manual sludge removal and other means. The independent engineer should certify the methods used and the amount of residue remaining.

b. Disposal of hazardous waste and nonhazardous special waste within the State of Illinois requires a Waste Stream Permit issued by the Illinois EPA. Disposal of hazardous waste is also subject to Section 39(h) of the Environmental Protection Act, which prohibits land disposal without a demonstration from the generator that the waste can't be reasonably recycled for reuse, nor incinerated or chemically, physically or biologically treated to render the waste nonhazardous.

The application for the Waste Stream Permit is to be filed by the landfill or treatment facility operator. The application for a 39(h) authorization is to be filed by the generator of the waste. For more information on Section 39(h), contact the Permit Section at 217/782-6762.

3. SOIL CLEANUP LEVELS - Clean closure of a storage unit requires removal or decontamination of all wastes, leachate, liners and soils (including groundwater) contaminated with waste or leachate that pose a substantial present or potential threat to human health or the environment. The owner/operator has the options of removing or decontaminating soil to Agency approved detection limits/background levels of the contaminant or to propose a site-specific, health-based cleanup level.

A site-specific cleanup level proposal must document that the contaminants left in the soil will not adversely impact any environmental media (groundwater, surface water or atmosphere), and that direct contact through dermal exposure, inhalation or ingestion will not result in a threat to human health or the environment. USEPA is currently developing a guidance document for clean closure. Until this document becomes available, owner/operators should refer to 52 FR 8706 (March 19, 1987) for demonstration references. If a model will be used to justify site-specific cleanup criteria, site conditions must match the assumptions of the model. Toxicity information for hazardous constituents (35 IAC Part 721, Appendix H) can be obtained from EPA's Office of Solid Waste, Characterization and Assessment Branch, 202/382-4761. Soil cleanup levels, as well as groundwater cleanup levels, will depend to a great extent on the existing and potential use of groundwater and/or surface water in the area surrounding the facility. Information and documentation regarding existing and potential use of groundwater and/or surface water in the area surrounding the facility should be provided to justify a proposed site-specific, health-based cleanup level. More specifically, the owner/operator should contact the IEPA Division of Public Water Supplies (DPWS) at 217/785-8653, Illinois Department of Public Health (Springfield) at 217/782-5830, the Illinois State Water Survey (Champaign) at 217/333-8497, and the Illinois State Geological Survey (Champaign) at 217/333-4747 to gather information to determine the existing and potential type and extent of groundwater and/or surface water use in the area. Local water use restrictions or zoning rules that restrict or regulate the use of groundwater and/or surface water should also be identified.

4. The cleanup objectives proposed in the closure plan are considerably higher than those normally approved by the Agency. A detailed discussion of sources of data and equations as well as the derivations and reasoning behind their use must be provided in the revised submittal before the Agency can consider their use for the determination of cleanup objectives. Since the constituents of concern have not been fully identified, a broader list of cleanup objectives may be necessary to include other constituents discovered during site characterization (see Condition 7 below). Please be advised that the Agency normally does not establish clean-up objectives until after receipt and review of the initial sampling and analytical data.

5. DESCRIPTION OF CONTAMINATED SOIL REMOVAL - Any facility which is attempting to close "clean" must fully describe each step in removing waste and contaminated soil from the property. This includes a description of solidification/stabilization, storage of waste or reagents, equipment, removal pattern and depth increments, loading areas or any other steps critical to removal. The plan should clearly define how soil will be removed, stored, loaded and managed once it leaves the property.

   Unlike CERCLA cleanups, there is no permit exemption available for on-site hazardous waste storage and treatment units which are created during RCRA closure. Interim status facilities may request the addition of such units to their Part A if proper justification is provided (35 IAC Section 703.155), but facilities with a RCRA Part B would have to obtain a permit modification prior to adding the unit. Facilities which have neither interim status nor a Part B permit may have to obtain a Part B permit before a storage or treatment unit can be constructed for closure purposes.

6. STATEMENT OF FACILITY STATUS AFTER CLOSURE - The closure plan should clearly state the status of the hazardous waste facility after closure is completed. For example, it should state if a storage facility is to be operated as a generator (less-than-90-day storage), and it should describe whether closure is partial or complete. If partial, it should name both the units covered by the closure plan as well as those remaining in operation. It should indicate whether the facility will continue to be a generator and transporter (if applicable).

   Indicate which of the following categories describes the intended use of the facility:

   a. No treatment, storage or disposal will occur at this facility.

   b. Disposal will continue at this facility.

   c. This facility will continue to treat hazardous wastes.

   d. Less than 1,000 kg/month will be generated, and storage will be for less than 90 days.

e. The facility will generate and store more than 1,000 kg/month for less than 90 days.

f. The facility will generate and store more than 1,000 kg/month for more than 90 days.

g. The facility will generate and store more than 100 kg/month, but less than 1,000 kg/month for less than 180 days (270 days if applicable).

h. The facility will be exempt from treatment storage and disposal (TSD) regulation under RCRA.

i. The facility will be a transporter of hazardous waste.

7. Since the constituents of concern have not been fully identified, additional site characterization must be conducted. Initially, this would consist of samples taken from locations and depths where the largest concentrations of contaminants were previously discovered. These samples must be analyzed for all eight metals identified by 35 IAC Section 721.124, all of the parameters of Method 8240A of SW-846 (Third Edition, Final Update I), and all of the parameters of Method 8270A of SW-846 (Third Edition, Final Update I). The methods used to collect these samples and all other sampling related to this closure must follow SW-846 and Attachment 7 of the Agency's closure plan instruction package.

8. Averages of analytical data cannot be used to demonstrate clean closure. Al verification samples must demonstrate concentrations lower than cleanup objectives approved by the Agency to make such a demonstration.

9. Prior to excavation, it is recommended that an attempt be made to estimate the horizontal and vertical extent of the contamination.

10. To demonstrate clean closure, verification sampling must include the soil surrounding all piping and fixtures associated with the units undergoing closure.

11. In the revision, all previously conducted site characterization activities should be documented, including analytical results, sampling methods, boring logs, etc.

12. The revision should also discuss further the procedures and specifications relating to the HNu Photo-Ionization Detector to be used to screen soil samples. This should include the power rating of the lamp to be used, what gas the HNu will be calibrated to, the ionization potential of the constituents of concern, and the relative response of the HNu to these constituents.

13. How was the concrete pad originally constructed? Does the pad rest on backfill material or on native soil? In the revised submittal, please provide these details.

14. If it is wished to avoid sampling beneath the concrete pad at the base of the excavation, the pad must be inspected for cracks, joints, or deterioration which would provide paths of migration through the pad. Regardless of the condition of the pad, if contaminants are detected at the edges of the pad, samples must be collected from beneath the pad to demonstrate clean closure. If the pad is left in place, it must be decontaminated.

Pursuant to 35 IAC 725.212(d)(4), you must submit a complete, revised closure plan (i.e., not just revised or additional pages) (one original and 3 copies) within thirty (30) days which adequately responds to the above noted comments. Failure to submit a revised plan within thirty (30) days of the date of your receipt of this letter will be considered non-compliance with the interim standards of 35 IAC, Part 725, Subpart G -- Closure and Post-closure and Subpart H -- Financial Requirements.

Should you have any questions concerning this matter, please contact Mark L. Crites at 217/782-6762.

Very truly yours,

Lawrence W Eastep

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:MLC:dks/1230q, 1-5

Enclosure

cc: Maywood Region
Division File, Closure
George Hamper, USEPA Region V
Mark L. Crites
Enforcement
RPMS

## ATTACHMENT 7

## Soil Volatile Sampling Procedures

**Procedure:**

A. PREPARATION AND DECONTAMINATION OF SOIL SAMPLER (i.e. STAINLESS STEEL, BRASS, BRONZE, COPPER, etc.). An example of these samplers would be a shelby tube, split-barrel sampler with metal tube inserts or california sampler. These are only examples there maybe more types available. Also, the sample tube must be at least six inches long.

*1. Wash tubing or sampler with hot water and a nonfoaming detergent.
2. Rinse with hot water.
*3. Rinse with a solvent, such as hexane or acetone.
4. Rinse with very hot water to drive off solvent.
5. Rinse with deionized distilled water.
6. Air Dry
7. Store the sampler in aluminum foil until ready for use.
*Consult the laboratory for specific recommendations.

B. SOIL SAMPLING FOR VOLATILE ORGANICS

1. Using a properly decontaminated sampler (refer to preparation and decontamination instructions), push or drive the sampler to obtain a representative soil sample.

2. DO NOT remove sample from sample tube in the field. The laboratory should remove the sample from the sampling tube.

3. Immediately add clay or other cohesive material (i.e. wetted bentonite) to the ends of the sample to eliminate head space, if necessary.

4. Cover both ends of the sampler with aluminum foil. If possible, cover the aluminum foil with a cap.

5. Put the sample in storage at 4 degrees centigrade immediately.

6. Transport the samples to the laboratory as soon as possible. Most laboratories require delivery within 24 hours of sampling.

**NOTE:**

Soil samples which will be tested for volatile organic constituents <u>cannot</u> be composited because of the volatilization which would result from any compositing method.

## D. Corrective Action

**MEMO**

To: File
From: Kathleen Miller
Date: 8/13/10
RE: Delta Hangar (O'Hare Field) EPA ID# ILD 112 359 799

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**Summary of Phone Conversations:**

I attempted to call on Friday, August 13 2010, the contact person for this site per RCRA Info and the number was not valid. However I did follow the last intern's notes and followed up with Sam Hale with IEPA. I spoke with Mr. Hale briefly on the same day but was informed that he would like me to email him with my request for updated information on this facility. I was out of the office on Monday August 16th however on Tuesday the 17th I sent Mr. Hale the email. I have included the email with my notes on this facility.

On August 31st, I attempted to follow up with our request for updated information however I was not able to reach Sam Hale with IEPA and left a message.

* Note: Mr. Hale has not responded to my email and phone call regarding this site therefore, I cannot say that the PAVSI recommendations have been implemented. The site is also **ME ranked** for potential contamination. I recommend further investigation of this site- **CA070YE.**

**Contact info for this facility:**
O'Hare Airport
66138
Chicago, IL 60666
* no working phone number available

* I only have contact information for Sam Hale with IEPA. He has not responded to my email or latest phone call.

Sam Hale
IEPA
217-782-1803
sam.hale@illinois.gov

U.S. EPA request for updated info re (EPA ID# 112 359 799)
KathleenA Miller to: sam.hale 08/17/2010 11:39 AM

To Mr. Hale:

I spoke with you on Friday, August 13th, regarding our request for updated information on the Delta Hanger (O'Hare Field),# ILD 112 359 799. You asked that I email you our request regarding this matter. Our records show that a Preliminary Assessment/Visual Site Inspection (PA/VSI) report was prepared in 1998 for this site. Since this time, we have not received any updated records for this facility. We are interested in the status of closure activities for AOC A, the Underground Tank Farm for this facility. At the time that the PA/VSI was written, in 1998, the IEPA did not consider the unit closed (no NFR letter was issued). We would like to know if a NFR letter has been issued for the unit. We are also interested in if a Phase 1 or Phase 2 Assessment was done on the property since 1998?

Any updated information regarding the clean up of this facility would be greatly appreciated.

If you would like to send documents via regular mail service, please send them to my attention at the address:

U.S. EPA Region 5
Land and Chemical Division
Attn: Kathleen Miller
77 West Jackson Blvd. LU-9J
Chicago, IL 60604

OR

* Fax me the information:
312-697-2640 (Please include Attn: Kathleen Miller)

OR

* Email me at: Miller.KathleenA@epa.gov

I look forward to receiving any updated documents/reports regarding this facility. If you have any questions, please do not hesitate to contact me.

Kathleen Miller
Environmental Protection Specialist
RCRA Corrective Action
U.S. EPA Region 5
Tel: 312-886-6761
Fax: 312-697-2640
Miller.KathleenA@epa.gov

Draft

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION 5**

**MEMORANDUM**

**DATE:**
**SUBJECT:** Determination of Need for an Investigation
Facility Name: Delta Hanger (O'Hare Field)
EPA ID #: ILD 112 389 799

**FROM:** Kathleen Miller
Kathleen Miller, Environmental Protection Specialist

**TO:** George Hamper, Chief, Corrective Action Section 2

**I recommend the following determination regarding the need for an investigation:**

☐ **CA070NO** Determination of Need for an Investigation-Investigation is not Necessary

Reason for Determination

- ☐ Preliminary Assessment/Visual Site Inspection (PA/VSI) did not recommend any further investigation
- ☐ PA/VSI recommendations do not warrant RRB attention
- ☐ Phase 1 Environmental Site Assessment (ESA) did not recommend further investigation
- ☐ Phase 2 ESA did not recommend further investigation
- ☐ Phase 1/Phase 2 ESA recommendations do not warrant RRB attention
- ☐ Company representative asserts that the site is clean
- ☐ Not subject to corrective action
- ☐ Enrolled in other clean-up program
- ☐ PA/VSI recommendations have been implemented
- ☐ Superfund Removal
- ☐ Participating in Voluntary Remediation Program
- ☐ Completed Voluntary Remediation Program
- ☐ Superfund Remedial Action
- ☐ Superfund No Further Action Decision
- ☐ Superfund Base Relocation and Closure
- ☐ Other _____

☒ **CA070YE** Determination of Need for an Investigation – Investigation is Necessary

Reason for Determination

- ☒ PA/VSI recommends further investigation The site is IHS required
- ☐ ESA recommends further investigation
- ☐ Other _____

☐ **No determination can be made** – More Information Needed

☐ Approved ☐ Not Approved

Signed: _____ Date: _____

**Determination: Follow up on closure**

# PA/VSI Or RFA FILE REVIEW CHECKLIST

Facility Name: Delta Hanger (O'Hare Field)

EPA ID: ILD 112 359 799___ Address: O'Hare Intl. Airport, Chicago, IL

Name of Reviewer: Maureen McHugh_____ Date of Review: 11/26/08_____

| | | | |
|---|---|---|---|
| 1 | Yes | No | Is this a one folder site? |
| 2 | Yes | No | Are there Superfund files for this site? |
| 3 | Yes | No | Did you Read the Executive Summary? |
| | | | There are: __3__ SWMUs and __1___ AOCs at this site. |
| 4 | Yes | No | Did you review the regulatory history? |
| 5 | Yes | No | Does the facility have interim status or a permit? |
| | | | This facility is a: __X__(CE)SQG, _____ LQG, or _____ Less than 90 day. |
| 6 | Yes | No | Was the Facility closed per RCRA? CL380CA (1995) |
| | | | If Yes, was the closure: __X__ CC, or _____ CIP. |
| 7 | Yes | No | Are there documented (historical) releases? Briefly describe on Page 2. |
| 8 | Yes | No | Were there releases identified during the inspection? Briefly describe on Page 2. |
| 9 | Yes | No | Do you agree with the Conclusions and Recommendations? |
| | | | If No, briefly describe on Page 2. |

As a result of your review of the PA/VSI or RFA file, please classify this site as:

_____ No further corrective action recommended or warranted: These are sites that closed the regulated units and any other SWMUs or AOCs at the site did not warrant any further corrective action (no historic releases or evidence of releases observed during the Visual Site Inspection).

__X___Further Action Required: Soil or sediment sampling or groundwater sampling or monitoring or any type of investigation that was recommended in the report in response to a documented or observed release at any SWMU or AOC and where such investigation, whether being addressed during the inspection or after, does not have the necessary documentation in the facility record files.

_____ More Information Needed: There is no RFA, PA/VSI or RCRA closure information available.

# PA/VSI Or RFA FILE REVIEW CHECKLIST

Notes

Briefly describe any documented (historical) releases for any SWMU or AOC recorded in the report. For each release, please identify the SWMU or AOC and a one or two line description of release.

Petroleum odor and visible soil staining was detected at he Underground Tank Farm (AOCA) in 1991. IMEA#903605 was issued, but no NFR letter was issued and when the PA/VSI was written in 1998, IEPA did not consider the unit closed. However, 5109yd$^3$ of soil was excavated and soil samples were within LUST cleanup objectives but site specific standards had not yet been approved by IEPA. Excavation was discontinued based on no further visual observation of staining or elevated PID readings. Ecology Services, Inc. recommended no further investigation. Contact: Sam Hale (217) 782-1803, Sam.Hale@illinois.gov

IMEA#960054, an unleaded gas release received a NFR letter in August 1998

Soil samples were taken from the Underground Tank Farm (AOCA) and the Waste Oil Tank, Oil/Water Separator and Oil Accumulation Tank located in the Underground Oil/Water Separator System (SWMU1). Chlorinated compounds and other VOCs were detected at elevated concentrations, ranging from up to 93.5ug/kg benzene to 97,100ug/kg 1,2-Dichlorobenzene. An area approximately 40ft by 90ft was excavated in the area of SWMU1 in 1993. In 1995, soil contamination still existed in excess of the Class 2 Cleanup objectives but Delta ceased excavation activities because any further excavation would have jeopardized the integrity of the hangar walls. Delta did not perceive the remaining contamination to present a threat to human health or the environment because there was no groundwater pathway and it is an industrial setting. No further action was recommended for SWMU1 because Delta received approval of closure by IEPA.

Briefly describe any releases observed during the inspection for any SWMU or AOC recorded in the report. For each release, please identify the SWMU or AOC and a one or two line description of release.

PA/VSI Recommendations

The PA/VSI recommended consulting with the IEPA regarding the status of closure for the UST Farm, AOCA.

TECHLAW INC.

20 NORTH WACKER DRIVE, SUITE 1260, CHICAGO, IL 60606
PHONE: (312) 578-8900
FAX: (312) 578-8904

RZ2.R05052.01.ID.218

August 4, 1998

Mr. Gerald Phillips
U.S. Environmental Protection Agency
Region 5, D-8J
77 West Jackson Boulevard
Chicago, Illinois 60604

Reference: EPA Contract No. 68-W4-0006; Work Assignment No. R05052; Environmental Priorities Initiative (EPI) Assessments; Delta Hangar - O'Hare Field Bldg. 751, Chicago, Illinois, EPA I.D. No. ILD112359799; PA/VSI Report and NCAPS Scoring Report; Task 04 Deliverable

Dear Mr. Phillips:

Please find the enclosed Preliminary Assessment/Visual Site Inspection (PA/VSI) Report and the NCAPS Scoring Report for the above-referenced facility. The NCAPS total migration score is 24.74.

Should you have any questions or require additional information, please contact me at 312-345-8963 or Mr. Bill Wesley at (312)345-8955.

Sincerely,

Todd W. Quillen

for Patricia Brown-Derocher
Regional Manager

Enclosure

cc: F. Norling, EPA Region 5 (w/o Attachments)
W. Jordan/Central Files
W. Wesley
Chicago Central File

c:\ehs\52\52id218.wpd

# PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION
# FOR
# DELTA MAINTENANCE HANGAR
# EPA ID No. ILD112359799
# O'HARE FIELD BUILDING
# CHICAGO, IL 60666

**Submitted to:**

**Mr. Gerald Phillips**
**U.S. Environmental Protection Agency**
**Region 5 D-8J**
**77 West Jackson Boulevard**
**Chicago, Illinois 60604**

**Submitted by:**

**TechLaw, Inc.**
**20 North Wacker Drive, Suite 1260**
**Chicago, Illinois 60606**

| | |
|---|---|
| **EPA Work Assignment No.** | **R05052** |
| **Contract No.** | **68-W4-0006** |
| **TechLaw WAM** | **Mr. Bill Wesley** |
| **Telephone No.** | **312/345-8955** |
| **EPA WAM** | **Mr. Gerald Phillips** |
| **Telephone No.** | **312/886-0977** |

**August 4, 1998**

**PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION REPORT**
**FOR**
**DELTA MAINTENANCE HANGAR**
**O'HARE FIELD BUILDING**
**CHICAGO, ILLINOIS**

**EPA ID NO. ILD112359799**

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# I. EXECUTIVE SUMMARY

The RCRA Facility Assessment (RFA) is the first step in implementing the corrective action provisions of the 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA). The purpose of the RFA is to identify environmental releases or potential releases from Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) that may require corrective action by the facility owner. A preliminary assessment/visual site inspection (PA/VSI) is a form of an RFA suitable for implementing the corrective action provisions of HSWA. This PA/VSI Report constitutes the reporting requirement for the RFA at the Delta Maintenance Hangar (Delta) facility in Chicago, Illinois.

A preliminary assessment (PA) of the available U.S. Environmental Protection Agency (U.S. EPA) and State of Illinois file materials was conducted to familiarize the TechLaw, Inc. (TechLaw) Team with past compliance history, evidence of past releases, potential migration pathways, potential for exposure to any released hazardous constituents, closure methods and dates, citizen complaints, manufacturing processes and waste management practices at the Delta facility.

A Visual Site Inspection (VSI) was conducted at the facility on June 17, 1998 by the TechLaw Team to identify and characterize SWMUs and AOCs. File material was provided to the TechLaw Team during the VSI by Mr. David Hesterlee, Delta Airlines. Mr. Ron Little, Mr. Don Magro, and Mr. Tim Delance of Delta Airlines were also present for the duration of the VSI. The photographs taken during the VSI are documented in Appendix A. The VSI Field Notebooks are included in Appendix B, and a Site Map showing SWMU locations is presented in Appendix C. Additional information concerning closure activities at the site is provided in Appendix D.

A total of three SWMUs and one AOC were identified. The SWMUs and AOC are described in more detail in Sections III and IV of this report. The Underground Oil/Water Separator System (SWMU 2) and the Underground Tank Farm (AOC A) were identified to have high potentials for release due to documented releases. The other two SWMUs were identified to have a low potential for release.

## II. SITE DESCRIPTION

Delta owns and operates the maintenance hangar known as O'Hare Field Building 751 which is located in Chicago, Illinois. Delta is the original owner of the hangar which was built in 1959 and 1960 and expanded during 1966 and 1967. The facility is located on a nine acre property at Chicago's O'Hare International Airport that was previously an orchard.

The facility is located amongst other maintenance hangars within the airport. The facility is bounded to the north and northeast by a vehicle thoroughfare and a United Airlines maintenance hangar, to the east by a vehicle service road, to the west by airport taxiways and to the south by a parking area. The hangar building is 550 feet by 725 feet and includes a 28 inch thick concrete floor. The majority of the Delta property is beneath the hangar with roughly 90 percent paved.

The facility employs approximately 13 people and operates three shifts, five days a week. Delta uses the facility to perform routine aircraft and equipment maintenance functions that correspond to the Standard Industrial Classification (SIC) Code 4581 (Airports, Flying Fields, and Airport Terminal Services). Delta has performed routine airplane and support vehicle maintenance functions at this facility since 1960. Current activities are limited to repair, overhaul, and painting of ground support vehicles used in the maintenance and loading of aircrafts. The hangar is located in a restricted portion of the airport and entry is confined to employees through a guarded entrance gate.

The primary industrial waste generated onsite is waste oils from ground support vehicles. The oil is collected in 55-gallon drums and transferred to the Waste Drum Storage Area (SWMU 2) before being taken offsite by Future Environmental. The facility has a contract with a vendor for recycling of batteries used in vehicles. Used aerosol cans and waste paint are generated in the facility's paint booth and stored in the Paint Booth Satellite Accumulation Area (SWMU 3).

An Underground Oil/Water Separator System (SWMU 1) consisting of a Waste Oil Tank, an Oil/Water Separator, and an Oil Accumulation Tank was installed at the hangar in 1961 and 1963. The Waste Oil Tank was used to collect waste oil and spent solvents and was emptied by an outside contractor. This tank was used until 1987 when Delta adopted a corporate policy to drum all waste oils. The Oil/Water Separator was connected to the hangar by floor drains and a sewer line and treated the wastewater runoff from housekeeping activities. The wastewater was discharged to the Metropolitan Reclamation District of Greater Chicago, a Publicly Owned Treatment Works (POTW). The former Oil/Water Separator was removed in 1990 and replaced with a new unit following remediation activities.

A product underground tank farm is currently located southwest of the hangar in the location of the Underground Tank Farm (AOC A). Five steel tanks containing Varsol, kerosene, gasoline and ethylene glycol were removed from this unit in 1990. Field personnel visually identified soil contamination during tank removal and soil samples were subsequently collected. Soil was excavated from the unit and three new underground storage tanks were installed in 1991.

Chlorinated solvents were used at the facility from the 1970s until 1987. Virgin solvent product came to the facility in 55-gallon drums. The unopened drums were stored outside the hangar and the opened drums were stored inside the hangar. The solvents were used for cleaning equipment, engines and ground support vehicles. Drip pans were used under equipment to collect spent solvent. The spent solvent was stored in the Waste Oil Tank (a component of SWMU 1) prior to off site disposal. According to facility representatives, Delta no longer uses listed solvents in their maintenance operations.

There was no information in the file material indicating other closed underground storage tanks outside of the Underground Tank Farm (AOC A) and the Oil/Water Separation System (SWMU 1). A June 20, 1996 application for operating permit submitted to Illinois Environmental Protection Agency (IEPA) by Delta indicates that there were at that time three glycol tanks, one gasoline tank and the Oil/Water Separator operated at the facility.

A Safety Kleen Parts Washing Station is located in the ground support equipment shop. This unit is a turn-key operation fully managed by Safety-Kleen Corporation.

Regulatory History

There was no information from IEPA in the file material indicating specific violations by the facility. An air quality permit application was submitted to Mr. Donald Sutton, Manager, Permit Section, IEPA on July 7, 1997 by Delta for five underground storage tanks. The file material did not identify any other permits maintained by Delta.

A Notice of Closure, Closure Number 575 dated February 13, 1991 states that a 6000 gallon underground storage tank (Waste Oil Tank, a component of SWMU 1) was identified as a hazardous storage area after the active life of the tank. In addition to the closure plan submitted by Delta, the Illinois Environmental Protection Agency (IEPA) also requested that the facility provide information concerning any prior releases of hazardous waste constituents from any solid waste management facility on the site.

A May 1, 1991 correspondence addressed to Delta Airlines from Mr. Lawrence W. Eastep, P.E., Manager, Permit Section, IEPA indicates that the closure plan for the tank storage (Waste Oil Tank, a component of SWMU 1) was disapproved due to a number of deficiencies including; failure to submit detailed drawings of the unit; failure to submit a description of decontamination of tanks; structures and soils; failure to establish soil cleanup levels; failure to provide a description of contaminated soil removal; failure to provide a statement of facility status after closure; failure to fully identify constituents of concern; failure to delineate the extent of contamination; failure to include verification sampling of all piping and fixtures; and failure to provide adequate details on concrete pad construction.

David A. Schlott, Senior Project Manager, ERM EnviroClean North Central, Inc. (ERM) submitted a letter on behalf of Delta on July 3, 1991 addressed to Mr. Eastep, IEPA. The letter

identified modifications Delta would incorporate into the revised closure plan, further relevant information, and a list of outstanding issues. Outstanding issues included the classification of contaminated soil from the unit as a listed waste and a claim that the Oil/Water Separator System (SWMU 1) is exempted from RCRA regulation because it is a "wastewater treatment unit."

Upon review of the information submitted, Mr. Mark Crites of the IEPA documented the following conclusions in a September 2, 1991 Memorandum: Delta did not demonstrate conclusively that the contamination was from the Oil/Water Separator; and Delta did not demonstrate the Oil/Water Separator System qualifies as a wastewater treatment unit.

According to a September 6, 1991 Corrective Action Report submitted by Ecology Services Inc., an Emergency Services Disaster Agency incident number (903605) was issued to Delta on December 3, 1990 following the detection of petroleum odor and visible soil staining during tank removal from the Underground Tank Farm (AOC A).

An April 20, 1992 correspondence addressed to Mr. Andrew Thomas of Delta Air Lines from Bur Filson, Manager, Northern Sub-Unit, LUST Section indicated that IEPA was in receipt of the September 6, 1991 Corrective Action Report. The letter notes, however, that Delta did not provide the necessary professional engineer certification form. Furthermore, the letter states that the Agency requires submission of a 45 Day Report to request site specific objectives and that the professional engineer cannot certify closure until these objectives have been established. A Leaking Underground Storage Tank (LUST) Program 45 Day Report dated August 5, 1992 was subsequently submitted by Delta.

Review of the file material did not produce any further correspondence from Delta or IEPA regarding closure of the Underground Tank Farm (AOC A). Conversations with Mr. Bill Haskins of the IEPA LUST Program indicated that the unit is not considered closed by the IEPA and that further evidence of clean closure would be required. Delta representatives subsequently contacted Mr. Douglas Clay, the IEPA Section Head, to reactivate the facility file. No further information was available at the time this report was prepared.

On October 2, 1991 ERM submitted a request addressed to Mr. Eastep, IEPA for an extension in filing the modified RCRA Closure Plan for the Underground Oil/Water Separator System (SWMU 2). The request was made based on significant changes identified by IEPA in response to issues raise by Delta in the July 3, 1991 letter addressed to Mr. Eastep. The revised RCRA Closure Plan was dated November 11, 1991.

The revised RCRA Closure Plan was approved subject to conditions and modifications listed in a February 7, 1992 correspondence from Mr. Eastep, IEPA to Delta Airlines. A Notice of Filing for a petition for hearing to review closure plan was received by the IEPA on March 17, 1992. The petition states that Delta requested review of the Agency's classification of the Oil/Water Separator (a component of SWMU 1) as a hazardous waste treatment/storage unit and conditions

10 and 12 as they relate to background sampling procedures and cleanup objectives. The Illinois Pollution Control Board (IPCB) accepted this petition for hearing in a March 26, 1992 Order of the Board.

An August 26, 1992 correspondence addressed to Mr. Jeffrey C. Fort and Ms. Jacqueline M. Vidmar, Sonnenschein Nath & Rosenthal (Delta counsel) from Ms. Jeanne B. Heaton, Assistant Counsel, IEPA indicated that the Agency determined that additional soil sampling would be required to respond to Delta's proposal that contaminated soil be classified as a special waste. The IEPA suggested that Delta conduct soil sampling in accordance with the November 11, 1991 Closure Plan and with conditions 6 and 11 of the IEPA closure plan approval letter, dated February 7, 1992. In a September 14, 1992 correspondence addressed to Ms. Heaton, IEPA, from Ms. Vidmar, Delta agreed to conduct the soil sampling. The letter noted that Delta's agreement to perform sampling did not constitute acceptance of the IEPA's approval with conditions of the closure plan and that the closure appeal would remain pending before the IPCB.

A November 1, 1992 correspondence addressed to IEPA from Mr. Brent Nozaki, Environmental Analyst, Delta Airlines indicates that the facility is no longer generating hazardous waste. The letter requests deactivation of the U.S. EPA ID number ILD112359799. A January 4, 1993 correspondence addressed to Mr. Nozaki from Ms. Sharon Kiddon, IEPA, acknowledges receipt of this request and indicates the number was recorded as an inactive number. There was no information in the available file material to indicate that the number was ever reactivated.

Delta provided further information relating to solvent handling practices at the facility to the IEPA in a January 7, 1993 correspondence addressed to Mr. Eastep, IEPA from David R. Hesterlee, Manager, Delta. Information was submitted so that the IEPA could evaluate a settlement proposal offered by Delta. A January 8, 1993 correspondence addressed to Ms. Heaton, IEPA from Ms. Vidmar outlines the settlement proposal to resolve issues related to the closure plan appeal. Delta suggested handling contaminated soil excavated from the site as contaminated with spilled virgin material rather than spent solvent, i.e., as "U" listed waste rather than "F" listed waste in lieu of soil sampling to characterize the soil. Delta further noted their judgment that there was no evidence to indicate spent solvents were sent to the Oil/Water Separator (a component of SWMU 2) and that the Waste Oil Tank (a component of SWMU 1) did not leak.

Ms. Vidmar addressed a February 8, 1993 letter to Ms. Heaton, IEPA indicating acceptance of the revised closure plan approval letter by Delta. The letter indicated that a motion to dismiss Delta's closure plan appeal before the IPCB would be filed. A February 25, 1993 correspondence addressed to Delta Air Lines from Mr. Eastep approved closure of the Waste Oil Tank, the Oil Accumulation Tank and the Oil/Water Separator (all components of SWMU 1) subject to stated conditions and modifications. The letter, superseding the previous closure plan approval dated February 7, 1992, noted that it would only be effective upon the voluntary dismissal of the closure plan appeal. A July 16, 1993 closure plan approval letter addressed to Delta Air Lines from Mr. Eastep, IEPA, established cleanup objectives for the facility.

Delta Air Lines submitted a Notice of Filing for a petition for hearing to review closure plan on August 20, 1993. The petition specifically requested the review of cleanup objectives established in the July 16, 1993 closure plan approval letter.

A March 3, 1994 Memorandum from Mr. James O'Brien, IEPA, to Mr. Doug Clay, IEPA noted that the Office of Chemical Safety had completed its review of the Evaluation of Risks from the RCRA Closure Report for Delta. The review determined that the documentation was unsuitable for the determination of risk attributed to residual soil contamination based upon errors in execution and absence of sufficient justification to support significant deviations from standard risk assessment procedures.

Delta submitted a report entitled "Addendum to the RCRA Closure Report" in December of 1994. In a December 22, 1994 correspondence addressed to Mr. Greg Richardson, IEPA from Ms. Vidmar, Delta notes that administrative action was stayed pending the outcome of multiple discussions with the IEPA. The letter stated that Delta conducted additional soil sampling at the closure site at the request of the IEPA and that additional analytical data indicated that the potential for any remaining volatile organic compounds (VOCs) to impact the groundwater was not a viable concern. Finally, Delta requested the IEPA approve clean closure of the site.

Ms. Donna Czech of the IEPA conducted a closure inspection at the Delta facility on September 12, 1995. The inspection report submitted to Mr. Mark Crites, IEPA by Ms. Czech on September 13, 1995 notes that, based upon inspection, document review and personnel interviews, the Underground Oil/Water Separator System (SWMU 1) was closed in accordance with the approved closure plan.

A November 1, 1995 correspondence addressed to Mr. David R. Hesterlee, Delta Air Lines, from Edwin C. Bakowski, P.E., Manager, Permit Section, IEPA indicates that closure inspection and review of closure certification and documentation report revealed that Delta closed the Underground Oil/Water Separator System (SWMU 1) in accordance with the approved closure plan. The IEPA approved closure certification subject to Delta's withdrawal and dismissal of their appeal before the IPCB.

Environmental Setting

The facility is located in a zoned industrial area. The surrounding properties are within the airport boundaries and are currently zoned industrial. According to facility representatives the closest residential properties are approximately one mile from the facility. No sensitive environments or wetlands are located within a one mile radius of the facility. The facility is not located in a floodplain. There was no rainfall information in the available file material.

According to an August 5, 1992 LUST Program 45 Day Report, the topography of the site is flat with approximately 15 feet of relief. Original elevations and natural surface water drainage generally have been changed due to airport construction. According to USGS maps, the

elevation at the Delta hangar is 665 feet above mean sea level. The facility reportedly has a drainage swale west of the hangar that flows south to an unknown locality. Channelized drainage appears to flow northeast into Willow Creek about 1 mile north of the Delta Hangar. Willow Creek flows approximately 2.5 miles east where it drains into the Des Plaines River.

Water well records and published reports from the Illinois State Water Survey (ISWS) and Illinois State Geological Survey (ISGS), indicate the geology of the area consists of a thick sequence of Silurian bedrock overlain by Quaternary glacial drift and alluvial deposits. The depth to the top of the Silurian dolomite and the thickness of the dolomite vary across the area because of differential pre-glacial and post-glacial erosion. The Silurian dolomite is 100 to 150 feet thick and is overlain by 50 to 100 feet of unconsolidated deposits where the facility is located. The only water well recorded to have penetrated the entire thickness of the Silurian dolomite in the vicinity of the site indicates that it was encountered at a depth of 90 feet below ground surface and is approximately 130 feet thick.

Unconsolidated Quaternary deposits comprised of Wisconsinan glacial drift overlie the Silurian bedrock. These deposits primarily consist of silty-clay diamictons or tills of the Wadsworth Till Member of the Wedron Formation. A surficial geology map of the area indicates that the Delta site is underlain by ground moraine deposits of the Tinley Moraine. Records of wells within a one mile radius of the site document up to 99 feet of silty clay overlying the bedrock. Some discontinuous and lenticular glaciofluvial deposits of sand and gravel were encountered within the silty-clay till at some water well locations.

According to the RCRA Closure Facility Investigation report submitted by ERM in 1993, undisturbed soils consisting of a light-gray to brown, moist, soft, silty clay with pebbles were encountered throughout the site to the maximum depth investigated.

According to the October 26, 1993 Closure Report no surface water is present at the site, and the uppermost aquifer beneath the site is located at approximately 90 feet below the ground surface within the Silurian dolomite. The primary aquifers in the Chicago area are the Basal Bedrock Aquigroup, the Midwest Bedrock Aquigroup, the Upper Bedrock Aquigroup, and the Prairie Aquigroup. The City of Chicago supplies drinking water drawn from Lake Michigan to the Delta facility and the surrounding areas. The uppermost aquifer is not known to be a source of water for use by Delta or others in the area.

The August 5, 1992, LUST Program 45 Day Report identified nine water wells within a one mile radius of the site. The wells vary in depth from 11 feet to 375 feet. One of the wells was constructed to draw water from both the Midwest Bedrock Aquifer and the Silurian dolomite aquifer of the Upper Bedrock Aquifer. Three of the wells were constructed to draw water exclusively from the Silurian dolomite aquifer. Three of the wells were constructed to draw water from the interbedded sand and gravel deposits within the silty-clay till of the Prairie Aquigroup. Four of the wells were installed on property that is now part of O'Hare International Airport. None of them are active groundwater wells. It is likely that they were taken out of

service in 1960's when the airport was constructed. The other wells are located beyond the airport property. The available file material did not indicate whether these wells are in still service. Well location drawings and listings are included in Appendix D.

Release History

ERM conducted an investigation of the Delta Maintenance Hangar on March 15 and 16, 1989 to assess the Underground Tank Farm (AOC A) at the facility. An assessment of the Waste Oil Tank, Oil/Water Separator and Oil Accumulation Tank located in the Underground Oil/Water Separator System (SWMU 1) was included in this investigation. Analytical results for soil samples collected at two foot intervals to a depth of 12 feet within this unit indicated the presence of chlorinated compounds and other VOCs at elevated concentrations. The range of concentrations detected for each compound are provided below.

| Compound | Concentration Range (ug/kg) |
|---|---|
| Benzene | 6.0 to 93.5 |
| 1,1-Dichloroethane | 148.6 to 3,770 |
| 1,2-Dichloroethane | 181.0 to 270 |
| 1,2-Dichlorobenzene | 1,090 to 97,100 |
| Ethyl benzene | 40.7 to 4,053 |
| Tetrachloroethene | 260 to 402 |
| Toluene | 63.4 to 2,928 |
| 1,1,1-Trichlorethane | 6,220 |
| m-Xylene | 107.5 to 15,680 |
| o,p-Xylene | 109.0 to 11,150 |
| total Xylene | 216.5 to 26,830 |

Additional soil samples were collected from the Underground Oil/Water Separator System (SWMU 1) in 1990 during tank removal by Ecology Services, Inc. (ESI). Field service personnel detected a petroleum odor and observed visible soil staining of the backfill, excavation walls, and excavation floor of the unit. Two samples were found to exceed the LUST cleanup objectives for benzene established by IEPA. ESI collected additional samples from these same locations and had them analyzed for National Priority Pollutants List (NPPL) parameters including VOCs, acids, pesticides, and base/neutrals. Analytical results indicated the presence of methylene

chloride, naphthalene, 1,2-dichloroethene, ethylbenzene, 1,2-dichlorobenzene, toluene, 1,3-dichlorobenzene, benzene, 1,4-dichlorobenzene, and trichlorofluoromethane.

Following additional soil excavation, samples collected were again submitted for NPPL parameters. Although the analytical parameters did not include a test for xylene, ESI identified the samples to be within LUST cleanup objectives and recommended no further investigation. A total of 5,109 cubic yards of contaminated soil was excavated from the unit. Analytical results of samples collected from removed backfill also indicated the presence of arsenic, chromium, mercury, barium, lead, and silver.

In March of 1993 further investigation of the Underground Oil/Water Separator System (SWMU 1) was conducted by ERM, to determine the nature of contamination, define the limits of contamination associated with the underground gravity sewer system connected to the Oil/Water Separator (components of SWMU 1), define the limits of contamination associated with the underground pipe connected to the Waste Oil Tank (components of SWMU 1), and determine whether contamination had migrated outside of the excavation area.

According to the April 30, 1993 RCRA Closure Facility Investigation Report submitted by ERM, the vertical extent of the soil contamination was found to be limited from 12 to 16 feet below ground surface. Analysis of samples from the 14 to 16 foot depth interval resulted in nondetects of total VOC and SVOC concentrations for all but two samples, where total VOCs were detected at 25 and 409 ug/kg. The horizontal extent of contamination was established just north of the common excavation by a sample that resulted in only bis(2-ethylhexyl)phthalate above the detection limits. Contamination was reportedly not considered to have migrated along the underground fill pipe running north of the waste oil tank based upon analytical data for samples which contained no VOCs or SVOCs above the detection limits. The concentrations of SVOCs and VOCs along the underground sewer to the north decreased as distance increased. The furthest sample contained only 61 ug/kg total VOCs and no SVOCs above detection limits. The extent of contamination just east of the excavation was established by a sample showing no VOC or SVOC concentrations above the sample detection limits. The southernmost limit of contamination was defined just outside the common excavation by a sample containing 35 ug/kg total VOCs and only bis(2-ethylhexyl)phthalate above detection limits. The concentrations along the underground sewer to the south decreased with increasing distance similarly to the north. The limits of contamination west of the common excavation were apparently not defined. It was surmised that the Underground Tank Farm (SWMU 1) may have contributed to the contamination in this area.

Dimensions of soil excavation in the area of the Underground Oil/Water Separator System (SWMU 1) completed on May 6, 1993 were approximately 40 feet by 90 feet. The excavation was lined with visqueen to delineate the boundary between the native soil and the clean backfill materials on July 13, 1993. A new Oil/Water Separator Tank and associated piping were subsequently installed and connected to the building floor drain and apron drain system. Finally, the excavation was backfilled and the surface repaved and covered with grass.

Further negotiations with IEPA resulted in the collection of an additional confirmatory soil sample from beneath the floor of the final excavation. The sample was collected on October 4, 1993 at a depth interval of 12 to 12.5 feet below ground surface as requested by Mr. Crites of IEPA. The results of analytical analysis for VOCs and SVOCs were nondetect for all of the parameters at detection limits prescribed by EPA SW-846 for the sample. Samples were also analyzed for total organic carbon (TOC) at depth intervals of 12 to 12.5, 14 to 14.5 and 16 to 16.5 feet. Analytical results for these samples indicated TOC levels of 1.7, 1.8 and 2.1 percent, respectively.

According to a May 15, 1995 Memorandum from Mr. Crites of IEPA to the Cleanup Objectives Review and Evaluation Group, soil contamination still existed in excess of the Class 2 Cleanup objectives. Delta ceased excavation activities because any further excavation to the north or west would have jeopardized the integrity of the hangar walls. Furthermore, Delta did not perceive the remaining contamination to present a threat to human health or the environment because there was no groundwater pathway and because the industrial setting inhibited the likelihood of residential exposure.

An August 5, 1992 LUST Program 45 Day Report was submitted to IEPA following the identification of soil contamination in the Underground Tank Farm (AOC A). Analysis of samples collected during initial excavation indicated that the soil exceeded LUST cleanup objectives for benzene. Total priority pollutant (TPP) analysis of samples indicated the presence of methylene chloride, naphthalene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, benzene, ethylbenzene, toluene, trichlorofluoromethane, and 1,1,1-trichloroethane. Following a second phase of excavation in the unit, sample analysis indicated the presence of methylene chloride at levels of 0.057 ppm to 0.16 ppm, benzyl butyl phthalate at levels of 0.8 ppm to 0.97 ppm, bis(2-ethylhexyl)phthalate at levels of 79 ppm to 103 ppm, and 1,1,1-trichloroethane at a level of 0.006 ppm. Excavation was discontinued based on no further visual observation of staining or elevated Photo Ionization Detector (PID) readings.

## III. SOLID WASTE MANAGEMENT UNITS

This section presents descriptions of the SWMUs identified during the PA and VSI at the Delta facility. Photograph numbers correspond to those presented in the Photograph Log in Appendix A. Table III-1 is a list of all the SWMUs identified during the PA and VSI.

**TABLE III-1**

**SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN SUMMARY DELTA AIR LINES, INC.**

| SWMU/AOC | Description | Release Potential |
|---|---|---|
| SWMU 1 | Underground Oil/Water Separator System | High |
| SWMU 2 | Waste Drum Storage Area | Low |
| SWMU 3 | Paint Booth Satellite Accumulation Area | Low |
| AOC A | Underground Tank Farm | High |

**SWMU 1 - Underground Oil/Water Separator System**

**Report Photo No(s).:** 3, 4, 5, 6, 7

**Log Book Photo No(s).:** 1-1, 1-2, 1-5, 1-10, 1-11

**Period of Operation:** 1962 to present

**Location:** This unit is located outdoors below a grassy area and parking lot adjacent to the southeast edge of the hangar.

**Physical Description:** This area currently contains an Oil Tank and Oil Water Separator installed in 1993. Prior to their removal in April and May of 1993, this area contained a 6000 gallon Waste Oil Tank, a 250 gallon Oil Accumulation Tank and an Oil/Water Separator. The Waste Oil Tank and Oil Accumulation tank were constructed of steel, and the Oil/Water Separator was a concrete tank constructed on a concrete base slab. A receptacle resembling a sink was located inside the hangar for collection of waste oil and spent cleaning solvent which then gravity drained via piping to the Wast Oil Tank. Use of the Waste Oil Tank was discontinued in 1987 due to a corporate Delta policy that was adopted to store waste oils in 55 gallon drums. A total of 10 floor drains and trench drains in the hangar drained to the Oil/Water Separator. Wastewater from the Oil/Water Separator was discharged to the Metropolitan Water Reclamation District of Greater Chicago.

The area excavated during removal of the old Waste Oil Tank, Oil Accumulation Tank and Oil/Water Separator in 1993 was 90 feet long, 40 feet wide and 11-14 feet deep. Although soil contamination in excess of Class 2 Cleanup objectives remains at this unit, Delta ceased further excavation to the north and west of the excavation which would have jeopardized the integrity of the hangar walls. IEPA approved closure based on a risk assessment conducted by Delta which indicated that leaving the remaining contamination in place would not pose a threat to human health or the environment. IEPA also conducted a closure inspection and noted that site geology is suited to prevent migration of contamination to groundwater.

**Wastes Managed:** This system managed waste oils, wastewater from housekeeping and floor washing, and various spent and unspent solvents including methylene chloride, tetrachloroethane, 1,1,1-trichloroethane, toluene, ethylbenzene, xylene, mineral oil, kerosene, acetone, ethanol, skydrol, and ethylene glycol. The Waste Oil Tank was reportedly emptied once every two years and the Oil Accumulation Tank was emptied approximately once per year.

Equipment washings in the facility now drain to the current Oil/Water Separator. Hazardous solvents are no longer used in cleaning equipment, engines and ground support vehicles. Separated oil accumulates in the Oil Tank and wastewater is still discharged to the Metropolitan Water Reclamation District of Greater Chicago.

**SWMU 1 - Underground Oil/Water Separator System (Continued)**

**History of Releases:** During a soil investigation in 1989 and subsequent removal of the former units and surrounding soils during closure activities conducted in 1993, evidence of releases from this unit were documented. Laboratory analysis of confirmatory samples confirmed the presence of VOCs and SVOCs in surrounding soils at concentrations exceeding Class 2 Cleanup Objectives.

**Potential for Past/present Release:** **High (X)**
**Moderate ( )**
**Low ( )**

**Conclusions:** No further action is recommended since Delta has received approval of closure by IEPA.

## SWMU 2 - Waste Drum Storage Area

**Report Photo No(s).:** 8, 9

**Log Book Photo No(s).:** 1-6, 1-7

**Period of Operation:** 1987 to present.

**Location:** This unit is located approximately 6 feet outside the hangar on the west end of the northwest edge of the building.

**Physical Description:** This unit consists of a 20 foot by 25 foot concrete floor covered by an aluminum shed for the storage of used oil drums. At the time of the VSI approximately 20 drums containing waste oil were stored in the unit on pallets. Empty drums were also stored in the unit. No sump was observed in the floor during the VSI.

Once accumulated, wastes from the Paint Booth Satellite Accumulation Area (SWMU 5) would be transferred here. These wastes have only been accumulating in SWMU 5 since November, 1997 and had not yet been transferred to this unit at the time of the VSI. These wastes would include used aerosol cans and waste paint bottoms.

**Wastes Managed:** Facility representatives indicated at the time of the VSI that only drums of non-hazardous waste oil and empty drums have been stored in this area to date. Waste oil is generated from the various ground support vehicles maintained in the hangar. About 1000 gallons of waste oil is removed twice a year by Future Environmental (Special Waste Hauler ID #3922).

**History of Releases:** No releases from this unit were identified in the file material or by facility representatives. The floor of the unit was in good condition at the time of the VSI.

**Potential for Past/present Release:** **High ( )**
**Moderate ( )**
**Low (X)**

**Conclusions:** No further action is recommended since there is no history of release, the unit is covered, and the concrete floors do not show evidence of deterioration.

**SWMU 3 - Satellite Accumulation Area for Paint Booth**

**Report Photo No(s).:** 10, 11

**Log Book Photo No(s).:** 1-8, 1-9

**Period of Operation:** November 1997 to present

**Location:** This unit is located in the southeast corner of the paint booth within the hangar.

**Physical Description:** The 100 foot by 20 foot paint booth is located at the north end of the hangar. This unit consists of a 5 feet by 4 feet area on a concrete floor in the corner of the booth. At the time of the VSI a 55-gallon steel drum containing aerosol cans and a 5-gallon drum containing waste paint were located in the unit.

**Wastes Managed:** The unit manages used aerosol cans and waste paint.

**History of Releases:** According to facility representatives, there have been no releases. No evidence of release was observed during the VSI or found in the available file materials from this unit.

**Potential for Past/present Release:** **High ( )**
**Moderate ( )**
**Low (X)**

**Conclusions:** No further action is recommended since there is no evidence of release, the unit is relatively new and the concrete floor was in good condition at the time of the VSI.

## IV. AREAS OF CONCERN

This section presents a description of the Area of Concern (AOC) identified during the PA and VSI as the Delta Hangar O'Hare Field Building facility. Photograph numbers correspond to those presented in the Photograph Log in Appendix A. A map showing the AOC location is presented in Appendix C.

**AOC A - Underground Tank Farm**

**Report Photo No(s):** 1, 2

**Log Book Photo No(s):** 1-3, 1-4

**Description:** 1961 to present

This tank farm is located outdoors below a surface grade concrete pad that lies approximately 100 feet west of the southwest corner of the hangar. According to facility representatives, the tank farm currently houses 3 underground storage tanks (USTs) which were installed in 1991 concurrent with backfilling activities following the removal of 5 USTs in 1990. The current USTs include the following: one 1,000 gallon UST for the storage of gasoline; one 1,000 gallon UST for the storage of kerosene; and one 10,000 gallon UST for the storage of ethylene glycol. According to facility representatives the new tanks are constructed of double-wall fiberglass. The surface of the area is currently covered by grass and a 30 feet by 30 feet concrete pad. No information was found in the available file materials to indicate whether these tanks are constructed with leak detection. Facility representatives indicated during the VSI that the surface area of the unit had once been used for product storage (hydraulic oil, lube oil, etc.) and empty drum storage prior to 1990, however, specific dates were not provided. Facility representatives were not aware of any releases that may have occurred from the empty drum and product storage in this area.

The 5 USTs removed in 1990 were all installed in 1961 prior to the promulgation of regulatory requirements governing USTs. The 5 USTs consisted of the following: one 1,920 gallon UST (Varsol); one 4,605 gallon UST (Kerosene); one 6,078 gallon UST (gasoline); and two 10,151 gallon USTs (gasoline and ethylene glycol, respectively). Additionally, an IEPA letter indicates that one of the tanks managed propylene glycol for some period of time.

The tanks, remaining contents, and 5,109 cubic yards of contaminated soils were removed in 1990 and the excavation area was backfilled primarily with pea gravel and a relatively small amount of grade 9 stone. During UST removal, soil was stockpiled on plastic sheets and covered with plastic. The vast majority of the soils were disposed of as non-hazardous special waste at Settlers Hill Landfill in Batavia, Illinois, while 195 cubic yards of soil contained organics at concentrations which required that it be disposed of as hazardous waste at the Peoria Disposal Company's hazardous waste landfill in Peoria, Illinois. Specific hazardous waste codes for the 195 cubic yards of soil were not found in the available file materials.

According to the September 6, 1991 Corrective Action Report submitted by Ecology Services, Inc., field personnel detected a petroleum odor and visibly observed soil staining during tank removal activities which began on November 9, 1990. The release was assigned LUST Incident Number 903605. Analysis of soil samples collected during the 1990 excavation detected benzene, methylene chloride, naphthalene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-

naphthalene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethene, benzyl butyl phthalate, bis(2-ethylhexyl)phthalate, ethylbenzene, toluene, trichlorofluoromethane, and 1,1,1-trichloroethane. No groundwater samples were collected due to the reported absence of groundwater in the excavation pit and Delta's contention that the presence of native clay and silty clay surrounding the tank area would have effectively prevented migration of hazardous constituents to groundwater. The Corrective Action Report indicates that subsequent confirmatory soil samples collected during and following excavation activities (completed on November 24, 1998) were within LUST soil cleanup objectives. It should be noted, however, that site specific standards have not yet been approved by IEPA. A summary of analytical results is provided in Appendix D of this report.

In response to the September 6, 1991 Corrective Action Report submitted by Ecology Services, Inc., IEPA sent an April 20, 1992 letter which indicated that they could not review the Corrective Action Report until a 45 Day Report had been submitted requesting site specific objectives. The letter indicates that site specific objectives were required because some of the USTs had reportedly stored mineral spirits and propylene glycol. The letter further notes that IEPA requires the submittal of a 45 Day Report to request site specific objectives and that until these objectives are established the professional engineer cannot certify closure.

A 45 Day Report dated August 5, 1992 was submitted to IEPA in response to IEPA's April 20, 1992 letter. There is no additional file material indicating subsequent actions by Delta or IEPA concerning this area's closure. The facility representatives were not aware of the status of closure of the unit at the time of the VSI, however, in conversations with Delta representatives following the VSI, Delta indicated that they resubmitted the Corrective Action Report and 45 Day Report to Sam Haley of the IEPA LUST in July of 1998. Delta is requesting that the closure review be re-opened to determine if any additional steps are required to obtain closure.
It is therefore recommended that U.S. EPA consult with IEPA regarding the status of closure for this unit.

## VI. CONCLUSIONS

Based on information contained in the file material and obtained in discussions with Delta representatives, follow-up is needed to determine the status of closure for the Underground Tank Farm (AOC A). It is recommended that U.S. EPA contact the IEPA LUST program to determine the closure status and/or the need for any further action at the Underground Tank Farm.

## VI. REFERENCES


1. Correspondence from Ira G. Pearl (Delta Air Lines) to Donald Sutton (Illinois EPA) Re: Compliance of Storage Tank, dated July 7, 1997.

2. Correspondence from Donald E. Sutton (Illinois EPA) to Don Magro (Delta Air Lines) Re: Rejection of operating permit application, dated July 9, 1996.

3. Correspondence from Edwin C. Bakowski (Illinois EPA) to David R. Hesterlee (Delta Air Lines) Re: Certification of closure, dated November 14, 1995.

4. Correspondence from Edwin C. Bakowski (Illinois EPA) to David R. Hesterlee (Delta Air Lines) Re: Certification of closure, dated November 1, 1995.

5. Memorandum from Mark Crites (Illinois EPA) to BOL File Re: Facility review notes, dated October 19, 1995.

6. Correspondence from David R. Woods (Delta Air Lines) to Donna Czech (Illinois EPA) Re: Information request from Final Closure Inspection, dated September 15, 1995.

7. Memorandum from Donna Czech (Illinois EPA) to Glenn Savage (Illinois EPA) Re: Closure Inspection, dated September 12, 1995.

8. Memorandum from Mark Crites (Illinois EPA) to Cleanup Objectives Review and Evaluation Group (Illinois EPA) Re: Request for Site Specific Cleanup Objectives, dated May 15, 1995.

9. Generator Annual Hazardous Waste Report, Illinois EPA. Re: Delta Air Lines, dated April 4, 1995.

10. Memorandum from James O'Brien (Illinois EPA) to Larry Eastep (Illinois EPA) Re: Comments for Addendum to the RCRA Closure Report, dated March 27, 1995.

11. Correspondence from Jacqueline M. Vidmar (Sonnenschein Nath & Rosenthal) to Greg Richardson (Illinois EPA) Re: Addendum to the RCRA Closure Report, dated December 22, 1994.

12. Generator Annual Hazardous Waste Report, Illinois EPA. Re: Delta Air Lines, dated October 10, 1994.

13. Memorandum from James O'Brien (Illinois EPA) to Doug Clay (Illinois EPA) Re: Review of RCRA Closure Report, dated March 3, 1994.

14. RCRA Closure Report, prepared by ERM EnviroClean North Central, Inc., dated October 26, 1993.

15. Notice of Filing, Petitioner-Delta Air Lines v. Respondent-Illinois EPA, received August 26, 1993.

16. Correspondence from Lawrence W. Eastep (Illinois EPA) to Delta Airlines Re: Closure plan modification request, dated July 16, 1993.

17. Correspondence from David A. Schlott (ERM EnviroClean North Central, Inc.) to Mark Crites (Illinois EPA) Re: RCRA Closure - Confirmation Sample Location, dated May 14, 1993.

18. Correspondence from David A. Schlott (ERM EnviroClean North Central, Inc.) to Mark Crites (Illinois EPA) Re: RCRA Closure Facility Investigation Report, dated April 30, 1993.

19. Memorandum from COT to CPRC Re: Cleanup Recommendations for Delta Airlines, dated March 22, 1993.

20. Correspondence from Lawrence W. Eastep (Illinois EPA) to Delta Airlines Re: Proposed closure plan, dated February 25, 1993.

21. Generator Annual Hazardous Waste Report, Illinois EPA. Re: Delta Air Lines, dated February 23, 1993.

22. Memorandum from Mark L. Crites (Illinois EPA) to Division File (Illinois EPA) Re: Summary of Appeal Agreement, dated February 19, 1993.

23. Correspondence from David A. Schlott (ERM EnviroClean North Central Inc.) to Mark L. Crites (Illinois EPA) Re: Proposed modifications to the pre-remediation investigation activities, dated February 17, 1993.

24. Correspondence from David A. Schlott (ERM EnviroClean North Central Inc.) to Mark L. Crites (Illinois EPA) Re: Revised sampling scheme, dated February 16, 1993.

25. Correspondence from Jacqueline M. Vidmar (Sonnenschein Nath & Rosenthal) to Jeanne B. Heaton (Illinois EPA) Re: Revised closure plan approval letter, dated February 8, 1993.

26. Correspondence from Jacqueline M. Vidmar (Sonnenschein Nath & Rosenthal) to Jeanne B. Heaton (Illinois EPA) Re: Closure Plan Appeal, dated January 8, 1993.

27. Correspondence from David R. Hesterlee (Delta Air Lines) to Lawrence W. Eastep (Illinois EPA) Re: Solvent handling practices, dated January 7, 1993.

28. Correspondence from Sharon Kiddon (U.S. EPA) to Brent Nozaki (Delta Airlines) Re: EPA ID Number, dated January 4, 1993.

29. Correspondence from Brent Nozaki (Delta Air Lines) to Illinois EPA Re: Deactivation of EPA ID Number, dated November 1, 1992.

30. Correspondence from Jacqueline M. Vidmar (Sonnenschein Nath & Rosenthal) to Jeanne B. Heaton (Illinois EPA) Re: Settlement negotiations regarding tank closure plan, dated September 14, 1992.

31. Correspondence from Jeanne B. Heaton (Illinois EPA) to Jeffrey C. Fort and Jacqueline M. Vidmar (Sonnenschein Nath & Rosenthal) Re: Additional Sampling Data, dated August 26, 1992.

32. Illinois EPA Leaking Underground Storage Tank Program 45 Day Report, Delta Air Lines, dated August 5, 1992.

33. Correspondence from Bur Filson (Illinois EPA) to Andrew Thomas (Delta Air Lines) Re: LUST Incident no. 93605, dated April 20, 1992.

34. Permit Appeal, Petitioner-Delta Air Lines, Inc. V. Respondent-Illinois EPA, dated March 26, 1992.

35. Notice of Filing, Petitioner-Delta Air Lines v. Respondent-Illinois EPA, received March 17, 1992.

36. Generator Annual Hazardous Waste Report, Illinois EPA. Re: Delta Air Lines, dated February 19, 1992.

37. Correspondence from Lawrence W. Eastep (Illinois EPA) to Delta Airlines Re: Closure plan review, dated February 7, 1992.

38. Correspondence from David A. Schlott (ERM EnviroClean North Central, Inc.) to Lawrence W. Eastep (Illinois EPA), dated November 12, 1991.

39. RCRA Closure Plan, prepared by Environmental Resources Management North Central, Inc., dated November 11, 1991.

40. Correspondence from David A. Schlott (ERM EnviroClean North Central, Inc.) To Lawrence W. Eastep (Illinois EPA), dated October 2, 1991.

41. Corrective Action Report, prepared by Ecology Services, Inc., dated September 6, 1991.

42. Handwritten review sheet, prepared by Mark L. Crites Re: Closure plan submittal, dated September 2, 1991.

43. Correspondence from David A. Schlott (ERM EnviroClean North Central, Inc.) to Lawrence W. Eastep (Illinois EPA) Re: Closure plan revisions, dated July 3, 1991.

44. Correspondence from Lawrence W. Eastep (Illinois EPA) to Delta Airlines Re: Tank Storage Closure Plan Disapproval, dated May 1, 1991.

45. Notice of Closure, Number 575 Re: Delta Maintenance Hangar, dated February 13, 1991.

46. RCRA Closure Plan, prepared by Environmental Resources Management North Central, Inc., dated February 5, 1991.

47. Facsimile from Donald C. Magro Delta Airlines to Bill Wesley, TechLaw regarding Safety Kleen Parts Cleaner and hazardous waste codes for waste drums in the paint booth satellite accumulation area.

48. Memorandum/conversation record from William S. Wesley, TechLaw to Delta O'Hare Hangar File regarding Tank Farm Closure, dated July 31, 1998.

# APPENDIX A
# VISUAL SITE INSPECTION PHOTOGRAPHIC LOG

D-8J

August 6, 1998

Ms. Patricia Brown-Derocher
Regional Manager
TechLaw, Inc.
20 North Wacker Drive
Suite 1260
Chicago, Illinois 60606

Reference: contract No. 68-W4-00006; Work Assignment R05052

Dear Ms. Brown-Derocher:

Thank you for your August 4, 1998, letter regarding the Delta Hangar-O'Heare Field Bldg (ILD 112 359 799) located in Chicago, Illinois. The report is adequate and I have concluded that the submission along with the scoring sheets will constitute the final deliverable for the facility. Please provide a copy of the final report to the appropriate IEPA and facility contacts.

Do not hesitate to call me at (312) 886-0977 should you have additional questions or need additional clarification.

Sincerely,

Gerald W. Phillips
Corrective Action Process Manager
Waste, Pesticides and Toxics Division

cc: Bill Wesley, TechLaw
F. Norling, U.S. EPA

file

EPA

**ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY**
*(VERIFICATION)*

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act *(RCRA)*. Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER ILD112359799

DELTA AIRLINES
BOX 66138 OHARE INTL AIRPORT
CHICAGO IL 60666

INSTALLATION ADDRESS OHARE INTL AIRPORT
CHICAGO IL 60666

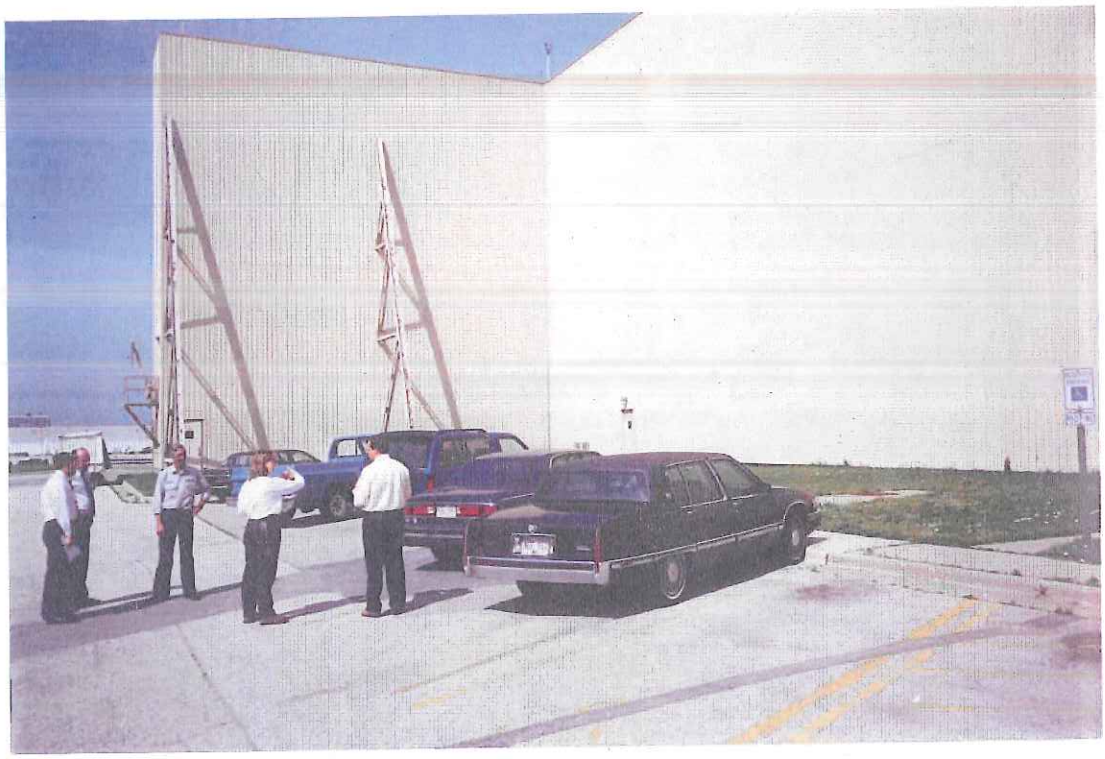
EPA Form 8700-12B (4-80) 12/27/85

M 1/3/86

Report Photo No.: 1
Log Book Photo No.: 1-1
Date: 06/17/98

Time: 0946
Direction: W

Description: View showing the former location of the Underground Oil/Water Separator System (SWMU 1) located on the south end of the hangar.



Report Photo No.: 2
Log Book Photo No.: 1-2
Date: 06/17/98

Time: 0947
Direction: W

Description: View showing the general area of Underground Oil/Water Separator System (SWMU 1). The darker pavement in the driveway reflects the south edge of the excavation. The Excavation area was approximately 50 feet by 100 feet and extended northwest toward the hangar wall.

Report Photo No.: 3
Log Book Photo No.: 1-5
Date: 06/17/98

Time: 1035
Direction: NW

Description: View of the equipment washing area located at the northwest end of the hangar. The trench that runs along the west edge of the building and drains to the Underground Oil/Water Separator System (SWMU 1) is shown on the left.

Report Photo No.: 4
Log Book Photo No.: 1-10
Date: 06/17/98

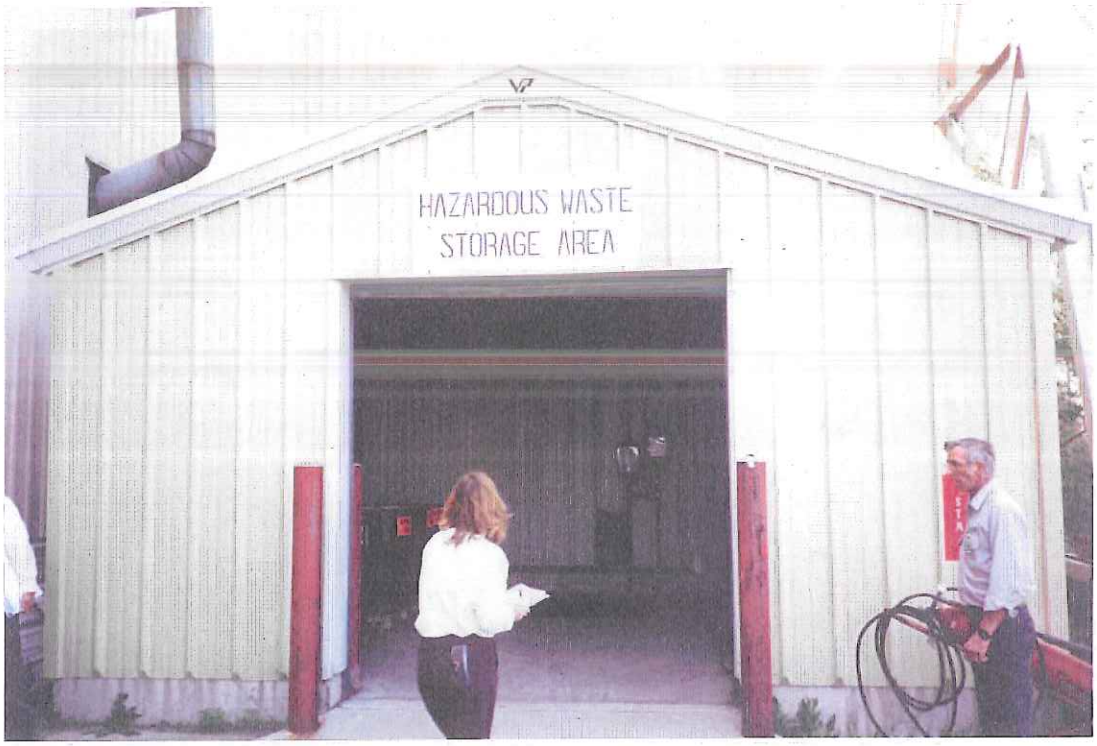
Time: 1105
Direction: NW

Description: The trench drain along the west edge of the hangar is shown. This trench drains to the Underground Oil/Water Separator System (SWMU 1).

Report Photo No.: 5
Log Book Photo No.: 1-11
Date: 06/17/98

Time: 1106
Direction: SE

Description: The waste oil receptacle that previously drained to the Waste Oil Tank of the Underground Oil Water Separator System (SWMU 1) is shown in the background. The 6 inch curbed receptacle, which is no longer used, is covered with a metal plate.




Report Photo No.: 6
Log Book Photo No.: 1-6
Date: 06/17/98

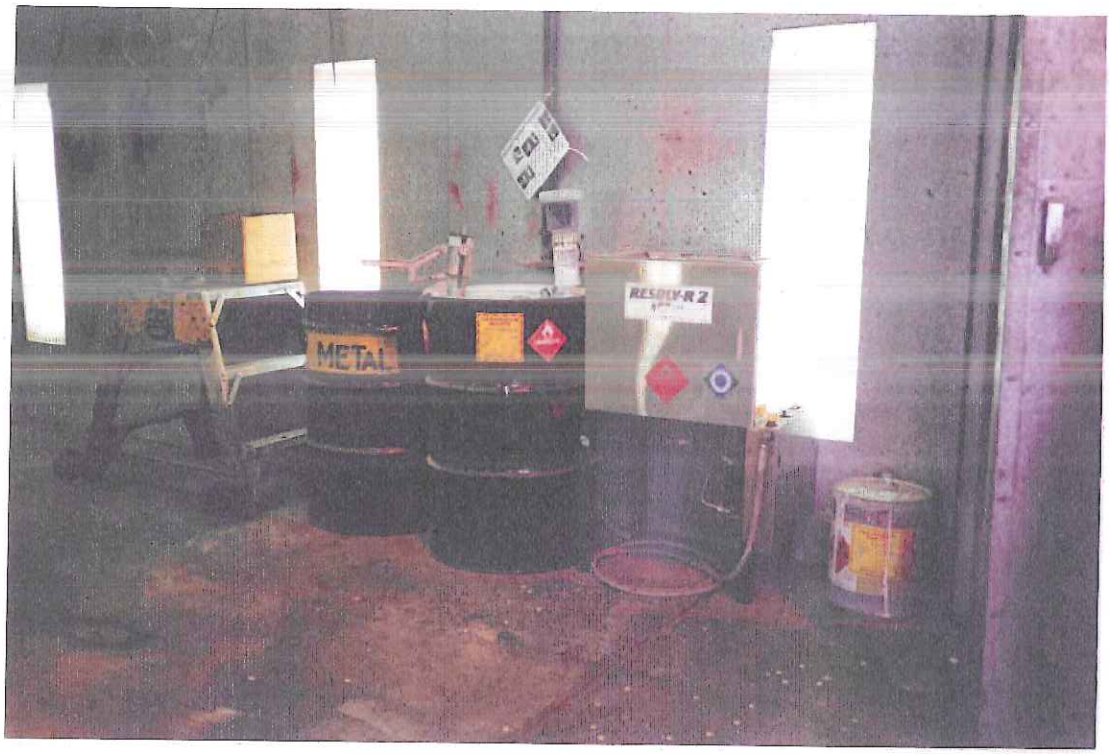
Time: 1036
Direction: W

Description: View showing the Waste Drum Storage Area (SWMU 2). There was no hazardous waste stored in this area at the time of the VSI.


Report Photo No.: 7
Log Book Photo No.: 1-7
Date: 06/17/98

Time: 1040
Direction: SW

Description: View inside the Waste Drum Storage Area (SWMU 2). Only used oil drums and empty drums were stored in the unit at the time of the VSI.




Report Photo No.: 8
Log Book Photo No.: 1-8
Date: 06/17/98

Time: 1047
Direction: NE

Description: View of the Paint Booth Satellite Accumulation Area (SWMU 3). A RESOLV-R 2 gun cleaner is shown between the 55 gallon aerosol can waste drum and the 5 gallon waste paint can bottoms.

Report Photo No.: 9
Log Book Photo No.: 1-9
Date: 06/17/98

Time: 1048
Direction: N

Description: The entire paint booth is shown with the doors open. The Paint Booth Satellite Accumulation Area (SWMU 3) is shown on the east wall of the paint booth.

Report Photo No.: 10
Log Book Photo No.: 1-3
Date: 06/17/98

Time: 1027
Direction: NW

Description: View of the Underground Tank Farm (AOC A) located approximately 50 feet west of the southeast corner of the hangar. The area was also previously used for product drum storage.

Report Photo No.: 11
Log Book Photo No.: 1-4
Date: 06/17/98

Time: 1028
Direction: S

Description: View of the Underground Tank Farm (AOC A). The concrete pad shown identifies the unit.

# APPENDIX B
# VISUAL SITE INSPECTION FIELD NOTEBOOKS

# JOB BOOK

[illegible]

(1) 6/17/98

Inspection of Delta Hangar, O'Hare Field, Chicago Illinois.

Todd Quillen & Ivy Porpotage at Security post 1 at 0850

PPE Steel Toe/shank boots, Long sleeve pants/shirts, hard hat safety Glasses, ear protection available.

Called Hangar, Signed in at 60

Dave Hesterlee } Atlanta
Ron Little }
Tim Delance
Don Magro

(2) 6/17/98

| Photo # | View | Time | desc |
|---|---|---|---|
| 1-1 | E | 946 | Oil water seperator |
| 1-2 | E | 947 | and waste oil storage tanks From farther back Darker pavement shows area that was excavated 30' x 100' area until too close to Hangar walls |
| 1-3 | NW | 1027 | Tank farm and previous product drum storage area |
| 1-4 | S | 1028 | Same |
| 1-5 | N | 1035 | Equipment washing area, trench drain visible to left of photo |
| 1-6 | W | 1036 | Haz waste storage area. |
| 1-7 | SW | 1040 | Same but closer |
| 1-8 | E | 1047 | Paint waste sattellite acc area and gun cleaner |

Aerosol

waste metal

gun cleaner

waste Paint can bottoms

(3) 6/17/98

SWMU List

Underground Tank Farm

Underground Oil water seperator

now ~~2000~~ 1000 waste oil tank

Waste Drum storage Area

Parts washing station

Satellite Accumulation Area For Paint booth

Hangar Floor 28-30" Thick concrete

(4) 6/17/98

| Photo # | View | Time date | desc |
|---|---|---|---|
| 1-9 | E | 1048 | Waste paint area From Far The Back. Paint Booth dimensions may be seen |
| 1-10 | NE | 1105 | Trench drain |
| 1-11 | S | 1106 | Waste oil drain |

TD

(5) 6/17/98

Built in 59 or '60 Added To in '66 and 67

1st oil water separator installed 1960
to 250 gallon waste oil tank
about 250 gal/year estimated
waste oil 3000 gallon - 1960
111 TCE, MEK, Acetone - 8' dia x 12-15' lng
mineral spirits
hydraulic oil, Lubricating oil
1,500 gal/year estimated
They would wash down The floor
(possibly w/ solvents to break down
The oil - Dave Hesterly said, briefly
"wash down The floor w/ mineral spirits
or whatever"
10 floor drains and trench
drains at hangar doors drained
to oil water seperator
basin 6" curbed area accepted
waste for waste oil tank
NorThwest Scrubber or spot cleaning
cleans floor not deluge type
of cleaning any more
- Current waste oil

TD

(6) 6/17/98

(7) 6/17/98

68 double dump truck loads
taken away to Peoria ILD 000805812
Fort Transport Co ILD 062 333 752
The other tank farm taken
To Hillside Landfill

The 1000 gallon oil water separator
unit separates the oil/water and
accumulates the oil
installed 1993, less than ½ so assumed
to be less than 250 gallons

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Tank Farm
original service 1960, out of
service 12/90, 5 tanks
new tanks 1990 - Present, 3 tanks
75 X 123' excavation

---

Previous Drum storage area
stored product (hyraulic oil, Lube oil,
RCRA empty drums) in paved/gravel
fenced area, no released ever detected
out of commission '90
South of Tank Farm 20' x 20'

(8) 6/17/98

Haz waste Drum Area (cont.)
1987 to present
Concrete floor, Aluminum Shed
Kept locked.
1000 gallon crankcase oil
EPA Non-haz in 8 months

(9) 6/17/98

Varsol mineral spirit tank was removed and not replaced
2 gasoline tanks removed, replaced w/ one. That accounts for why one tank farm now only has 3 tanks
1000 gal kerosene
10,000 gal propylene glycol

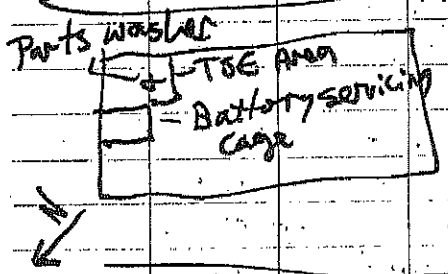
Equipment washing area
North corner of hangar
potassium hydroxide degreaser
spray down equipment w/ soap and steam cleaning

Haz waste drum Storage area
20 drums of waste oil
5 RCRA Empty drums waiting for pick up
nothing besides empty drums and used oil are ever stored here.
Future environmental picks up TD#3927
One of the empty drums is Isopropanol 99%
2000 gal/year (1000 gal twice a year)

(see prev page)

(10) 6/17/98

paint booth 1988 to present
Aerosol can puncturer has been in operation for 6/17 months
paint Gun washer/recycler next to Drum



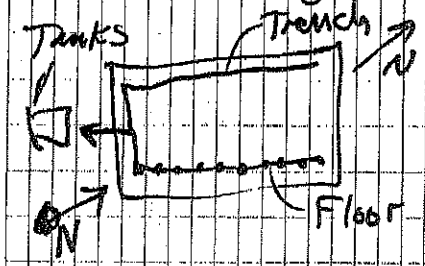

Battery servicing cage
Sometimes They will have waste batteries taken

10 Floor drains one in each bay

waste oil drain middle of South wall of hangar
20" x 20" x 10" high sealed off now, connected to 3000 gal Acc. tank w/Steel piping TQ

(11) 6/17/98

Trench drains and Floor drains come to The middle of south wall, Then go out to tanks




Property size 550' x 725'

Residential more Than 1 mile

According to The Sept 6, 1991 Corrective action report
13 ppm Xylene, 2.7 Ethyl benzene
1.3 Toluene
<0.005 MDL
3.4 ppm Napthalene 1.1 Benzen
~~0.083 Tol~~ TQ 6/17
From Tank Farm Closure report
11/4/5 left Site

TQ END

## MEASUREMENT CONVERSIONS

| IF YOU KNOW | MULTIPLY BY | TO FIND |
|---|---|---|
| **LENGTH** | | |
| inches | 2.540 | centimeters |
| feet | 30.480 | centimeters |
| yards | 0.914 | meters |
| miles | 1.609 | kilometers |
| millimeters | 0.039 | inches |
| centimeters | 0.393 | inches |
| meters | 3.280 | feet |
| meters | 1.093 | yards |
| kilometers | 0.621 | miles |
| **WEIGHT** | | |
| ounces | 28.350 | grams |
| pounds | 0.453 | kilograms |
| grams | 0.035 | ounces |
| kilograms | 2.204 | pounds |
| **VOLUME** | | |
| fluid ounces | 29.573 | milliliters |
| pints | 0.473 | liters |
| quarts | 0.946 | liters |
| gallons (U.S.) | 3.785 | liters |
| milliliters | 0.033 | fluid ounces |
| liters | 1.056 | quarts |
| liters | 0.264 | gallons (U.S.) |

**TEMPERATURE**

°C = (°F - 32) x .555
°F = (°C x 1.8) + 32

| Inches | Decimals of foot | Milli-meters |
|---|---|---|
| 1/16 | .0052 | 1.5875 |
| 1/8 | .0104 | 3.1750 |
| 3/16 | .0156 | 4.7625 |
| 1/4 | .0208 | 6.3500 |
| 5/16 | .0260 | 7.9350 |
| 3/8 | .0313 | 9.5250 |
| 1/2 | .0417 | 12.700 |
| 5/8 | .0521 | 15.875 |
| 3/4 | .0625 | 19.050 |
| 7/8 | .0729 | 22.225 |
| 1" | .0833 | 25.400 |
| 2" | .1667 | 50.800 |
| 3" | .2500 | 76.200 |
| 4" | .3333 | 101.60 |
| 5" | .4167 | 127.00 |
| 6" | .5000 | 152.40 |
| 7" | .5833 | 177.80 |
| 8" | .6667 | 203.20 |
| 9" | .7500 | 228.60 |
| 10" | .8333 | 254.00 |
| 11" | .9167 | 279.40 |
| 1 foot | 1.0000 | 304.80 |

"Rite in the Rain"®
ALL-WEATHER WRITING PAPER

EPA ID# ILD112359799

Name DELTA MAINTENANCE HANGAR
PRELIMINARY ASSESSMENT / VISUAL SITE INSPECTION

Address O'HARE FIELD BUILDING
CHICAGO, IL 606666

Phone (312) 686-8614

Project EPA - VISUAL SITE INSPECTION
by TECHLAN, INC. - IVY PORPOTAGE
14500 AVION PARKWAY, SUITE 300
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PROJECT NO: G200 R05052-01 D3

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| PAGE | REFERENCE | DATE |
|---|---|---|
| | IVY PORPOTAGE - TECHLAW | |
| | TODD QUILLEN - TECHLAW | |
| | DAVID HESTERLEE - DELTA. | |
| | RON LITTLE - DELTA | |
| | TIM DELANCE - DELTA | |
| | DON MAGRO - DELTA | |


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WEDNESDAY, JUNE 17, 1998

The weather is sunny and mostly clear. Winds are <10mph in variable direction. The temperature is approx. 65°F.

Techlaw team members I. Porpotage and T. Quillen will be performing a Preliminary Assessment/Visual Site Inspection on behalf of EPA Region 5 as required under the 1984 HSWA.

I.P. will serve as site safety officer during the inspection. PPE worn during the inspection will include long pants, long sleeved shirts, steel-toe, steel shanked boots, and safety glasses. Hearing protection and hard hats will be available should they be deemed necessary by the SSO. Respirators will also be on hand.

Ivy L. Porpotage

Mry L. Popotage



WEDNESDAY, JUNE 17, 1998

TL team members will be reviewing all solid waste streams at the facility. Photographs of each current and former Solid Waste Management Unit (SWMU) will be taken.

A Yashica T2D 35mm camera will be used to photodocument all SWMUs. Kodak Gold 200 speed film will be used.

0830 T.Q. arrived @ hotel Ramada - Mt. Prospect to pick up I.P. TL team proceeded to airport post security gate 1.

0850 Arrived at security gate. T.Q. signed H&S checklist which will be on hand at all times.

Mry L. Popotage

Guy L. Fourpotage



WEDNESDAY, JUNE 17, 1998

0900 Called hangar for escort.
0915 Met by Delta @ security gate and escorted to the hangar.
0920 T.Q. and I.P. met w/ facility representatives D.H., R.L., J.D., D.M.
T.Q. gave overview of the purpose of the visit.

Discussed tank area. The tank area was removed. Soil area excavated 1990. 12/24/90

New ~~product~~ Waste Oil tank 1,000 gallon in with new oil/water separator. Waste drum storage area still used. 1 Safety-kleen parts washing station. Paint booth w/ paint tailings. No haz. waste (sat. accumulation area.)

Guy L. Fourpotage

Mary L. Pappotage



WEDNESDAY, JUNE 17, 1998

Want to look at integrity of floor/floor drains.

Maintenance Hangar is Bldg. 751.
68/69 Bldg originally built.
Added another half. 66/67.
Original owners. Always been maintenance facility.
Land used to be orchard.

Oil water/separator on south end of bldg.
Concrete 1250 gallon accumulation. Waste oil tank 3,000 gallon.
All drum storage now.
Requested copies of manifests.
Questions on closure related to the classification of waste soil.
Original excavation - not sure of the size.

Mary L. Pappotage

Wednesday, June 17, 1998



? 6,000 approx. 8ft diam x 12 ft.
3,000 Waste Oil Tank (Steel)
Like a floor drain - concrete slab - Used vehicle oil, Skydrol, (brand name synthetic hydraulic oil). 1,1,1 - TCE, Mineral Spirits. MEK, acetone.

250 gallons oil accumulation tank associated with separator. Diminimus solvents from floor washings. Mopped w/ mineral spirits. Concrete Slab - Separator concrete walls. New one is steel. Leaking - new steel. 1,000 gallon accumulation.
T.D. indicates waste oil tank was emptied once every couple of years.
Operations less than used to be, Conservative 1500 gallons/year.
Oil accumulation tank may have been 250 gallons/yr.

Drains all go to oil/water separator

Gary L. Poupotage

Investigator



WEDNESDAY, JUNE 17, 1998

~10 floor drains in offices. Also hangar drains and trench drains. Discharge to storm sewer.

Removed line - capped off in ~1987. Closure report. On ground six inch curb.

No longer do deluxe type wash. Scrubber picks up after itself.

Steel type separator/integrated tank/double walled. High level protection.

1,000 gallons new tank. Equipment washings go into oil/water/separator. Pad from original oil accum. tank was removed. Cont. soil was taken by Peoria Disposal Company also to Hillside Landfill?. Transporter was Fort Transfer Company. ID L062333752.

Gary A. Poupotage

Gary L. Pospotage



WEDNESDAY, JUNE 17, 1998
Peoria EPA: ILD000805812

1,000 gallon product oil tank has never been emptied. estimate < half full now. Installed 1993. 3 manholes into tank. Look at it w/ flashlight.

Tank Farm - originally 1960 - 12/24/1990 removed. 5 tanks originally. Get drawing of excavation area for tank farms. Replaced 3 tanks. Also included a new product drum storage area. May have been asphalt w/ cyclone fencing. All cont. from BTEX petroleum, hydraulic fluid. No known releases from drum storage area. Original tanks steel. Replaced w/ 3 double wall fiberglass tanks. VARSOL tank removed (mineral spirits)

Gary L. Pospotage

Guy L. Paupotage



WEDNESDAY, JUNE 17, 1998

2 gasoline tanks. 10 or 12 and 6,000. Replaced w/(1) 1000 gallon tank.. gasoline (1) 1000 gallon kerosene tank (1) 10,000 gallon glycol tank. (propylene glycol stored in it now).

No documentation to indicate Illinois has approved the removal. Ecology Services and Friedstein & Murry.

Not sure what cause of contamination would be for tank farm. Over 25 years old at the time.

Equipment Wash Area. Use soap/steam cleaner. Concrete floor. Doesn't appear to have waste associated with it.

Drum storage on north end of hangar Shed ~20 feet x 25 feet. 9 on right (used oil drums (5 on right empty).

Guy L. Paupotage

copy of manifest (non-hazardous)

Mary Pierpotage



WEDNESDAY, JUNE 17, 1998

9 on left. All stored on pallets. Only used oil stored in here. Future Environmental. Concrete floor. Dispose of ~ drums 1/2 times per year. Wait till get ~ 1000 gallons for disposal.

United hangar on north east side of building.

Drum Storage Building put in ~87/88. Same time started recovering used oil.

Steel Paint booth. 100 ft. long 20 ft. wide. Store aerosol can waste in here. RESOLVE-R2 cleaner. Used as satellite accum. area for 3-4 months. Paint booth ~10 years old. Has waste label on drum w/ flammable gas labels. There is no accumulation start date.

Mary A. Pierpotage

WEDNESDAY, JUNE 17, 1998

Also have 5 gallon Flam. Liquid. Flammable Paint Liquid. No accumulation date. Never had to dispose of aerosol drum yet. Filter on aerosol drum says 11-20-97. Concrete floor in paint booth. Good shape. Aerosol drum would be moved to drum storage area once full.

Safety-Klean parts washer. Come 1/month to empty. GSE - ground support equip. shop.

Caged area - battery servicing cage. Since beginning always used for battery servicing. Keep some ready - swap out with vehicles. Contract w/ X-I.

Special Waste Haler ID #3922 Future Environmental used Daily R. Toupotage

Ivy L. Pappotage



WEDNESDAY, JUNE 17, 1998

for waste oil. 1000 1/5/98, Last before 4/21/97. 8 month spread.

28 inch concrete on hangar floor according to I.D.

Floor drains lie on north east side of building. In back offices and shops. Hangar floor has some cracks in concrete.

10 floor drains total.

Receptacle had covering sitting on it. Waste oil drain. Monitoring system on south wall for current oil water separator. Steel piping connected drain to the waste oil ~~wat~~ tank.

Size of property is ~ ~~2~~ 9 acres.
Parking area - south side.
East/~~West~~ - Vehicle Service Rd.

Ivy L. Pappotage

Vlny Porpotage



WEDNESDAY, JUNE 17, 1998
West - aircraft taxiways.
North - vehicle thorofare.

550' x 725'. Total Bldg Property.

Closest residential properties ~ 3 miles. Closer to 1 mile.

Nov. 14, 1995 Closure Certification.

Corrective Action Report for Tank Farm Area - Actual copy includes Laboratory Reports. Toluene, Benzene, Xylene

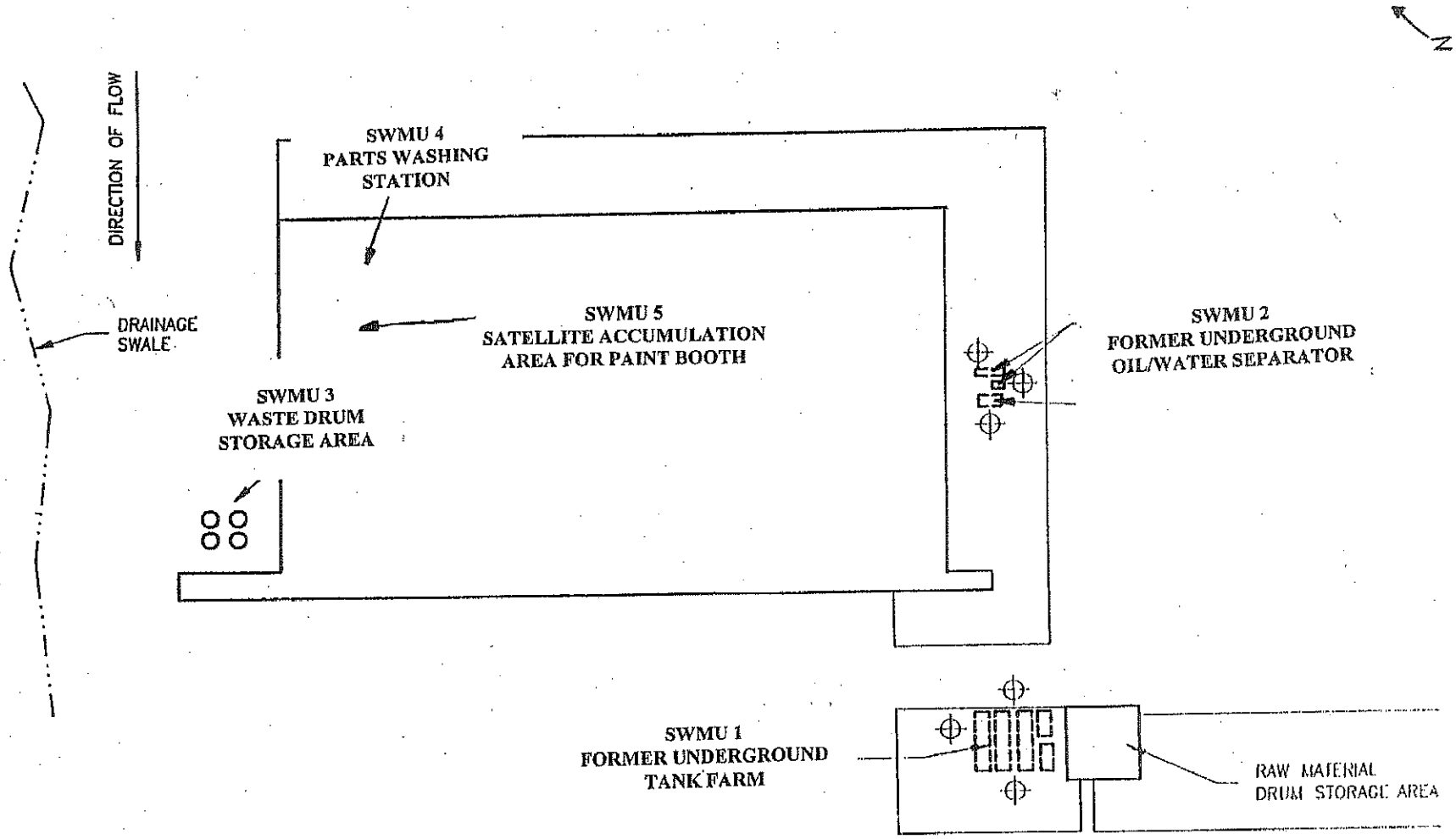
1130 Briefed facility on inspection. Not many loose ends. Closure of tank farm is a question.

1145 Escorted out of property.

END
Vlny Porpotage

# APPENDIX C
# FACILITY LAYOUT AND SWMU LOCATIONS MAPS

SWMU Location Drawing
from February 5, 1991 RCRA Closure Plan submitted by ERM EnviroClean North Central, Inc.




| SYMBOL LEGEND: |
|---|
| ⊕ SOIL BORINGS |

NOT DRAWN TO SCALE

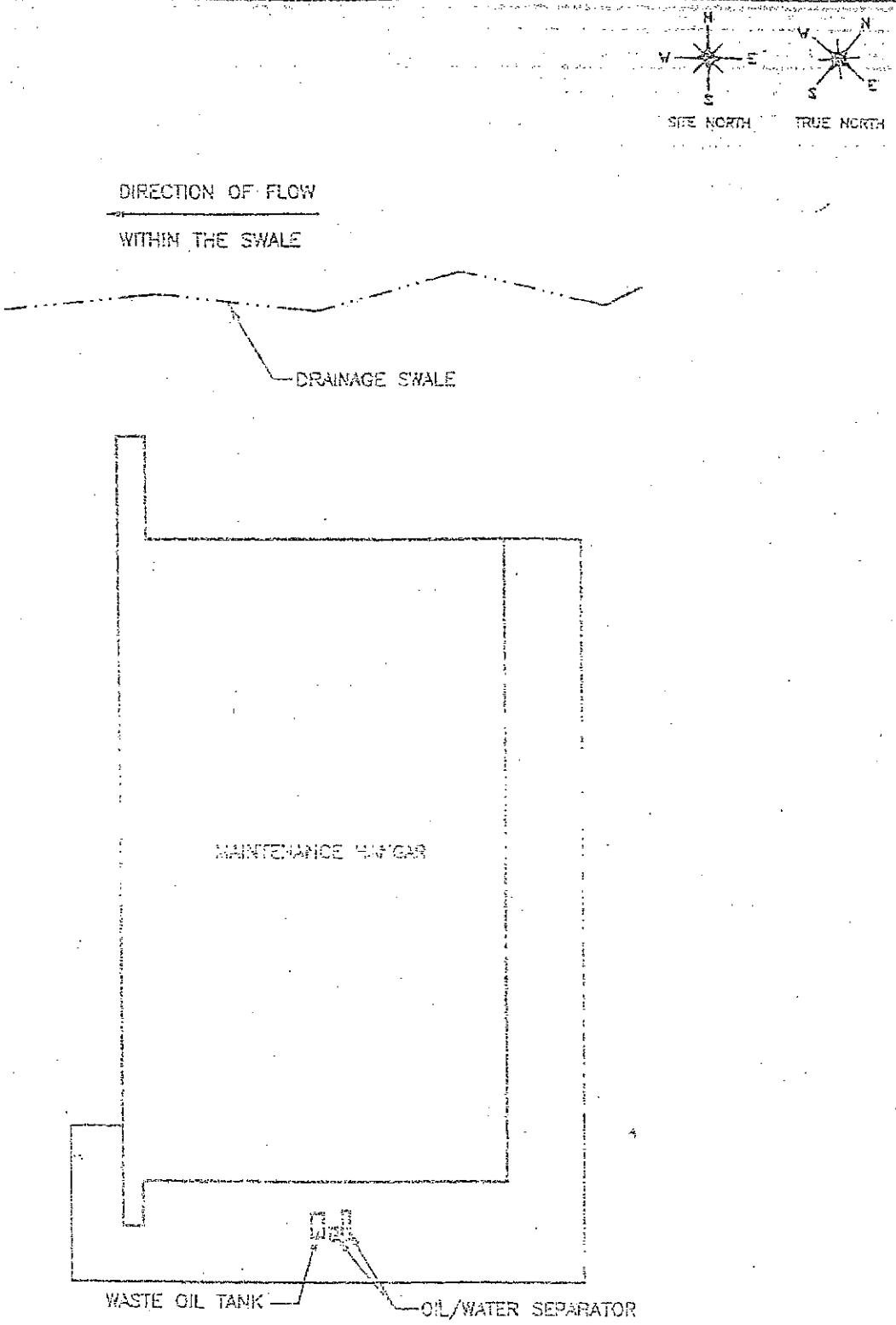
MAINTENANCE HANGAR

DELTA AIRLINES

FIGURE 1

ERM-North Central, Inc.
Deerfield, Il 60015 (708) 940 7200

0060
9/27/90
MTH




NOT DRAWN TO SCALE

FIGURE 2

SITE PLAN
DELTA AIR LINES, INC.
MAINTENANCE HANGAR
CHICAGO, ILLINOIS

ERM

PROJECT 0030-7 | DRAWN PCP | CHECKED FK- | DATE 6/09/93 | APPROVED | CLIENT DELTA AIR LINES, INC.

Site Location Map
from September 6, 1991 Corrective Action Report submitted by Ecology Services, Inc.

**ECOLOGY SERVICES, INC.**

**SUBJECT** SITE LOCATION MAP
DELTA AIRLINES - O'HARE

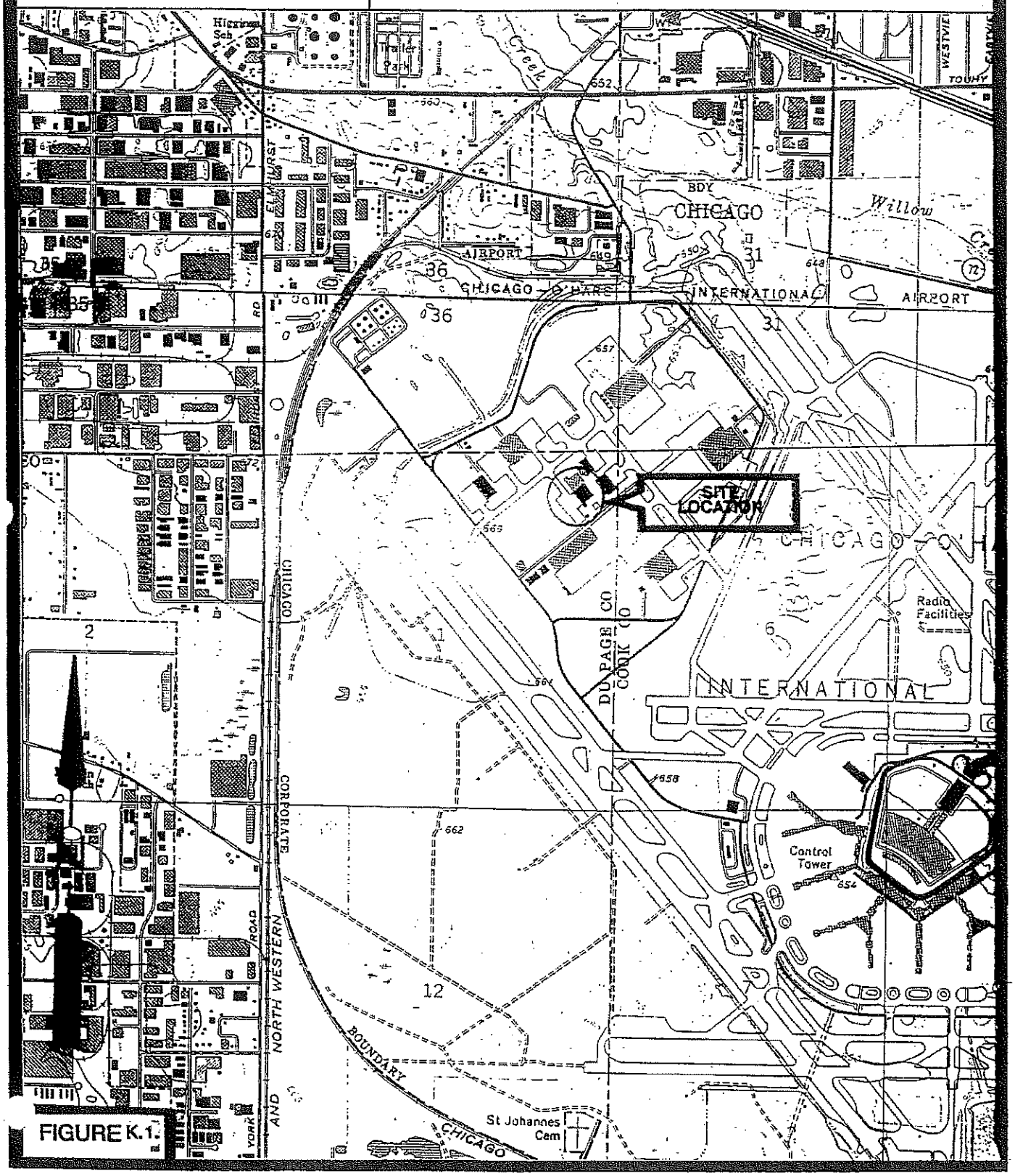
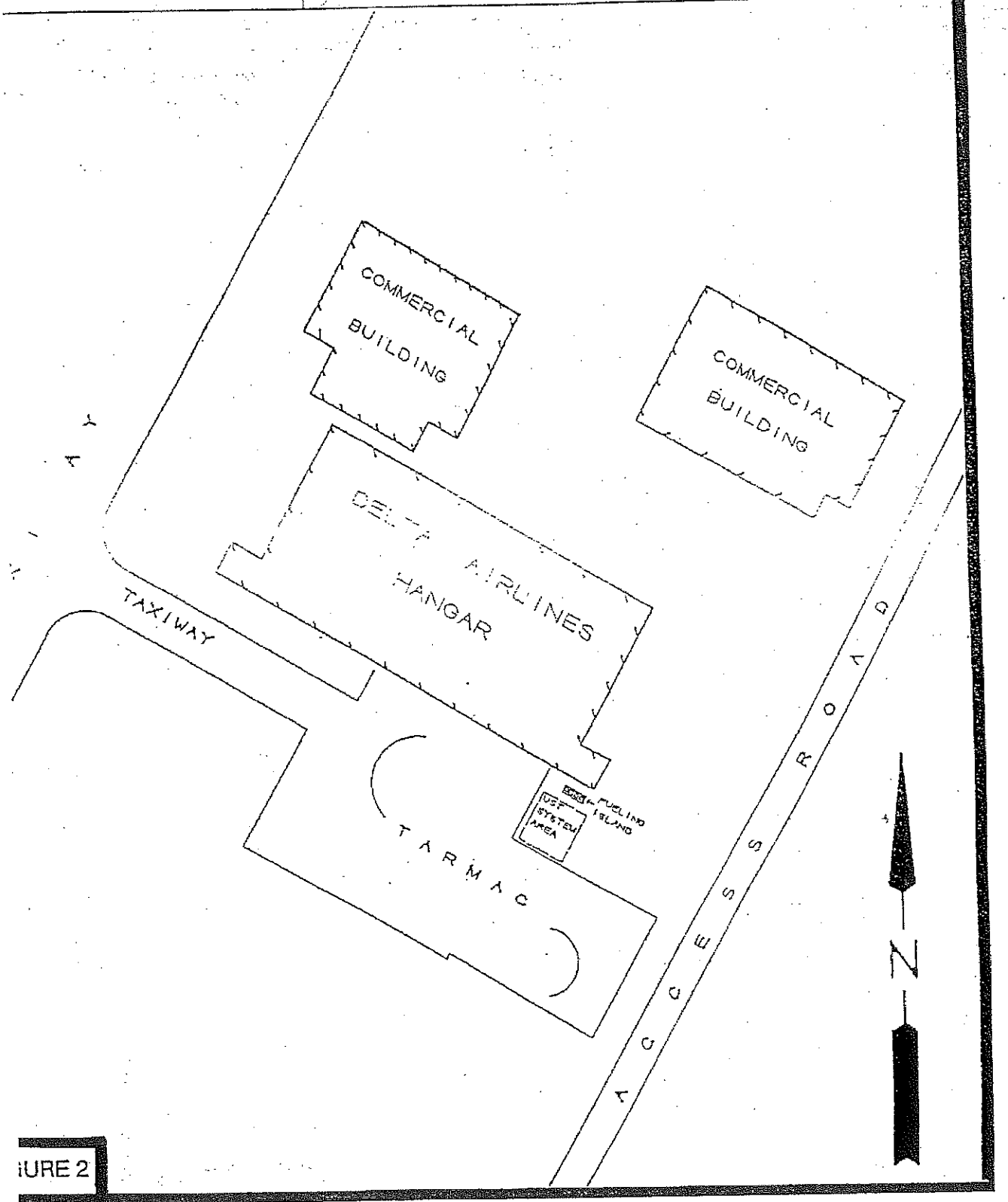



FIGURE K.1.

Site Layout Map
from September 6, 1991 Corrective Action Report submitted by Ecology Services, Inc.

)LOGY SERVICES, INC.

SUBJECT SITE LAYOUT MAP
DELTA AIRLINES - O'HARE




iURE 2

APPROXIMATE SCALE
0 156 312

# APPENDIX D
# ATTACHMENTS

Water Supply Wells Listing and Location Map
from August 5, 1992 LUST Program 45 Day Report

ECOLOGY SERVICES, INC.

SUBJECT WATER SUPPLY WELLS
DELTA AIRLINES - O'HARE

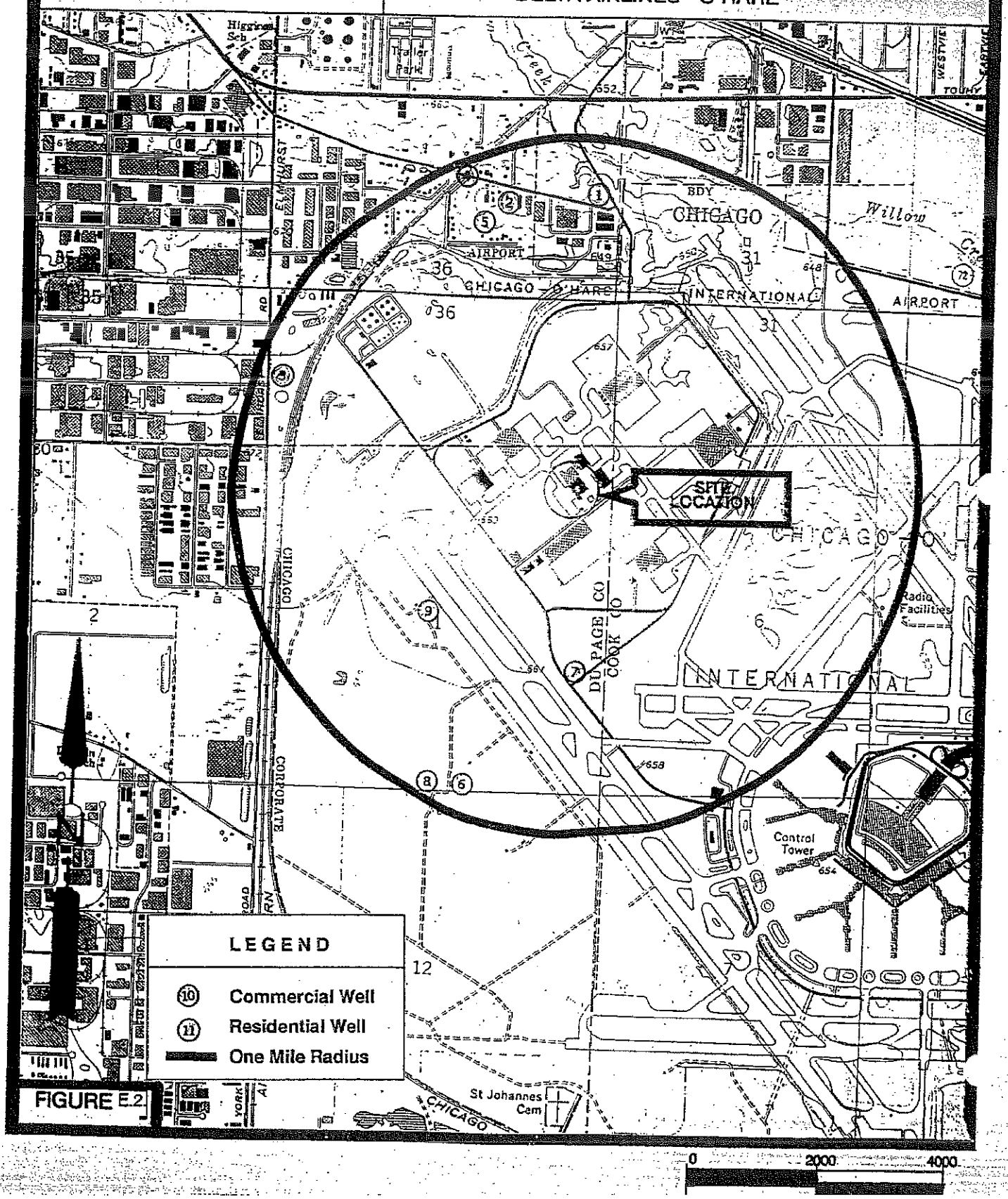



FIGURE E.2

TABLE I
WATER SUPPLY WELLS

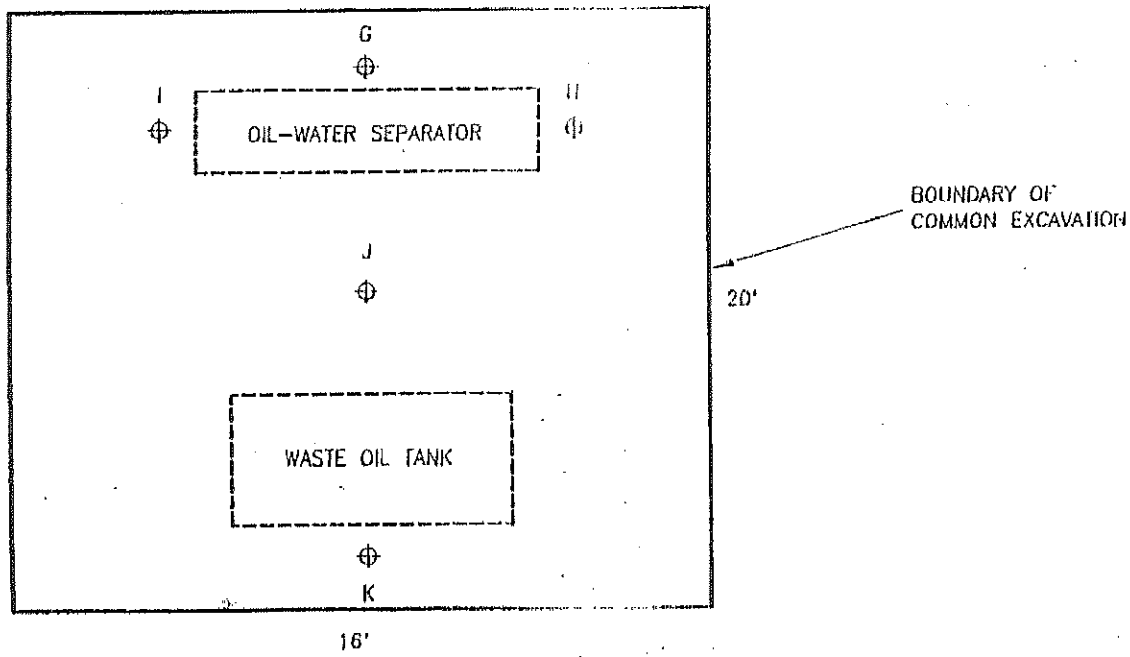
| Well Type | Date Drilled | Distance From Site | Address | Total Depth | Aquifer Material |
|---|---|---|---|---|---|
| (1) Residential | 1975 | 4,500' | 33008 Higgins Rd. Elk Grove | 375' | Limerock |
| (2) Residential | ---- | 4,500' | Elk Grove Township | 95' | Rock |
| (3) Residential | 1942 | 5,000' | Devon Ave Elk Grove | 157' | Limestone |
| (4) Commercial | 1955 | 5,000' | Allied Asphalt Paving Des Plaines | 200' | ---- |
| (5) Commercial | ---- | 4,500' | Tremar, Inc. 162 Fairhope Des Plaines | ---- | ---- |
| (6) Residential | 1928 | 5,000' | H. Moore Bensenville | 11' | Quicksand No water |
| (7) Commercial | 1893 | 3,000' | Schoppe Bros. Bensenville | 34' | ---- |
| (8) Residential | ---- | 5,000' | L. Runge Bensenville | 22' | ---- |
| (9) Residential | 1930 | 3,000' | G. Landwehr Bensenville | 150' | Limestone |

*These results indicate the clay is virtually impermeable, therefore, the potential for migration through the underlying soil is slight. Furthermore, groundwater was not encountered to a depth of 15 feet, therefore, contaminant migration via ground water should not be an issue. The excavation was backfilled to surface grade thereby limiting exposure by direct contact and/or by dust inhalation.*

g. Potentially exposed environments, surface water, fish and wildlife, vegetation, etc.

*The known and significant exposed environment are the underlying soils where remediation has been performed. The potential for groundwater contamination is very low because it was never encountered during soil excavation. Because the site is backfilled and paved, the potential of expose to fish, wildlife and vegetation is minimal.*

Soil Boring Locations and Analytical Data for Oil/Water Separator System (SMWU 2)
from February 5, 1991 RCRA Closure Plan submitted by ERM EnviroClean North Central, Inc.




NOTE: NOT TO SCALE

| LEGEND | |
|---|---|
| G | SOIL BORING LOCATION |

OIL-WATER SEPARATOR
& WASTE OIL TANK
SOIL BORING LOCATIONS

FIGURE 2

ERM-North Central, Inc.
Deerfield, IL 60015 (708) 940-7200

0060
9/27/90
MTH

TABLE 2

DELTA AIR LINES, INC.

OIL-WATER SEPARATOR SYSTEM AND
WASTE OIL TANK SOIL BORINGS - ANALYTICAL DATA

| Parameter | Concentration in Parts Per Billion (ug/kg) Boring Locations (Depth, Feet) | | | | |
|---|---|---|---|---|---|
| | G (6-7.5) | H (6-7) | I (6-8) | J (2-4) | K (4-6) |
| 1,1-Dichloroethane | 3,770 | 3,589 | 854 | 1,198 | 148.6 |
| 1,2-Dichloroethane | 270 | | | | 181.0 |
| 1,1,1-Trichloroethane | 6,220 | | | | |
| Tetrachloroethene | | 402 | 260 | 296 | |
| Benzene | 83.0 | 93.5 | | | 6.0 |
| Toluene | 1,846 | 1,278 | 1,164 | 2,928 | 63.4 |
| Ethyl benzene | 2,342 | | 4,053 | | 40.7 |
| 1,2-Dichlorobenzene | 91,320 | 97,100 | 51,000 | 77,120 | 1,090 |
| m-Xylene | 9,236 | 8,677 | 5,609 | 15,680 | 107.5 |
| o,p-Xylene | 6,905 | 7,085 | 5,490 | 11,150 | 109.0 |
| Total Xylene | 16,140 | 15,760 | 11,100 | 26,830 | 216.5 |

Confirmatory Sampling Analytical Data for Underground Oil/Water Separator System (SWMU 2)
from October 26, 1993 RCRA Closure Report submitted by ERM EnviroClean North Central, Inc.

## Table 3
## Confirmatory Soil Sampling Analytical Results

| Dilution Factor<br>Sample ID (1)<br>Date Sampled<br>units | Detection Limits<br>(ug/kg) | 1<br>DLEWALL2<br>03-May-93<br>(ug/kg) | 5<br>DLEWALL4<br>07-May-93<br>(ug/kg) | 5<br>DLSWALL5<br>07-May-93<br>(ug/kg) | 1<br>DLSWALL5<br>07-May-93<br>(ug/kg) |
|---|---|---|---|---|---|
| oaniline | 1600 | U | U | U | U |
| aphthalene | 330 | U | U | U | U |
| nitrophenol | 1600 | U | U | U | U |
| ophenol | 1600 | U | U | U | U |
| zofuran | 330 | U | U | U | U |
| nitrotoluene | 330 | U | U | U | U |
| iphthalate | 330 | U | U | U | U |
| rophenyl phenyl ether | 330 | U | U | U | U |
| ne | 330 | U | U | U | U |
| aniline | 330 | U | U | U | U |
| itro-2-methylphenol | 1600 | U | U | U | U |
| sodiphenylamine | 1600 | U | U | U | U |
| ophenyl phenyl ether | 330 | U | U | U | U |
| lorobenzene | 330 | U | U | U | U |
| lorophenol | 330 | U | U | U | U |
| threne | 1600 | U | U | U | U |
| ene | 330 | U | U | U | U |
| phthalate | 330 | U | U | U | U |
| hene | 330 | U | U | U | U |
| | 330 | U | U | U | U |
| zyl phthalate | 330 | U | U | U | U |
| crobenzidine | 660 | U | U | U | U |
| anthracene | 330 | U | U | U | U |
| | 330 | U | U | U | U |
| thexyl)phthalate | 330 | U | U | U | U |
| phthalate | 330 | U | U | U | U |
| luoranthene | 330 | U | U | U | U |
| luoranthene | 330 | U | U | U | U |
| yrene | 330 | U | U | U | U |
| 2,3-cd)pyrene | 330 | U | U | U | U |
| )anthracene | 330 | U | U | U | U |
| )perylene | 330 | U | U | U | U |
| | 330 | U | U | U | U |
| oethyl)ether | 330 | U | U | U | U |
| enol | 330 | U | U | U | U |
| obenzene | 330 | U | U | U | U |
| obenzene | 330 | U | U | U | U |
| hol | 330 | U | U | U | U |
| ibenzene | 330 | U | U | U | U |
| nol | 330 | U | U | U | U |
| lsopropyl)ether | 330 | U | U | U | U |
| nol | 330 | U | U | U | U |
| n-propylamine | 330 | U | U | U | U |
| thane | 330 | U | U | U | U |
| e | 330 | U | U | U | U |
| | 330 | U | U | U | U |

## Table 3
## Confirmatory Soil Sampling Analytical Results

| Dilution Factor<br>Sample ID (1)<br>Date Sampled<br>units | Detection Limits<br>(ug/kg) | 1<br>DLEWALL2<br>03-May-93<br>(ug/kg) | 5<br>DLEWALL4<br>07-May-93<br>(ug/kg) | 5<br>DLSWALL5<br>07-May-93<br>(ug/kg) | 1<br>DLSWALL6<br>07-May-93<br>(ug/kg) |
|---|---|---|---|---|---|
| 3-Nitroaniline | 1600 | U | U | U | U |
| Acenaphthalene | 330 | U | U | U | U |
| 2,4-Dinitrophenol | 1600 | U | U | U | U |
| 4-Nitrophenol | 1600 | U | U | U | U |
| Dibenzofuran | 330 | U | U | U | U |
| 2,4-Dinitrotoluene | 330 | U | U | U | U |
| Diethylphthalate | 330 | U | U | U | U |
| 4-Chlorophenyl phenyl ether | 330 | U | U | U | U |
| Fluorene | 330 | U | U | U | U |
| 4-Nitroaniline | 330 | U | U | U | U |
| 4,6-Dinitro-2-methylphenol | 1600 | U | U | U | U |
| n-Nitrosodiphenylamine | 1600 | U | U | U | U |
| 4-Bromophenyl phenyl ether | 330 | U | U | U | U |
| Hexachlorobenzene | 330 | U | U | U | U |
| Pentachlorophenol | 330 | U | U | U | U |
| Phenanthrene | 1600 | U | U | U | U |
| Anthracene | 330 | U | U | U | U |
| di-n-Butylphthalate | 330 | U | U | U | U |
| Fluoranthene | 330 | U | U | U | U |
| Pyrene | 330 | U | U | U | U |
| Butyl benzyl phthalate | 330 | U | U | U | U |
| 3,3-Dichlorobenzidine | 660 | U | U | U | U |
| Benzo(a)anthracene | 330 | U | U | U | U |
| Chrysene | 330 | U | U | U | U |
| bis(2-Ethylhexyl)phthalate | 330 | U | U | U | U |
| di-n-Octylphthalate | 330 | U | U | U | U |
| Benzo(b)fluoranthene | 330 | U | U | U | U |
| Benzo(k)fluoranthene | 330 | U | U | U | U |
| Benzo(a)pyrene | 330 | U | U | U | U |
| Indeno(1,2,3-cd)pyrene | 330 | U | U | U | U |
| Dibenz(a,h)anthracene | 330 | U | U | U | U |
| Benzo(g,h,i)perylene | 330 | U | U | U | U |
| Phenol | 330 | U | U | U | U |
| bis(2-Chloroethyl)ether | 330 | U | U | U | U |
| 2-Chlorophenol | 330 | U | U | U | U |
| 1,3-Dichlorobenzene | 330 | U | U | U | U |
| 1,4-Dichlorobenzene | 330 | U | U | U | U |
| Benzyl Alcohol | 330 | U | U | U | U |
| 1,2-Dichlorobenzene | 330 | U | U | U | U |
| 2-Methylphenol | 330 | U | U | U | U |
| bis(2-Chloroisopropyl)ether | 330 | U | U | U | U |
| 4-Methylphenol | 330 | U | U | U | U |
| n-Nitroso-di-n-propylamine | 330 | U | U | U | U |
| Hexachloroethane | 330 | U | U | U | U |
| Nitrobenzene | 330 | U | U | U | U |
| Isophorone | 330 | U | U | U | U |

## Table 3
## Confirmatory Soil Sampling Analytical Results

| Dilution Factor<br>Sample ID (1)<br>Date Sampled<br>units | Detection Limits<br>(ug/kg) | 1<br>DLEWALL2<br>03-May-93<br>(ug/kg) | 5<br>DLEWALL4<br>07-May-93<br>(ug/kg) | 5<br>DLSWALL5<br>07-May-93<br>(ug/kg) | 1<br>DLSWALL6<br>07-May-93<br>(ug/kg) |
|---|---|---|---|---|---|
| 2-Nitrophenol | 330 | U | U | U | U |
| 2,4-Dimethylphenol | 330 | U | U | U | U |
| Benzoic Acid | 1600 | U | U | U | U |
| bis(2-Chloroethoxy)methane | 330 | U | U | U | U |
| 2,4-Dichlorophenol | 330 | U | U | U | U |
| 1,2,4-Trichlorobenzene | 330 | U | U | U | U |
| Naphthalene | 330 | U | U | 730 | U |
| 4-Chloroaniline | 330 | U | U | U | U |
| Hexachlorobutadiene | 330 | U | U | U | U |
| 4-Chloro-3-methylphenol | 660 | U | U | U | U |
| 2-Methylnaphthalene | 330 | U | U | 1400 | U |
| Hexachlorocyclopentadiene | 330 | U | U | U | U |
| 2,4,6-Trichlorophenol | 330 | U | U | U | U |
| 2,4,5-Trichlorophenol | 1600 | U | U | U | U |
| 2-Chloronaphthalene | 330 | U | U | U | U |
| 2-Nitroaniline | 330 | U | U | U | U |
| Dimethylphthalate | 330 | U | U | U | U |
| Acenaphthalene | 330 | U | U | U | U |
| 2,6-Dinitrotoluene | 330 | U | U | U | U |

## Table 3
## Confirmatory Soil Sampling Analytical Results

| Dilution Factor<br>Sample ID (1)<br>Date Sampled<br>units | Detection Limits<br>(ug/kg) | 5<br>DLFLR4<br>07-May-93<br>(ug/kg) | 5<br>DLFLR3<br>07-May-93<br>(ug/kg) |
|---|---|---|---|
| 3-Nitroaniline | 1600 | U | U |
| Acenaphthalene | 330 | U | U |
| 2,4-Dinitrophenol | 1600 | U | U |
| 4-Nitrophenol | 1600 | U | U |
| Dibenzofuran | 330 | U | U |
| 2,4-Dinitrotoluene | 330 | U | U |
| Diethylphthalate | 330 | U | U |
| 4-Chlorophenyl phenyl ether | 330 | U | U |
| Fluorene | 330 | U | U |
| 4-Nitroaniline | 330 | U | U |
| 4,6-Dinitro-2-methylphenol | 1600 | U | U |
| n-Nitrosodiphenylamine | 1600 | U | U |
| 4-Bromophenyl phenyl ether | 330 | U | U |
| Hexachlorobenzene | 330 | U | U |
| Pentachlorophenol | 330 | U | U |
| Phenanthrene | 1600 | U | U |
| Anthracene | 330 | U | U |
| di-n-Butylphthalate | 330 | U | U |
| Fluoranthene | 330 | U | U |
| Pyrene | 330 | U | U |
| Butyl benzyl phthalate | 330 | U | U |
| 3,3-Dichlorobenzidine | 660 | U | U |
| Benzo(a)anthracene | 330 | U | U |
| Chrysene | 330 | U | U |
| bis(2-Ethylhexyl)phthalate | 330 | U | U |
| di-n-Octylphthalate | 330 | U | U |
| Benzo(b)fluoranthene | 330 | U | U |
| Benzo(k)fluoranthene | 330 | U | U |
| Benzo(a)pyrene | 330 | U | U |
| Indeno(1,2,3-cd)pyrene | 330 | U | U |
| Dibenz(a,h)anthracene | 330 | U | U |
| Benzo(g,h,i)perylene | 330 | U | U |
| Phenol | 330 | U | U |
| bis(2-Chloroethyl)ether | 330 | U | U |
| 2-Chlorophenol | 330 | U | U |
| 1,3-Dichlorobenzene | 330 | U | U |
| 1,4-Dichlorobenzene | 330 | U | U |
| Benzyl Alcohol | 330 | U | U |
| 1,2-Dichlorobenzene | 330 | U | U |
| 2-Methylphenol | 330 | U | U |
| bis(2-Chloroisopropyl)ether | 330 | U | U |
| 4-Methylphenol | 330 | U | U |
| n-Nitroso-di-n-propylamine | 330 | U | U |
| Hexachloroethane | 330 | U | U |
| Nitrobenzene | 330 | U | U |
| Isophorone | 330 | U | U |

## Table 3
## Confirmatory Soil Sampling Analytical Results

| Dilution Factor<br>Sample ID (1)<br>Date Sampled<br>units | Detection Limits<br>(ug/kg) | 5<br>DLFLP4<br>07-May-93<br>(ug/kg) | 5<br>DLFLR3<br>07-May-93<br>(ug/kg) |
|---|---|---|---|
| 2-Nitrophenol | 330 | U | U |
| 2,4-Dimethylphenol | 330 | U | U |
| Benzoic Acid | 1600 | U | U |
| bis(2-Chloroethoxy)methane | 330 | U | U |
| 2,4-Dichlorophenol | 330 | U | U |
| 1,2,4-Trichlorobenzene | 330 | U | U |
| Naphthalene | 330 | U | U |
| 4-Chloroaniline | 330 | U | U |
| Hexachlorobutadiene | 330 | U | U |
| 4-Chloro-3-methylphenol | 660 | U | U |
| 2-Methylnaphthalene | 330 | U | U |
| Hexachlorocyclopentadiene | 330 | U | U |
| 2,4,6-Trichlorophenol | 330 | U | U |
| 2,4,5-Trichlorophenol | 1600 | U | U |
| 2-Chloronaphthalene | 330 | U | U |
| 2-Nitroaniline | 330 | U | U |
| Dimethylphthalate | 330 | U | U |
| Acenaphthylene | 330 | U | U |
| 2,6-Dinitrotoluene | 330 | U | U |

KEY:
U = Not Detected above the Limit of Quantitation.
UD = Indicates sample was diluted by the factor shown above. All Detection Limits are also increased by this dilution factor.

## Table 3
## Confirmatory Soil Sampling Analytical Results

| Dilution Factor<br>Sample ID (1)<br>Date Sampled<br>units | Detection Limits<br>(ug/kg) | 5<br>DLFLR4<br>07-May-93<br>(ug/kg) | 5<br>DLFLR3<br>07-May-93<br>(ug/kg) |
|---|---|---|---|
| 2-Nitrophenol | 330 | U | U |
| 2,4-Dimethylphenol | 330 | U | U |
| Benzoic Acid | 1600 | U | U |
| bis(2-Chloroethoxy)methane | 330 | U | U |
| 2,4-Dichlorophenol | 330 | U | U |
| 1,2,4-Trichlorobenzene | 330 | U | U |
| Naphthalene | 330 | U | U |
| 4-Chloroaniline | 330 | U | U |
| Hexachlorobutadiene | 330 | U | U |
| 4-Chloro-3-methylphenol | 660 | U | U |
| 2-Methylnaphthalene | 330 | U | U |
| Hexachlorocyclopentadiene | 330 | U | U |
| 2,4,6-Trichlorophenol | 330 | U | U |
| 2,4,5-Trichlorophenol | 1600 | U | U |
| 2-Chloronaphthalene | 330 | U | U |
| 2-Nitroaniline | 330 | U | U |
| Dimethylphthalate | 330 | U | U |
| Acenaphthylene | 330 | U | U |
| 2,6-Dinitrotoluene | 330 | U | U |

KEY:
U = Not Detected above the Limit of Quantitation.
UD = Indicates sample was diluted by the factor shown above. All Detection Limits are also increased by this dilution factor.

Soil Boring Locations and Analytical Data for Underground Tank Farm (SWMU 1)
from September 6, 1991 Corrective Action Report submitted by Ecology Services, Inc.

ECOLOGY SERVICES, INC.

SUBJECT INITIAL SOIL CLEANUP SAMPLING LOCATION MAP, DELTA AIRLINES-O'HARE

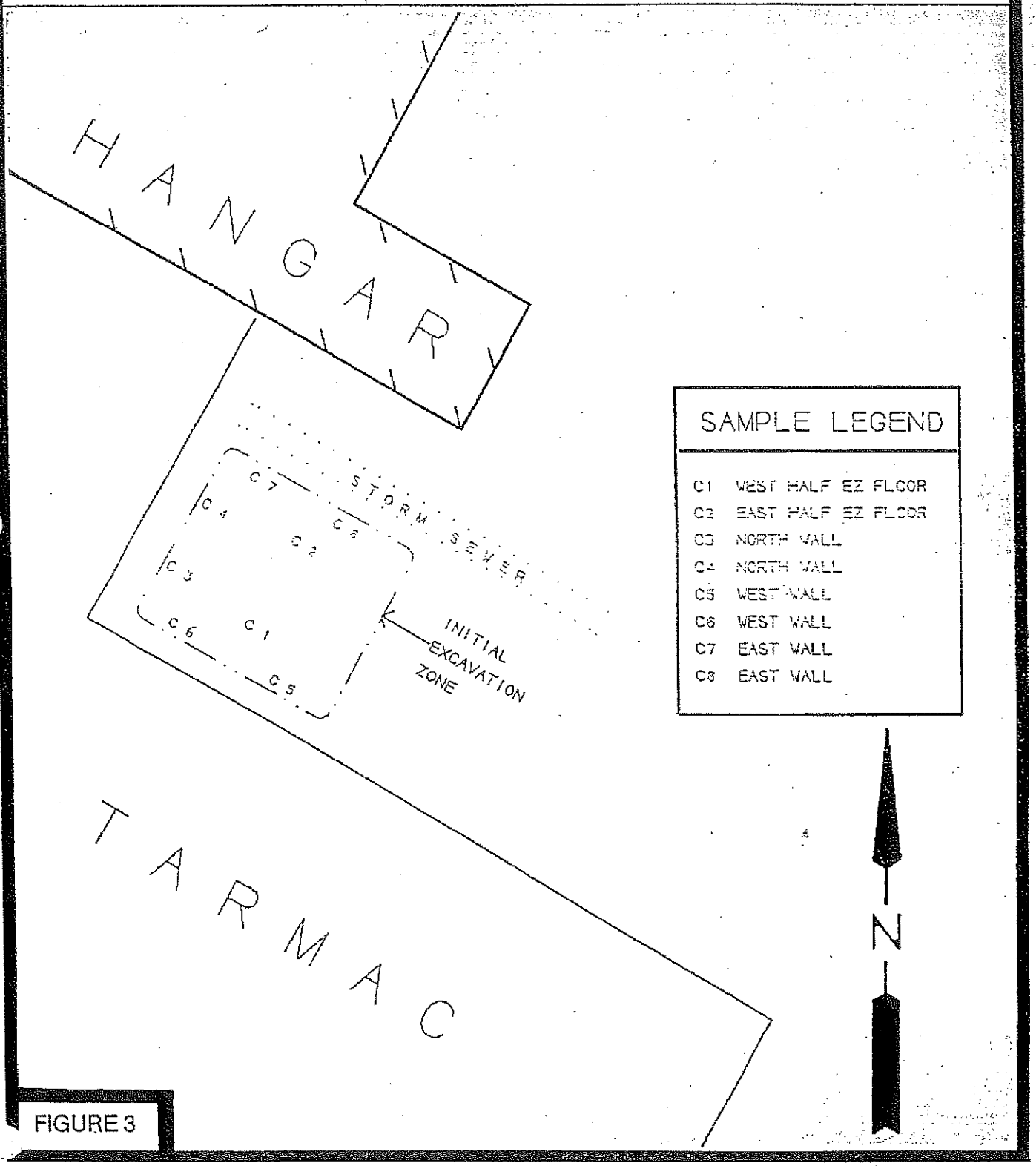



FIGURE 3

APPROXIMATE SCALE

0 60 120

FEET

The analytical results (Appendix H) indicated the following compounds were detected in the samples:

| | |
|---|---|
| methylene chloride | naphthalene |
| 1,2-dichloroethene | ethylbenzene |
| 1,2-dichlorobenzene | toluene |
| 1,3-dichlorobenzene | benzene |
| 1,4-dichlorobenzene | trichlorofluoromethane |

The presence of these compounds indicated the soil has been impacted with hazardous materials.

**TABLE I**
**INITIAL SOIL SAMPLE ANALYTICAL RESULTS**
**& LUST CLEANUP OBJECTIVES**

| | | Parts per million (ppm) | | | |
|---|---|---|---|---|---|
| Sample Number | Sample Name | Benzene | Exceeds LUST Benzene Obj by | BETX | Exceeds LUST BETX Obj by |
| **LUST Soil Cleanup Obj.** | | **0.025** | | **16.025** | |
| S264-C1 | West Half Ez Floor | BDL | ----- | 0.043 | ----- |
| S264-C2 | East Half Ez Floor | 0.079 | 0.054 | 0.317 | ----- |
| S264-C3 | North Wall | BDL | ----- | 0.08 | ----- |
| S264-C4 | North Wall | 0.003 | ----- | 0.068 | ----- |
| S264-C5 | West Wall | BDL | ----- | 0.097 | ----- |
| S264-C6 | West Wall | 0.019 | ----- | 0.068 | ----- |
| S264-C7 | East Wall | 0.017 | ----- | 0.197 | ----- |
| S264-C8 | East Wall | 0.53 | 0.505 | 1.126 | ----- |

BETX - Sum of Benzene, Ethylbenzene, Toluene, and Xylene.
The detection limit for benzene, ethylbenzene, toluene, and xylene is 0.002 ppm.
BDL - Below Detection Limit

ECOLOGY SERVICES, INC.

SUBJECT FINAL SOIL CLEANUP SAMPLING LOCATION MAP, DELTA AIRLINES-O'HARE

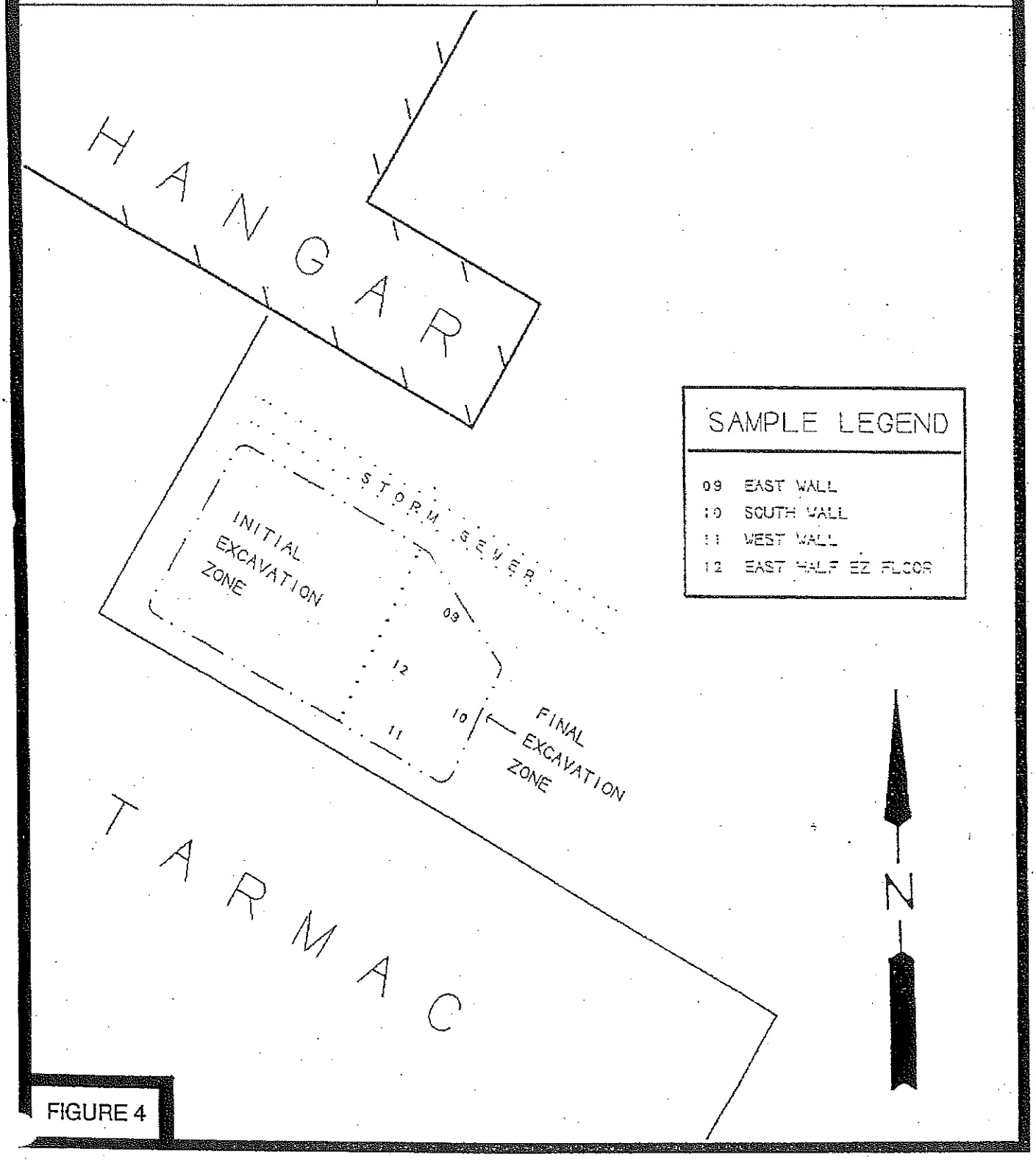



FIGURE 4

APPROXIMATE SCALE

0 60 120

FEET

## TABLE II
## SECOND SOIL SAMPLE ANALYTICAL RESULTS
## & LUST CLEANUP OBJECTIVES

| | | Parts per million (ppm) | | | |
|---|---|---|---|---|---|
| Sample Number | Sample Name | Benzene | Exceeds LUST Benzene Obj by | BETX[1] | Exceeds LUST BETX Obj by |
| **LUST Soil Cleanup Obj.** | | **0.025** | | **16.025** | |
| S264-09 | East Wall | BDL | ------ | BDL | ------ |
| S264-10 | South Wall | BDL | ------ | BDL | ------ |
| S264-11 | West Wall | BDL | ------ | BDL | ------ |
| S264-12 | East Half EZ Floor | BDL | ------ | BDL | ------ |

BETX - Sum of Benzene, Ethylbenzene, Toluene, and Xylene.
[1]Data available for benzene, ethylbenzene and toluene
The detection limit for benzene, ethylbenzene, toluene, and xylene is 0.002 ppm.
BDL - Below Detection Limit

TPP Analytical Data for Underground Tank Farm (SWMU 1)
from August 5, 1992 LUST Program 45 Day Report

TABLE III
TOTAL PRIORITY POLLUTANTS ANALYTICAL RESULTS

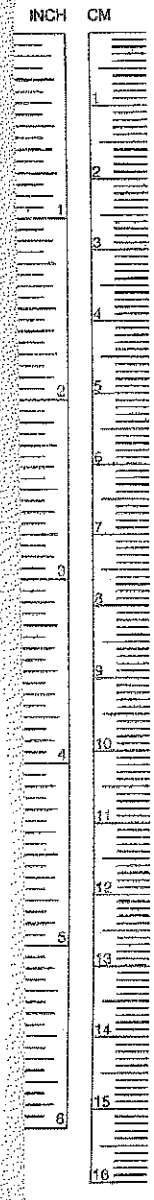
| SAMPLE LOCATION | Floor West | Floor East | North Wall West | North Wall East | West Wall South | West Wall North | East Wall North | East Wall South | East Wall | South Wall | West Wall | Floor East |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | 9 | 10 | 11 | 12 |
| ANALYTE | ppm | | | | | | | | | | | |
| Methylene Chloride | 0.190 | 0.210 | 0.140 | 0.110 | 0.130 | 0.310 | 0.160 | 0.130 | 0.057 | 0.100 | 0.082 | 0.120 |
| Naphthalene | | | | 1.700 | | 3.100 | | | | | | |
| 1,2 Dicholorobenzene | | | | | | | 0.100 | | | | | |
| 1,3 Dichlorobenzene | | | | | | | 0.100 | | | | | |
| 1,4 Dichlorobenzene | | | | | | | 0.100 | | | | | |
| 1,2 Dichlorethene | | | | | | | | 0.011 | | | | |
| Benzyl Butyl Phthalate | | | | | | | | | 0.970 | 1.100 | 0.800 | 0.930 |
| Bis (2–ethylhexyl) Phthalate | | | | | | | | | 99.0 | 103.0 | 79.0 | 85.0 |
| Benzene | | | | 1.100 | | 0.250 | | 0.650 | | | | |
| Ethylbenzene | | | | 0.026 | | 1.500 | | 0.031 | | | | |
| Toluene | | | | | | 0.083 | | 0.920 | | | | |
| Trichlorofluoromethane | | | | | | 0.011 | | | | | | |
| 1,1,1 Trichloroethane | | | | | | | | | | | 0.006 | |

Rite in the Rain®

ALL-WEATHER

# Horizontal Line

No. 390 N




## MEASUREMENT CONVERSIONS

| IF YOU KNOW | MULTIPLY BY | TO FIND |
|---|---|---|
| **LENGTH** | | |
| inches | 2.540 | centimeters |
| feet | 30.480 | centimeters |
| yards | 0.914 | meters |
| miles | 1.609 | kilometers |
| millimeters | 0.039 | inches |
| centimeters | 0.393 | inches |
| meters | 3.280 | feet |
| meters | 1.093 | yards |
| kilometers | 0.621 | miles |
| **WEIGHT** | | |
| ounces | 28.350 | grams |
| pounds | 0.453 | kilograms |
| grams | 0.035 | ounces |
| kilograms | 2.204 | pounds |
| **VOLUME** | | |
| fluid ounces | 29.573 | milliliters |
| pints | 0.473 | liters |
| quarts | 0.946 | liters |
| gallons (U.S.) | 3.785 | liters |
| milliliters | 0.033 | fluid ounces |
| liters | 1.056 | quarts |
| liters | 0.264 | gallons (U.S.) |
| **TEMPERATURE** | | |

°C = (°F - 32) x .555
°F = (°C x 1.8) + 32

| Inches | Decimals of foot | Milli-meters |
|---|---|---|
| 1/16 | .0052 | 1.5875 |
| 1/8 | .0104 | 3.1750 |
| 3/16 | .0156 | 4.7625 |
| 1/4 | .0208 | 6.3500 |
| 5/16 | .0260 | 7.9350 |
| 3/8 | .0313 | 9.5250 |
| 1/2 | .0417 | 12.700 |
| 5/8 | .0521 | 15.875 |
| 3/4 | .0625 | 19.050 |
| 7/8 | .0729 | 22.225 |
| 1" | .0833 | 25.400 |
| 2" | .1667 | 50.800 |
| 3" | .2500 | 76.200 |
| 4" | .3333 | 101.60 |
| 5" | .4167 | 127.00 |
| 6" | .5000 | 152.40 |
| 7" | .5833 | 177.80 |
| 8" | .6667 | 203.20 |
| 9" | .7500 | 228.60 |
| 10" | .8333 | 254.00 |
| 11" | .9167 | 279.40 |
| 1 foot | 1.0000 | 304.80 |

"Rite in the Rain" ®
ALL-WEATHER WRITING PAPER

EPA ID# ILD112359799

Name DELTA MAINTENANCE HANGAR
PRELIMINARY ASSESSMENT / VISUAL SITE INSPECTION
Address O'HARE FIELD BUILDING
CHICAGO, IL 606666
Phone (312) 686-8614

Project EPA - VISUAL SITE INSPECTION
by TETRAN, INC. - IVY PORPOTAGE
14500 AVION PARKWAY, SUITE 300
CHANTILLY, VA 20151
(703) 818-3236

PROJECT NO: G200 R05052-01 03

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EPA WAM: GERALD PHILLIPS
(312) 886-0977

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| | DAVID HESTERLEE - DELTA | |
| | RON LITTLE - DELTA | |
| | TIM DELANCE - DELTA | |
| | DON MAGRO - DELTA | |


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WEDNESDAY, JUNE 17, 1998

The weather is sunny and mostly clear. Winds are <10mph in variable direction. The temperature is approx. 65°F.

Techlaw team members I. Porpotage and T. Quillen will be performing a Preliminary Assessment/Visual Site Inspection on behalf of EPA Region 5 as required under the 1984 HSWA.

I.P. will serve as site safety officer during the inspection. PPE worn during the inspection will include long pants, long sleeved shirts, steel-toe, steel shanked boots, and safety glasses. Hearing protection and hard hats will be available should they be deemed necessary by the SSO. Respirators will also be on hand.

Iny P. Porpotage

WEDNESDAY, JUNE 17, 1998

TL team members will be reviewing all solid waste streams at the facility. Photographs of each current and former Solid Waste Management Unit (SWMU) will be taken.

A Yashica T2D 35mm camera will be used to photodocument all SWMUs. Kodak Gold 200 speed film will be used.

0830 T.Q. arrived @ hotel Ramada - Mt. Prospect to pick up T.P. TL team proceeded to airport post security gate 1.

0850 Arrived at security gate. T.Q. signed H&S checklist which will be on hand at all times.

Mary L. Papotage

Mary L. Papotage

Guy Fairportage



WEDNESDAY, JUNE 17, 1998

0900 Called hangar for escort.
0915 Met by Delta @ security gate and escorted to the hangar.
0920 T.Q. and J.P. met w/ facility representatives D.H., R.L., T.D., D.M.
T.Q. gave overview of the purpose of the visit.

Discussed tank area. The tank area was removed. Soil area excavated 1990. 12/24/90

New ~~product~~ (Waste Oil) tank 1,000 gallon in with new oil/water separator. Waste drum storage area still used. 1 safety-kleen parts washing station. Paint booth w/ paint tailings. No haz. waste (SAA. accumulation area).

Guy R. Fairportage

Many of Tuesday



WEDNESDAY, JUNE 17, 1998

Want to look at integrity of floor/floor drains.

Maintenance Hangar is Bldg. 751.
~~1968~~ 1969 Bldg originally built.
Added another half '66/67.
Original owners. Always been maintenance facility.
Land used to be orchard.

Oil water/separator on south end of bldg.
Concrete 1250 gallon accumulation. Waste oil tank 3,000 gallon
All drum storage now.
Requested copies of manifests.
Questions on closure related to the classification of waste soil.
Original excavation - not sure of the size.
Drum Footprint

WEDNESDAY JUNE 17, 1998

approx 8ft diam x 12 ft.

? 6,000

? 3,000 Waste Oil Tank (Steel)

Like a floor drain - concrete slab - Used vehicle oil, Skydrol, (brand name synthetic hydraulic oil). 1,1,1 - TCE, Mineral Spirits. MEK, acetone.

250 gallons oil accumulation tank. Steel associated with separator. Minimus solvents from floor washings. Mopped w/ mineral spirits. Concrete slab - Separator concrete walls. New one is steel. Leaking - new steel. 1,000 gallon accumulation.

T.D. indicates waste oil tank was emptied once every couple of years.

Operations less than used to be. Conservative 1500 gallons/year.

Oil accumulation tank may have been 250 gallons/yr.

Drains all go to oil/water separator

Dry Laundry

WEDNESDAY, JUNE 17, 1998

~ 10 floor drains in offices. Also hangar drains and trench drains. Discharge to storm sewer.

Removed line - capped off in ~1987. Closure report. On ground six inch curb.

No longer do deluxe type wash. Scrubber picks up after itself.

Steel type separator/integrated tank/double walled. High level protection.

1000 gallons new tank.

Equipment washings go into oil/water/separator.

Pad from original oil accum. tank was removed. Cont. soil was taken by Peoria Disposal Company also to Hillside Landfill? Transporter was Fort Transfer Company. ID L062333752.

Gary D. Pappotage

WEDNESDAY JUNE 17, 1998
Peoria EPA: ILD000805812

1,000 gallon product oil tank has never been emptied. estimate < half full now. Installed 1993. 3 manholes into tank. Look at it w/ flashlight.

Tank Farm - originally 1960 - 12/24/1990 removed 5 tanks originally. Get drawing of excavation area for tank farms. Replaced 3 tanks. Also included a new product drum storage area. May have been asphalt w/ cyclone fencing. All cont. from BTEX petroleum, hydraulic fluid. No known releases from drum storage area. Original tanks steel. Replaced w/ 3 double wall fiberglass tanks. VARSOL tank removed (mineral spirits)

Mary L. Fedorovage

Jim Rumsey

Materials cont.

Duy L. Pappotage

WEDNESDAY, JUNE 17, 1998

2 gasoline tanks. 10 or 12 and 6,000. Replaced w/(1) 1000 gallon tank gasoline (1) 1000 gallon kerosene tank (1) 10,000 gallon glycol tank. (propylene glycol stored in 7 now)

No documentation to indicate Illinois has approved the removal. Ecology Services and Friedstein & Murry.

Not sure what cause of contamination would be for tank farm. Over 25 years old at the time.

Equipment Wash Area. Use soap/steam cleaner. Concrete floor. Doesn't appear to have waste associated with it.

Drum storage on north end of hangar. Shed ~20 feet x 25 feet. 9 on right (used oil drums (5 on right empty).

Duy L. Pappotage

copy of manifest (non-haz)

Mary Pappas



WEDNESDAY, JUNE 17, 1998

9 on left. All stored on pallets. Only used oil stored in here. Future Environmental. Concrete floor. Dispose of ~ drums/2 times per year. Wait till get ~ 1000 gallons for disposal.

United hangar on north east side of building.

Drum Storage Building put in ~87/88. Same time started recovering used oil.

Steel Paint booth. 100 ft. long 20 ft. wide. Store aerosol can waste in here. Resolve R2 cleaner. Used as satellite accum. area for 3-4 months. Paint booth ~10 years old. Haz. waste label on drum w/ flammable gas labels. There is no accumulation start date

Mary L. Pappas

WEDNESDAY, JUNE 17, 1998

Also have 5 gallon. Flam. Liquid. Flammable Paint Liquid. No accumulation date. Never had to dispose of aerosol drum yet. Filter on aerosol drum says 11-20-97. Concrete floor in paint booth. Good shape. Aerosol drum would be moved to drum storage area once full.

Safety-Kleen parts washer. Conc. 1/month to empty.

GSE - ground support equip. shop.

Caged area - battery servicing cage. Since beginning always used for battery servicing. Keep some ready - swap out with vehicles. Contract w/ XI.

Special Waste Haler ID #3922 Future Environmental used

Mary A. Poupotage

Mary A. Poupotage

City of Portage

WEDNESDAY, JUNE 17, 1998 21

for waste oil. 1500 1/5/98,
Last before 4/21/97. 8 month
spread.

8 inch concrete on hangar
floor according to T.D.

Floor drains lie on north
east side of building. In back
offices and shop. Hangar
floor has some cracks in
concrete.

10 floor drains total.

Receptacle had covering
sitting on it. Waste oil drain.
Monitoring system on south
wall for current oil water
separator. Steel piping
connected drain to the waste oil
~~waste~~ tank.

Size of property is ~ 9 acres
Parking area - south side.
East/~~West~~ - Vehicle Service Rd.

City of Portage

Day of Reportage

WEDNESDAY, JUNE 17, 1998
West - aircraft taxiways.
North - vehicle thorofare.

550' x 725'. Total Bldg Property.

Closest residential properties ~ 3 miles. Closer to 1 mile.

Nov. 14, 1995 Closure Certification.

Corrective Action Report for Tank Farm Area - Actual copy includes laboratory reports. Toluene, Benzene, Xylene

1130 Briefed facility on inspection. Not many loose ends. Closure of tank farm is a question.

1145 Escorted out of property.

END
Day Reportage