## **Mobil Chemical Company**

January 17, 1995

MACEDON, NEW YORK 14502
TELEPHONE (315) 986-6111

Peter R. Miller
Engineering Geologist 2
Division of Spill Prevention, Remediation and Response
New York State Department of Environmental Conservation
Region 8
6274 East Avon-Lima Road
Avon, NY 14414

re: Spill 9201343, Building 10 Courtyard Mobil Chemical, Macedon (T), Wayne County

Dear Mr. Miller:

Attached is a report prepared by H&A of New York detailing a Soil-Gas Survey performed under contract to Mobil Chemical to address the concerns of your letter of May 20, 1993.

The results of their investigation indicate that no contamination (as evidenced by nondetection of targeted VOCs) exists in the soil of the Building 10 courtyard. Based upon these results I would like to request that this project be closed.

If you have any concerns please contact me at (315) 986-6253.

Thank you.

Sincerely,

Kevin Colling

Environmental Engineer

XC: J. Butvinik, w/attachment

W. Hyatt, w/attachment

F. Mooney

SOIL-GAS SURVEY BUILDING 10 COURTYARD STORM-DRAIN NO. 93 AREA MOBIL CHEMICAL COMPANY MACEDON, NEW YORK

By:

H&A of New York Rochester, New York

For:

Mobil Chemical Company Macedon, New York

File No. 70524-000 January 1995



### H&AOFNEW YORK



10 January 1995 File No. 70524-000

Geotechnical Engineers & Environmental Consultants

Mobil Chemical Company Flexible Packaging Plastics Division 200 E. Main Street Macedon, New York 14502

Attention:

Mr. Kevin M. Colling

Subject:

Soil-Gas Survey

Building 10 Courtyard Storm-Drain No. 93 Area

#### Gentlemen:

This report presents the results of H&A of New York's (H&A) soil-gas investigation inside the Building 10 Courtyard at the Mobil Chemical (Mobil) Macedon, New York plant, Figure 1. This work was performed in accordance with H&A's proposal dated 15 August 1994, and your subsequent authorization (Mobil Contract No. 45335764).

### **PURPOSE AND SCOPE**

The objective of this investigation was to identify the presence and/or lateral extent of previously suspected soil contamination near storm-drain No. 93 in the Building 10 Courtyard. To accomplish this objective, the following work was performed:

- Soil and water analytical data from samples collected under the direction of Mobil personnel on 5 May 1992 were reviewed to evaluate the purported contamination.
- A brief site walkover was performed by H&A on 9 August 1994, accompanied by Mr. Kevin Colling (Mobil), to visually inspect the site and discuss Mobil's workscope requirements.
- A soil-gas survey was conducted by H&A personnel on 14 and 16 December 1994, consisting of 11 probe locations intended to identify the presence and/or lateral extent of the volatile organic compounds (VOCs) toluene and xylenes which had been detected in the May 1992 sample analyses.

### **INVESTIGATION RESULTS**

Targeted VOCs, including toluene and xylenes, were not detected at any of the soil-vapor sampling locations tested by H&A, Table 1. The approximate location of the soil-vapor sampling locations within the Building 10 Courtyard area are shown on Figure 2. The calculated detection limits for the target compounds were between approximately 0.04 and 0.07 ppmV, Table 1.

Soils contaminated with toluene, xylene, and other compounds were previously identified by Mobil adjacent to storm-drain No. 93. However, based on the results of H&A's soil-gas survey it appears that the soils containing elevated concentration levels of toluene and xylene were removed during previous excavation activities conducted by Mobil. No evidence of residual vapor-phase toluene

Mobil Chemical Company 10 January 1995 Page 2

and/or xylene was found by our sampling. The Building 10 Courtyard excavation activities were reportedly associated with the replacement of storm-drain No. 93 during 1992 and the repair of a water main during 1993. The approximate limits of the soil excavations conducted by Mobil are evidenced through areas of fresh concrete visible in the courtyard floor, Figure 2.

### **RECOMMENDATIONS**

No further action appears warranted based on the available data.

### SITE CONDITIONS

The Mobil plant is located on NY Route 31 and the NYS Erie Canal in Macedon, New York as shown on Figure 1, Project Locus. Storm-drain No. 93 is located outside the south wall of Building 10 in an approximately 21 by 42 ft. courtyard which is covered by a concrete slab. Building 10 is used for the manufacture of plastic bags which are produced from heat-extruded plastic resin. Water from storm-drain No. 93 discharges to the NYS Barge Canal via a permitted SPDES outfall.

### **SOIL-GAS SURVEY**

A soil-gas testing program was conducted by H&A on 14 and 16 December 1994. The program consisted of drilling 1-in. diameter holes through the courtyard's concrete floorslab at 11 locations. The sampling points were placed on approximate 8-ft. centers at the locations shown on Figure 2, Soil-Gas Survey Plan. At each sampling point, a 52-in. long by 1/2-in. diameter hardened-steel probe was advanced and then withdrawn leaving a probe hole. A section of new 3/16-in. diameter polypropylene tubing was inserted in each probe hole and packed-off using graded quartz sand followed by granular bentonite clay. Distilled water was then added to the probe-holes to hydrate the bentonite and seal the sample interval from the atmosphere. At sample locations SV-A2 and SV-B2, a 48-in. long by 3/8-in. diameter stainless steel sample tube was used due to the presence of loose fill deposits. The sampling-tube depths ranged from 3.1 to 4.4 ft. below grade.

The hardened-steel probe was decontaminated between each location using an alconox wash followed by a distilled water rinse, and towel drying.

Soil-gas was collected from each of the sampling tubes into 1-liter Tedlar airbags. The airbags were filled using an evacuated-canister method whereby an airbag is connected to the sampling tube by 1/8-in. diameter teflon tubing and placed into a rigid polycarbonate vessel. A partial vacuum is drawn on the vessel, causing the airbag to passively inflate with soil-gas. At each sample location, a 1-liter purge volume was withdrawn prior to collecting the sample to be analyzed.

The soil-gas samples were analyzed on-site within 30 minutes of sample collection on a Photovac 10s50 portable gas chromatograph (GC) equipped with a 10-meter long by 0.53-mm diameter CPSiL 5 capillary column and a 10.6 eV photoionization detector. Sample volumes of 100 microliters were analyzed by direct injection with a Hamilton 1700-series gas tight syringe. The sample chromatograms are included in Appendix A.



Mobil Chemical Company 10 January 1995 Page 3

The portable GC was calibrated for BTEX compounds using a vapor-phase calibrant standard prepared by H&A using a 2-liter glass sphere, ultra-pure carrier grade air, and 0.5 microliter aliquots of neat reference-grade chemical standards. The calibrant standard consisted of the following:

Compound	Calculated Concentration (parts-per-million by volume)			
benzene	68.6 ppmV			
toluene	57.5			
ethylbenzene	50.0			
m-xylene	49.8			
o-xylene	50.7			

BTEX compounds or other volatile organics were not detected in any of the soil-vapor sampling locations tested by H&A, Table 1.

### **CLOSING**

This report has been prepared for specific application to the subject site in accordance with generally accepted environmental investigation practices. No other warranty, expressed or implied, is made. In the event that any other information becomes available that could affect the conclusions and recommendations presented in this report, the conclusions should not be considered valid unless the new information is reviewed by H&A of New York and conclusions of this report modified or verified in writing.

Thank you for selecting H&A to assist Mobil in this investigation. If you have any questions or require additional information, please call.

Sincerely yours, H&A OF NEW YORK

Janus G. Talpey

Senior Env. Geologist

Enclosures:

Sources of Information

Table 1 - Soil-Gas Testing Results

Figure 1 - Project Locus

Figure 2 - Soil-Gas Survey Plan

Appendix A - Soil-Gas Chromatograms

Appendix B - Storm-Sewer Utility Plan (detail)

JGT\cad\70524-000:MobilB10.SGS



### **SOURCES OF INFORMATION**

- 1. General Testing Corporation, 29 May 1992 Laboratory Report of EPA Method 8020 and 8270 analyses, Mobil Chemical Co. Plastics Div., Job No. R92/01813; 9 pgs.
- 2. NYSDEC, 20 May 1993, letter from P. Miller (Region 8) to A. D'Ambrosia (Mobil), 1 pg.
- 3. Mobil Chemical Company, 22 July 1994, letter from K. Colling (Mobil), 1 pg., and attached storm-drain utility plan.

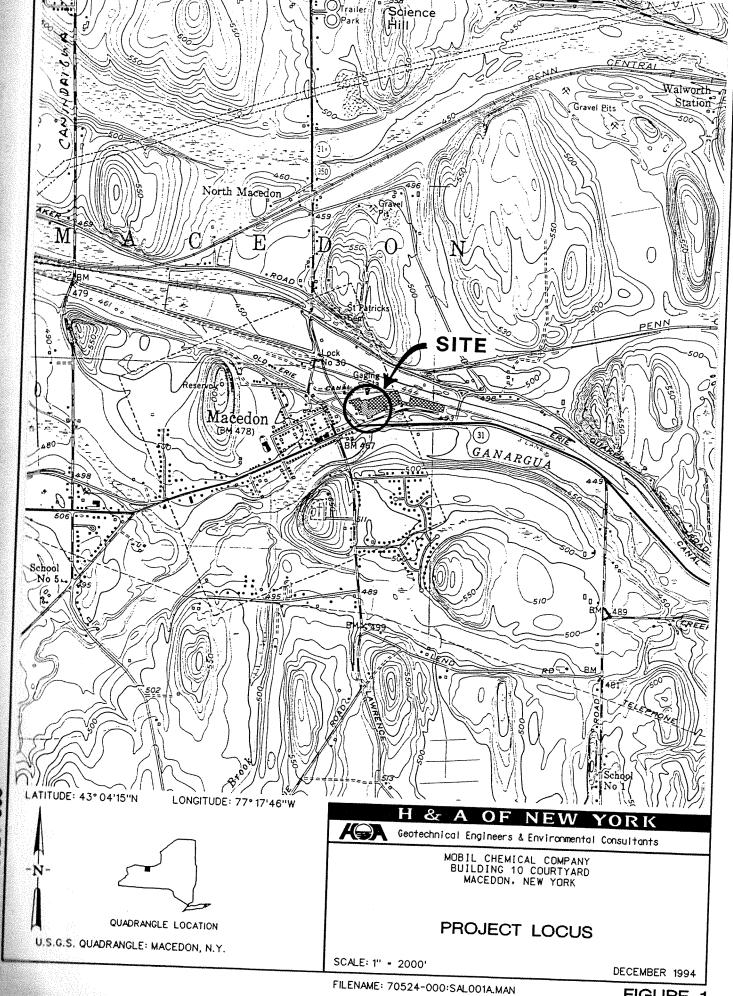


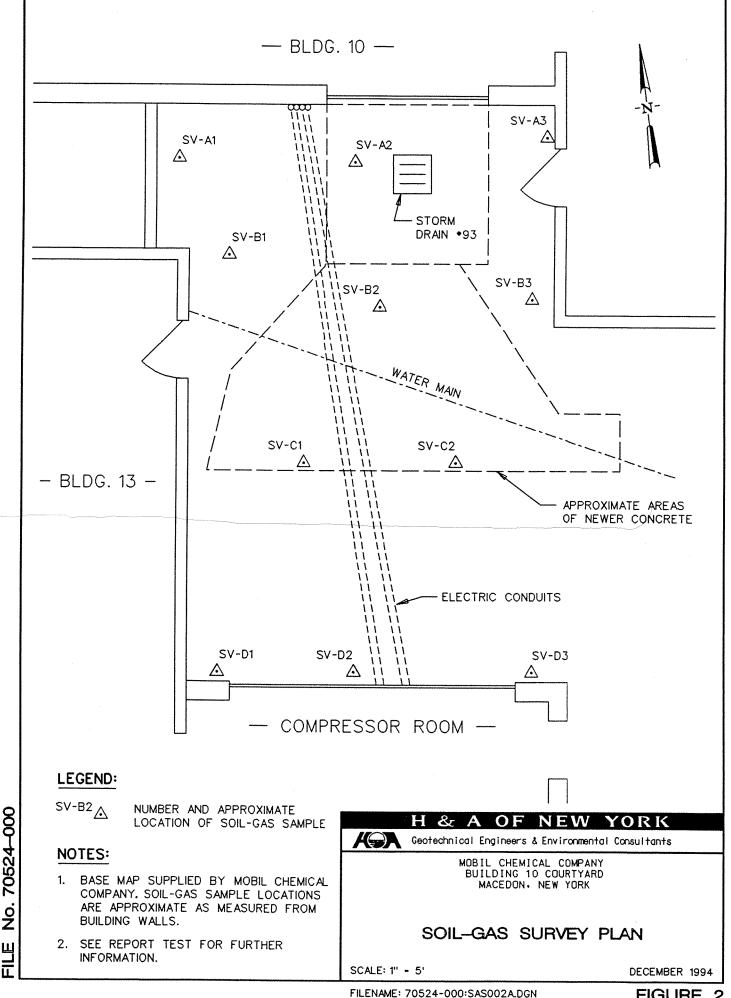
Table 1
Soil-Gas Testing Results (ppmV)
Mobil Chemical Company
Building 10 Courtyard
Macedon, New York

Sample Location	Sample Tube Depth (ft)	Benzene	Toluene	Ethyl Benzene	M-Xylene	O-Xylene	Unknown	Total
SV-A1	4.0							ND
SV-A2	4.4			A	<u> </u>			ND
SV-A3	3.1							ND
SV-B1	3.8							ND
SV-B2	4.4							ND
SV-B3	4.4							ND
SV-C1	4.3	<u>-</u> -						ND
SV-C2	4.3							ND
SV-D1	4.2							ND
SV-D2	4.2						(B) <u>-</u> ([함	ND
SV-D3	4.3		-		-	-	-	ND
Calculated Limit	Detection	0.073	0.045	0.073	0.059	0.065		

### **NOTES**:

- 1. All compound concentrations reported in parts-per-million by molar volume in air (ppmV) referenced to vapor-phase calibrant standards.
- 2. and ND indicate not detected.
- 3. Calculated detection limits obtained using compound signal response factors and an assumed minimum peak area of 100 millivolt-seconds.
- 4. Refer to Figure 2 for sample locations, and report text for further information.

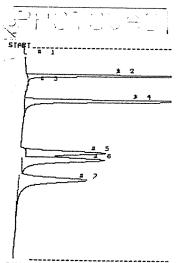




# APPENDIX A SOIL-GAS CHROMATOGRAMS



# 25, ML Brex Std.



| STOP 8 658.8 | SAPITLE LIPRART | PEC 11 1331 12: J | AMALTSIS 2 5 | POPIL CRETICAL | INTERNAL TEPP 27 | PACEPPM, PT | PACEPPM | T | PACEPPM

CONPOUND NAME PEAK R.T. AREA/PPM

LINKNOUN	2	82.1	12.7	US
UNKNOUN	-	158.8	19.5	US
UNKNOUN	5	323.3	2.B	US
UNKNOUN	5	345.5		
UNKNOUN	,		3.5	US
est defende		489.7	8.9	US

# 1 COMPOUND 10 = R.T. LIMIT BENZENE 1 25.2 68.69 FTM TOLLIENE 2 158.8 52.50 FFM

 BENZENE
 1
 25.2 66.60 FTN

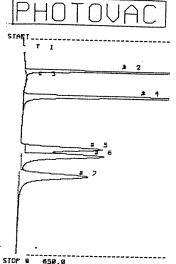
 TOLUENE
 2
 156.0 57.50 FTN

 EINTLBENZENE
 3
 222.3 59.00 FTN

 D-XTLENE
 1
 345.5 13.00 FTN

 9-XTLENE
 5
 483.7 59.70 FTN

## 25 ML BrEX Std.



SAMPLE LIMPART 1 PEC 14 1331 12:13
APPALTSIS # PAPPIL CHEMICAL
INTERNAL TEMP 29
PAIN 5 78321-PAPP

SAPPLE LIPRARY 1 PEC 14 1334 13:13

AMALTSIS 2 6 PAPIL CHENICAL

INTERNAL TENT 23 PACCEPAR, NT

GAIN 5 79534-PAPA

COMPOUND MAME FEAK R.T. AREA/PPM

 BENZENE
 2
 90.1
 66.60 fm

 TOLURNE
 4
 153.4
 50.95 fm

 ETHYLBENZENE
 5
 325.7
 48.55 fm

 NATILENE
 6
 247.3
 45.20 fm

 O-XYLENE
 7
 413.2
 51.22 fm

## 555,000,000

PRICE LIPKART 2 PEC 11 1331 17:11

A FILE LIPKART 2 PEC 11 1331 17:11

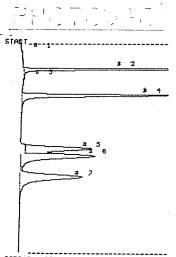
A FILE LIPKART 23

A FILE C PILE C P

COMPOUND MANE PEAK R.T. AREA/PPM

- NUKNOTIN	1	25.4	7.3	mUS
UNKNOUN	2	89.1	10.6	ŲS
NIKHONIN	3	198,5	19.5	mUS
NINK WORTH	4	155.4	12,9	US
<b>LINKHOPH</b>	5	325.7	7.6	US
UNKNOUM	5	347.9	3.5	US
UNKNOUN	7	413,2	3.9	us

## 25 ML DIEX Std.



COMPOUND NAME PEAK R.T. AREA/PPM

## PHOTOURD

SAPITLE LIPRART 2 PEC 11 1001 15:21 AMALTSIS 2 2 INTERMAL TERM 00 PAIN 5

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOLTH	2	80.9	8.6	us
UNKHOLIM	3	198,3	8,5	mUS
UNKNOW	4	162.1	8.5	US
UNKNOWN	.5	331.7	6.7	Ų.S
<b>FUKNOTH</b>	6	354.5	8.5	us
UNKNOW	7	421 2	8 2	He

## 100 Mh SV-A1 12/14/94 15:25

START # 1 # 7 # 5

| 1 | 5:06 | 5:07 | 5:08 | 5:09 | 6:58.0 | 5:09 | 6:58.0 | 5:09 | 5:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 | 6:09 |

COMPOUND MAKE PEAK R.T. AREA/PPM

100/wh SV-AA 12/14/94 15:30

SIDP 8 658.0 SART'LE LIPKARY 1 PEC 11 1001 16: 1 ANALYSIS 2 DAPPL CRETICAL INTERNAL TERT 30 PACEPPP, NY CAIN 10 29537-989

» 5

COMPOUND MANE PEAK R.T. AREA/PPM

100ML SV-B3 12/14/94 16:10

SIDP 8 659.8
SAPITLE LIPRARY 1 PEC 14 1334 16:23
AMALTSIS # 19 PROFESSION, NT
CAIN 19 29521-999

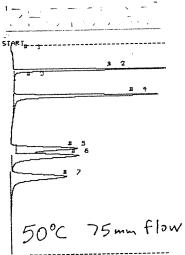
COMPOUND MANE PEAK R.T. AREA/PPM

100 ML SV-C1 12/14/94 16:30

ONIN 1P DEC 14 1004 letter tend 1 pec 14 1004 letter tend 1 pec 14 1004 letter tend 1 pec 19 1004 letter tend 1004 letter ten

COMPOUND MANE PEAK R.T. AREA/PPM

# 25 nL BTEX Std.



STOP 8 659.8
SAPTLE LIPRART 1 PEC 11 1331 16:53
APPLISIS 2 12 PAPPL CHEMICAL
INTERNAL TENT 3 PACESPR. RT
CALL 5 >PSS1-PAP

COMPOUND NAME PEAK R.T. AREA/PPM

BENZENE 2 73.5 53.67 PPN
TOLUENE 4 168.7 29.37 PPN
ETHTLBENZENE 5 328.1 33.18 PPN
n=XTLENE 6 358.3 37.78 PPN
n=XTLENE 7 116.8 33.64 PPN

### PHOTOVAC

DEC 16 1994 3:47

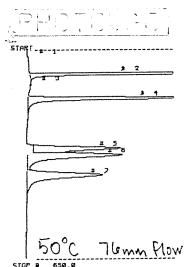
FIELD: 23 POWER: 37

SAMPLE 8.0 10.0 0.0 CAL 0.0 EVENT 3 0.0 115.0 EVENT 4 0.0 0.8 EVENT 5 0.0 0,0 EUENT 6 0,0 8.0 EVENT 2 9.8 0.0 EUENT B

## PHOTOVAC

1 COMPOUND 10 # R.T. LIMIT

25 ML BTEX Stal.



SIOP @ 650.0

SAPITLE LIPPART | PEC 16 1231 10:25

AMALTSIS | 1 popul cherical

INTERNAL TERT 26

COIN | 5 79521-PPP

 PFFSET
 42.P ru

 CMART SCEEP
 9.5 \*\*P/Tre

 SLPTE SERS.
 5 5 1 ru/s\*\*

 UIMPDU T/ 5 Fa\*\*ent

 PINITUM PREP
 1P.P S\*\*

 \*\*TIMER PELET
 1P.P S\*\*

 PREVENTSIS TIME
 65P.P S\*\*

 CYCLE TIME
 P Fig

COMPOUND MANE PEAK R.T. AREA/PPM

 BENTENE
 2
 27.1 26.55 FFR

 TOLUENE
 4
 153.1 63.69 FFR

 ETHTLBENTENE
 5
 313.1 54.32 FFR

 ETHTLBENTENE
 6
 334.1 62.22 FFR

 D-XTLENE
 7
 336.4 55.08 FFR

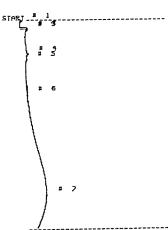
SANTLE LIBRARY 2 DEC 16 1001 19:10 PM-TSIS 1 1 INTERNAL TENT 20 CAIN 5

JEHAT TALLANT

1 COMPOUND ID # R.T. LINIT

BENTENE 1 77.1 68.60 PPD TOLLENE 2 153.1 52.50 PPD ETHTLBENTENE 3 313.1 50.00 PPD FATURE 4 334.1 43.00 PPD G-XTLENE 5 236.4 50.20 PPD 100ph SN-C1
12/14/94
10:45

PHOTOVAC



STOP 8 658.8
SAPILE LIPRART 1 PEC 14 1331 11: 2
APPLISIS 5 PAPIL CHEMICAL
INTERNAL TEPT 23 PACESPA, NT
OCHM 19 79521-PPP

COMPOUND MADE PERK R.T. AREA/PPD

100/WL 54-C2 12/10/94

START # 1

SIDP 8 650.0

SAPPLE LIPRART 1 PEC 14 1001 11:15

APPLISIS 2 PAPIL CREPICAL

INTERNAL TEPT 00 PACEOPN, NT

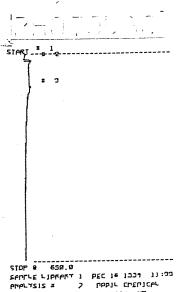
ORIN 1P 70521-000

COMPOUND NAME PEAK R.T. AREA/PPM

# 100ML SV-D3 12/16/93 11:20

100/UL SV-A2 12/16/94

100ph SV-DZ 12/16/94 13:10



п 3

£ 5 STOP @ 650.0 SAPPLE LIPRART 1 PEC 16 1331 13:20

bubrasis = 5 ubbir chelicur 19 79521-999 7192

SIDP 8 658.8

SAPPLE LIPRARY 1 PEC 16 1331 12:51

PMALTSIS 2 POPIL CHEPICAL PACEPAR, MY JAS21-PAR INTERNAL TENT OF 10 CAIN

COMPOUND MANE PEAK R.T. AREA/PPM

PMPLTSIS # 11 PPPIL CREPICEL
INTERPRET TEPT 31 PACEPOR, PT
OPIN 19 XPS21-PPP

COMPOUND NAME PEAK R.T. AREA/FFM

COMPOUND NAME PEAK R.T. AREA/PPM

# 100/al SV-D1 12/10/94 11:40

100 pl SV-B2 12/16/94 13:00

START - 13

**2** 5

25 ML BTEX Std.

**=** 3 STOP 8 650.0 SAPPLE LIPRARY 1 DEC 16 1331 12: P

STOP 9 650.0 INTERNAL TENT 31 PEC 14 1331 13: 3
SHITLE LIPRART 1 PEC 14 1331 13: 3
HOTERNAL TENT 31 PACEPPR, PT 7P577-PPP קנקם

COMPOUND MADE PEAK R.T. AREA/PPD

PHPLTSIS B ubbir cuELictr INTERNAL TENT 31 79521-999 1190 COMPOUND NAME PEAK R.T. AREA/PPM STOP 8 658.8

SAMPLE LIPRARY 1 PEC 16 1334 13:32

INTERNAL IEMT 31 PROCEPPY, NT.

OAIN 5 79521-PPP COMPOUND NAME PEAK R.T. AREA/PPM

STOP 8 650.0

3 25.8 43.64 PPR BENZENE 5 150.4 30.64 PFN 7 308.3 38.53 PFN TOLUENE ETHYLBENZENE N-XYLENE 8 323.5 32.21 PPN 9 331.5 38.13 PPN D-XYLENE

# APPENDIX B STORM SEWER UTILITY PLAN (DETAIL)



