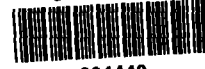


EPA Region 5 Records Ctr.



264440

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

EXPANDED SITE INSPECTION REPORT

FOR

I GURMAN AND SON SITE

TERRE HAUTE
INDIANA


U.S. EPA ID: IND016648230

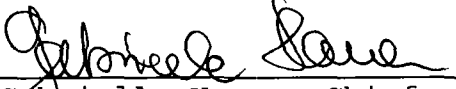
June 15, 2002

ESI

Signature Page
for
I GURMAN AND SON Site
TERRE HAUTE
INDIANA

U.S. EPA ID: IND016648230

Prepared By:  Date: 26 Jun 02
Richard L. Molini, Project Manager
Site Investigation Section
Indiana Department of Environmental Management

Approved By:  Date: 06-27-02
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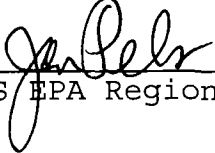
Approved By:  Date: 9/27/02
US EPA Region V Early Action Project Manager

Table of Contents

<u>Section</u>	<u>Page</u>
I. Introduction	1-1
II. Site Background	2-1
2.1 Introduction	2-1
2.2 Site Description	2-1
2.3 Site History	2-5
III. Field Observations, Sampling Procedures, and Analytical Results	3-1
3.1 Introduction	3-1
3.2 Site Representative Interview and Reconnaissance Inspection	3-1
3.3 Sample Procedures and Analytical Results	3-4
3.3.1 Monitoring Wells and Samples	3-4
3.3.2 Soil borings and Samples	3-6
3.3.3 Sampling Summary	3-6
3.3.4 Analytical Results	3-7
3.4 Summary Tables and Charts	3-7
IV. Discussion of Migration Pathways	4-1
4.1 Introduction	4-1
4.2 Groundwater	4-1
4.3 Surface Water	4-7
4.3.1 Drinking Water Threat	
4.3.2 Human Food Chain	
4.3.3 Environmental Threat	
4.4 Soil Exposure	4-9
4.5 Air	4-9
V. References	5-1

Appendices

<u>Appendix</u>	<u>Page</u>
A. Site Four (4) Mile Radius Map	A-1
B. IDEM Site Photographs	B-1
C. Chemical Analysis Data	C-1
D. 15-Mile Surface Water Pathway Map	D-1
E. Sensitive Environment/Endangered Species Information	E-1
F. Aerial Photograph	F-1
G. Well Logs	G-1

List of Illustrations

<u>Figure</u>	<u>Page</u>
2-1 Gurman Site Location Map	2-2
2-2 Gurman Site Features Map	2-3
2-3 Potential Source Area Map	2-6
3-1 Monitoring Well Location Map	3-2
3-2 Soil Boring Location Map	3-3
3-3 Stratigraphic Interpretation	3-15,16
3-4 Monitoring Well Chemical Analysis	3-10
3-5 Soil Boring Chemical Analysis	3-11
3-6 Monitoring Well Soil Chemical Analyses	3-12
4-1 Water Table from Shallow Wells	4-4
4-2 Potentiometric Surface from Deep wells	4-5

List of Tables

<u>Table</u>	<u>Page</u>
2-1 Well and Boring Implacment Rationale	2-7+8
3-1 Key Findings List	3-12 & 3-13
4-1 Monitoring Well Physical Data	4-3

SECTION I

INTRODUCTION

The Indiana Department of Environmental Management (IDEM), Office of Land Quality (OLQ), Site Investigation Section, under a Cooperative Agreement (CA) with the United States Environmental Protection Agency (U.S. EPA), Region V Office, has been funded to perform Expanded Site Inspections (ESI) for selected sites listed in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). These inspections and assessments are conducted under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 and the Superfund Amendments and Reauthorization Act (SARA) of 1986. Sites eligible for ESIs include those sites for which the Screening Site Inspection (SSI) concluded additional information was necessary to determine site resolution and final disposition. The objective of the ESI is to collect that data necessary for evaluating the site utilizing the Hazard Ranking System or to determine if a removal action may be appropriate to protect human health and/or the environment.

The ESI was created under the guidance of the Superfund Accelerated Cleanup Model (SACM). One of the primary objectives of SACM is to minimize the sequential and redundant assessments of hazardous waste sites. The Site Investigation Section of IDEM was given approval from the US EPA to conduct an ESI at the I Gurman and Son Site (IGS) in Terre Haute, Indiana. The site was discovered in 1987 by the IDEM via information submitted by the Indiana American Water Company of Terre Haute (IAWC) and evaluated through a preliminary assessment (PA) completed by Richard Molini of the IDEM on September 28, 1987. An SSI had been

completed by IDEM in September of 1988 at IGS. Because this ESI had broader local implications for a public water supply and involved the installation of monitoring wells and soil borings, this ESI was conducted in conjunction with the ESIs for two other adjacent sites, BiState Products currently First Recovery-Ashland (IND155169451) and Machine Tool Service (IND006034466).

SECTION II

SITE BACKGROUND

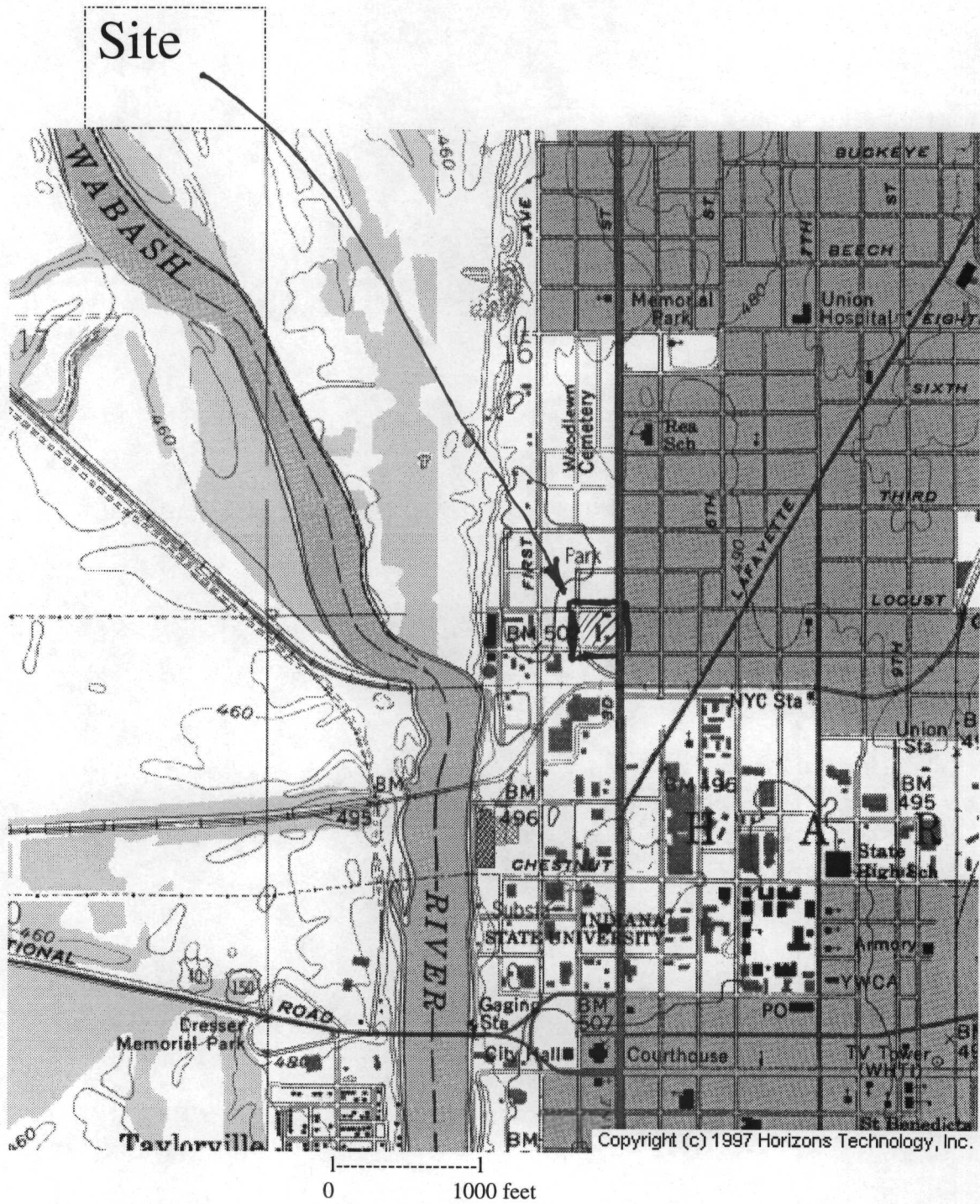
2.1 Introduction

This section includes information obtained from the SSI, ESI work plan, I Gurman site representative interviews, IDEM files, and interviews with personnel of the Indiana American Water Company Terre Haute Facility (IAWC).

2.2 Site Description

The IGS site is located near the Wabash River in central Terre Haute in far western Indiana. IGS, located at 800 North 3rd Street in Terre Haute, Indiana, is a drum recycling and container supplying facility (Figure 2-1). The site consists of an office-warehouse building, a container storage building, a container reconditioning and processing area, and extensive drum storage areas (Figure 2-2). There were approximately 1,000 drums stored on the property at the time of the ESI. Apparently and according to the site operators, most of the drums are empty or nearly empty. The recycling operation consists of cleaning, descaling of the interior, NaOH bath, and repainting for steel drums and containers and cleaning for plastic drums and containers.

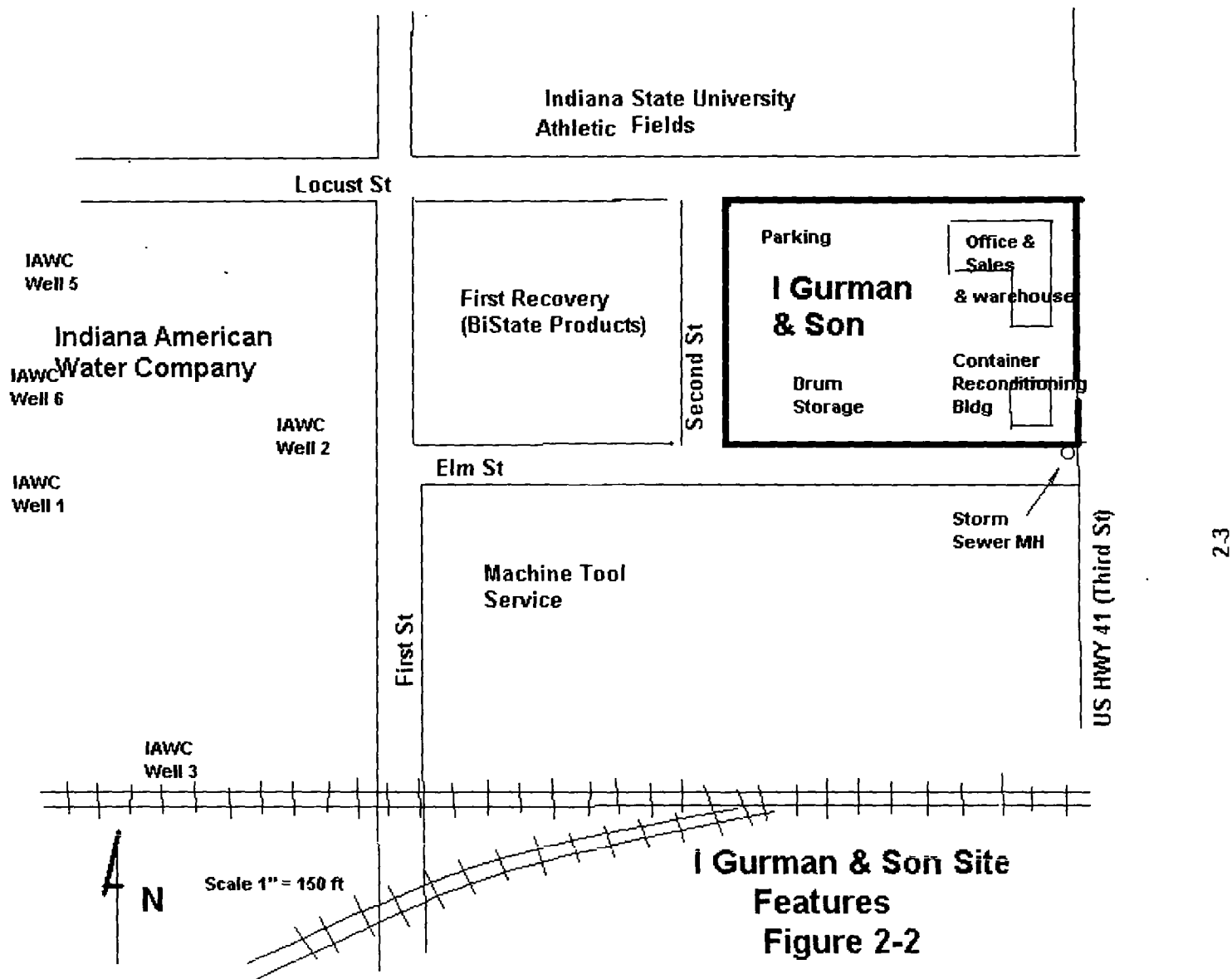
The geographic coordinates of the area lie between 39° 28'36.06" and 39° 28'39.14" north latitude and between 87° 24'50.79" and 87° 24'55.79" west longitude. The site is located on the Terre Haute West, Indiana U.S.G.S. Quadrangle. The site is bounded to the north by a university park/recreational area, to the east by commercial and residential area, and to the south and west by an industrial area. (refer to Site Location Map, Figure 2-1, Site Features Map, Figure 2-2 and Potential Source Area Map, Figure 2-3). This very low relief site comprises approximately 2 acres.



I Gurman and Son Site Location Map

Figure 2-1





I Gurman & Son Site
Features
Figure 2-2

Microsoft TerraServer

Display Image

USGS Aerial Photograph

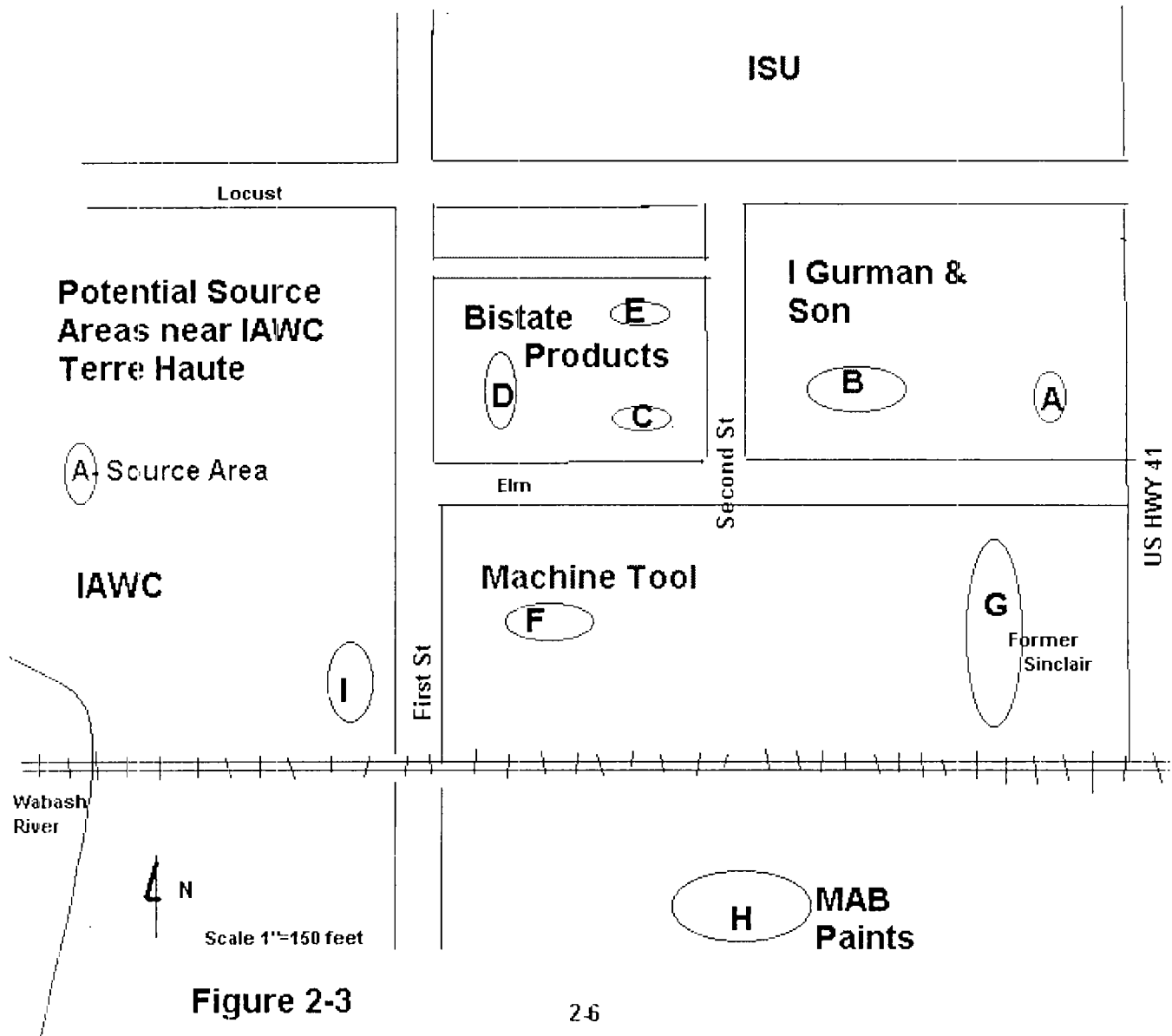
Terre Haute, Indiana, United States 24 Feb 1998



2.3 Site History

IGS has operated at this location since 1922. Initially the facility engaged in repairing and reconditioning wooden stave barrels. From 1930 to 1980 the majority of the business was the sale and reconditioning of steel barrels. Since 1980, the primary activity is the sale of paper and plastic containers and the cleaning and reconditioning of customer owned drums. The northern one-third of the property on which the new warehouse and parking lot is located was residential land until purchased in the early 1980s. Over the years, the total number and types of stored barrels has varied considerably. Approximately 4000 were noted during the SSI conducted in 1987. There were approximately 1000 noted during the ESI. The most likely potential source areas for contamination appeared to be the reconditioning area and the drum storage area noted respectively as potential source areas A and B on Figure 2-3 page 2-6. The wells and borings were located to primarily address those possibilities and Table 2-1 displays the logic for the placements for the local area and IGS. The soil and groundwater samples from the wells and the soil borings were collected to aid in determining if the VOC contaminants detected in the IAWC well field could be attributable to the suspected source areas A and B or any other areas of this site.

Sampling conducted during the SSI showed the presence of PCE, TCE, trans 1,2 DCE, 1,1,1-TCA, 1,1-DCA in a soil sample taken from 1 foot below the ground surface just north of the reconditioning building. This data along with the operational history and the huge inventory of drums indicated further investigation was warranted.



Rationale for the location of Monitoring Wells

Well 1 cluster

Contribution of I Gurman and First Recovery to IAWC wells 1,2,5&6

Well 2 cluster

Contribution of I Gurman and First Recovery to IAWC wells 1,2,5&6

Well 3 cluster

Attribution of I Gurman and First Recovery to IAWC wells 1,2,5&6

Well 4 cluster

local upgradient of I Gurman, First Recovery, and Machine Tool Service

Well 5 cluster

Attribution of I Gurman and First Recovery to IAWC wells 1,2,5&6

Well 7 cluster

Local upgradient of I Gurman, First Recovery and Machine Tool Service

Well 8 cluster

Local upgradient of I Gurman, First Recovery, and Machine Tool Service

Well 9 cluster

downgradient composite for SW flow and potential downgradient from SE sources (MAB) during high pump volume from past

Well 10 cluster

Local upgradient, Machine Tool Service to IAWC 1,2&3 and possible upgradient of First Recovery and Machine Tool Service during high pump volume for all IAWC wells

Well 12 cluster

Attribution of source areas on Machine Tool Service and possible contribution of SE sources and comprehensive interpretation of gw flow.

Well 13 cluster

Possible contribution of I Gurman and First Recovery to IAWC well 4 during high pump volume and/or local upgradient

Table 2-1

Table 2-1 continued

Rationale for Boring Locations

Location 1&2

Potential shallow subsurface contamination arising from the old Citgo area on west end of Machine Tool Service

Location 3 & 4

Potential shallow subsurface contamination arising from the dock area of Machine Tool Service

Location 5

Potential shallow subsurface contamination arising from the process area of I Gurman

Location 6

Potential shallow subsurface contamination arising from the drum storage area of I Gurman

Location 7

Potential shallow subsurface contamination arising from the process area of I Gurman

Location 8

Potential shallow subsurface contamination arising from the process area of I Gurman

Location 9

Potential shallow subsurface contamination arising from tank removal at BiState

Location 10

Potential shallow subsurface contamination arising from the storage area of Bistate

Location 11

Potential shallow subsurface contamination arising from the process area of Bistate

Location 12

Potential shallow subsurface contamination arising from the process area of Banks Oil Co.

Section III

PROCEDURES, FIELD OBSERVATIONS AND ANALYTICAL RESULTS

3.1 Introduction

This section outlines the procedures, observations and analytical results of the ESI conducted at IGS.

3.2 Site Representative Interview and Reconnaissance Inspection

On April 24, 1999, Rich Molini, Project Manager and Billy Giles, Geologist, met Robert Gurman of IGS. Following the meeting, the above personnel walked the property of the IGS facility for determining the location of soil borings and monitoring wells as specified in the work plan. Other site information had been gathered during the SSI and resubstantiated during this reconnaissance. Specifically soil samples and historical data retrieved during the SSI aided in determining boring locations and monitoring well locations. After preliminary locations were chosen with the help of Mr. Gurman, existing underground utilities were verified by professional locators. The locations of potential or suspected source areas as noted above is shown on Figures 2-2 & 2-3 and as-built locations of the monitoring wells and soil borings are shown on Figure 3-1 and 3-2. The logic for the chosen locations was enumerated in the work plan and Table 2-1 to coincide with source area assessment.

3.3 Sample procedures and Analytical Results All the soil and groundwater samples from the wells and the soil borings were collected to aid in determining if VOC contaminants detected in the LAWC well field could be attributable to the suspected source areas A and B or any other areas of the IGS site as shown in Figure 2-2 and 2-3.

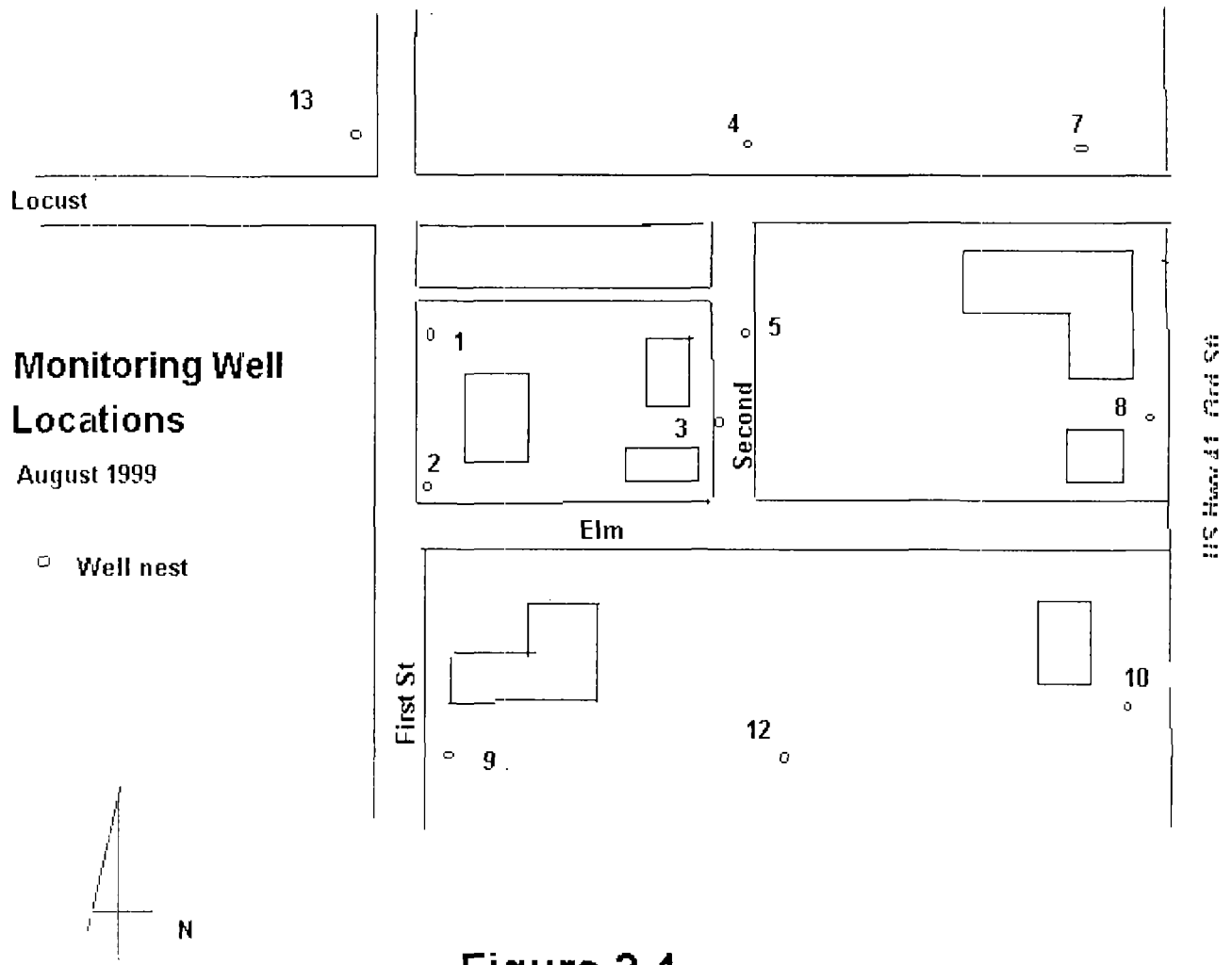


Figure 3-1

Locust

Soil Boring Locations

August 1999

- Soil Boring

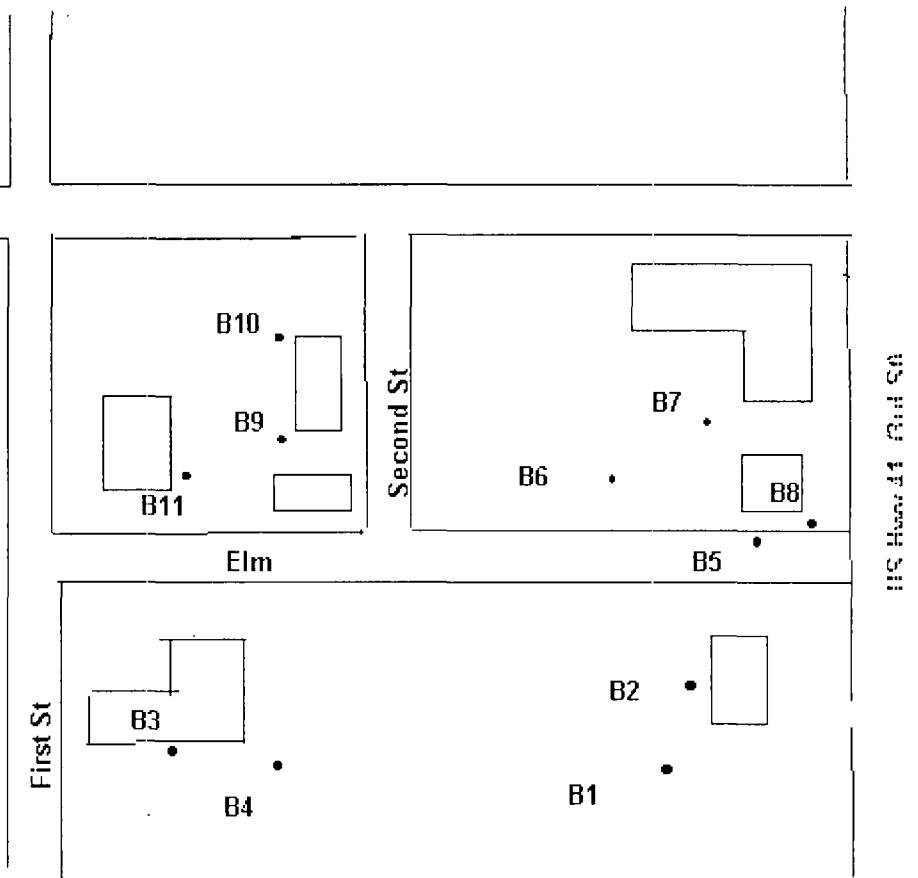
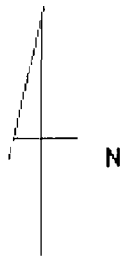


Figure 3-2

3.3.1 Groundwater Wells and Samples

Groundwater monitoring wells were installed at the site utilizing rotasonic technique between July 6 and August 2, 1999. A rotasonic drill rig was chosen to avoid heaving and caving problems associated with thick deposits of sand/sand and gravel. Rotasonic also afforded a great time efficiency in installation and a substantial decrease in drill cuttings which by nature would have to be drummed prior to chemical evaluation. Eleven well nests were completed. Each nest consisted of one deep well completed at the bottom of the aquifer and one shallow water table well completed approximately seven feet below the existing water table. All wells were constructed with 2" PVC and 10 foot of PVC .01 slotted screen. A sand pack was installed to 2 feet above the screen, two feet of bentonite pellets were placed on top of the sand pack, and the remainder of the hole was grouted with bentonite by tremie pipe.

All deep wells were completed in the top foot or so of the shale bedrock which existed approximately 127-137 feet below the ground surface (bgs). The bottom of the screen of the shallow wells ranged from 40 to 54 feet bgs. In addition to the soil sampling, the stratigraphic descriptions from the top of the hole to the bottom of the hole were recorded for each well nest location. The stratigraphy was described and recorded for each deep well location and was subsequently inferred for the shallow well located approximately 5 feet from each deep well. Three solid samples were collected from each deep hole. Solid soil samples were retrieved at depths of 5 and 15 feet from the ground surface and from the bottom of the hole. The soil samples were collected from the fresh core with a disposable plastic scoop. The samplers wore latex gloves which along with scoops were discarded after each sample collection. The drill stem and drill rods were steam cleaned at the decon pad following the completion of

each well. Fresh cores from rotasonic drilling are retrieved from the 10 foot length of drill head in a plastic bag liner. The bag is then slit lengthwise to expose the core. The samples were containerized in a 4 ounce clear glass jar for VOC analysis. No chemical preservatives were utilized. The samples were immediately placed in a cooler and iced. All the cuttings were drummed and stored within the security fence of Indiana American Water Company property awaiting the analytical results for waste determination. No cuttings were determined to be special or hazardous waste. The water samples needed to be retrieved after the wells were properly developed. The water samples were collected approximately 4 weeks after the wells were drilled. One water sample (2 - 40 ml vials for VOC analysis) was collected from each shallow and each deep well. The water samples were retrieved with the aid of a mechanical Keck pump . The depth of the water column was determined at each well with a well wizard and subsequently 3 well volumes were extracted prior to the sample collection. The volumes evacuated averaged about 60 gallons for the deep wells and 30 gallons for the shallow wells. The wizard was deconned with DI water during its removal from each well.

The samples were retrieved from the effluent end of the tubing in the 40 ml vials which contained HCL as a preservative. The purge water was used as the pump flush for each location. The pump and lines were deconned with DI water prior to the first hole and upon removal from each subsequent casing prior to the introduction to the next sample site. Table 4-1 displays the construction data for each well location for the entire project with highlighted information defining the IGS site portion of the data. All soil and water samples were analyzed for volatile organic constituents through the Contract Laboratory Program. Well locations 7 and 8 were considered upgradient wells for the IGS site. (see Table 2-1 page 2-7). Well locations 3 and 5

were considered downgradient of the IGS site. This was initially inferred and later verified by the data shown in Figures 4-1 and 4-2 in the migration pathway discussion.

3.3.2 Soil Borings.

The borings were specifically located (As shown in Figure 3-1 page 3-2) in an attempt to possibly identify surface and/or near subsurface source areas. Borings 6 and 7 were chosen to potentially characterize the drum storage area, and borings 5 and 8 were chosen to characterize conditions around the processing area. Samples were retrieved from depths of 5, 10, and 15 feet below the ground surface at each boring location. The samples were retrieved from the fresh cores using a disposable plastic scoop at each depth, placed in one 4 ounce clear glass jars, and immediately iced in the cooler. The samplers wore latex gloves which were disposed of after each sample bottle was filled. The drill rig and drilling equipment were returned to the decon pad and were steam cleaned before proceeding to the next boring location.

3.3.3 Summary of Sampling

A total of 26 soil samples and 8 water samples including trip blanks, duplicates. And field blanks were collected for the IGS ESI. The samples are identified as follows.

Monitoring Well Soils

ECNK3:MW8D5, ECNK4:MW8D15, and ECNK6:MW8D127:
ECNK5:MW7D5, ECNK9:MW7D15, and ECNL5:MW7D127
ECLN6:MW3D5, ECLN7:MW3D15, and ECNN0:MW3D129
ECNN2:MW5D5, ECNN1&3:MW5D15, and ECNN4: MW5D128

Soil Boring Soil

ECNS3:8B5, ECNS4:8B10, ECNS5:8B15
ECNQ4&4RE:5B5, ECNQ5:5B10, ECNQ6:5B15
ECNR0:6B5, ECNR1:6B10, ECNR2:6B15
ECNQ7:7B5, ECNQ8:7B10, ECNQ9:7B15

Monitoring Well Water

ECNS9:MW8S, ECNT0:MW8D
ECNT2:MW7S, ECNT1:MW7D
ECWL3:MW5S, ECWL2:MW5D
ECNT7:MW3S, ECNT6:MW3D

3.3.4 Analytical Results

The laboratory results from the August 1999 sampling of the IGS sitesite have been determined to be acceptable for use and meet the criteria contained in the Indiana Quality Assurance Project Plan (QAPP) (refer to Analytical Results in Appendix B). Any exceptions to the acceptance of this data will be identified in the QA/QC memorandum by the CLP chemists. Refer to Appendix B.

3.4 Summary Tables and Charts

As previously mentioned VOC analyses were performed on all samples retrieved during this ESI. The following tables contain the significant findings of the ESI. Refer to Appendix ^C~~B~~ for a complete list of the chemical analysis data provided by the CLP laboratory program. The results of the 8-99 water sampling are displayed on Figure 3-4. The figure shows the relative position of the wells in relation to the study area. Notice only one deep well showed any contamination, and that being MW8D with PCE identified at 0.6 ppb. Broadly speaking carbon tetrachloride appears to be ubiquitous at or near the water table in the entire northern portion of the study area. The identification of PCE, TCE, 1,1,1-TCA, and CCl₄ are consistent with the compounds identified in the municipal wells.

Monitoring well 8 data at first may appear to suggest that the water table aquifer degradation is coming from further east. However, prior to the widening of US HWY 41 (3rd Street) the location of MW8 ,while now near the property line between the public right of way and the Gurman property, was certainly well within the Gurman property and part of the process area. Unfortunately, due to the highway overpass and the slope it created we were unable to construct a well any further east without crossing the highway to the east. The soil boring data shown on Figure 3-5 reaffirms the fact that volatile contaminants PCE and TCE are located in the near subsurface soils. These substances could only have migrated to the subsurface from activities which released them on the surface of the site. Consider also the fact that the original SI conducted in 1989 showed a number of volatile constituents at a depth of one foot (last paragraph page 2-5)

In order to be more confident of the results from the August 99 sampling follow-up sampling utilizing state monies was conducted in October of 2000. The results are shown in Figure 3-7 page 3-14.

Two stratigraphic cross sections are displayed in Figure 3-3. The stratigraphy was determined from the inspection and interpretation of the boring and well logs, The first section displays the view from east to west and the other along the flow gradient from northeast to southwest. The stratigraphy illustrates the section is relatively uniform in porosity and transmissivity . Only one low porosity layer is identified and its extent is limited.

MW13 S-PCE 1.0 D-0 MW4 D-0 S-CCL4 0.7 MW7 S-CCL4 0.6 D-0

MW1 S-CCL4 6.0, 111TCA 1.0
TCE 2.0/PCE 5.0

D-0

MW5 S-CCL4 3.0/ 111TCA 0.7
TCE 0.8/PCE 14.0

D-0

MW2 S-TCE4.0/ 111TCA3.0
C1,2DCE2.0/ CCL4 2.0
PCE 7.0

D-0

MW3 D-0
S-PCE 7.0/C1,2DCE 2.0
TCE2.0/ 111TCA 2.0
CCL4 2.0

MW3

D-0

MW8

S-PCE 8.0
CCL4 2.0
111TCA 3.0
11DCA 3.0
C1,2DCE 12.0

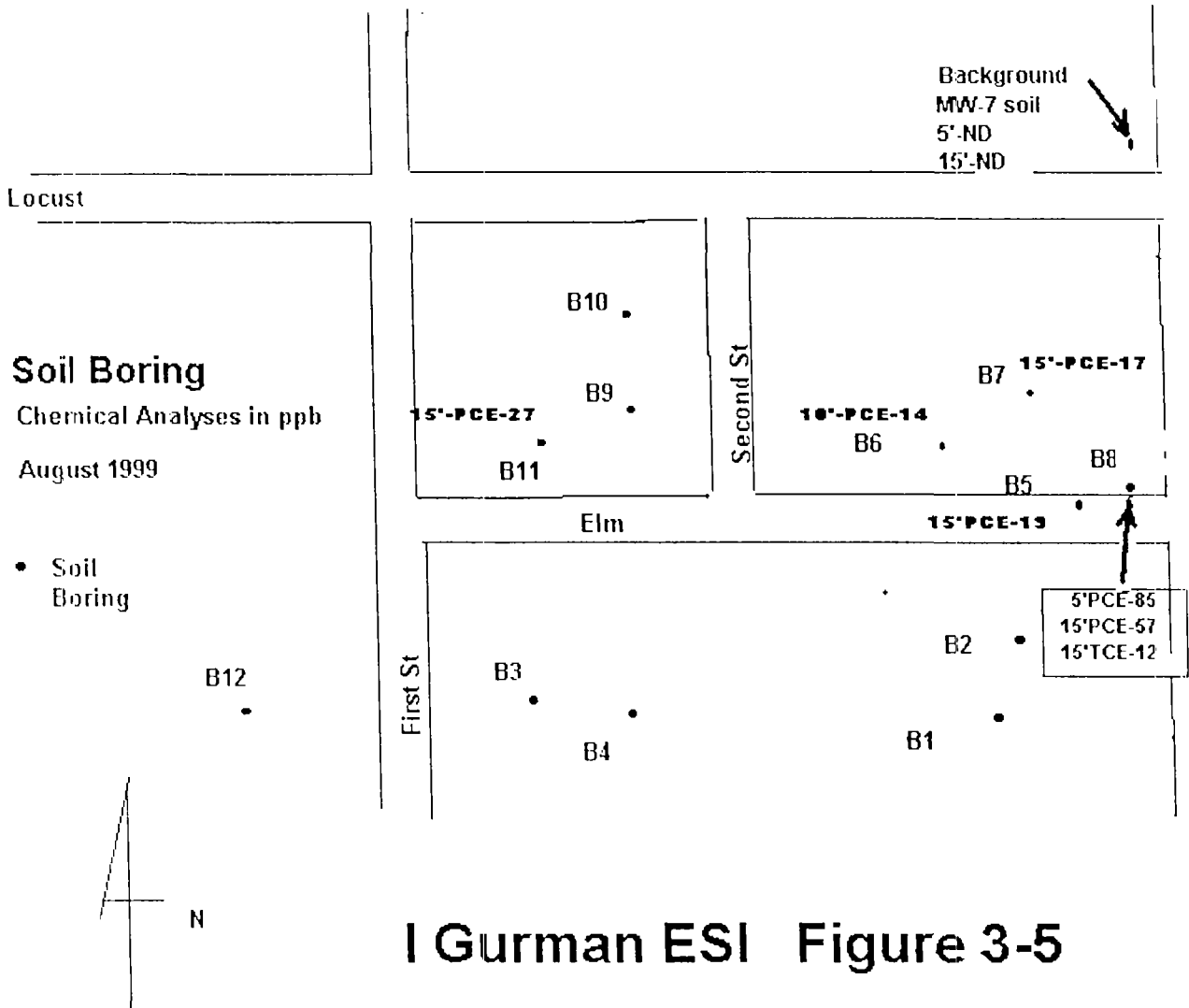
D-PCE0.6

MW9 D-0
S-0

D-0
MW10 S-0

MW12 S-CCL4 2.0/2-BUT 12.0 D-0

I Gurman And Son Monitoring Well Water Chemical Analysis Results Figure 3-4



I Gurman ESI Figure 3-5

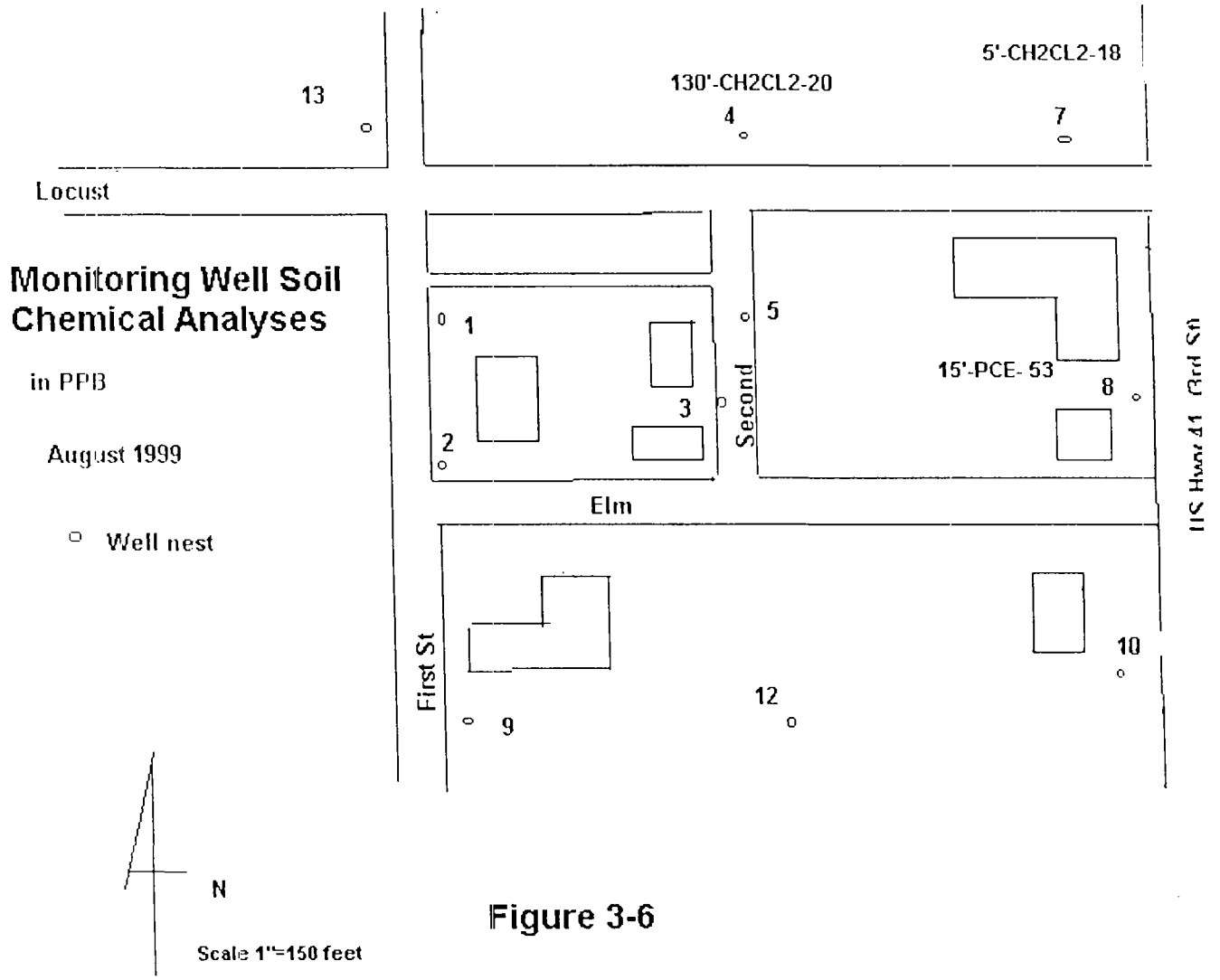


Figure 3-6

**KEY FINDINGS TABLE
I. GURMAN AND SON
MONITORING WELL WATER
ORGANICS ug/kg**

Contaminant	ECNT2 MW7S BKGRD	3X BKGRD	ECNS9 MW8S	ECNT0 MW8D	ECNT7 MW3S	ECWL3 MW5S				
1,1-DCA	0.0	0.0	3.0							
C-1,2-DCE	0.0	0.0	12.0		2.0					
CCl4	0.6	1.8	2.0		2.0	3.0				
1,1,1-TCA	0.0	0.0	3.0		2.0	0.7				
TCE	0.0	0.0			2.0	0.8				
PCE	0.0	0.0	8.0	0.6	7.0	14.0				

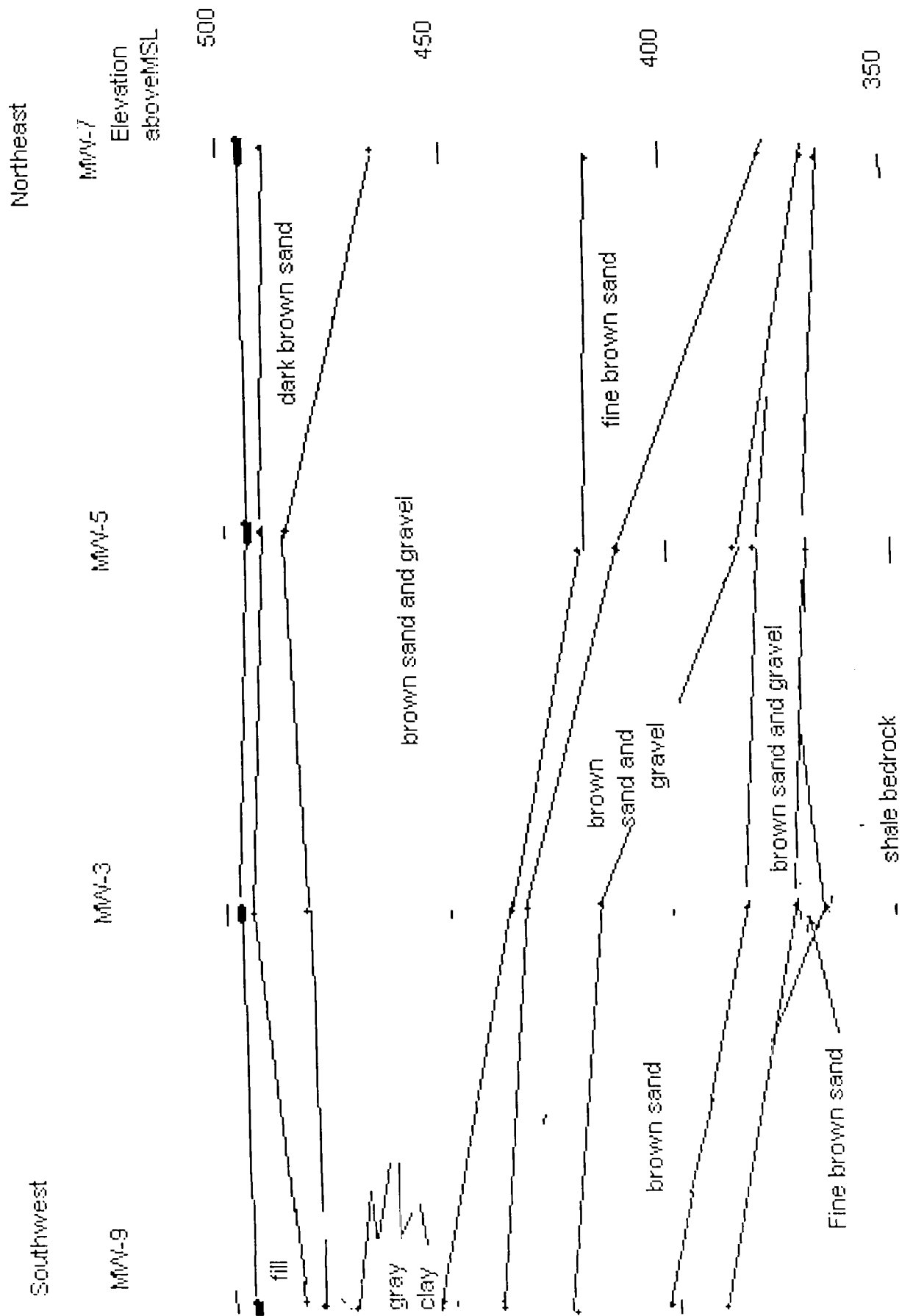
Table 3-1

KEY FINDINGS TABLE (Cont)
I. GURMAN AND SON ORGANICS mg/kg
Soil Boring Soil

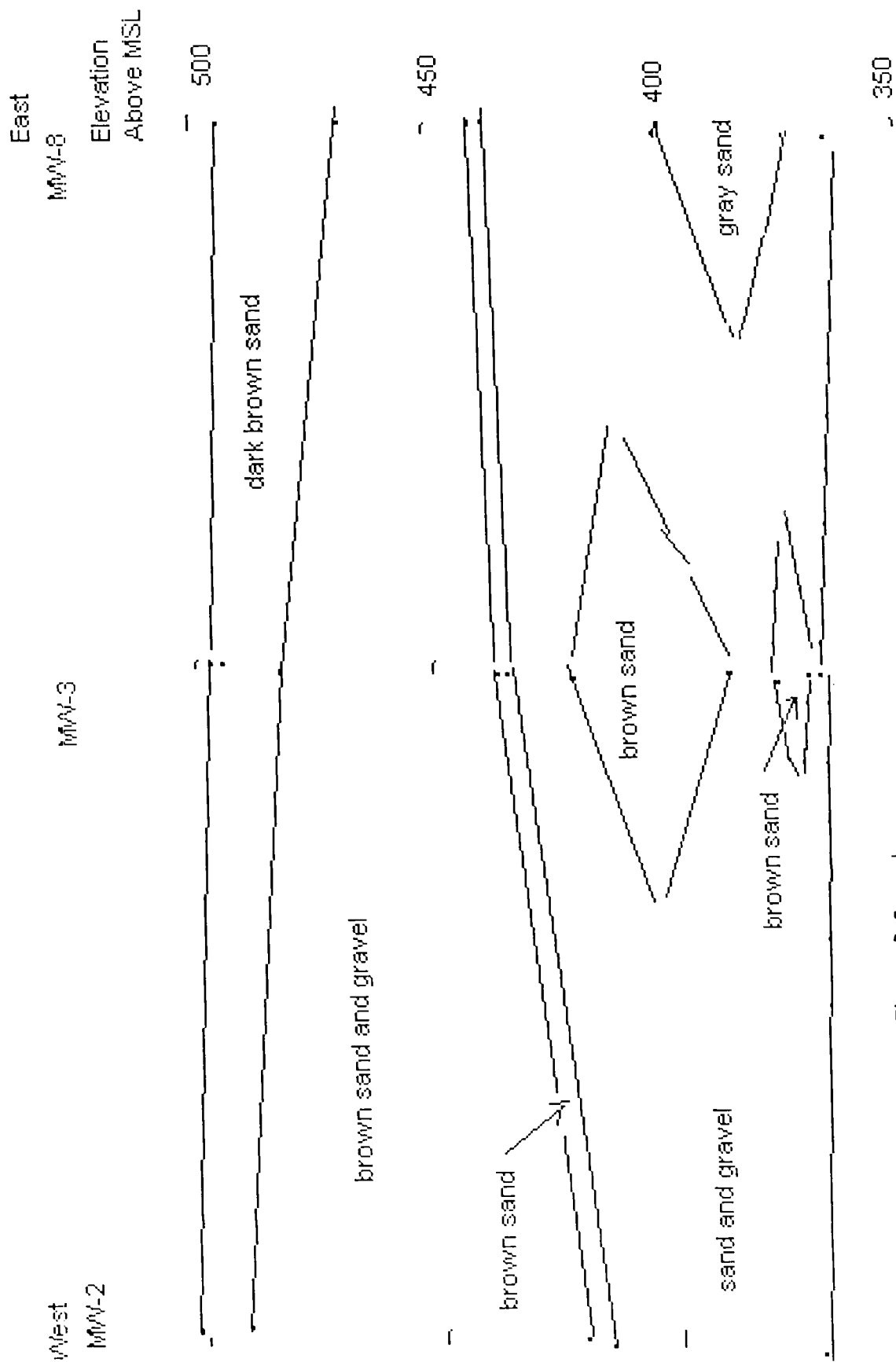
Contaminant	Bkgd 1 MW 7D5 ECNK5	3 X Background 1	8B5 ECNS3	Bkgd 2 MW 7D15 ECNK9	3 X Background 2	7B15 ECNQ9	8B15 ECNS5	6B10 ECNR1
PCE	0.00	0.00	85.00	0.00	0.00	17.00	57.00	14.00
TCE				0.00	0.00		12.00	

MW13	S- PCE 0.5 D-0 CCL4 1.6	MW4	D-0 S-Dry	MW7	S-CCL4 1.8 D-0
MW1	S- CCL4 2.3, /111TCA 2.1 TCE 2.5/ PCE 8.7 D-0	MW5	S- CCL4 1.3/ 111TCA 1.6 TCE 2.2/ PCE 5.3 D-0	MW8	112TCA 2.2 TCE 25.0 S- PCE 22.0 CCL4 0.7 111TCA 10.0 11DCA 11.0 C1,2DCE 44.0 D-PCE 0.9 TCE 0.7
MW2	S- TCE 1.4/ 111TCA 2.1 C1,2DCE 26.0/ CCL4 0.9 PCE 7.6, 11DCA 11.0 D-111TCA 0.5	MW3	D-0 S- PCE 7.2/ C1,2DCE 11.0 TCE 5.9/ 111TCA 4.1 11DCA 5.0/ CCL4 0.6		
MW9	D-111TCA 1.0 S-CCI4 1.4/ 11DCE 0.5 11DCA 9.3/ 111TCA 220	MW12	S- CCL4 3.6/ 11DCE 7.2 11DCA 1.2/ 111TCA 600 D-111TCA 2.8		D-0 MW10 S-CCI4 0.5 111TCA 37

**I Gurman and Son Monitoring Well Water Chemical Analysis Results Figure 3-7
Followup Sampling 10-00**



Stratigraphic Interpretation Figure 3-3



Stratigraphic Interpretation Figure 3-3 cont

SECTION IV

DISCUSSION OF MIGRATION PATHWAYS

4.1 Introduction

The primary potential migration pathway for contaminants emanating from IGS site are through groundwater. The surface water, soils, and air pathways are discussed but are not substantively evaluated in this section.

4.2 Groundwater Pathway

A review of literature and the stratigraphic data collected during the ESI confirms the local area as alluvial and outwash sand and gravel deposits of the Wabash Lowland physiographic province. The topography is gently rolling to relatively flat. The IGS site and this portion of the City of Terre Haute are located up near the top of the Wabash River flood plain. The IAWC well field which is located just west of the site is located on the high cut bank of the Wabash River. The thickness of the sand and gravel deposits are about 130 feet at the IGS site. This sand and gravel is underlain by shale bedrock. The great thickness and aerial extent of the sand and gravel makes this surficial aquifer capable of transmitting large quantities of water. The soils of the area are also very sandy with just slightly more silt than the underlying materials. The soils have rapid permeability and low water holding capacity. Recharge of the aquifer is primarily local from precipitation and because of the local recharge and the lack of any low or moderately impermeable layers above the aquifer it is extremely susceptible to ground surface releases of contaminants.

The primary influences on the rate and direction of this unconfined surficial aquifer flow are the structure of the valley and the flow of the Wabash River. Table 4-1 and Figures 4-1 and 4-2

display limited aquifer data and gradients as measured and recorded on 8-30-99 as part of the ESI. The flow of the groundwater is west southwest toward the Wabash valley. The IGS site appears to be directly upgradient from the IAWC municipal wells and could also affect the collector well located lower in the Wabash Valley approximately 1200 feet west of the IAWC main plant. The deep wells are used only intermittently when demand is high since the collector well was installed to avoid the VOC contamination from the well field. The contaminants that have consistently been detected in the municipal deep wells are TCE (wells 1,2,3,4,6) PCE (1,2,4,5,6) 1,1,1-TCA (1 thru 6) and CCl4 (1 thru 6). Again refer to Figure 3-4 which constitutes a spacial and graphical representation of the contaminants detected in the monitoring wells from the area. Available data indicates IGS can be considered a very likely source of VOC contamination for the well field which serves over 40,000 people.

Although they are not likely affected by the IGS site, there are approximately 1500 private residential wells or approximately 3500 people who drink water from private residential wells located in the same aquifer within a 4 mile radius of the site.

0 to 1/4 mile-	0
1/4 to 1/2	25
1/2 to 1	125
1 to 2	550
2 to 3	1200
3 to 4	1600

The reason that they are not likely affected is that the majority of groundwater flowing southwesterly from the site is discharged to the Wabash River surface water about 1/4 mile from the IGS site. The concentrations are then highly diluted in the surface water and subsequent volatilization suggest that most of the VO compounds leave the water column and are entrained in the atmosphere.

Monitoring Well Physical Data - near IAWC in Terre Haute

Field Preliminary] [Field Verified				
Well	Date Installed	bottom screen approx	surface to water	samples	TOC	bottom screen actual	*8-30-99 TOC to water	*8-30-99 water table	location	
1s	*7-28-99	54			501.77	53.92	49	452.77	5' N of deep	
1d	*7-28-99	135		5,15,134	501.77	137.11	49.1	452.67		
2s		54			501.35	53.7	48.59	452.76	5' N of deep	
2d	*7-26-99	134	47.2	5,15,133	501.31	133.85	48.87	452.44	18' NE of concrete corner	
3s	*7-20-99	48			496.93	47.53	42.6	454.33	5' S of deep	
3d	*7-20-99	130	41	5,15,129	497.12	132.09	42.72	454.4		
4s	*7-13-99	47			497.27		42.42	454.85	5' E of deep	
4d	*7-12-99	131	40.3	5,15,130	497.12		42.23	454.89	68' ENE of hyd&12' n of sdwlk	
5s	*7-23-99	47			496.33	46.19	41.83	454.5	5' N of deep	
5d	*7-22-99	129	40	5,15,128	496.25	128.7	41.72	454.53		
7s	*7-9-99	40			494.8		39.26	455.54	5' E of deep	
7d	*7-8-99	128	40.5	5,15,127	494.88	128.1	39.16	455.72	9' N of sdwalk 36.5' NNW of Hyd	
8s	*7-8-99	42			494.04		38.26	455.66	5' N of deep	
8d	*7-7-99	129	40.2	5,15,127	493.92		38.17	455.87	19' E of fence 55' n of sbldg	
9s	*7-16-99	48			494.97	47.74	42.07	452.9	5' E of deep	
9d	*7-16-99	129	40.9	5,15,128	494.93	130.3	42.09	452.84		
10s	*8-2-99				494.3	44.9	39.19	455.61	5' S of deep	
10d	*8-2-99	129	40.1	5,15,128	494.63		39.11	455.55		
12s	*7-15-99	46			494.51	40.47	45.05	454.04	5' W of deep	
12d	*7-15-99	130	38.7	5,15,127	494.55	128.85	40.46	454.09	50' W of trees 5' N of gravel dr	
13s	*7-14-99	53			501.09		48.31	452.78	5' N of deep	
13d	*7-14-99	136	46.4	5,15,135	501.03		48.17	452.86	55' WNW of hyd	

Table 4-1

*4-3

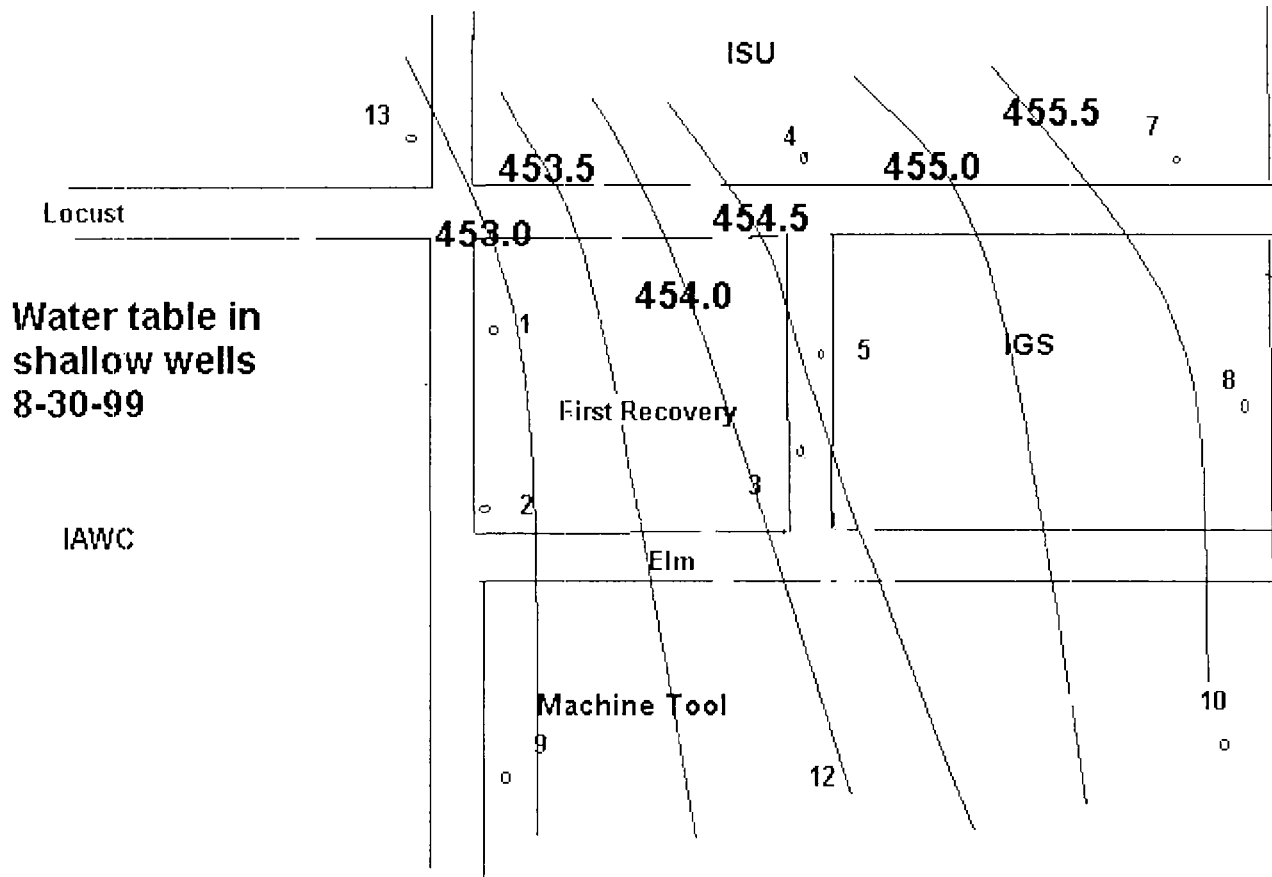


Figure 4-1

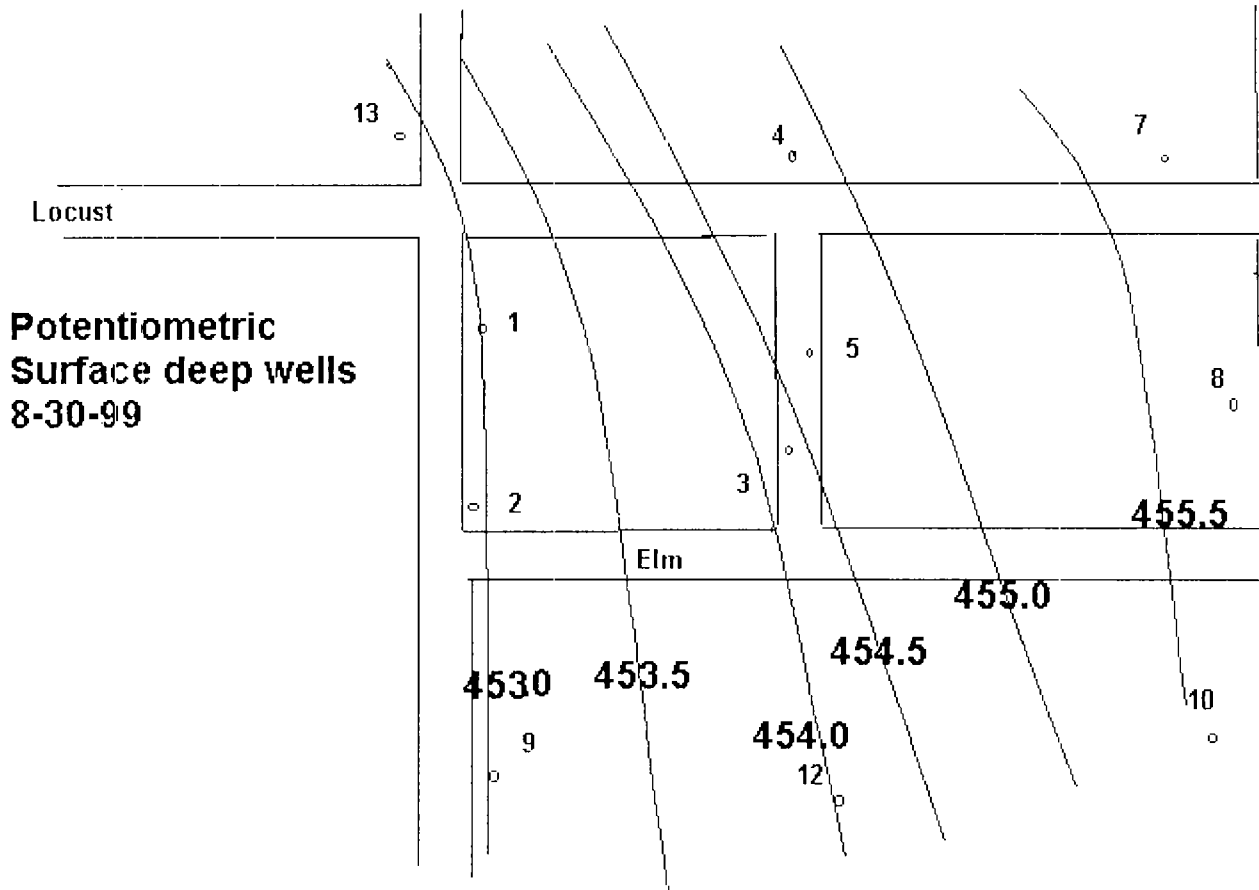


Figure 4-2

4.3 Surface Water Pathway

Surface water runoff on this site is primarily controlled by the flat site topography, rapid infiltration into the sandy surface, and the presence of storm sewers which discharge directly to the Wabash River. No samples were collected to evaluate the surface water pathway since there are no significant water intakes for human consumption nor irrigation within 15 miles from the probable point of entry from the IGS site. Certainly this pathway threat is minor in comparison to the threats posed by that of the groundwater pathway. It is assumed that the storm sewer near the reconditioning area does act as conduit for hazardous substances which have historically accumulated on the site to migrate from the site directly to the Wabash River. The floor drain in the reconditioning area is connected directly to the manhole located southeast of the building. In addition, no obvious overland migration route is evident between the site and the Wabash River.

4.3.1 Drinking Water Threat

The majority of residents within the 4-mile radius of the IGS site obtain drinking water from groundwater through the public water supply of the IAWC wells and private residential wells. As stated previously no significant surface water withdrawal facilities are located on the Wabash River within the 15 mile pathway limit. The drinking water threat is primarily constrained to the ground water pathway as discussed in Section 4.2.

4.3.2 Human Food Chain

No samples were collected to evaluate the surface water pathway. Although hazardous materials may have been historically discharged to the Wabash River via the storm sewer drainage, they are likely currently not of

the particular composition nor quantity to pose a significant threat to the human food chain.

4.3.3 Environmental Threat

The Indiana Department of Natural Resources/Division of Nature Preserves-Heritage Program (IDNR/DNP-HP) documents sensitive environments and/or endangered or threatened species within the State of Indiana. A survey conducted by the IDNR/DNP-HP is attached in Appendix E and indicated that there are no endangered or threatened species or sensitive environments near or within a 15-mile surface water pathway. As discussed previously concentrations of contaminants in the surface water are likely below detection or otherwise very inconsequential.

4.4 Soil Exposure

No soil samples were obtained for the evaluation of this pathway during the IGS ESI. There have been no evidence nor reports of incidents of direct contact with any hazardous substances associated with this site. A soil sample was retrieved during the SSI which was undertaken in 1989. Solvent contaminants were detected within 1 foot of the surface on the IGS site. The site is fenced and limited to employee access.

4.5 Air

No air samples were collected to evaluate this pathway. There is no substantive reason to believe that the evaluation of this pathway is important in determining the environmental significance of the IGS site. Solvent odors were noticeable during the reconnaissance inspection near and around the reconditioning area due to the painting of the reconditioned metal containers. There is no evidence nor are there reports of a threat to human health resulting from the migration of hazardous substances through the air. The volatile substances of concern are not particularly closely associated with nor have an affinity for surficial fugitive dust which may originate from the site due to wind erosion and/or soil disturbance.

Appendix A -Four Mile Radius Map

SDMS US EPA Region V

Imagery Insert Form

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SITE 4-MILE RADIUS PARTIALLY SCANNED



Document is available at the EPA Region 5 Records Center.

Specify Type of Document(s) / Comments:



Site

1/2 Mile Circle

1/4 Mile Circle

Appendix B - Site Photographs

PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 7-28-99

Sample Number: None

Photographer: RM

Direction: _____

Description: Typical section
used for lithologic
description



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 7-28-99

Sample Number: _____

Photographer: RM

Direction: South

Description: Typical core
for sample + description
MW-100



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 7-28-99

Sample Number: None

Photographer: RM

Direction: South

Description: Top of set-up
for rotating drill
MW-10D



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: _____

Sample Number: _____

Photographer: _____

Direction: _____

Description: _____

101 UACB-1WA 10-22-91 (REV.)

→

PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 8/31/99

Sample Number: ECNW2

Photographer: BEG

Direction: _____

Description: On Bistate
Property MW 1-S



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

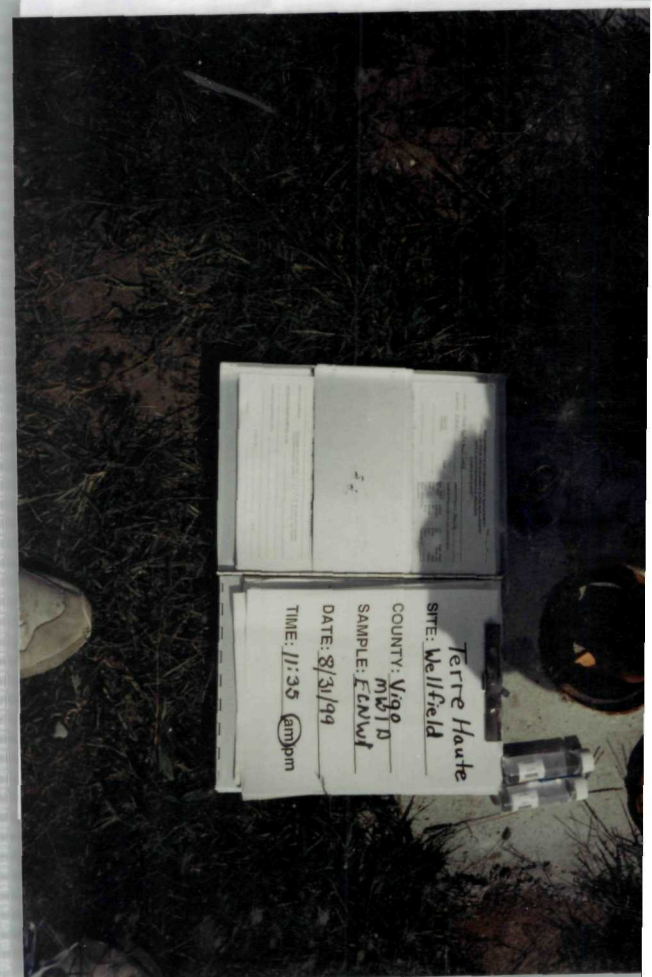
Date: 8/31/99

Sample Number: ECNW1

Photographer: BEG

Direction: _____

Description: On Bistate Property
MW 1-D



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

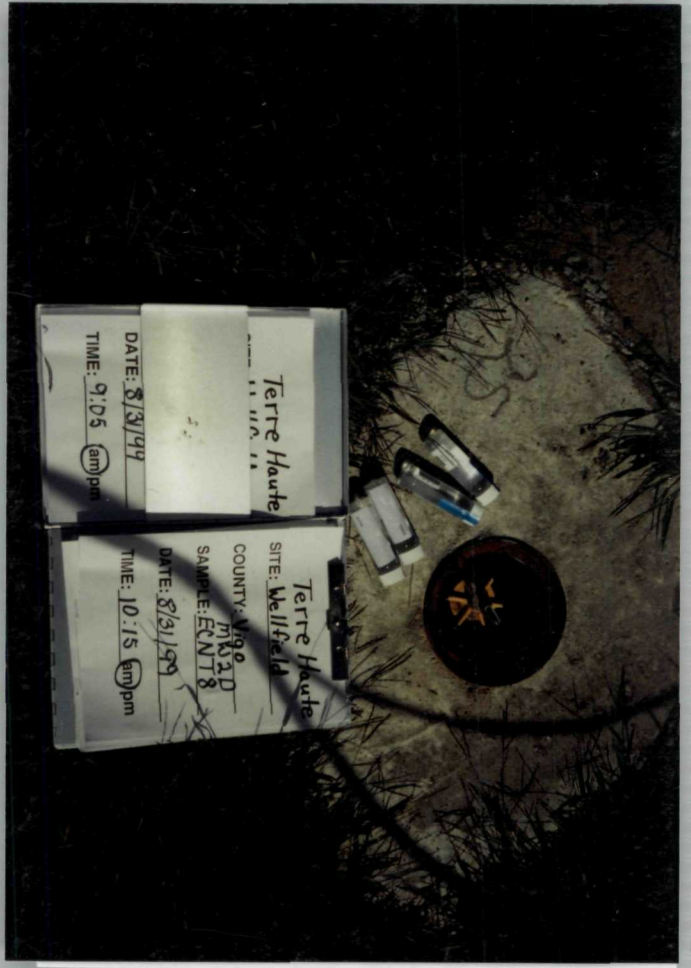
Date: 8/31/99

Sample Number: ECNT8

Photographer: BE6

Direction: _____

Description: B. State Property
MW 2D



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

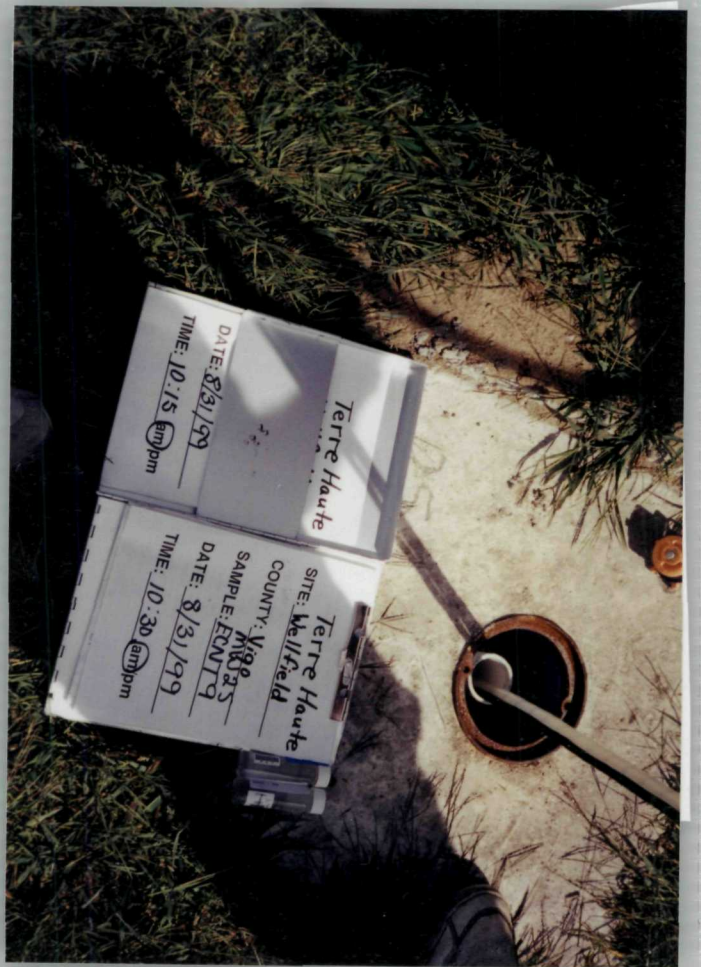
Date: 8/31/99

Sample Number: ECNT9

Photographer: BE6

Direction: _____

Description: MW 2S



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

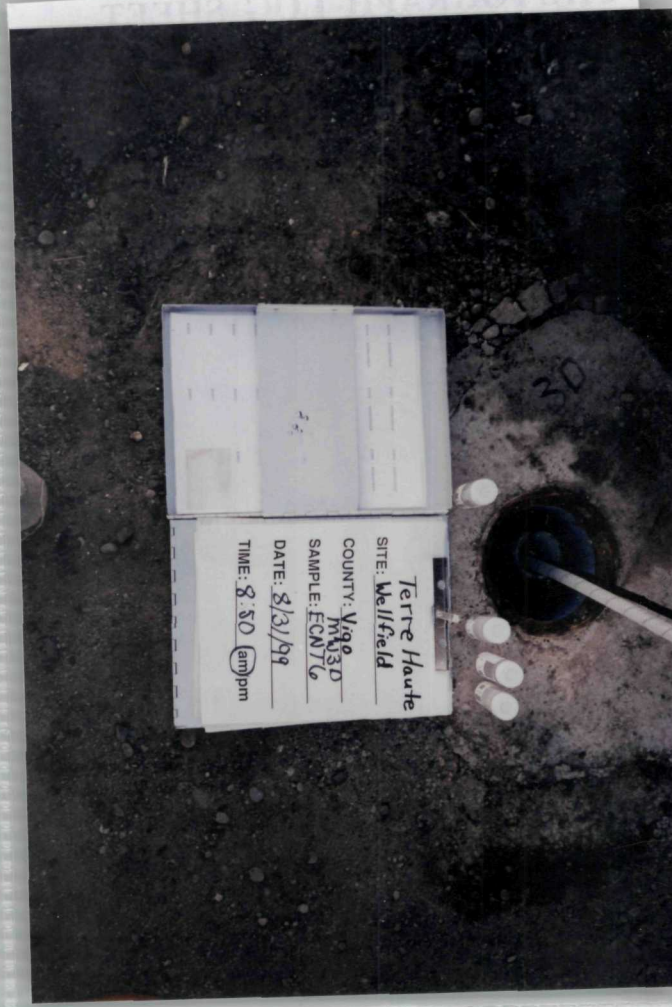
Date: 8/31/99

Sample Number: ECNT6

Photographer: BEG

Direction: _____

Description: MW 3D
2nd Street



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

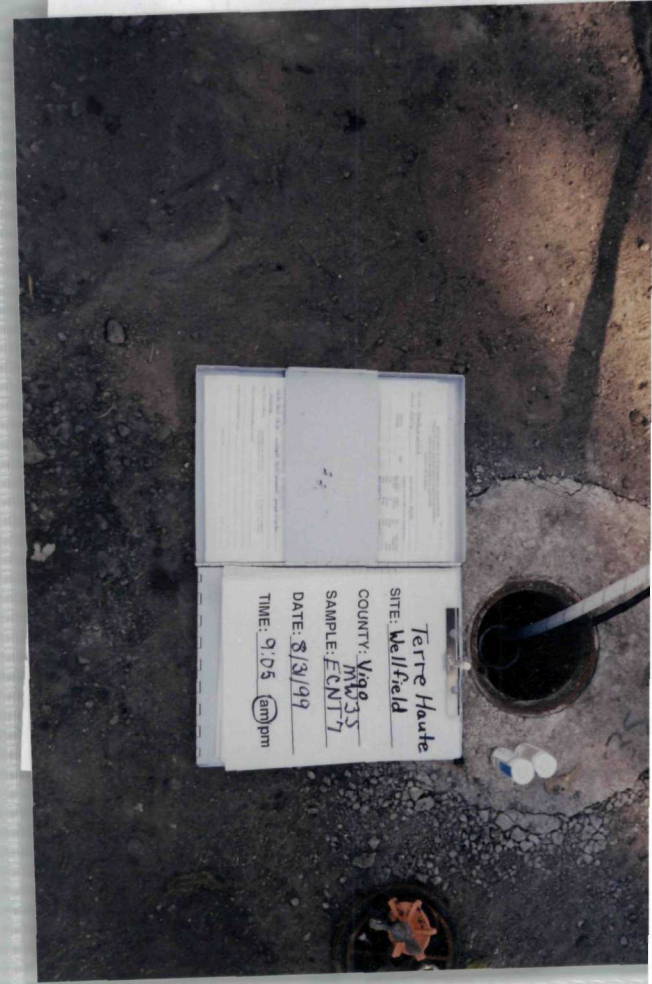
Date: 8/31/99

Sample Number: ECNT7

Photographer: BEG

Direction: _____

Description: MW 3S



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 8/31/99

Sample Number: ECNT4

Photographer:

Direction:

Description: MW 12D



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 8/31/99

Sample Number: ECNT5

Photographer:

Direction:

Description: MW 12S
MTS paper



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 8/31/99

Sample Number: ECWL 2

Photographer: BEG

Direction: _____

Description: MW 5D
2nd Street



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 8/31/99

Sample Number: None

Photographer: RM

Direction: SE

Description: Location of
MW-9 cluster
Typical water supply set-up



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 8/31/99

Sample Number: ECWL6

Photographer:

Direction:

Description: MW 9S



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

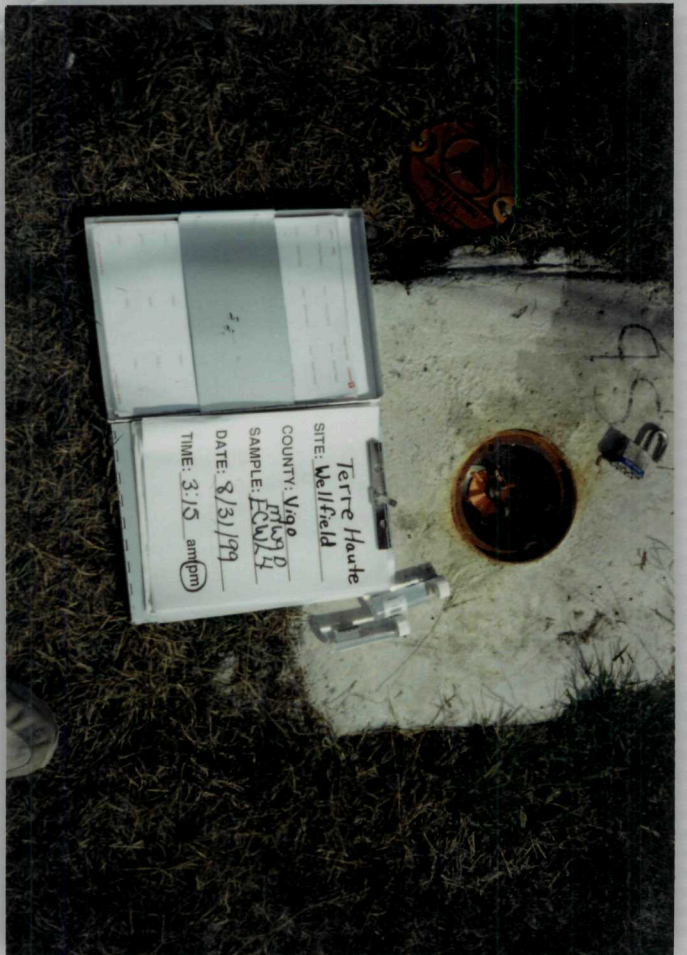
Date: 8/31/99

Sample Number: ECWL4

Photographer: BEG

Direction:

Description: MW 9-D



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 8/30/99

Sample Number: ECWM3

Photographer: BEG

Direction: _____

Description: MW 10 D



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

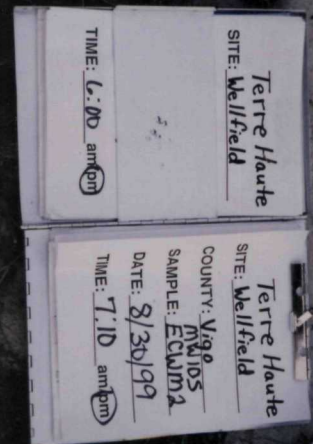
Date: 8/30/99

Sample Number: ECWM2

Photographer: BEG

Direction: _____

Description: MW 10 S



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 8/30/99

Sample Number: ECNTØ

Photographer: BEG

Direction: _____

Description: MW8D between
IG + HWY 31



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 8/30/99

Sample Number: ECNS9

Photographer: BEG

Direction: _____

Description: MW 8S



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 7-28-99

Sample Number: ECNN8

Photographer: BEG

Direction: _____

Description: MW 1-D soil
soil at 5 feet



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 7-29-99

Sample Number: ECNP0

Photographer: RM

Direction: _____

Description: MW-1-D soil
Soil at 15'



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 7-28-99

Sample Number: ECNN8

Photographer: _____

Direction: _____

Description: MW-1-Deep
Soil from 134'
bottom of hole



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 7-29-99

Sample Number: All three
prunice

Photographer: _____

Direction: _____

Description: All three
sample sections
for MW1-D



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 August 99

Sample Number:

Photographer: RM

Direction: NE

Description: Typ D setup for
boring
Boring 1



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 August 99

Sample Number:

Photographer: RM

Direction: N

Description: Typical set up
for boring
Boring 2





PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 8-2-99

Sample Number: ECNP 4

Photographer: P. Molini

Direction:

Description: Boring 1 15' deep
sample - typical



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 August 99

Sample Number: ECNPS

Photographer: P. Molini

Direction: N

Description: Boring 25' 15" deep
Typical

PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

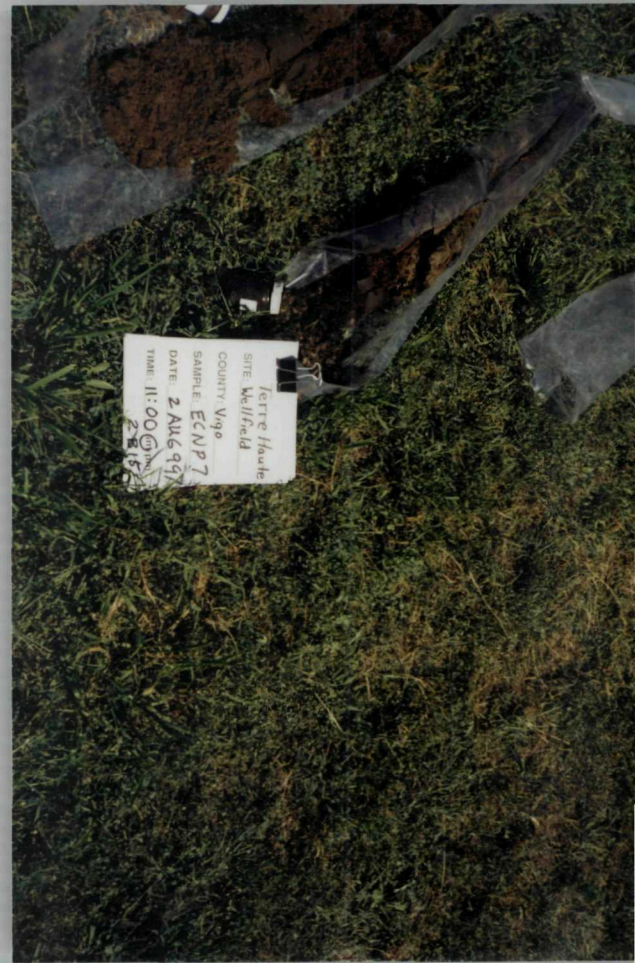
Date: 2 Aug 99

Sample Number: ECNP7

Photographer: Molina

Direction: NE

Description: Boring 2
15'



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

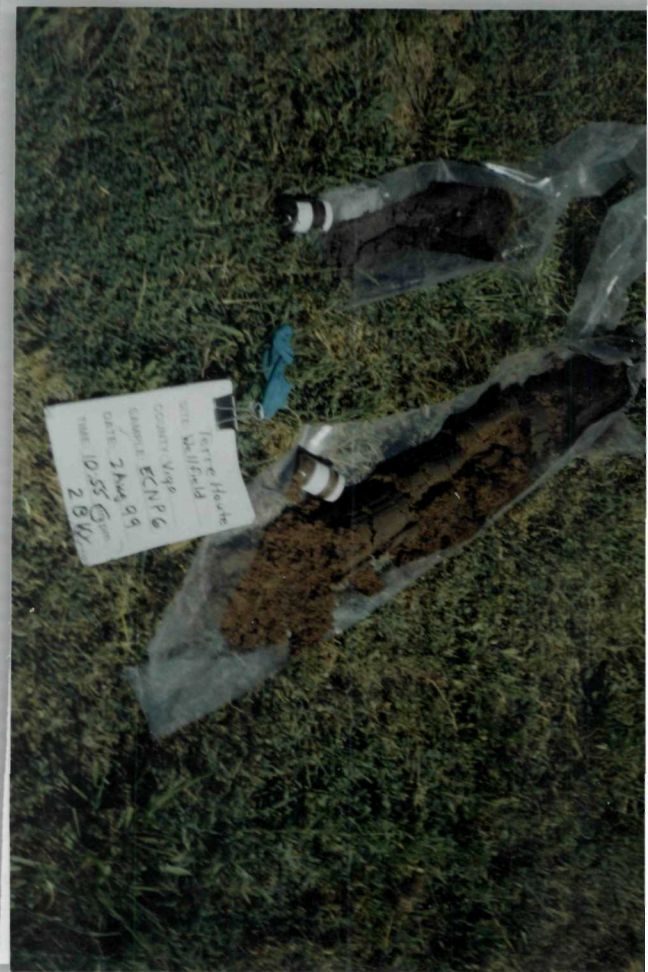
Date: 2 August 99

Sample Number: ECNP6

Photographer: _____

Direction: _____

Description: Boring 2
10'



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number:

Photographer: Molni

Direction: NW

Description: Location
Boring 3



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

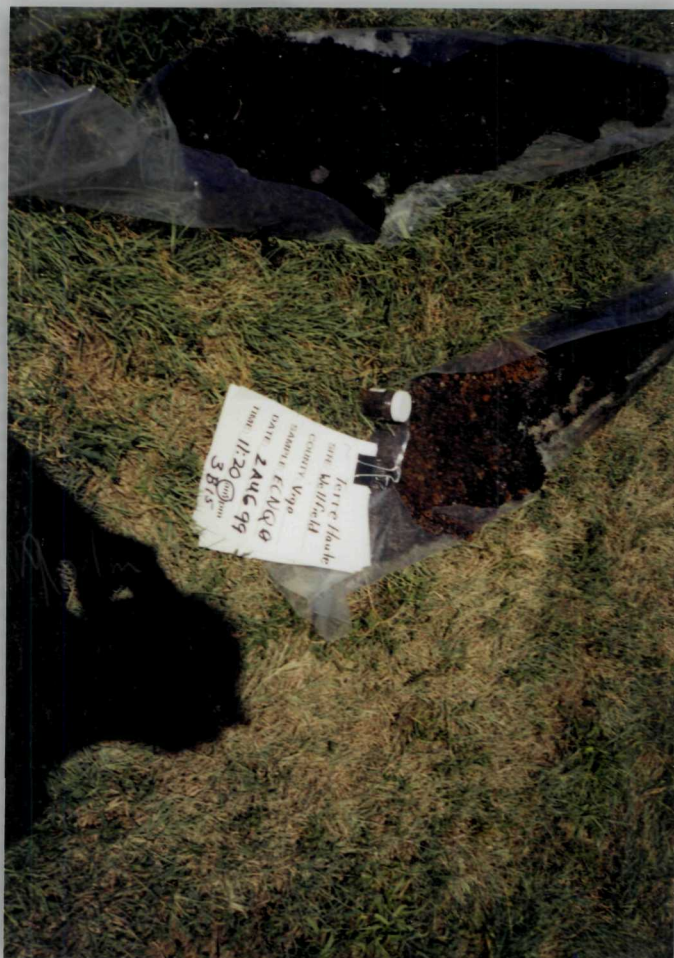
Date: 2 August 99

Sample Number: ECN Q

Photographer: Molni

Direction: NW

Description: Boring 3
15'



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number: ECNP 9

Photographer: Mohi

Direction: NE

Description: Soil boring 3
10'



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number: ECNQ 1

Photographer: Mohi

Direction:

Description: Soil boring 4



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number: ECNQ2

Photographer: Nolan

Direction:

Description: Soil boring 4
10' feet



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number: ECNQ3

Photographer: Nolan

Direction:

Description: Boring 4
15 feet



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number: ECNP8

Photographer: Malin

Direction:

Description: Boring
5'



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number: None

Photographer: Fisher

Direction:

Description: Doug's foot



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 August 99

Sample Number: ECNP3

Photographer: Mohi

Direction:

Description: Bony 1
10'



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number:

Photographer:

Direction:

Description: Bony 1
5, 10, + 13



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 August 99

Sample Number: ECQW4

Photographer: Fisher

Direction:

Description: Boring 5
5'



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date:

Sample Number:

Photographer:

Direction:

Description: Boring 5
10'





PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: _____

Sample Number: _____

Photographer: _____

Direction: _____

Description: Boring

15 feet



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number: ECNR 1

Photographer: Fisher

Direction: _____

Description: Boring

10'

PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 August 99

Sample Number: ECNQ 7

Photographer: Fisher

Direction: East

Description: Boring 7 5'



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number: ECNQ 5

Photographer: Fisher

Direction: NE

Description: Boring 5 15'

5+10 also shown





PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 August 99

Sample Number: ECN 85

Photographer: Fish

Direction: East

Description: Boring 5
10'
typical



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number: ECN 87

Photographer: Fish

Direction: N

Description: Boring 11
5'

PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number: ECN Q8

Photographer: Fisher

Direction:

Description: Boring 7
15'



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

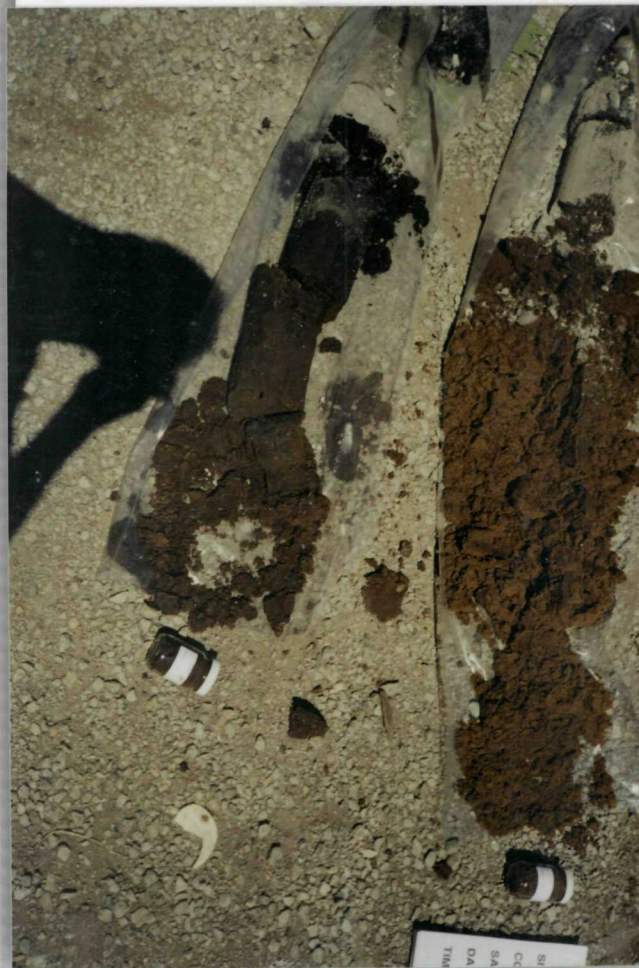
Date: 2 Aug 99

Sample Number:

Photographer: Fisher

Direction:

Description: Boring 7
5 + 10





PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

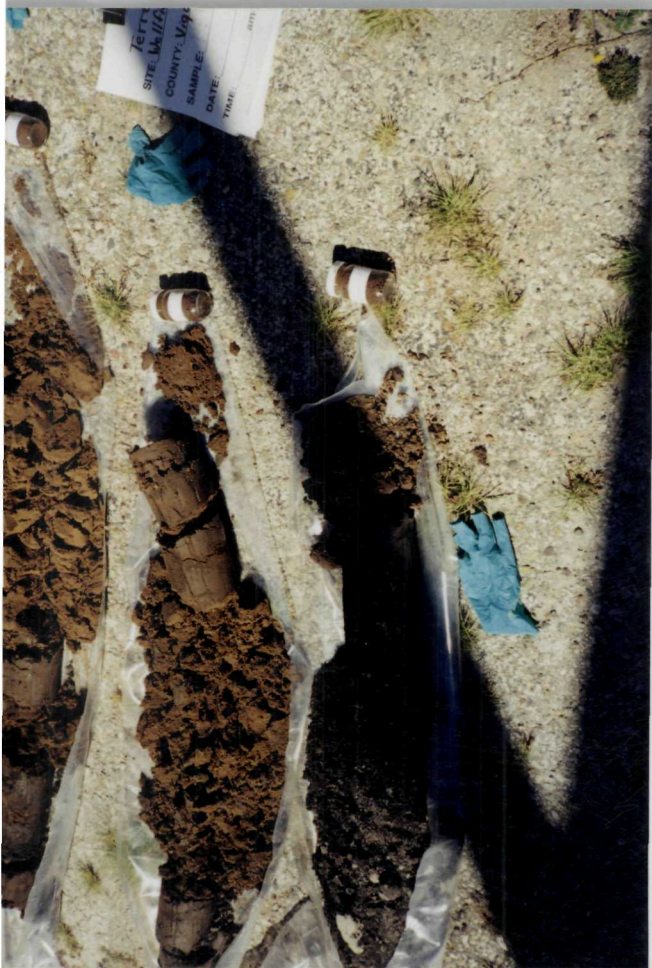
Date: 2 Aug 99

Sample Number: ECNR

Photographer: Fisher

Direction: _____

⁴⁰⁵ Description: 10 + 15
Big 11



PHOTOGRAPH LOG SHEET

Site Name: I Gurman and Son

Date: 2 Aug 99

Sample Number: _____

Photographer: Fisher

Direction: _____

Description: _____

Units : ug/L ug/L
 Date Sampled :
 Time Sampled :
 %Moisture : N/A N/A
 pH :
 Dilution Factor : 1.0 1.0

Volatle Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	10	U	10	U						
BROMOMETHANE	10	U	10	U						
VINYL CHLORIDE	10	U	10	U						
CHLOROETHANE	10	U	10	U						
METHYLENE CHLC	10	U	2	J						
ACETONE	10	UJ	10	UJ						
CARBON DISULFID	10	U	10	U						
1,1-DICHLOROETH	10	U	10	U						
1,1-DICHLOROETH	10	U	10	U						
TOTAL 1,2-DICHLO	10	U	10	U						
CHLOROFORM	10	U	10	U						
1,2-DICHLOROETH	10	U	10	U						
2-BUTANONE	10	UJ	10	UJ						
1,1,1-TRICHLOROE	10	U	10	U						
CARBON TETRACH	10	U	10	U						
BROMODICHLORO	10	U	10	U						
1,2-DICHLOROPRC	10	U	10	U						
CIS-1,3-DICHLORO	10	U	10	U						
TRICHLOROETHEN	10	U	10	U						
DIBROMOCHLORO	10	U	10	U						
1,1,2-TRICHLOROE	10	U	10	U						
BENZENE	10	U	10	U						
TRANS-1,3-DICHLC	10	U	10	U						
BROMOFORM	10	U	10	U						
1-METHYL-2-PENT,	10	U	10	U						
2-HEXANONE	10	UJ	10	UJ						
TETRACHLOROETI	10	U	10	U						
1,1,2,2-TETRACHLC	10	U	10	U						
TOLUENE	10	U	10	U						
CHLOROBENZENE	10	U	10	U						
ETHYLBENZENE	10	U	10	U						
STYRENE	10	U	10	U						
XYLENE (TOTAL)	10	U	10	U						

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

Rec-10-1999
mg

DATE: Oct 6, 1999

SUBJECT: **Review of Data**
Received for Review on September 21, 1999

FROM: **Stephen L. Ostrodka, Chief (SRT-4J)**
Superfund Technical Support Section *OS for SD 10/06/1999*

TO: **Data User: IDEM**

We have reviewed the data for the following case:

Site name: Terre Haute Municipal Well (IN)

Case number: 27178 SDG Number: ECNP2

Number and Type of Samples: 20 soil samples

Sample Numbers: ECNP2-9, ECNQ0-9, ECNR0, ECNR3

Laboratory: ATAS Hrs. for Review: 8 hrs + 0.5 + 0.5 *VA*

Following are our findings:

The data are acceptable and usable with the qualifications described in the attached narrative.

Patricia J. Scott

*30m
Soil*

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

Case Number : 27178
Site Name: Terre Haute Municipal Well (IN)

Page 2 of 7
SDG Number: ECNP2
Laboratory: ATAS

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Twenty soil samples (ECNP2-9, ECNQ0-9, ECNR0, ECNR3) were collected on 08/02/99. The lab received the samples on 08/04/99 in good condition. All samples were analyzed for the list of VOA analytes. All samples were analyzed according to CLP SOW OLMO3.2 3/90.

DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
SOLID & HAZARDOUS WASTE MANAGEMENT
OCT 18 1999
RECEIVED

Prepared By: Steffanie Tobin (Lockheed/ESAT)
Date: September 29, 1999

Case Number : 27178
 Site Name: Terre Haute Municipal Well (IN)

SDG Number: ECNP2
 Laboratory: ATAS

1. HOLDING TIME

No problems were found for this qualification.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No problems were found for this qualification.

3. CALIBRATION

The following volatile samples are associated with a continuing calibration whose corresponding initial calibration has percent relative standard deviation (%RSD) outside primary criteria. Hits are qualified "J" and non-detects are flagged "UJ".

Acetone, 2-Butanone, 2-Hexanone

ECNP2, ECNP2RE, ECNP3, ECNP4, ECNP5, ECNP5RE, ECNP6, ECNP7, ECNP8, ECNP8RE, ECNP9, ECNP9RE, ECNQ0, ECNQ0RE, ECNQ1, ECNQ1RE, ECNQ2, ECNQ2RE, ECNQ3, ECNQ4, ECNQ4RE, ECNQ5, ECNQ6, ECNQ7, ECNQ8, ECNQ9, ECNR0, ECNR3, ECNR3MS, ECNR3MSD, VBLKCR, VBLKCS, VBLKCT, VBLKCU, VBLKCW, VHBLKCW

The following volatile samples are associated with a continuing calibration percent difference (%D) outside primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

Acetone

ECNP2, ECNP2RE, ECNP5RE, ECNP6, ECNP7, ECNP8, ECNP9, ECNQ0, ECNQ1, ECNQ1RE, ECNQ2, ECNQ2RE, ECNQ3, ECNQ4, ECNQ4RE, ECNQ5, ECNQ6, ECNQ7, ECNQ8, ECNQ9, ECNR0, ECNR3, ECNR3MS, ECNR3MSD, VBLKCR, VBLKCT, VBLKCU

2-Butanone, 4-Methyl-2-Pentanone, 2-Hexanone

ECNP2, ECNP2RE, ECNP3, ECNP4, ECNP5, ECNP5RE, ECNP6, ECNP7, ECNP8, ECNP8RE, ECNP9, ECNP9RE, ECNQ0, ECNQ0RE, ECNQ1, ECNQ1RE, ECNQ2, ECNQ2RE, ECNQ3, ECNQ4, ECNQ4RE, ECNQ5, ECNQ6, ECNQ7, ECNQ8, ECNQ9, ECNR0, ECNR3, ECNR3MS, ECNR3MSD, VBLKCR, VBLKCS, VBLKCT, VBLKCU, VBLKCW, VHBLKCW

1,1,2,2-Tetrachloroethane

ECNP3, ECNP4, ECNP5, ECNP5RE, ECNP6, ECNP7, ECNP8RE, ECNP9, ECNP9RE, ECNQ0RE, ECNQ1, ECNQ2, ECNQ3, ECNQ4, ECNQ5, ECNQ6, ECNQ7, ECNQ8, ECNR0, VBLKCS, VBLKCT, VBLKCW, VHBLKCW

4. METHOD BLANKS

The following volatile samples have analyte concentrations reported above the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Hits are qualified "U" and non-detects are not flagged.

Prepared By: Steffanie Tobin (Lockheed/ESAT)

Date: September 29, 1999

Case Number : 27178
Site Name: Terre Haute Municipal Well (IN)

Page 4 of 7
SDG Number: ECNP2
Laboratory: ATAS

Methylene Chloride

ECNP2, ECNP2RE, ECNP3, ECNP5, ECNP5RE, ECNP9, ECNP9RE, ECNP8, ECNP8RE, ECNQ0,
ECNQ1, ECNQ1RE, ECNQ2, ECNQ2RE, ECNQ4, ECNQ4RE, ECNQ9, ECNR3, ECNR3MS,
ECNR3MSD,

Acetone
ECNP5

The following volatile samples have analyte concentrations reported below the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

Methylene Chloride

ECNP4, ECNP6, ECNP7, ECNQ0RE, ECNQ3, ECNQ5, ECNQ6, ECNQ7, ECNQ8, ECNR0

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

The following volatile samples have system monitoring compound recoveries above the upper limit of the criteria window. Hits are qualified "J" and non-detects are not flagged.

ECNP5, ECNP8, ECNP8RE, ECNP9, ECNP9RE, ECNQ0, ECNQ1, ECNQ1RE, ECNQ4

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

No problems were found for this qualification.

7. FIELD BLANK AND FIELD DUPLICATE

None of the samples in this data set are field blanks or field duplicates.

8. INTERNAL STANDARDS

The following volatile samples have internal standard area counts that are outside the lower limit of primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

ECNP2, ECNP8, ECNP8RE, ECNQ0RE, ECNQ2, ECNQ4RE
4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene, 1,1,2,2-Tetrachloroethane, Toluene,
Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

ECNP2RE, ECNP9RE

1,1,1-Trichloroethane, Carbon Tetrachloride, Bromodichloromethane, 1,2-Dichloropropane,
cis-1,3-Dichloropropene, Trichloroethene, Dibromochloromethane, 1,1,2-Trichloroethane, Benzene,
trans-1,3-Dichloropropene, Bromoform, 4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene,
1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

ECNP5, ECNP5RE, ECNP9

1,1,1-Trichloroethane, Carbon Tetrachloride, Bromodichloromethane, 1,2-Dichloropropane, cis-1,3-Dichloropropene, Trichloroethene, Dibromochloromethane, 1,1,2-Trichloroethane, Benzene, trans-1,3-Dichloropropene, Bromoform

ECNQ0, ECNQ1, ECNQ1RE

Chloromethane, Bromomethane, Vinyl Chloride, Chloroethane, Methylene Chloride, Acetone, Carbon Disulfide, 1,1-Dichloroethene, 1,1-Dichloroethane, 1,2-Dichloroethene (total), Chloroform, 1,2-Dichloroethane, 2-Butanone, 1,1,1-Trichloroethane, Carbon Tetrachloride, Bromodichloromethane, 1,2-Dichloropropane, cis-1,3-Dichloropropene, Trichloroethene, Dibromochloromethane, 1,1,2-Trichloroethane, Benzene, trans-1,3-Dichloropropene, Bromoform

ECNQ2RE

Chloromethane, Bromomethane, Vinyl Chloride, Chloroethane, Methylene Chloride, Acetone, Carbon Disulfide, 1,1-Dichloroethene, 1,1-Dichloroethane, 1,2-Dichloroethene (total), Chloroform, 1,2-Dichloroethane, 2-Butanone

ECNQ4

Chloromethane, Bromomethane, Vinyl Chloride, Chloroethane, Methylene Chloride, Acetone, Carbon Disulfide, 1,1-Dichloroethene, 1,1-Dichloroethane, 1,2-Dichloroethene (total), Chloroform, 1,2-Dichloroethane, 2-Butanone, 1,1,1-Trichloroethane, Carbon Tetrachloride, Bromodichloromethane, 1,2-Dichloropropane, cis-1,3-Dichloropropene, Trichloroethene, Dibromochloromethane, 1,1,2-Trichloroethane, Benzene, trans-1,3-Dichloropropene, Bromoform, 4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene, 1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

The following volatile samples have internal standard area counts outside expanded criteria. Hits are qualified "J" and non-detects are qualified "R".

ECNP5, ECNP5RE, ECNP9, ECNQ0, ECNQ1, ECNQ1RE

4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene, 1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

ECNQ2RE

1,1,1-Trichloroethane, Carbon Tetrachloride, Bromodichloromethane, 1,2-Dichloropropane, cis-1,3-Dichloropropene, Trichloroethene, Dibromochloromethane, 1,1,2-Trichloroethane, Benzene, trans-1,3-Dichloropropene, Bromoform, 4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene, 1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms, it appears that all VOA compounds were properly identified.

Case Number : 27178
Site Name: Terre Haute Municipal Well (IN)

Page 6 of 7
SDG Number: ECNP2
Laboratory: ATAS

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The following volatile samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

ECNP3
Chloromethane, Tetrachloroethene

ECNP4
Benzene

ECNP5
Carbon Disulfide, Benzene, Toluene

ECNP5RE, ECNP8, ECNQ0, ECNQ1
Toluene

ECNP7
Xylene (total)

ECNP8RE, ECNP9RE, ECNQ0RE
Toluene, Xylene (total)

ECNP9
Acetone, Toluene, Xylene (total)

ECNQ1RE
Benzene, Toluene, Xylene (total)

ECNQ2
Chloromethane, Benzene, Tetrachloroethene, Toluene, Ethylbenzene, Xylene (total)

ECNQ2RE
Benzene, Toluene

ECNQ3
Methylene Chloride

ECNQ4
Carbon Disulfide, 1,1-Dichloroethane, 1,2-Dichloroethene (total), Trichloroethene, Benzene, Toluene, Ethylbenzene

ECNQ4RE
Toluene, Xylene (total)

Case Number : 27178
Site Name: Terre Haute Municipal Well (IN)

Page 7 of 7
SDG Number: ECNP2
Laboratory: ATAS

ECNQ5
Acetone, Tetrachloroethene

ECNQ6
Acetone, 1,2-Dichloroethene (total), 1,1,1-Trichloroethane, Trichloroethene, 1,1,2-Trichloroethane, Benzene

ECNQ7
1,1-Dichloroethane, Trichloroethene, Tetrachloroethene

ECNQ9
Chloromethane, 2-Butanone, Trichloroethene, Benzene, Toluene

ECNR0
Trichloroethene

ECNR3
Chloromethane, Acetone, Benzene, Toluene

ECNR3MS
Chloromethane, Acetone

VBLKCR, VBLKCS
Methylene Chloride, Acetone

VBLKCT, VBLKCU, VBLKCW, VHBLKCW
Methylene Chloride

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

12. ADDITIONAL INFORMATION

None.

CADRE Data Qualifier Sheet

Qualifiers

Data Qualifier Definitions

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- N The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification.
- NJ The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
- R The data are unusable. (The compound may or may not be present)
- H Sample result is estimated and biased high.
- L Sample result is estimated and biased low.

Volatile Analysis Data - VBLKCR
Tentatively Identified Compounds

LABORATORY: ATAS, INC.

CASE NO: 27178
SDG NO: ECNP2

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.43	6.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 1

Volatile Analysis Data - ECNP2RE
Tentatively Identified Compounds

LABORATORY: ATAS, INC.

CASE NO: 27178
SDG NO: ECNP2

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
66-25-1	HEXANAL	13.32	10.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 2

Volatile Analysis Data - ECNP5
Tentatively Identified Compounds

LABORATORY: ATAS, INC.

CASE NO: 27178
SDG NO: ECNP2

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.53	8.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 3

Volatile Analysis Data - VBLKCT
Tentatively Identified Compounds

LABORATORY: ATAS, INC.

CASE NO: 27178
SDG NO: ECNP2

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.57	6.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 4

Volatile Analysis Data - ECNP5RE
Tentatively Identified Compounds

LABORATORY: ATAS, INC.

CASE NO: 27178
SDG NO: ECNP2

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 5

Volatile Analysis Data - ECNP6
Tentatively Identified Compounds

LABORATORY: ATAS, INC.

CASE NO: 27178
SDG NO: ECNP2

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	8.18	11.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 6

Volatle Analysis Data - ECNP7
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98 PAGE: 7				

Volatle Analysis Data - ECNP9
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.50	70.000	NJB
96-37-7	CYCLOPENTANE, METHYL-	8.32	13.000	NJ
FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98 PAGE: 8				

Volatle Analysis Data - VIBLKCT
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98 PAGE: 9				

Volatle Analysis Data - ECNQ1
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	8.31	7.000	J
	UNKNOWN	13.53	10.000	J
FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98 PAGE: 10				

Volatle Analysis Data - ECNQ2
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.74	41.000	NJ
110-62-3	PENTANAL	11.09	39.000	NJ
	UNKNOWN	12.97	7.000	J
66-25-1	HEXANAL	13.41	310.000	NJ
111-27-3	1-HEXANOL	15.07	19.000	NJ
111-71-7	HEPTANAL	15.60	23.000	NJ
124-13-0	OCTANAL	17.44	17.000	NJ
124-19-6	NONANAL	18.83	10.000	NJ
	UNKNOWN	19.18	8.000	J
FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98 PAGE: 11				

Volatile Analysis Data - ECN05
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.45	14.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 12

Volatile Analysis Data - ECN06
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.45	10.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 13

Volatile Analysis Data - ECN07
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.46	9.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 14

Volatile Analysis Data - ECN08
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.46	10.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 15

Volatile Analysis Data - ECN09
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.44	8.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 16

Volatile Analysis Data - ECN03
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNIDENTIFIED	7.49	12.000	J

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 17

Volatile Analysis Data - VBLKCU
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
54-3	HEXANE	7.46	7.000	NJ

FILE NAME: ECP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 18

Volatile Analysis Data - ECP8
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.80	18.000	NJ

FILE NAME: ECP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 19

Volatile Analysis Data - ECP9
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
541-05-9	CYCLOTRISILOXANE, HEXAMETHYL-	12.84	7.000	NJ

FILE NAME: ECP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 20

Volatile Analysis Data - ECP10
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
108-87-2	CYCLOHEXANE, METHYL-	10.77	10.000	NJ
3073-66-3	CYCLOHEXANE, 1,1,3-TRIMETHYL-	13.53	19.000	NJ
	UNKNOWN	18.84	10.000	J

FILE NAME: ECP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 21

Volatile Analysis Data - ECP11
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	5.82	6.000	J
110-62-3	PENTANAL	10.91	65.000	NJ
71-41-0	1-PENTANOL	12.86	24.000	NJ
66-25-1	HEXANAL	13.33	670.000	NJ
111-27-3	1-HEXANOL	15.02	63.000	NJ
111-71-7	HEPTANAL	15.57	59.000	NJ
124-13-0	OCTANAL	17.43	50.000	NJ
124-19-6	NONANAL	18.83	25.000	NJ

FILE NAME: ECP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 22

Volatile Analysis Data - ECN04RE
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 23

Volatile Analysis Data - ECNR3
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 24

Volatile Analysis Data - VBLKCV
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.36	6.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 25

Volatile Analysis Data - ECNPBRE
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 26

Volatile Analysis Data - ECNP9RE
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 27

Volatile Analysis Data - ECNOORE
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNP2

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	UNKNOWN	6.26	23.000	J
	HEXANE	7.69	160.000	NJ

FILE NAME: ECNP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98

PAGE: 28

Volatile Analysis Data - VHBLKCW
Tentatively Identified Compounds

LABORATORY: ATAS, INC.

CASE NO: 27178
SDG NO: ECP2

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
FILE NAME: ECP2.SDG DATE: 09/09/99 TIME: 09:47 CADRE98				PAGE: 29

Analytical Results (Qualified Data)

Case # 27178
 Site
 Lab :
 Reviewer :
 Date

SDG ECNP2
 TERRE HAUTE MUNICIPAL WELL
 ATAS
 S. Tobin
 09/29/99

Number of Soil Samples : 20
 Number of Water Samples : 0

Sample Number :	ECNP2	ECNP2RE	ECNP3	ECNP4	ECNPS					
Sampling Location :	1B5	1B5	1B10	1B15	2B5					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	08/02/1999	08/02/1999	08/02/1999	08/02/1999	08/02/1999					
Time Sampled :	10:15	10:15	10:30	10:45	10:50					
%Moisture :	8	8	9	5	11					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	11	U	11	U	5	J	10	U	11	U
BROMOMETHANE	11	U	11	U	11	U	10	U	11	U
VINYL CHLORIDE	11	U	11	U	11	U	10	U	11	U
CHLOROETHANE	11	U	11	U	11	U	10	U	11	U
METHYLENE CHLORIDE	12	U	14	U	11	U	10	U	17	U
ACETONE	11	UJ	11	UJ	11	UJ	10	UJ	12	UJ
CARBON DISULFIDE	11	U	11	U	11	U	10	U	1	J
1,1-DICHLOROETHENE	11	U	11	U	11	U	10	U	11	U
1,1-DICHLOROETHANE	11	U	11	U	11	U	10	U	11	U
TOTAL 1,2-DICHLOROETHENE	11	U	11	U	11	U	10	U	11	U
CHLOROFORM	11	U	11	U	11	U	10	U	11	U
1,2-DICHLOROETHANE	11	U	11	U	11	U	10	U	11	U
2-BUTANONE	11	UJ	11	UJ	11	UJ	10	UJ	11	UJ
1,1,1-TRICHLOROETHANE	11	U	11	UJ	11	U	10	U	11	UJ
CARBON TETRACHLORIDE	11	U	11	UJ	11	U	10	U	11	UJ
BROMODICHLOROMETHANE	11	U	11	UJ	11	U	10	U	11	UJ
1,2-DICHLOROPROPANE	11	U	11	UJ	11	U	10	U	11	UJ
CIS-1,3-DICHLOROPROPENE	11	U	11	UJ	11	U	10	U	11	UJ
TRICHLOROETHENE	11	U	11	UJ	11	U	10	U	11	UJ
DIBROMOCHLOROMETHANE	11	U	11	UJ	11	U	10	U	11	UJ
1,1,2-TRICHLOROETHANE	11	U	11	UJ	11	U	10	U	11	UJ
BENZENE	11	U	11	UJ	11	U	2	J	8	J
TRANS-1,3-DICHLOROPROPENE	11	U	11	UJ	11	U	10	U	11	UJ
BROMOFORM	11	U	11	UJ	11	U	10	U	11	UJ
4-METHYL-2-PENTANONE	11	UJ	11	UJ	11	UJ	10	UJ	11	R
2-HEXANONE	11	UJ	11	UJ	11	UJ	10	UJ	11	R
TETRACHLOROETHENE	11	UJ	11	UJ	1	J	10	U	11	R
1,1,2,2-TETRACHLOROETHANE	11	UJ	11	UJ	11	UJ	10	UJ	11	R
TOLUENE	11	UJ	11	UJ	11	U	10	U	4	J
CHLOROBENZENE	11	UJ	11	UJ	11	U	10	U	11	R
ETHYLBENZENE	11	UJ	11	UJ	11	U	10	U	11	R
STYRENE	11	UJ	11	UJ	11	U	10	U	11	R
XYLENE (TOTAL)	11	UJ	11	UJ	11	U	10	U	11	R

Analytical Results (Qualified Data)

Case #: 27178

SDG : ECNP2

Site :

TERRE HAUTE MUNICIPAL WELL

Lab. :

ATAS

Reviewer :

S. Tobin

Date :

09/29/99

Number of Soil Samples : 20

Number of Water Samples : 0

Sample Number :	ECNP5RE		ECNP6		ECNP7		ECNP8		ECNP8RE	
Sampling Location :	2B5		2B10		2B15		3B5		3B5	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	08/02/1999		08/02/1999		08/02/1999		08/02/1999		08/02/1999	
Time Sampled :	10:50		10:55		11:00		11:10		11:10	
%Moisture :	11		14		12		20		20	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	11	U	12	U	11	U	12	U	12	U
BROMOMETHANE	11	U	12	U	11	U	12	U	12	U
VINYL CHLORIDE	11	U	12	U	11	U	12	U	12	U
CHLOROETHANE	11	U	12	U	11	U	12	U	12	U
METHYLENE CHLORIDE	12	U	12	U	11	U	31	U	35	U
ACETONE	11	UJ	12	UJ	11	UJ	12	UJ	12	UJ
CARBON DISULFIDE	11	U	12	U	11	U	12	U	12	U
1,1-DICHLOROETHENE	11	U	12	U	11	U	12	U	12	U
1,1-DICHLOROETHANE	11	U	12	U	11	U	12	U	12	U
TOTAL 1,2-DICHLOROETHENE	11	U	12	U	11	U	12	U	12	U
CHLOROFORM	11	U	12	U	11	U	12	U	12	U
1,2-DICHLOROETHANE	11	U	12	U	11	U	12	U	12	U
2-BUTANONE	11	UJ	12	UJ	11	UJ	12	UJ	12	UJ
1,1,1-TRICHLOROETHANE	11	UJ	12	U	11	U	12	U	12	U
CARBON TETRACHLORIDE	11	UJ	12	U	11	U	12	U	12	U
BROMODICHLOROMETHANE	11	UJ	12	U	11	U	12	U	12	U
1,2-DICHLOROPROPANE	11	UJ	12	U	11	U	12	U	12	U
CIS-1,3-DICHLOROPROPENE	11	UJ	12	U	11	U	12	U	12	U
TRICHLOROETHENE	11	UJ	12	U	11	U	12	U	12	U
DIBROMOCHLOROMETHANE	11	UJ	12	U	11	U	12	U	12	U
1,1,2-TRICHLOROETHANE	11	UJ	12	U	11	U	12	U	12	U
BENZENE	11	UJ	12	U	11	U	12	U	12	U
TRANS-1,3-DICHLOROPROPENE	11	UJ	12	U	11	U	12	U	12	U
BROMOFORM	11	UJ	12	U	11	U	12	U	12	U
4-METHYL-2-PENTANONE	11	R	12	UJ	11	UJ	12	UJ	12	UJ
2-HEXANONE	11	R	12	UJ	11	UJ	12	UJ	12	UJ
TETRACHLOROETHENE	11	R	12	U	11	U	12	UJ	12	UJ
1,1,2,2-TETRACHLOROETHANE	11	R	12	UJ	11	UJ	12	UJ	12	UJ
TOLUENE	1	J	12	U	11	U	10	J	5	J
CHLOROENZENE	11	R	12	U	11	U	12	UJ	12	UJ
ETHYLBENZENE	11	R	12	U	11	U	12	UJ	12	UJ
STYRENE	11	R	12	U	11	U	12	UJ	12	UJ
XYLENE (TOTAL)	11	R	12	U	3	J	12	UJ	4	J

Analytical Results (Qualified Data)

Case # 27178
 Site :
 Lab :
 Reviewer :
 Date :

SDG : ECNP2
 TERRE HAUTE MUNICIPAL WELL
 ATAS
 S. Tobin
 09/29/99

Number of Soil Samples : 20
 Number of Water Samples : 0

Sample Number :	ECNP9	ECNP9RE	ECNQ0	ECNQ0RE	ECNQ1					
Sampling Location :	3B10	3B10	3B15	3B15	4B5					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	08/02/1999	08/02/1999	08/02/1999	08/02/1999	08/02/1999					
Time Sampled :	11:15	11:15	11:20	11:20	12:30					
%Moisture :	18	18	21	21	24					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	12	U	12	U	13	UJ	13	U	13	UJ
BROMOMETHANE	12	U	12	U	13	UJ	13	U	13	UJ
VINYL CHLORIDE	12	U	12	U	13	UJ	13	U	13	UJ
CHLOROETHANE	12	U	12	U	13	UJ	13	U	13	UJ
METHYLENE CHLORIDE	14	U	25	U	24	UJ	13	U	34	UJ
ACETONE	7	J	7	UJ	13	UJ	13	UJ	13	UJ
CARBON DISULFIDE	12	U	12	U	13	UJ	13	U	13	UJ
1,1-DICHLOROETHENE	12	U	12	U	13	UJ	13	U	13	UJ
1,1-DICHLOROETHANE	12	U	12	U	13	UJ	13	U	13	UJ
TOTAL 1,2-DICHLOROETHENE	12	U	12	U	13	UJ	13	U	13	UJ
CHLOROFORM	12	U	12	U	13	UJ	13	U	13	UJ
1,2-DICHLOROETHANE	12	U	12	U	13	UJ	13	U	13	UJ
2-BUTANONE	12	UJ	12	UJ	13	UJ	13	UJ	13	UJ
1,1,1-TRICHLOROETHANE	12	UJ	12	UJ	13	UJ	13	U	13	UJ
CARBON TETRACHLORIDE	12	UJ	12	UJ	13	UJ	13	U	13	UJ
BROMODICHLOROMETHANE	12	UJ	12	UJ	13	UJ	13	U	13	UJ
1,2-DICHLOROPROPANE	12	UJ	12	UJ	13	UJ	13	U	13	UJ
CIS-1,3-DICHLOROPROPENE	12	UJ	12	UJ	13	UJ	13	U	13	UJ
TRICHLOROETHENE	12	UJ	12	UJ	13	UJ	13	U	13	UJ
DIBROMOCHLOROMETHANE	12	UJ	12	UJ	13	UJ	13	U	13	UJ
1,1,2-TRICHLOROETHANE	12	UJ	12	UJ	13	UJ	13	U	13	UJ
BENZENE	12	UJ	12	UJ	13	UJ	13	U	13	UJ
TRANS-1,3-DICHLOROPROPENE	12	UJ	12	UJ	13	UJ	13	U	13	UJ
BROMOFORM	12	UJ	12	UJ	13	UJ	13	U	13	UJ
4-METHYL-2-PENTANONE	12	R	12	UJ	13	R	13	UJ	13	R
2-HEXANONE	12	R	12	UJ	13	R	13	UJ	13	R
TETRACHLOROETHENE	12	R	12	UJ	13	R	13	UJ	13	R
1,1,2,2-TETRACHLOROETHANE	12	R	12	UJ	13	R	13	UJ	13	R
TOLUENE	4	J	6	J	5	J	3	J	4	J
CHLOROBENZENE	12	R	12	UJ	13	R	13	UJ	13	R
ETHYLBENZENE	12	R	12	UJ	13	R	13	UJ	13	R
STYRENE	12	R	12	UJ	13	R	13	UJ	13	R
XYLENE (TOTAL)	3	J	5	J	13	R	3	J	13	R

Analytical Results (Qualified Data)

Case #: 27178

SDG : ECNP2

Site :

TERRE HAUTE MUNICIPAL WELL

Number of Soil Samples : 20

Lab. :

ATAS

Number of Water Samples : 0

Reviewer :

S. Tobin

Date :

09/29/99

Sample Number :	ECNQ1RE		ECNQ2		ECNQ2RE		ECNQ3		ECNQ4	
Sampling Location :	4B5		4B10		4B10		4B15		5B5	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	08/02/1999		08/02/1999		08/02/1999		08/02/1999		08/02/1999	
Time Sampled :	12:30		12:35		12:35		12:40		12:53	
%Moisture :	24		20		20		19		9	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	13	UJ	6	J	12	UJ	12	U	11	UJ
BROMOMETHANE	13	UJ	12	U	12	UJ	12	U	11	UJ
VINYL CHLORIDE	13	UJ	12	U	12	UJ	12	U	11	UJ
CHLOROETHANE	13	UJ	12	U	12	UJ	12	U	11	UJ
METHYLENE CHLORIDE	39	UJ	19	U	29	UJ	12	U	20	UJ
ACETONE	21	J	56	J	62	J	12	UJ	11	UJ
CARBON DISULFIDE	13	UJ	12	U	12	UJ	12	U	2	J
1,1-DICHLOROETHENE	13	UJ	12	U	12	UJ	12	U	11	UJ
1,1-DICHLOROETHANE	13	UJ	12	U	12	UJ	12	U	2	J
TOTAL 1,2-DICHLOROETHENE	13	UJ	12	U	12	UJ	12	U	2	J
CHLOROFORM	13	UJ	12	U	12	UJ	12	U	11	UJ
1,2-DICHLOROETHANE	13	UJ	12	U	12	UJ	12	U	11	UJ
2-BUTANONE	13	UJ	12	UJ	12	UJ	12	UJ	11	UJ
1,1,1-TRICHLOROETHANE	13	UJ	12	U	12	R	12	U	11	UJ
CARBON TETRACHLORIDE	13	UJ	12	U	12	R	12	U	11	UJ
BROMODICHLOROMETHANE	13	UJ	12	U	12	R	12	U	11	UJ
1,2-DICHLOROPROPANE	13	UJ	12	U	12	R	12	U	11	UJ
CIS-1,3-DICHLOROPROPENE	13	UJ	12	U	12	R	12	U	11	UJ
TRICHLOROETHENE	13	UJ	12	U	12	R	12	U	4	J
DIBROMOCHLOROMETHANE	13	UJ	12	U	12	R	12	U	11	UJ
1,1,2-TRICHLOROETHANE	13	UJ	12	U	12	R	12	U	11	UJ
BENZENE	1	J	2	J	3	J	12	U	8	J
TRANS-1,3-DICHLOROPROPENE	13	UJ	12	U	12	R	12	U	11	UJ
BROMOFORM	13	UJ	12	U	12	R	12	U	11	UJ
4-METHYL-2-PENTANONE	13	R	12	UJ	12	R	12	UJ	11	UJ
2-HEXANONE	13	R	12	UJ	12	R	12	UJ	11	UJ
TETRACHLOROETHENE	13	R	2	J	12	R	12	U	11	UJ
1,1,2,2-TETRACHLOROETHANE	13	R	12	UJ	12	R	12	UJ	11	UJ
TOLUENE	9	J	6	J	9	J	12	U	9	J
CHLOROBENZENE	13	R	12	UJ	12	R	12	U	11	UJ
ETHYLBENZENE	13	R	2	J	12	R	12	U	3	J
STYRENE	13	R	12	UJ	12	R	12	U	11	UJ
XYLENE (TOTAL)	2	J	10	J	12	R	12	U	11	J

Analytical Results (Qualified Data)

Case #: 27178
 Site :
 Lab :
 Reviewer :
 Date :

SDG ECNP2
 TERRE HAUTE MUNICIPAL WELL
 ATAS
 S. Tobin
 09/29/99

Number of Soil Samples : 20
 Number of Water Samples : 0

Sample Number :	ECNQ4RE	ECNQ5	ECNQ6	ECNQ7	ECNQ8
Sampling Location :	5B5	5B10	5B15	7B5	7B10
Matrix :	Soil	Soil	Soil	Soil	Soil
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Date Sampled :	08/02/1999	08/02/1999	08/02/1999	08/02/1999	08/02/1999
Time Sampled :	12:53	12:58	01:05	01:35	01:40
%Moisture	9	12	21	13	9
pH :					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0

Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	11	U	11	U	13	U	11	U	11	U
BROMOMETHANE	11	U	11	U	13	U	11	U	11	U
VINYL CHLORIDE	11	U	11	U	13	U	11	U	11	U
CHLOROETHANE	11	U	11	U	13	U	11	U	11	U
METHYLENE CHLORIDE	28	U	11	U	13	U	11	U	11	U
ACETONE	21	J	7	J	7	J	11	U	11	U
CARBON DISULFIDE	11	U	11	U	13	U	11	U	11	U
1,1-DICHLOROETHENE	11	U	11	U	13	U	11	U	11	U
1,1-DICHLOROETHANE	11	U	11	U	13	U	4	J	11	U
TOTAL 1,2-DICHLOROETHENE	11	U	11	U	4	J	16		11	U
CHLOROFORM	11	U	11	U	13	U	11	U	11	U
1,2-DICHLOROETHANE	11	U	11	U	13	U	11	U	11	U
2-BUTANONE	11	U	11	U	13	U	11	U	11	U
1,1,1-TRICHLOROETHANE	11	U	11	U	2	J	11	U	11	U
CARBON TETRACHLORIDE	11	U	11	U	13	U	11	U	11	U
BROMODICHLOROMETHANE	11	U	11	U	13	U	11	U	11	U
1,2-DICHLOROPROPANE	11	U	11	U	13	U	11	U	11	U
CIS-1,3-DICHLOROPROPENE	11	U	11	U	13	U	11	U	11	U
TRICHLOROETHENE	11	U	11	U	7	J	6	J	11	U
DIBROMOCHLOROMETHANE	11	U	11	U	13	U	11	U	11	U
1,1,2-TRICHLOROETHANE	11	U	11	U	3	J	11	U	11	U
BENZENE	11	U	11	U	2	J	11	U	11	U
TRANS-1,3-DICHLOROPROPENE	11	U	11	U	13	U	11	U	11	U
BROMOFORM	11	U	11	U	13	U	11	U	11	U
4-METHYL-2-PENTANONE	11	U	11	U	13	U	11	U	11	U
2-HEXANONE	11	U	11	U	13	U	11	U	11	U
TETRACHLOROETHENE	11	U	3	J	19		4	J	11	U
1,1,2,2-TETRACHLOROETHANE	11	U	11	U	13	U	11	U	11	U
TOLUENE	5	J	11	U	13	U	11	U	11	U
CHLOROBENZENE	11	U	11	U	13	U	11	U	11	U
ETHYLBENZENE	11	U	11	U	13	U	11	U	11	U
STYRENE	11	U	11	U	13	U	11	U	11	U
XYLENE (TOTAL)	2	J	11	U	13	U	11	U	11	U

Appendix C - Chemical Analysis Data

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

*Rec. 10-19-99
Mj*

DATE: Oct 6, 1999

SUBJECT: Review of Data
Received for Review on September 21, 1999

FROM: Stephen L. Ostroff, Chief (SPT-4J)
Superfund Technical Support Section

for SO 10/06/1999

TO: Data User: IDEM

We have reviewed the data for the following case:

Site name: Terre Haute Municipal Well (IN)

Case number: 27178 SDG Number: ECNM8

Number and Type of Samples: 19 soil samples

Sample Numbers: ECNL2-4, ECNL6-7, ECNM8-9, ECNN0-9, ECNP0-1

Laboratory: ATAS Hrs. for Review: 7 hrs + 0.5 *with*

Following are our findings:

The data are acceptable and usable with the qualifications described in the attached narrative.

Patricia J. Scott

MW soil

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

Case Number : 27178
Site Name: Terre Haute Municipal Well (IN)

SDG Number: ECNM8
Laboratory: ATAS

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Nineteen soil samples (ECNL2-4, ECNL6-7, ECNM8-9, ECNN0-9, ECNP0-1) were collected on 07/15-29/99. The lab received the samples on 07/16-30/99 in good condition. All samples were analyzed for the list of VOA analytes. All samples were analyzed according to CLP SOW OLMO3.2 3/90.

RECEIVED
OCT 18 1999
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
SOLID & HAZARDOUS WASTE MANAGEMENT

Prepared By: Steffanie Tobin (Lockheed/ESAT)
Date: September 28, 1999

1. HOLDING TIME

No problems were found for this qualification.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No problems were found for this qualification.

3. CALIBRATION

The following volatile samples are associated with an initial calibration percent relative standard deviation (%RSD) outside primary criteria. Hits are qualified "J" and non-detects are flagged "UJ". However, if the non-detect was flagged as "R" under other qualification, then the "R" flag will be the final flag.

Methylene Chloride

ECNL6, ECNL6RE, ECNL7, ECNL7RE, ECNN0, ECNN0RE, VBLKDA

Acetone, 2-Butanone, 2-Hexanone

ECNL2, ECNL3, ECNL4, ECNN1, ECNN2, ECNN2MS, ECNN2MSD, ECNN3, ECNN4,
ECNN5, ECNN7, ECNN8, VBLKCO

The following volatile samples are associated with a continuing calibration whose corresponding initial calibration has percent relative standard deviation (%RSD) outside primary criteria. Hits are qualified "J" and non-detects are flagged "UJ". However, if the non-detect was flagged as "R" under other qualification, then the "R" flag will be the final flag.

Acetone, 2-Butanone, 2-Hexanone

ECNM8, ECNM8RE, ECNM9, ECNN6, ECNN9, ECNP0, ECNP1, VBLKCN, VBLKCP,
VBLKCQ, VBLKCR, VHBLKCR

4-Methyl-2-Pentanone

ECNM8, ECNM8RE, ECNM9, VBLKCN

The following volatile samples are associated with a continuing calibration percent difference (%D) outside primary criteria. Hits are qualified "J" and non-detects are qualified "UJ". However, if the non-detect was flagged as "R" under other qualification, then the "R" flag will be the final flag.

Acetone, 2-Butanone, 4-Methyl-2-Pentanone, 2-Hexanone

ECNM8, ECNM8RE, ECNM9, ECNN6, ECNN9, ECNP0, VBLKCN, VBLKCP, VBLKCR,
VHBLKCR

4. METHOD BLANKS

The following volatile samples have analyte concentrations reported above the CRQL and less than or equal

Case Number : 27178
 Site Name: Terre Haute Municipal Well (IN)

SDG Number: ECNM8
 Laboratory: ATAS

to ten times (10X) the associated method blank concentration. Hits are qualified "U" and non-detects are not flagged. However, if the non-detect was flagged as "R" under other qualification, then the "R" flag will be the final flag.

Methylene Chloride

ECNL2, ECNL6, ECNL6RE, ECNL7, ECNL7RE, ECNM8, ECNM8RE, ECNM9, ECNN0,
 ECNN0RE, ECNN1, ECNN2, ECNN2MS, ECNN2MSD, ECNN3, ECNN4, ECNN8, ECNP1

Acetone

ECNN8

The following volatile samples have analyte concentrations reported below the CRQL and less than or equal to five times (5X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

ECNN1, ECNN3, ECNN4

Toluene

The following volatile samples have analyte concentrations reported below the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

Methylene Chloride

ECNL3, ECNL4, ECNN5, ECNN7

Acetone

ECNL3, ECNN1, ECNN2, ECNN3

The following volatile samples are associated with a contaminated storage blank. Hits and non-detects are not flagged.

Methylene Chloride

ECNN6, ECNP0

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

The following volatile samples have system monitoring compound recoveries above the upper limit of the criteria window. Hits are qualified "J" and non-detects are not flagged.

ECNL6, ECNL6RE, ECNL7, ECNL7RE, ECNM8, ECNN0, ECNN0RE

The following volatile samples have system monitoring compound recoveries of less than 10%. Hits are qualified "J" and non-detects are qualified "R".

ECNM8, ECNM8RE

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

No problems were found for this qualification.

7. FIELD BLANK AND FIELD DUPLICATE

Sample ECNN1 and ECNN6 were identified as field duplicate of ECNN3 and ECNN7, respectively. Sample ECNN1 contains 1 TCL. ECNN3, ECNN6, ECNN7 are clean.

8. INTERNAL STANDARDS

The following volatile samples have internal standard area counts that are outside the lower limit of primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

ECNL6RE

Chloromethane, Bromomethane, Vinyl Chloride, Chloroethane, Methylene Chloride, Acetone, Carbon Disulfide, 1,1-Dichloroethene, 1,1-Dichloroethane, 1,2-Dichloroethene (total), Chloroform, 1,2-Dichloroethane, 2-Butanone, 1,1,1-Trichloroethane, Carbon Tetrachloride, Bromodichloromethane, 1,2-Dichloropropane, cis-1,3-Dichloropropene, Trichloroethene, Dibromochloromethane, 1,1,2-Trichloroethane, Benzene, trans-1,3-Dichloropropene, Bromoform, 4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene, 1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

The following volatile samples have internal standard area counts outside expanded criteria. Hits are qualified "J" and non-detects are qualified "R".

ECNL6

Chloromethane, Bromomethane, Vinyl Chloride, Chloroethane, Methylene Chloride, Acetone, Carbon Disulfide, 1,1-Dichloroethene, 1,1-Dichloroethane, 1,2-Dichloroethene (total), Chloroform, 1,2-Dichloroethane, 2-Butanone, 1,1,1-Trichloroethane, Carbon Tetrachloride, Bromodichloromethane, 1,2-Dichloropropane, cis-1,3-Dichloropropene, Trichloroethene, Dibromochloromethane, 1,1,2-Trichloroethane, Benzene, trans-1,3-Dichloropropene, Bromoform, 4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene, 1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms, it appears that all VOA compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The following volatile samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

Case Number : 27178

Site Name: Terre Haute Municipal Well (IN)

ECNL6RE, ECNM9

Toluene

ECNN4

Xylene (total)

ECNN6, ECNP0, VBLKCQ, VBLKCN

Methylene Chloride

ECNP1

Toluene, Xylene (total)

VBLKCO

Methylene Chloride, Toluene

VBLKCR

Methylene Chloride, Acetone

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

12. ADDITIONAL INFORMATION

None

CADRE Data Qualifier Sheet

Qualifiers

Data Qualifier Definitions

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- N The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification.
- NJ The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
- R The data are unusable. (The compound may or may not be present)
- H Sample result is estimated and biased high.
- L Sample result is estimated and biased low.

Volatile Analysis Data - ECHM9
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECHM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	6.25	16.000	J
96-37-7	CYCLOPENTANE, METHYL-	8.20	6.000	NJ
	UNKNOWN	16.91	6.000	J

FILE NAME: ECHM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 1

Volatile Analysis Data - ECHM8
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECHM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	10.69	2200.000	J
589-43-5	HEXANE, 2,4-DIMETHYL-	10.78	1900.000	NJ
2815-58-9	CYCLOPENTANE, 1,2,4-TRIMETHYL-	11.06	2800.000	NJ
15890-40-1	CYCLOPENTANE, 1,2,3-TRIMETHYL-, (11.27	3000.000	NJ
584-94-1	HEXANE, 2,3-DIMETHYL-	11.49	2400.000	NJ
638-04-0	CYCLOHEXANE, 1,3-DIMETHYL-, CIS-	12.06	7100.000	NJ
1072-05-5	HEPTANE, 2,6-DIMETHYL-	13.07	1100.000	NJ
2216-33-3	OCTANE, 3-METHYL-	13.25	1100.000	NJ
3073-66-3	CYCLOHEXANE, 1,1,3-TRIMETHYL-	13.51	2100.000	NJ
1678-81-5	CYCLOHEXANE, 1,2,3-TRIMETHYL-, (1	13.82	2200.000	NJ
3728-55-0	1-ETHYL-3-METHYLCYCLOHEXANE (C,1)	14.64	4600.000	NJ
	UNKNOWN	15.08	3100.000	J
15869-89-3	OCTANE, 2,5-DIMETHYL-	15.19	3300.000	NJ
15869-94-0	OCTANE, 3,6-DIMETHYL-	15.41	4300.000	NJ
	UNKNOWN	15.60	6500.000	J
	UNKNOWN	15.86	4400.000	J
	UNKNOWN	16.27	2700.000	J
	UNKNOWN	16.62	4700.000	J
2847-72-5	DECANE, 4-METHYL-	17.08	4100.000	NJ
	UNKNOWN	17.36	2400.000	J
1678-93-9	CYCLOHEXANE, BUTYL-	17.48	3600.000	NJ
13151-35-4	DECANE, 5-METHYL-	17.61	5400.000	NJ
13151-34-3	DECANE, 3-METHYL-	17.78	1700.000	NJ
493-02-7	NAPHTHALENE, DECAHYDRO-, TRANS-	18.05	1900.000	NJ
	UNKNOWN	18.18	2200.000	J
	UNKNOWN	18.25	2100.000	J
	UNKNOWN	18.39	4100.000	J
	UNKNOWN	18.54	1300.000	J
	UNKNOWN	18.87	4400.000	J
	UNKNOWN	19.07	1300.000	J

FILE NAME: ECHM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 2

Volatile Analysis Data - ECNM8RE
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	9.55	720.000	J
589-43-5	HEXANE, 2,4-DIMETHYL-	10.73	1300.000	NJ
2815-58-9	CYCLOPENTANE, 1,2,4-TRIMETHYL-	11.01	860.000	NJ
15890-40-1	CYCLOPENTANE, 1,2,3-TRIMETHYL-, (11.22	900.000	NJ
584-94-1	HEXANE, 2,3-DIMETHYL-	11.46	740.000	NJ
	UNKNOWN	11.77	1200.000	J
1072-05-5	HEPTANE, 2,6-DIMETHYL-	13.03	680.000	NJ
	UNKNOWN	13.22	820.000	J
3073-66-3	CYCLOHEXANE, 1,1,3-TRIMETHYL-	13.48	1300.000	NJ
1678-81-5	CYCLOHEXANE, 1,2,3-TRIMETHYL-, (1	13.79	1400.000	NJ
3728-55-0	1-ETHYL-3-METHYLCYCLOHEXANE (C,T)	14.61	2900.000	NJ
	UNKNOWN	15.06	1800.000	J
	UNKNOWN	15.16	2100.000	J
15869-94-0	OCTANE, 3,6-DIMETHYL-	15.37	4200.000	NJ
	UNKNOWN	15.58	5900.000	J
	UNKNOWN	15.84	4000.000	J
	UNKNOWN	16.24	1900.000	J
	UNKNOWN	16.59	2800.000	J
2847-72-5	DECANE, 4-METHYL-	17.05	6900.000	NJ
	UNKNOWN	17.34	1100.000	J
1678-93-9	CYCLOHEXANE, BUTYL-	17.46	2000.000	NJ
	UNKNOWN	17.58	3000.000	J
13151-34-3	DECANE, 3-METHYL-	17.77	1900.000	NJ
	UNKNOWN	18.03	1400.000	J
	UNKNOWN	18.15	1800.000	J
	UNKNOWN	18.23	5300.000	J
	UNKNOWN	18.37	2600.000	J
	UNKNOWN	18.53	760.000	J
	UNKNOWN	18.86	3200.000	J
	UNKNOWN	19.05	1000.000	J

FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 3

Volatile Analysis Data - VBLKCO
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.39	24.000	NJ

FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 4

Volatile Analysis Data - ECNN1
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 5

Volatile Analysis Data - ECNN3
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 6

Volatile Analysis Data - ECNM4
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 7

Volatile Analysis Data - ECNM2
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 8

Volatile Analysis Data - ECNM5
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 9

Volatile Analysis Data - ECNL2
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 10

Volatile Analysis Data - ECNL3
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 11

Volatile Analysis Data - ECNL4
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
66-25-1	HEXANAL	13.33	8.000	NJ

FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 12

Volatile Analysis Data - ECNN7
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
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FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 13

Volatile Analysis Data - ECNN8
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
66-25-1	HEXANAL	13.32	8.000	NJ

FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 14

Volatile Analysis Data - ECNP1
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.44	8.000	NJ

FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 15

Volatile Analysis Data - VBLKCR
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.43	6.000	NJ

FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 16

Volatile Analysis Data - VBLKDA
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
110-54-3	HEXANE	7.93	15.000	NJ
1066-40-6	SILANOL, TRIMETHYL-	9.07	8.000	NJ
541-05-9	CYCLOTTRISILOXANE, HEXAMETHYL-	13.40	21.000	NJ
556-67-2	CYCLOTETRASILOXANE, OCTAMETHYL-	16.82	14.000	NJ
	UNKNOWN	18.56	20.000	J
	UNKNOWN	19.00	6.000	J

FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 17

Volatile Analysis Data - ECNL6
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECNM8

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	18.58	230.000	JB

FILE NAME: ECNM8.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 18

Volatile Analysis Data - ECNL7
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECHNB

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
UNKNOWN		9.09	8.000	J

FILE NAME: ECHNB.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 19

Volatile Analysis Data - ECHNO
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECHNB

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
UNKNOWN		6.83	8.000	J

FILE NAME: ECHNB.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 20

Volatile Analysis Data - ECNL6RE
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECHNB

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
556-67-2	UNKNOWN CYCLOTETrasiloxane, OCTAMETHYL-	6.82 16.83	10.000 150.000	J NJB

FILE NAME: ECHNB.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 21

Volatile Analysis Data - ECNL7RE
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECHNB

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
556-67-2	CYCLOTETrasiloxane, OCTAMETHYL-	16.84	82.000	NJB

FILE NAME: ECHNB.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 22

Volatile Analysis Data - ECHNORE
Tentatively Identified Compounds

CASE NO: 27178
SDG NO: ECHNB

LABORATORY: ATAS, INC.

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
75-05-8	ACETONITRILE	6.86	6.000	NJ

FILE NAME: ECHNB.SDG DATE: 09/03/99 TIME: 15:14 CADRE98

PAGE: 23

Analytical Results (Qualified Data)

Case #: 27178

SDG : ECNM8

Site :

TERRE HAUTE MUNICIPAL WELL

Lab. :

ATAS

Reviewer :

S. Tobin

Date :

09/29/99

Number of Soil Samples : 19

Number of Water Samples : 0

Sample Number :	ECNL2	ECNL3	ECNL4	ECNL6	ECNL6RE					
Sampling Location :	MW2D15	MW2D133	MW1D5	MW3D5	MW3D5					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	07/26/1999	07/26/1999	07/28/1999	07/19/1999	07/19/1999					
Time Sampled :	10:25	17:30	07:10	12:35	12:35					
%Moisture :	18	9	12	8	8					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	12	U	11	U	11	U	11	R	11	UJ
BROMOMETHANE	12	U	11	U	11	U	11	R	11	UJ
VINYL CHLORIDE	12	U	11	U	11	U	11	R	11	UJ
CHLOROETHANE	12	U	11	U	11	U	11	R	11	UJ
METHYLENE CHLORIDE	18	U	11	U	11	U	25	R	36	UJ
ACETONE	12	UJ	11	UJ	11	UJ	11	R	11	UJ
CARBON DISULFIDE	12	U	11	U	11	U	11	R	11	UJ
1,1-DICHLOROETHENE	12	U	11	U	11	U	11	R	11	UJ
1,1-DICHLOROETHANE	12	U	11	U	11	U	11	R	11	UJ
TOTAL 1,2-DICHLOROETHENE	12	U	11	U	11	U	11	R	11	UJ
CHLOROFORM	12	U	11	U	11	U	11	R	11	UJ
1,2-DICHLOROETHANE	12	U	11	U	11	U	11	R	11	UJ
2-BUTANONE	12	UJ	11	UJ	11	UJ	11	R	11	UJ
1,1,1-TRICHLOROETHANE	12	U	11	U	11	U	11	R	11	UJ
CARBON TETRACHLORIDE	12	U	11	U	11	U	11	R	11	UJ
BROMODICHLOROMETHANE	12	U	11	U	11	U	11	R	11	UJ
1,2-DICHLOROPROPANE	12	U	11	U	11	U	11	R	11	UJ
CIS-1,3-DICHLOROPROPENE	12	U	11	U	11	U	11	R	11	UJ
TRICHLOROETHENE	12	U	11	U	11	U	11	R	11	UJ
DIBROMOCHLOROMETHANE	12	U	11	U	11	U	11	R	11	UJ
1,1,2-TRICHLOROETHANE	12	U	11	U	11	U	11	R	11	UJ
BENZENE	12	U	11	U	11	U	11	R	11	UJ
TRANS-1,3-DICHLOROPROPENE	12	U	11	U	11	U	11	R	11	UJ
BROMOFORM	12	U	11	U	11	U	11	R	11	UJ
4-METHYL-2-PENTANONE	12	U	11	U	11	U	11	R	11	UJ
2-HEXANONE	12	UJ	11	UJ	11	UJ	11	R	11	UJ
TETRACHLOROETHENE	12	U	11	U	11	U	11	R	11	UJ
1,1,2,2-TETRACHLOROETHANE	12	U	11	U	11	U	11	R	11	UJ
TOLUENE	12	U	11	U	11	U	11	R	1	J
CHLOROBENZENE	12	U	11	U	11	U	11	R	11	UJ
ETHYLBENZENE	12	U	11	U	11	U	11	R	11	UJ
STYRENE	12	U	11	U	11	U	11	R	11	UJ
XYLENE (TOTAL)	12	U	11	U	11	U	11	R	11	UJ

Analytical Results (Qualified Data)

Case #: 27178

SDG: ECNM8

Site:

TERRE HAUTE MUNICIPAL WELL

Lab:

ATAS

Reviewer:

S. Tobin

Date:

09/29/99

Number of Soil Samples: 19

Number of Water Samples: 0

Sample Number:	ECNL7	ECNL7RE	ECNM8	ECNM8RE	ECNM9					
Sampling Location:	MW3D15	MW3D15	MW9D22	MW9D22	MW9D128					
Matrix:	Soil	Soil	Soil	Soil	Soil					
Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled:	07/19/1999	07/19/1999	07/15/1999	07/15/1999	07/16/1999					
Time Sampled:	12:50	12:50	03:30	03:30	07:55					
%Moisture:	14	14	16	16	12					
pH:										
Dilution Factor:	1.0	1.0	10.0	10.0	1.0					
Volatle Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	12	U	12	U	120	R	120	R	11	U
BROMOMETHANE	12	U	12	U	120	R	120	R	11	U
VINYL CHLORIDE	12	U	12	U	120	R	120	R	11	U
CHLOROETHANE	12	U	12	U	120	R	120	R	11	U
METHYLENE CHLORIDE	21	UJ	25	UJ	150	R	180	R	19	U
ACETONE	12	U	12	U	120	R	120	R	18	J
CARBON DISULFIDE	12	U	12	U	120	R	120	R	11	U
1,1-DICHLOROETHENE	12	U	12	U	120	R	120	R	11	U
1,1-DICHLOROETHANE	12	U	12	U	120	R	120	R	11	U
TOTAL 1,2-DICHLOROETHENE	12	U	12	U	120	R	120	R	11	U
CHLOROFORM	12	U	12	U	120	R	120	R	11	U
1,2-DICHLOROETHANE	12	U	12	U	120	R	120	R	11	U
2-BUTANONE	12	U	12	U	120	R	120	R	11	UJ
1,1,1-TRICHLOROETHANE	12	U	12	U	120	R	120	R	11	U
CARBON TETRACHLORIDE	12	U	12	U	120	R	120	R	11	U
BROMODICHLOROMETHANE	12	U	12	U	120	R	120	R	11	U
1,2-DICHLOROPROPANE	12	U	12	U	120	R	120	R	11	U
CIS-1,3-DICHLOROPROPENE	12	U	12	U	120	R	120	R	11	U
TRICHLOROETHENE	12	U	12	U	120	R	120	R	11	U
DIBROMOCHLOROMETHANE	12	U	12	U	120	R	120	R	11	U
1,1,2-TRICHLOROETHANE	12	U	12	U	120	R	120	R	11	U
BENZENE	12	U	12	U	120	R	120	R	11	U
TRANS-1,3-DICHLOROPROPENE	12	U	12	U	120	R	120	R	11	U
BROMOFORM	12	U	12	U	120	R	120	R	11	U
4-METHYL-2-PENTANONE	12	U	12	U	120	R	120	R	11	UJ
2-HEXANONE	12	U	12	U	120	R	120	R	11	UJ
TETRACHLOROETHENE	12	U	12	U	120	R	120	R	11	U
1,1,2,2-TETRACHLOROETHANE	12	U	12	U	120	R	120	R	11	U
TOLUENE	12	U	12	U	120	R	120	R	3	J
CHLOROBENZENE	12	U	12	U	120	R	120	R	11	U
ETHYLBENZENE	12	U	12	U	120	R	120	R	11	U
STYRENE	12	U	12	U	120	R	120	R	11	U
XYLENE (TOTAL)	12	U	12	U	120	R	120	R	11	U

Analytical Results (Qualified Data)

Case #: 27178
 Site :
 Lab. :
 Reviewer :
 Date :

SDG : ECNM8
 TERRE HAUTE MUNICIPAL WELL
 ATAS
 S. Tobin
 09/29/99

Number of Soil Samples : 19
 Number of Water Samples : 0

Sample Number :	ECNN0	ECNN0RE	ECNN1	ECNN2	ECNN2MS					
Sampling Location :	MW3D129	MW3D129	MW5D15	MW5D5	MW5D5					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	07/19/1999	07/19/1999	07/22/1999	07/22/1999	07/22/1999					
Time Sampled :	05:20	05:20	08:00	07:45	07:45					
%Moisture :	11	11	17	14	14					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	11	U	11	U	12	U	12	U	12	U
BROMOMETHANE	11	U	11	U	12	U	12	U	12	U
VINYL CHLORIDE	11	U	11	U	12	U	12	U	12	U
CHLOROETHANE	11	U	11	U	12	U	12	U	12	U
METHYLENE CHLORIDE	23	UJ	23	UJ	20	U	14	U	16	U
ACETONE	11	U	11	U	12	UJ	12	UJ	12	UJ
CARBON DISULFIDE	11	U	11	U	12	U	12	U	12	U
1,1-DICHLOROETHENE	11	U	11	U	12	U	12	U	66	
1,1-DICHLOROETHANE	11	U	11	U	12	U	12	U	12	U
TOTAL 1,2-DICHLOROETHENE	11	U	11	U	12	U	12	U	12	U
CHLOROFORM	11	U	11	U	12	U	12	U	12	U
1,2-DICHLOROETHANE	11	U	11	U	12	U	12	U	12	U
2-BUTANONE	11	U	11	U	12	UJ	12	UJ	12	UJ
1,1,1-TRICHLOROETHANE	11	U	11	U	12	U	12	U	12	U
CARBON TETRACHLORIDE	11	U	11	U	12	U	12	U	12	U
BROMODICHLOROMETHANE	11	U	11	U	12	U	12	U	12	U
1,2-DICHLOROPROPANE	11	U	11	U	12	U	12	U	12	U
CIS-1,3-DICHLOROPROPENE	11	U	11	U	12	U	12	U	12	U
TRICHLOROETHENE	11	U	11	U	12	U	12	U	62	
DIBROMOCHLOROMETHANE	11	U	11	U	12	U	12	U	12	U
1,1,2-TRICHLOROETHANE	11	U	11	U	12	U	12	U	12	U
BENZENE	11	U	11	U	12	U	12	U	64	
TRANS-1,3-DICHLOROPROPENE	11	U	11	U	12	U	12	U	12	U
BROMOFORM	11	U	11	U	12	U	12	U	12	U
4-METHYL-2-PENTANONE	11	U	11	U	12	U	12	U	12	U
2-HEXANONE	11	U	11	U	12	UJ	12	UJ	12	UJ
TETRACHLOROETHENE	11	U	11	U	12	U	12	U	12	U
1,1,2,2-TETRACHLOROETHANE	11	U	11	U	12	U	12	U	12	U
TOLUENE	11	U	11	U	12	U	12	U	65	
CHLOROBENZENE	11	U	11	U	12	U	12	U	62	
ETHYLBENZENE	11	U	11	U	12	U	12	U	12	U
STYRENE	11	U	11	U	12	U	12	U	12	U
XYLENE (TOTAL)	11	U	11	U	12	U	12	U	12	U

Analytical Results (Qualified Data)

Case #: 27178
 Site: TERRE HAUTE MUNICIPAL WELL
 Lab: ATAS
 Reviewer: S. Tobin
 Date: 09/29/99

Number of Soil Samples: 19
 Number of Water Samples: 0

Sample Number:	ECNN2MSD	ECNN3	ECNN4	ECNN5	ECNN6					
Sampling Location:	MW5D5	MW5D18D	MW5D128	MW2D5	MW1D15					
Matrix:	Soil	Soil	Soil	Soil	Soil					
Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled:	07/22/1999	07/22/1999	07/22/1999	07/26/1999	07/28/1999					
Time Sampled:	07:45	08:00	13:30	10:15	07:20					
%Moisture:	14	16	10	10	4					
pH:										
Dilution Factor:	1.0	1.0	1.0	1.0	1.0					
Volatle Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	12	U	12	U	11	U	11	U	10	U
BROMOMETHANE	12	U	12	U	11	U	11	U	10	U
VINYL CHLORIDE	12	U	12	U	11	U	11	U	10	U
CHLOROETHANE	12	U	12	U	11	U	11	U	10	U
METHYLENE CHLORIDE	12	U	15	U	19	U	11	U	4	J
ACETONE	12	UJ	12	UJ	11	UJ	11	UJ	10	UJ
CARBON DISULFIDE	12	U	12	U	11	U	11	U	10	U
1,1-DICHLOROETHENE	64		12	U	11	U	11	U	10	U
1,1-DICHLOROETHANE	12	U	12	U	11	U	11	U	10	U
TOTAL 1,2-DICHLOROETHENE	12	U	12	U	11	U	11	U	10	U
CHLOROFORM	12	U	12	U	11	U	11	U	10	U
1,2-DICHLOROETHANE	12	U	12	U	11	U	11	U	10	U
2-BUTANONE	12	UJ	12	UJ	11	UJ	11	UJ	10	UJ
1,1,1-TRICHLOROETHANE	12	U	12	U	11	U	11	U	10	U
CARBON TETRACHLORIDE	12	U	12	U	11	U	11	U	10	U
BROMODICHLOROMETHANE	12	U	12	U	11	U	11	U	10	U
1,2-DICHLOROPROPANE	12	U	12	U	11	U	11	U	10	U
CIS-1,3-DICHLOROPROPENE	12	U	12	U	11	U	11	U	10	U
TRICHLOROETHENE	59		12	U	11	U	11	U	10	U
DIBROMOCHLOROMETHANE	12	U	12	U	11	U	11	U	10	U
1,1,2-TRICHLOROETHANE	12	U	12	U	11	U	11	U	10	U
BENZENE	64		12	U	11	U	11	U	10	U
TRANS-1,3-DICHLOROPROPENE	12	U	12	U	11	U	11	U	10	U
BROMOFORM	12	U	12	U	11	U	11	U	10	U
4-METHYL-2-PENTANONE	12	U	12	U	11	U	11	U	10	UJ
2-HEXANONE	12	UJ	12	UJ	11	UJ	11	UJ	10	UJ
TETRACHLOROETHENE	12	U	12	U	11	U	11	U	10	U
1,1,2,2-TETRACHLOROETHANE	12	U	12	U	11	U	11	U	10	U
TOLUENE	66		12	U	11	U	11	U	10	U
CHLOROBENZENE	64		12	U	11	U	11	U	10	U
ETHYLBENZENE	12	U	12	U	11	U	11	U	10	U
STYRENE	12	U	12	U	11	U	11	U	10	U
XYLENE (TOTAL)	12	U	12	U	2	J	11	U	10	U

Analytical Results (Qualified Data)

Case #: 27178

SDG : ECNM8

Site :

TERRE HAUTE MUNICIPAL WELL

Lab. :

ATAS

Reviewer :

S. Tobin

Date :

09/29/99

Number of Soil Samples : 19

Number of Water Samples : 0

Sample Number :	ECNN7	ECNN8	ECNN9	ECNP0	ECNP1					
Sampling Location :	MW1D15D	MW1D134	MW10D5	MW10D15	MW10D 0.1 1.5					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	07/28/1999	07/28/1999	07/29/1999	07/29/1999	07/29/1999					
Time Sampled :	07:20	14:05	10:10	10:25	15:45					
%Moisture :	3	11	11	7	13					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatiles Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	10	U	11	U	11	U	11	U	11	U
BROMOMETHANE	10	U	11	U	11	U	11	U	11	U
VINYL CHLORIDE	10	U	11	U	11	U	11	U	11	U
CHLOROETHANE	10	U	11	U	11	U	11	U	11	U
METHYLENE CHLORIDE	10	U	13	U	11	U	4	J	18	U
ACETONE	10	UJ	13	UJ	11	UJ	11	UJ	11	UJ
CARBON DISULFIDE	10	U	11	U	11	U	11	U	11	U
1,1-DICHLOROETHENE	10	U	11	U	11	U	11	U	11	U
1,1-DICHLOROETHANE	10	U	11	U	11	U	11	U	11	U
TOTAL 1,2-DICHLOROETHENE	10	U	11	U	11	U	11	U	11	U
CHLOROFORM	10	U	11	U	11	U	11	U	11	U
1,2-DICHLOROETHANE	10	U	11	U	11	U	11	U	11	U
2-BUTANONE	10	UJ	11	UJ	11	UJ	11	UJ	11	UJ
1,1,1-TRICHLOROETHANE	10	U	11	U	11	U	11	U	11	U
CARBON TETRACHLORIDE	10	U	11	U	11	U	11	U	11	U
BROMODICHLOROMETHANE	10	U	11	U	11	U	11	U	11	U
1,2-DICHLOROPROPANE	10	U	11	U	11	U	11	U	11	U
CIS-1,3-DICHLOROPROPENE	10	U	11	U	11	U	11	U	11	U
TRICHLOROETHENE	10	U	11	U	11	U	11	U	11	U
DIBROMOCHLOROMETHANE	10	U	11	U	11	U	11	U	11	U
1,1,2-TRICHLOROETHANE	10	U	11	U	11	U	11	U	11	U
BENZENE	10	U	11	U	11	U	11	U	11	U
TRANS-1,3-DICHLOROPROPENE	10	U	11	U	11	U	11	U	11	U
BROMOFORM	10	U	11	U	11	U	11	U	11	U
4-METHYL-2-PENTANONE	10	U	11	U	11	UJ	11	UJ	11	U
2-HEXANONE	10	UJ	11	UJ	11	UJ	11	UJ	11	UJ
TETRACHLOROETHENE	10	U	11	U	11	U	11	U	11	U
1,1,2,2-TETRACHLOROETHANE	10	U	11	U	11	U	11	U	11	U
TOLUENE	10	U	11	U	11	U	11	U	2	J
CHLOROBENZENE	10	U	11	U	11	U	11	U	11	U
ETHYLBENZENE	10	U	11	U	11	U	11	U	11	U
STYRENE	10	U	11	U	11	U	11	U	11	U
XYLENE (TOTAL)	10	U	11	U	11	U	11	U	4	J

Analytical Results (Qualified Data)

Case #: 27178

SDG ECNM8

Site:

TERRE HAUTE MUNICIPAL WELL

Lab:

ATAS

Reviewer:

S. Tobin

Date:

09/29/99

Number of Soil Samples: 19

Number of Water Samples: 0

Sample Number:	VHBLKCR		VBLKCN		VBLKCO		VBLKCP		VBLKCO	
Sampling Location:										
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled:										
Time Sampled:										
%Moisture:	0		N/A		N/A		N/A		N/A	
pH:										
Dilution Factor:	1.0		1.0		1.0		1.0		1.0	
Volatle Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
BROMOMETHANE	10	U	10	U	10	U	10	U	10	U
VINYL CHLORIDE	10	U	10	U	10	U	10	U	10	U
CHLOROETHANE	10	U	10	U	10	U	10	U	10	U
METHYLENE CHLORIDE	10	U	6	J	7	J	10	U	2	J
ACETONE	10	UJ	10	UJ	15	J	10	UJ	10	UJ
CARBON DISULFIDE	10	U	10	U	10	U	10	U	10	U
1,1-DICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
1,1-DICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
TOTAL 1,2-DICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
CHLOROFORM	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
2-BUTANONE	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,1,1-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U	10	U
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U	10	U
CIS-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10	U
TRICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
BENZENE	10	U	10	U	10	U	10	U	10	U
TRANS-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10	U
BROMOFORM	10	U	10	U	10	U	10	U	10	U
4-METHYL-2-PENTANONE	10	UJ	10	UJ	10	U	10	UJ	10	U
2-HEXANONE	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
TETRACHLOROETHENE	10	U	10	U	10	U	10	U	10	U
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U	10	U	10	U
TOLUENE	10	U	10	U	1	J	10	U	10	U
CHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
ETHYLBENZENE	10	U	10	U	10	U	10	U	10	U
STYRENE	10	U	10	U	10	U	10	U	10	U
XYLENE (TOTAL)	10	U	10	U	10	U	10	U	10	U

Analytical Results (Qualified Data)

Case #: 27178
 Site :
 Lab. :
 Reviewer :
 Date :

SDG : ECNM8
 TERRE HAUTE MUNICIPAL WELL
 ATAS
 S. Tobin
 09/29/99

Number of Soil Samples : 19
 Number of Water Samples : 0

Sample Number :	VBLKCR		VBLKDA							
Sampling Location :										
Matrix :	Soil		Soil							
Units :	ug/Kg		ug/Kg							
Date Sampled :										
Time Sampled :										
%Moisture :	N/A		N/A							
pH :										
Dilution Factor :	1.0		1.0							
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	10	U	10	U						
BROMOMETHANE	10	U	10	U						
VINYL CHLORIDE	10	U	10	U						
CHLOROETHANE	10	U	10	U						
METHYLENE CHLORIDE	6	J	13	J						
ACETONE	3	J	10	U						
CARBON DISULFIDE	10	U	10	U						
1,1-DICHLOROETHENE	10	U	10	U						
1,1-DICHLOROETHANE	10	U	10	U						
TOTAL 1,2-DICHLOROETHENE	10	U	10	U						
CHLOROFORM	10	U	10	U						
1,2-DICHLOROETHANE	10	U	10	U						
2-BUTANONE	10	UJ	10	U						
1,1,1-TRICHLOROETHANE	10	U	10	U						
CARBON TETRACHLORIDE	10	U	10	U						
BROMODICHLOROMETHANE	10	U	10	U						
1,2-DICHLOROPROPANE	10	U	10	U						
CIS-1,3-DICHLOROPROPENE	10	U	10	U						
TRICHLOROETHENE	10	U	10	U						
DIBROMOCHLOROMETHANE	10	U	10	U						
1,1,2-TRICHLOROETHANE	10	U	10	U						
BENZENE	10	U	10	U						
TRANS-1,3-DICHLOROPROPENE	10	U	10	U						
BROMOFORM	10	U	10	U						
4-METHYL-2-PENTANONE	10	UJ	10	U						
2-HEXANONE	10	UJ	10	U						
TETRACHLOROETHENE	10	U	10	U						
1,1,2,2-TETRACHLOROETHANE	10	U	10	U						
TOLUENE	10	U	10	U						
CHLOROBENZENE	10	U	10	U						
ETHYLBENZENE	10	U	10	U						
STYRENE	10	U	10	U						
XYLENE (TOTAL)	10	U	10	U						

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: IN/22

Case No: 27178 Site Name Location: Terre Haute Manu

Contractor or EPA Lab: ATAS Data User: IDEM

No. of Samples: 19 Date Sampled or Data Received: 9-21-99

Have Chain-of-Custody records been received? Yes No

Have traffic reports or packing lists been received? Yes No

If no, are traffic report or packing list numbers written on the chain-

of-custody record? Yes No

If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes No

No of samples claimed: 19 No. of samples received: 19

Received by: Lynette Burnett Date: 9-21-99

Received by LSSS: Lynette Burnett Date: 9-21-99

Review started: 9-28-99 Reviewer Signature: Stephanie Tobin

Total time spent on review: 7 hrs Date review completed: 9-29-99

Copied by: Lynette Burnett Date: 10-12-99

Mailed to user by: Lynette Burnett Date: 10-12-99

DATA USER:

Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

- Inorganic Data Complete [] Suitable for Intended Purpose [] if C
- Organic Data Complete [] Suitable for Intended Purpose [] if C
- Dioxin Data Complete [] Suitable for Intended Purpose [] if C
- SAS Data Complete [] Suitable for Intended Purpose [] if C

PROBLEMS: Please indicate reasons why data are not suitable for your
uses.

Received by Data Mgmt. Coordinator for Files. Data: _____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: _____

SUBJECT: Review of Data
Received for Review on August 19, 1999

FROM: Stephen L. Ostrodka, Chief (SRT-4J)
~~Superfund Technical Support Section~~

~~TO: Data User:~~ IDEM

We have reviewed the data for the following case:

Site name: Terre Haute Municipal Well (IN)

Case number: 27178 SDG Number: ECNK3

Number and Type of Samples: 20 soil samples

Sample Numbers: ECNK3-ECNK9, ECNL0, ECNL1, ECNL5, ECNL8, ECNL9, ECNM0-ECNM7

Laboratory: ATAS Hrs. for Review: _____

Following are our findings:

The data is acceptable and useable with the qualifications described in the attached narrative.

Richard L Byvik (9/1/99)

M Well soil

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

Case Number : 27178

SDG Number: ECNK3

Site Name: Terre Haute Municipal Well (IN)

Laboratory: ATAS

Below is a summary of the out-of-control audits and the possible effects on the data for this case :

Twenty soil samples (ECNK3-ECNK9, ECNL0, ECNL1, ECNL5, ECNL8, ECNL9, ECNM0-ECNM7) were collected on 07/06-15/99. The lab received the samples on 07/08-16/99 in good condition. All samples were analyzed for the list of VOA analytes. All samples were analyzed according to CLP SOW OLM03.2 3/90.

Prepared By: Steffanie Tobin (Lockheed/ESAT)
Date: August 25, 1999

1. HOLDING TIME

No problems were found for this qualification.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No problems were found for this qualification.

3. CALIBRATION

The following volatile samples are associated with a continuing calibration whose corresponding initial calibration has percent relative standard deviation (%RSD) outside primary criteria. Hits are qualified "J" and non-detects are flagged "UJ". However, if the non-detect was flagged as "R" under other qualification, then the "R" flag will be the final flag.

Acetone, 2-Butanone, 4-Methyl-2-Pentanone, 2-Hexanone
ECNK3, ECNK4, ECNK5, ECNK6, ECNK7, ECNK8, ECNK8MS, ECNK8MSD, ECNK9,
ECNL0, ECNL1, ECNL5, ECNL8, ECNL9, ECNM0, ECNM1, ECNM1RE, ECNM2
ECNM3, ECNM4, ECNM5, ECNM6, ECNM7, ECNM7RE, VBLKCJ, VBLKCK, VBLKCL,
VBLKCN

The following volatile samples are associated with a continuing calibration percent difference (%D) outside primary criteria. Hits are qualified "J" and non-detects are qualified "UJ". However, if the non-detect was flagged as "R" under other qualification, then the "R" flag will be the final flag.

Bromomethane
ECNL0, ECNL1, ECNM0, ECNM1, ECNM1RE, ECNM2, ECNM3, VBLKCL

Acetone, 2-Butanone
ECNK3, ECNK4, ECNK5, ECNK6, ECNK7, ECNK8, ECNK8MS, ECNK8MSD, ECNK9,
ECNL0, ECNL1, ECNL5, ECNL8, ECNL9, ECNM0, ECNM1, ECNM1RE, ECNM2
ECNM3, ECNM4, ECNM5, ECNM6, ECNM7, ECNM7RE, VBLKCJ, VBLKCK, VBLKCL,
VBLKCN, VBLKDB, VHBLKDB

4-Methyl-2-Pentanone
ECNK3, ECNK4, ECNK6, ECNK7, ECNK8, ECNK8MS, ECNK8MSD, ECNK9, ECNL0,
ECNL1, ECNL5, ECNL8, ECNM0, ECNM1, ECNM1RE, ECNM2, ECNM3, ECNM4
ECNM5, ECNM6, ECNM7, ECNM7RE, VBLKCJ, VBLKCL, VBLKCN

2-Hexanone
ECNK3, ECNK4, ECNK5, ECNK6, ECNK7, ECNK8, ECNK8MS, ECNK8MSD, ECNK9,
ECNL0, ECNL1, ECNL5, ECNL8, ECNL9, ECNM0, ECNM1, ECNM1RE, ECNM2
ECNM3, ECNM4, ECNM5, ECNM6, ECNM7, ECNM7RE, VBLKCJ, VBLKCK, VBLKCL,
VBLKCN, VBLKDB, VHBLKDB

1,1,2,2-Tetrachloroethane

**ECNK3, ECNK4, ECNK6, ECNK7, ECNK8, ECNK8MS, ECNK8MSD, ECNK9, ECNL5,
ECNL8, VBLKCI**

4. METHOD BLANKS

The following volatile samples have analyte concentrations reported above the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Hits are qualified "U" and non-detects are not flagged. However, if the non-detect was flagged as "R" under other qualification, then the "R" flag will be the final flag.

Methylene Chloride

ECNK6, ECNL5, ECNM1, ECNM2, ECNM4, ECNM5, ECNM6, ECNM7, ECNM7RE

The following volatile samples have analyte concentrations reported below the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

Methylene Chloride

**ECNK3, ECNK4, ECNK7, ECNK8, ECNK8MS, ECNK8MSD, ECNK9, ECNL0, ECNL1,
ECNL8, ECNM0, ECNM3**

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

The following volatile samples have system monitoring compound recoveries above the upper limit of the criteria window. Hits are qualified "J" and non-detects are not flagged.

ECNM1, ECNM1RE

The following volatile samples have one or more system monitoring compound recovery values below the lower limit of the criteria window. Hits are qualified "J" and non-detects are qualified "UJ".

ECNM1, ECNM1RE

The following volatile samples have system monitoring compound recoveries of less than 10%. Hits are qualified "J" and non-detects are qualified "R".

ECNM7, ECNM7RE

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

No problems were found for this qualification.

7. FIELD BLANK AND FIELD DUPLICATE

Samples ECML8 and ECML9 are field duplicates. None of the samples in this data set are field blanks. ECML8 contains 1 TCL. ECML9 contains 3 TCLs and 1 TIC.

8. INTERNAL STANDARDS

The following volatile samples have internal standard area counts that are outside the lower limit of primary criteria. Hits are qualified "J" and non-detects are qualified "UJ". However, if the non-detect was flagged as "R" under other qualification, then the "R" flag will be the final flag.

ECNM1

1,1,1-Trichloroethane, Carbon Tetrachloride,
Bromodichloromethane, 1,2-Dichloropropane
cis-1,3-Dichloropropene, Trichloroethene,
Dibromochloromethane, 1,1,2-Trichloroethane
Benzene, trans-1,3-Dichloropropene, Bromoform

The following volatile samples have internal standard area counts outside expanded criteria. Hits are qualified "J" and non-detects are qualified "R".

ECNM1

4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene,
1,1,2,2-Tetrachloroethane, Toluene,
Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

ECNM1RE

Chloromethane, Bromomethane, Vinyl Chloride, Chloroethane,
Methylene Chloride, Acetone,
Carbon Disulfide, 1,1-Dichloroethene, 1,1-Dichloroethane,
1,2-Dichloroethene (total),
Chloroform, 1,2-Dichloroethane, 2-Butanone,
1,1,1-Trichloroethane, Carbon Tetrachloride,
Bromodichloromethane, 1,2-Dichloropropane,
cis-1,3-Dichloropropene, Trichloroethene,
Dibromochloromethane, 1,1,2-Trichloroethane, Benzene,
trans-1,3-Dichloropropene,
Bromoform, 4-Methyl-2-Pentanone, 2-Hexanone,
Tetrachloroethene, 1,1,2,2-Tetrachloroethane
Toluene, Chlorobenzene, Ethylbenzene, Styrene, Xylene
(total)

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms, it appears that all VOA compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

Prepared By: Steffanie Tobin (Lockheed/ESAT)

Date: August 25, 1999

Case Number : 27178
Site Name: Terre Haute Municipal Well (IN)

Page 6 of 6
SDG Number: ECNK3
Laboratory: ATAS

The following volatile samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

ECNK3, ECNK7, ECNK8, ECNK9, ECNL8, ECNM6, ECNM7
Toluene

ECNK4
Trichloroethene, Toluene

ECNK6, ECNL5
Acetone, Toluene, Xylene (total)

ECNK8MS,
Acetone

ECNL9
Acetone, Toluene

ECNM1
Carbon Disulfide, Toluene

ECNM1RE
Carbon Disulfide

ECNM2
1,1-Dichloroethene, Trichloroethene, Benzene, Toluene, Chlorobenzene

VBLKCJ, VBLKCL, VBLKCN, VBLKDB
Methylene Chloride

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

12. ADDITIONAL INFORMATION

None.

Prepared By: Steffanie Tobin (Lockheed/ESAT)
Date: August 25, 1999

CADRE Data Qualifier Sheet

<u>Qualifiers</u>	<u>Data Qualifier Definitions</u>
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification.
NJ	The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
R	The data are unusable. (The compound may or may not be present)
H	Sample result is estimated and biased high.
L	Sample result is estimated and biased low.

Volatile Analysis Data - VBLKCJ
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS	ESTIMATED	COMPOUND
NUMBER		NAME
RT	CONCENTRATION	Q

110-54-3	HEXANE	
7.41	46.000	NJ
96-37-7	CYCLOPENTANE, METHYL-	
8.24	6.000	NJ

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 1

Volatile Analysis Data - ECNK3
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS	ESTIMATED	COMPOUND
NUMBER		NAME
RT	CONCENTRATION	Q

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 2

Volatile Analysis Data - ECNK4
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS	ESTIMATED	COMPOUND
NUMBER		NAME
RT	CONCENTRATION	Q

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 3

Volatile Analysis Data - ECNK6
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS	ESTIMATED	COMPOUND
NUMBER		NAME
RT	CONCENTRATION	Q

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 4

Volatile Analysis Data - ECNL5
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS	ESTIMATED	COMPOUND
-----	-----------	----------

NUMBER
RT CONCENTRATION Q

NAME

FILE NAME: ECKN3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 5

Volatile Analysis Data - ECKN9
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECKN3

CAS	ESTIMATED	COMPOUND
NUMBER	CONCENTRATION	NAME

FILE NAME: ECKN3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 6

Volatile Analysis Data - ECK7
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECK3

CAS	ESTIMATED	COMPOUND
NUMBER		NAME
RT	CONCENTRATION	Q

FILE NAME: ECK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 7

Volatile Analysis Data - ECK8
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECK3

CAS	ESTIMATED	COMPOUND
NUMBER		NAME
RT	CONCENTRATION	Q

FILE NAME: ECK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 8

Volatile Analysis Data - ECK8
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECK3

CAS NUMBER RT	ESTIMATED CONCENTRATION	Q
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COMPOUND
NAME

FILE NAME: ECKN3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 9

Volatile Analysis Data - ECKN5
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECKN3

CAS NUMBER RT	ESTIMATED CONCENTRATION	Q
---------------------	----------------------------	---

COMPOUND
NAME

75-05-8	ACETONITRILE	
6.38	6.000	NJ
110-54-3	HEXANE	
7.43	19.000	NJ

FILE NAME: ECKN3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 10

Volatile Analysis Data - ECKN9
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECKN3

CAS	ESTIMATED
-----	-----------

COMPOUND

NUMBER
RT CONCENTRATION Q

NAME

110-54-3 HEXANE
7.41 17.000 NJ

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 11

Volatile Analysis Data - ECNM1

Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS ESTIMATED
NUMBER RT CONCENTRATION Q

COMPOUND
NAME

110-54-3 HEXANE
7.39 23.000 NJ
18.59 UNKNOWN
16.000 J

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 12

Volatile Analysis Data - ECNM2
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS NUMBER	ESTIMATED CONCENTRATION	Q	COMPOUND NAME
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110-54-3	HEXANE		
7.37	12.000	NJ	

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 13

Volatile Analysis Data - ECNL1
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS NUMBER	ESTIMATED CONCENTRATION	Q	COMPOUND NAME
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110-54-3	HEXANE		
7.36	7.000	NJ	

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 14

Volatile Analysis Data - ECNL0
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS NUMBER	ESTIMATED CONCENTRATION	Q	COMPOUND NAME
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110-54-3	HEXANE		
7.36	10.000	NJ	

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 15

Volatile Analysis Data - ECNM0
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS NUMBER	ESTIMATED CONCENTRATION	Q	COMPOUND NAME
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110-54-3	HEXANE		
7.37	10.000	NJ	

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 16

Volatile Analysis Data - ECNM1RE
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS	ESTIMATED		COMPOUND
NUMBER	RT	CONCENTRATION	Q
			NAME

110-54-3		HEXANE	
7.37		77.000	NJ
		UNKNOWN	
8.21		8.000	J

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 17

Volatile Analysis Data - ECNM3
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS	ESTIMATED		COMPOUND
NUMBER	RT	CONCENTRATION	Q
			NAME

110-54-3		HEXANE	
7.37		11.000	NJ

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 18

Volatile Analysis Data - ECNM5
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS	ESTIMATED	COMPOUND
NUMBER		NAME
RT	CONCENTRATION	Q

110-54-3	HEXANE	
7.36	26.000	NJ

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 19

Volatile Analysis Data - ECNM4
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS	ESTIMATED	COMPOUND
NUMBER		NAME
RT	CONCENTRATION	Q

110-54-3	HEXANE	
7.35	18.000	NJ

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 20

Volatile Analysis Data - ECNM6
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS	ESTIMATED	COMPOUND
NUMBER	CONCENTRATION	NAME
RT	Q	

75-05-8	ACETONITRILE	
6.28	8.000	NJ
110-54-3	HEXANE	
7.34	18.000	NJ

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 21

Volatile Analysis Data - ECNM7
Tentatively Identified Compounds

CASE NO: 27178
LABORATORY: ATAS, INC.
SDG NO: ECNK3

CAS	ESTIMATED	COMPOUND
NUMBER	CONCENTRATION	NAME
RT	Q	

	UNKNOWN	
10.75	65.000	J
624-29-3	CYCLOHEXANE, 1,4-DIMETHYL-, CIS-	
12.09	75.000	NJ
2613-65-2	CYCLOPENTANE, 1-ETHYL-3-METHYL-,	
12.33	48.000	NJ
2207-01-4	CYCLOHEXANE, 1,2-DIMETHYL-, CIS-	
12.57	130.000	NJ
1072-05-5	HEPTANE, 2,6-DIMETHYL-	
13.05	220.000	NJ
2216-30-0	HEPTANE, 2,5-DIMETHYL-	
13.24	190.000	NJ
3073-66-3	CYCLOHEXANE, 1,1,3-TRIMETHYL-	
13.50	390.000	NJ
	UNKNOWN	
13.68	100.000	J

2234-75-5	CYCLOHEXANE, 1,2,4-TRIMETHYL-
13.83	300.000 NJ
	UNKNOWN
14.08	57.000 J
1678-81-5	CYCLOHEXANE, 1,2,3-TRIMETHYL-, (1
14.40	84.000 NJ
236-88-0	CYCLOHEXANE, 1-ETHYL-4-METHYL-, T
14.66	420.000 NJ
	UNKNOWN
15.16	1200.000 J
15869-94-0	OCTANE, 3,6-DIMETHYL-
15.38	1400.000 NJ
3178-29-8	HEPTANE, 4-PROPYL-
15.60	1200.000 NJ
	UNKNOWN
15.83	620.000 J
	UNKNOWN
16.25	1500.000 J
	UNKNOWN
16.55	750.000 J
	UNKNOWN
16.68	630.000 J
2847-72-5	DECANE, 4-METHYL-
17.06	3500.000 NJ
	UNKNOWN
17.34	1300.000 J
	UNKNOWN
17.49	3300.000 J
	UNKNOWN
17.58	3300.000 J
	UNKNOWN
17.79	3300.000 J
	UNKNOWN
18.04	1100.000 J
	UNKNOWN
18.24	1200.000 J
	UNKNOWN
18.39	1500.000 J
	UNKNOWN
18.55	560.000 J
	UNKNOWN
18.86	1500.000 J
	UNKNOWN
19.06	520.000 J

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 22

Volatile Analysis Data - ECNM7RE

Tentatively Identified Compounds

CASE NO: 27178
 LABORATORY: ATAS, INC.
 SDG NO: ECNK3

CAS NUMBER	ESTIMATED CONCENTRATION	Q	COMPOUND NAME
			UNKNOWN
10.68	82.000	J	
624-29-3			CYCLOHEXANE, 1,4-DIMETHYL-, CIS-
12.08	160.000	NJ	
583-57-3			CYCLOHEXANE, 1,2-DIMETHYL- (CIS/T
12.56	140.000	NJ	
1072-05-5			HEPTANE, 2,6-DIMETHYL-
13.07	250.000	NJ	
2216-30-0			HEPTANE, 2,5-DIMETHYL-
13.25	230.000	NJ	
3073-66-3			CYCLOHEXANE, 1,1,3-TRIMETHYL-
13.51	440.000	NJ	
			UNKNOWN
13.69	120.000	J	
7667-60-9			CYCLOHEXANE, 1,2,4-TRIMETHYL-, (1
13.83	330.000	NJ	
			UNKNOWN
14.10	57.000	J	
1678-81-5			CYCLOHEXANE, 1,2,3-TRIMETHYL-, (1
14.40	96.000	NJ	
6236-88-0			CYCLOHEXANE, 1-ETHYL-4-METHYL-, T
14.67	430.000	NJ	
			UNKNOWN
15.17	1200.000	J	
15869-94-0			OCTANE, 3,6-DIMETHYL-
15.39	1800.000	NJ	
14676-29-0			HEPTANE, 3-ETHYL-2-METHYL-
15.61	1900.000	NJ	
			UNKNOWN
15.84	610.000	J	
13427-43-5			1-HEXENE, 3,3,5-TRIMETHYL-
16.26	1000.000	NJ	
			UNKNOWN
16.56	79.000	J	
			UNKNOWN
16.69	87.000	J	
2847-72-5			DECANE, 4-METHYL-
17.07	2500.000	NJ	
			UNKNOWN
17.35	580.000	J	

17.50	UNKNOWN	330.000	J	
17.57	UNKNOWN	540.000	J	
17.79	UNKNOWN	340.000	J	
93-02-7	NAPHTHALENE, DECAHYDRO-, TRANS-			
18.05	UNKNOWN	940.000	J	
18.25	UNKNOWN	310.000	J	
18.39	UNKNOWN	860.000	J	
18.55	UNKNOWN	330.000	J	
18.72	UNKNOWN	170.000	J	
18.86	UNKNOWN	930.000	J	
2958-76-1	NAPHTHALENE, DECAHYDRO-2-METHYL-			
19.07	UNKNOWN	500.000	J	

FILE NAME: ECNK3.SDG DATE: 08/18/99 TIME: 16:20 CADRE98
PAGE: 23

Analytical Results (Qualified Data)

Case #: 27178 SDG : ECNK3
 Site : TERRE HAUTE MUNICIPAL WELL Number 20
 Lab. : ATAS Number 0
 Reviewer : S. Tobin
 Date : 08/25/99

Sample Number :	ECNK3	ECNK4	ECNK5	ECNK6	ECNK7
Sampling Location :	MW8D5	MW8D15	MW7D5	MW8D128	MW4D5
Matrix :	Soil	Soil	Soil	Soil	Soil
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Date Sampled :	07/06/1999	07/06/1999	07/08/1999	07/07/1999	07/12/1999
Time Sampled :	09:45	10:00	10:30	02:30	09:45
%Moisture :	9	4	11	8	12

pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	11	U	10	U	11	U	11	U	11	U
BROMOMETHANE	11	U	10	U	11	U	11	U	11	U
VINYL CHLORIDE	11	U	10	U	11	U	11	U	11	U
CHLOROETHANE	11	U	10	U	11	U	11	U	11	U
METHYLENE CHLCL	11	U	10	U	18		17	U	11	U
ACETONE	11	UJ	10	UJ	11	UJ	6	J	11	UJ
CARBON DISULFID	11	U	10	U	11	U	11	U	11	U
1,1-DICHLOROETH	11	U	10	U	11	U	11	U	11	U
1,1-DICHLOROETH	11	U	10	U	11	U	11	U	11	U
TOTAL 1,2-DICHL	11	U	10	U	11	U	11	U	11	U
CHLOROFORM	11	U	10	U	11	U	11	U	11	U
1,2-DICHLOROETH	11	U	10	U	11	U	11	U	11	U
2-BUTANONE	11	UJ	10	UJ	11	UJ	11	UJ	11	UJ
1,1,1-TRICHLOR	11	U	10	U	11	U	11	U	11	U
CARBON TETRACH	11	U	10	U	11	U	11	U	11	U
BROMODICHLORO	11	U	10	U	11	U	11	U	11	U
1,2-DICHLOROPRC	11	U	10	U	11	U	11	U	11	U
CIS-1,3-DICHLOR	11	U	10	U	11	U	11	U	11	U
TRICHLOROETHEN	11	U	8	J	11	U	11	U	11	U
DIBROMOCHLORO	11	U	10	U	11	U	11	U	11	U
1,1,2-TRICHLOR	11	U	10	U	11	U	11	U	11	U
BENZENE	11	U	10	U	11	U	11	U	11	U
TRANS-1,3-DICHL	11	U	10	U	11	U	11	U	11	U
BROMOFORM	11	U	10	U	11	U	11	U	11	U
4-METHYL-2-PENT	11	UJ	10	UJ	11	UJ	11	UJ	11	UJ
2-HEXANONE	11	UJ	10	UJ	11	UJ	11	UJ	11	UJ
TETRACHLOROETI	11	U	53		11	U	11	U	11	U
1,1,2,2-TETRACHL	11	UJ	10	UJ	11	U	11	UJ	11	UJ
TOLUENE	2	J	2	J	11	U	4	J	1	J
CHLOROBENZENE	11	U	10	U	11	U	11	U	11	U
ETHYLBENZENE	11	U	10	U	11	U	11	U	11	U
STYRENE	11	U	10	U	11	U	11	U	11	U
XYLENE (TOTAL)	11	U	10	U	11	U	3	J	11	U

Analytical Results (Qualified Data)

Case #: 27178 SDG : ECNK3
 Site : TERRE HAUTE MUNICIPAL WELL Number 20
 Lab. : ATAS Number 0
 Reviewer : S. Tobin
 Date : 08/25/99

Sample Number :	ECNK8	ECNK8MS	ECNK8MSE	ECNK9	ECNL0
Sampling Location :	MW4D15	MW4D15	MW4D15	MW7D15	MW13D15
Matrix :	Soil	Soil	Soil	Soil	Soil
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Date Sampled :	07/12/1999	07/12/1999	07/12/1999	07/08/1999	07/13/1999

STYRENE	11 U	12 U	11 R	11 R	10 U
XYLENE (TOTAL)	11 U	12 U	11 R	11 R	10 U

Analytical Results (Qualified Data)

Case #: 27178	SDG : ECNK3	
Site :	TERRE HAUTE MUNICIPAL WELL	Number 20
Lab. :	ATAS	Number 0
Reviewer :	S. Tobin	
Date :	08/25/99	

Sample Number :	VBLKCK	VBLKCL	VBLKCN	
Sampling Location :				
Matrix :	Soil	Soil	Soil	
Units :	ug/Kg	ug/Kg	ug/Kg	
Date Sampled :				
Time Sampled :				
%Moisture :	N/A	N/A	N/A	
pH :				
Dilution Factor :	1.0	1.0	1.0	
Volatile Compound	Result	Flag	Result	Flag
CHLOROMETHANE	10 U		10 U	
BROMOMETHANE	10 U		10 UJ	
VINYL CHLORIDE	10 U		10 U	
CHLOROETHANE	10 U		10 U	
METHYLENE CHLC	10 U		2 J	
ACETONE	10 UJ		10 UJ	
CARBON DISULFID	10 U		10 U	
1,1-DICHLOROETH	10 U		10 U	
1,1-DICHLOROETH	10 U		10 U	
TOTAL 1,2-DICHILO	10 U		10 U	
CHLOROFORM	10 U		10 U	
1,2-DICHLOROETH	10 U		10 U	
2-BUTANONE	10 UJ		10 UJ	
1,1,1-TRICHLOROE	10 U		10 U	
CARBON TETRACH	10 U		10 U	
BROMODICHLORO	10 U		10 U	
1,2-DICHLOROPRC	10 U		10 U	
CIS-1,3-DICHLORO	10 U		10 U	
TRICHLOROETHET	10 U		10 U	
DIBROMOCHLORO	10 U		10 U	
1,1,2-TRICHLOROE	10 U		10 U	
BENZENE	10 U		10 U	
TRANS-1,3-DICHLC	10 U		10 U	
BROMOFORM	10 U		10 U	
4-METHYL-2-PENT.	10 UJ		10 UJ	
2-HEXANONE	10 UJ		10 UJ	
TETRACHLOROETI	10 U		10 U	
1,1,2,2-TETRACHLC	10 U		10 U	
TOLUENE	10 U		10 U	
CHLOROBENZENE	10 U		10 U	
ETHYLBENZENE	10 U		10 U	
STYRENE	10 U		10 U	
XYLENE (TOTAL)	10 U		10 U	

Analytical Results (Qualified Data)

Case #: 27178	SDG : ECNK3	
Site :	TERRE HAUTE MUNICIPAL WELL	Number 20
Lab. :	ATAS	Number 0
Reviewer :	S. Tobin	
Date :	08/25/99	

Sample Number : VHBLKDB VBLKDB
Sampling Location :

Analytical Results (Qualified Data)

Case #: 27178

SDG : ECNP2

Site :

TERRE HAUTE MUNICIPAL WELL

Lab. :

ATAS

Reviewer :

S. Tobin

Date :

09/29/99

Number of Soil Samples : 20

Number of Water Samples : 0

Sample Number :	ECNQ9	ECNR0	ECNR3	ECNR3MS	ECNR3MSD					
Sampling Location :	7B15	6B5	10B5	10B5	10B5					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	08/02/1999	08/02/1999	08/02/1999	08/02/1999	08/02/1999					
Time Sampled :	01:45	02:15	03:15	03:15	03:15					
%Moisture :	5	14	11	11	11					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	8	J	12	U	4	J	2	J	11	U
BROMOMETHANE	10	U	12	U	11	U	11	U	11	U
VINYL CHLORIDE	10	U	12	U	11	U	11	U	11	U
CHLOROETHANE	10	U	12	U	11	U	11	U	11	U
METHYLENE CHLORIDE	14	U	12	U	17	U	13	U	13	U
ACETONE	59	J	12	UJ	6	J	8	J	11	UJ
CARBON DISULFIDE	10	U	12	U	11	U	11	U	11	U
1,1-DICHLOROETHENE	10	U	12	U	11	U	52		58	
1,1-DICHLOROETHANE	10	U	12	U	11	U	11	U	11	U
TOTAL 1,2-DICHLOROETHENE	10	U	12	U	11	U	11	U	11	U
CHLOROFORM	10	U	12	U	11	U	11	U	11	U
1,2-DICHLOROETHANE	10	U	12	U	11	U	11	U	11	U
2-BUTANONE	7	J	12	UJ	11	UJ	11	UJ	11	UJ
1,1,1-TRICHLOROETHANE	10	U	12	U	11	U	11	U	11	U
CARBON TETRACHLORIDE	10	U	12	U	11	U	11	U	11	U
BROMODICHLOROMETHANE	10	U	12	U	11	U	11	U	11	U
1,2-DICHLOROPROPANE	10	U	12	U	11	U	11	U	11	U
CIS-1,3-DICHLOROPROPENE	10	U	12	U	11	U	11	U	11	U
TRICHLOROETHENE	1	J	3	J	11	U	45		49	
DIBROMOCHLOROMETHANE	10	U	12	U	11	U	11	U	11	U
1,1,2-TRICHLOROETHANE	10	U	12	U	11	U	11	U	11	U
BENZENE	3	J	12	U	1	J	54		61	
TRANS-1,3-DICHLOROPROPENE	10	U	12	U	11	U	11	U	11	U
BROMOFORM	10	U	12	U	11	U	11	U	11	U
4-METHYL-2-PENTANONE	10	UJ	12	UJ	11	UJ	11	UJ	11	UJ
2-HEXANONE	10	UJ	12	UJ	11	UJ	11	UJ	11	UJ
TETRACHLOROETHENE	17		12	U	11	U	11	U	11	U
1,1,2,2-TETRACHLOROETHANE	10	U	12	UJ	11	U	11	U	11	U
TOLUENE	3	J	12	U	2	J	54		60	
CHLOROBENZENE	10	U	12	U	11	U	51		56	
ETHYLBENZENE	10	U	12	U	11	U	11	U	11	U
STYRENE	10	U	12	U	11	U	11	U	11	U
XYLENE (TOTAL)	10	U	12	U	11	U	11	U	11	U

Analytical Results (Qualified Data)

Case #: 27178

SDG EGNP2

Site:

TERRE HAUTE MUNICIPAL WELL

Number of Soil Samples: 20

Lab:

ATAS

Number of Water Samples: 0

Reviewer:

S. Tobin

Date:

09/29/99

Sample Number:	VHBLKCW		VBLKCR		VBLKCS		VBLKCT		VBLKCU	
Sampling Location:										
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled:										
Time Sampled:										
%Moisture:	0		N/A		N/A		N/A		N/A	
pH:										
Dilution Factor:	10		10		10		10		10	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
BROMOMETHANE	10	U	10	U	10	U	10	U	10	U
VINYL CHLORIDE	10	U	10	U	10	U	10	U	10	U
CHLOROETHANE	10	U	10	U	10	U	10	U	10	U
METHYLENE CHLORIDE	4	J	6	J	6	J	5	J	5	J
ACETONE	10	UJ	3	J	5	J	10	UJ	10	UJ
CARBON DISULFIDE	10	U	10	U	10	U	10	U	10	U
1,1-DICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
1,1-DICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
TOTAL 1,2-DICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
CHLOROFORM	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
2-BUTANONE	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,1,1-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U	10	U
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U	10	U
CIS-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10	U
TRICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
BENZENE	10	U	10	U	10	U	10	U	10	U
TRANS-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10	U
BROMOFORM	10	U	10	U	10	U	10	U	10	U
4-METHYL-2-PENTANONE	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
2-HEXANONE	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
TETRACHLOROETHENE	10	U	10	U	10	U	10	U	10	U
1,1,2,2-TETRACHLOROETHANE	10	UJ	10	U	10	UJ	10	UJ	10	U
TOLUENE	10	U	10	U	10	U	10	U	10	U
CHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
ETHYLBENZENE	10	U	10	U	10	U	10	U	10	U
STYRENE	10	U	10	U	10	U	10	U	10	U
XYLENE (TOTAL)	10	U	10	U	10	U	10	U	10	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: IN/22
Case No: 27178 Site Name Location: Terre Haute Moni
Contractor or EPA Lab: ATAS Data User: IOEM
No. of Samples: 20 Date Sampled or Data Received: 9-21-99

Have Chain-of-Custody records been received? Yes No
Have traffic reports or packing lists been received? Yes No
If no, are traffic report or packing list numbers written on the chain-of-custody record? Yes No
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes No
No of samples claimed: 20 No. of samples received: 20
Received by: Lynette Burnett Date: 9-21-99
Received by LSSS: Lynette Burnett Date: 9-21-99
Review started: 9-29-99 Reviewer Signature: Stephanie Tobin
Total time spent on review: 8 hrs Date review completed: 9-29-99
Copied by: Lynette Burnett Date: 10-12-99
Mailed to user by: Lynette Burnett Date: 10-12-99

DATA USER:

Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____
Data review received by: _____ Date: _____

Inorganic Data Complete [] Suitable for Intended Purpose [] if C
Organic Data Complete [] Suitable for Intended Purpose [] if C
Dioxin Data Complete [] Suitable for Intended Purpose [] if C
SAS Data Complete [] Suitable for Intended Purpose [] if C

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files. Data: _____

Case #: 27178

SDG : ECNR1

Site :

TERRE HAUTE MUNICIPAL WELL

Number c 17

Lab. :

ATAS

Number c 0

Reviewer :

Date :

*3 Drings
2nd batch*

Sample Number :	ECNR1	ECNR2	ECNR4	ECNR5	ECNR5MS					
Sampling Location :	6B10	15B6	10B10	10B15	10B15					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	08/02/1999	08/02/1999	08/02/1999	08/02/1999	08/02/1999					
Time Sampled :	02:20	02:25	03:20	03:25	03:25					
%Moisture :	7	4	4	13	13					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatle Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	4	J	10	U	10	U	11	U	11	U
BROMOMETHANE	11	U	10	U	10	U	11	U	11	U
VINYL CHLORIDE	11	U	10	U	10	U	11	U	11	U
CHLOROETHANE	11	U	10	U	10	U	11	U	11	U
METHYLENE CHLORIDE	13	U	10	U	10	U	17	U	17	U
ACETONE	11	UJ	10	UJ	10	UJ	11	UJ	11	UJ
CARBON DISULFIDE	11	U	10	U	10	U	11	U	11	U
1,1-DICHLOROETHENE	11	U	10	U	10	U	11	U	59	
1,1-DICHLOROETHANE	11	U	10	U	10	U	11	U	11	U
TOTAL 1,2-DICHLOROETHENE	11	U	10	U	10	U	11	U	11	U
CHLOROFORM	11	U	10	U	10	U	11	U	11	U
1,2-DICHLOROETHANE	11	U	10	U	10	U	11	U	11	U
2-BUTANONE	11	UJ	10	UJ	10	UJ	11	UJ	11	UJ
1,1,1-TRICHLOROETHANE	3	J	10	U	10	U	2	J	11	U
CARBON TETRACHLORIDE	11	U	10	U	10	U	11	U	11	U
BROMODICHLOROMETHANE	11	U	10	U	10	U	11	U	11	U
1,2-DICHLOROPROPANE	11	U	10	U	10	U	11	U	11	U
CIS-1,3-DICHLOROPROPANE	11	U	10	U	10	U	11	U	11	U
TRICHLOROETHENE	6	J	2	J	10	U	11	U	24	
DIBROMOCHLOROMETHANE	11	U	10	U	10	U	11	U	11	U
1,1,2-TRICHLOROETHANE	11	U	1	J	10	U	11	U	11	U
BENZENE	2	J	10	U	10	U	11	U	55	
TRANS-1,3-DICHLOROPROPANE	11	U	10	U	10	U	11	U	11	U
BROMOFORM	11	U	10	U	10	U	11	U	11	U
4-METHYL-2-PENTANONE	11	UJ	10	UJ	10	UJ	11	UJ	11	UJ
2-HEXANONE	11	UJ	10	UJ	10	UJ	11	UJ	11	UJ
TETRACHLOROETHENE	14		6	J	1	J	3	J	2	J
1,1,2,2-TETRACHLOROETHANE	11	UJ	10	U	10	U	11	UJ	11	UJ
TOLUENE	11	U	10	U	10	U	11	U	58	
CHLOROBENZENE	11	U	10	U	10	U	11	U	56	
ETHYLBENZENE	11	U	10	U	10	U	11	U	11	U
STYRENE	11	U	10	U	10	U	11	U	11	U
XYLENE (TOTAL)	11	U	10	U	10	U	11	U	11	U

DISCLAIMER: This package has been electronically assessed as an added service to our customer.. It has not been either validated or approved by Region 5 and any subsequent use by the data user is strictly at the risk of the data user. Region 5 assumes no responsibility for use of unvalidated data.

Case #: 27178

SDG : ECNR1

Site :

TERRE HAUTE MUNICIPAL WELL

Lab. :

ATAS

Reviewer :

Date :

Sample Number :	ECNR5MSD	ECNR6	ECNR7	ECNR8	ECNR9					
Sampling Location :	10B15	10B15	11B5	11B10	11B15					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	08/02/1999	08/02/1999	08/02/1999	08/02/1999	08/02/1999					
Time Sampled :	03:25	03:25	04:00	04:05	04:10					
%Moisture :	13	5	7	27	15					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	11	U	10	U	11	U	14	U	12	U
BROMOMETHANE	11	U	10	U	11	U	14	U	12	U
VINYL CHLORIDE	11	U	10	U	11	U	14	U	12	U
CHLOROETHANE	11	U	10	U	11	U	14	U	12	U
METHYLENE CHLORIDE	11	U	10	U	11	U	14	U	12	U
ACETONE	11	UJ	10	UJ	11	UJ	14	UJ	12	UJ
CARBON DISULFIDE	11	U	10	U	11	U	14	U	12	U
1,1-DICHLOROETHENE	56		10	U	11	U	14	U	12	U
1,1-DICHLOROETHANE	11	U	10	U	11	U	14	U	12	U
TOTAL 1,2-DICHLOROETHANE	11	U	10	U	11	U	14	U	12	U
CHLOROFORM	11	U	10	U	11	U	14	U	12	U
1,2-DICHLOROETHANE	11	U	10	U	11	U	14	U	12	U
2-BUTANONE	11	UJ	10	UJ	11	UJ	14	UJ	12	UJ
1,1,1-TRICHLOROETHANE	11	U	10	U	11	U	14	U	12	U
CARBON TETRACHLORIDE	11	U	10	U	11	U	14	U	12	U
BROMODICHLOROMETHANE	11	U	10	U	11	U	14	U	12	U
1,2-DICHLOROPROPANE	11	U	10	U	11	U	14	U	12	U
CIS-1,3-DICHLOROPROPANE	11	U	10	U	11	U	14	U	12	U
TRICHLOROETHENE	45		10	U	11	U	2	J	14	
DIBROMOCHLOROMETHANE	11	U	10	U	11	U	14	U	12	U
1,1,2-TRICHLOROETHANE	11	U	10	U	11	U	14	U	12	U
BENZENE	57		10	U	11	U	14	U	12	U
TRANS-1,3-DICHLOROPROPANE	11	U	10	U	11	U	14	U	12	U
BROMOFORM	11	U	10	U	11	U	14	U	12	U
4-METHYL-2-PENTANONE	11	UJ	10	UJ	11	UJ	14	UJ	12	UJ
2-HEXANONE	11	UJ	10	UJ	11	UJ	14	UJ	12	UJ
TETRACHLOROETHENE	3	J	2	J	11	U	13	J	27	
1,1,2,2-TETRACHLOROETHANE	11	UJ	10	U	11	U	14	U	12	U
TOLUENE	60		10	U	11	U	14	U	12	U
CHLORO BENZENE	56		10	U	11	U	14	U	12	U
ETHYL BENZENE	11	U	10	U	11	U	14	U	12	U
STYRENE	11	U	10	U	11	U	14	U	12	U
XYLENE (TOTAL)	1	J	10	U	11	U	14	U	12	U

Analytical Results (Qualified Data)

Page ____ of ____

Case #: 27178 SDG : ECNR1
 Site : TERRE HAUTE MUNICIPAL WELL
 Lab. : ATAS
 Reviewer :
 Date :

Sample Number :	ECNS0	ECNS1	ECNS1RE	ECNS2	ECNS2RE
Sampling Location :	12B5	12B10	12B10	12B15	12B15
Matrix :	Soil	Soil	Soil	Soil	Soil
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Date Sampled :	08/02/1999	08/02/1999	08/02/1999	08/02/1999	08/02/1999

Time Sampled :	04:40		04:45		04:45		04:50		04:50	
%Moisture :	24		10		10		23		23	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	4	J	11	U	2	J	13	R	13	U
BROMOMETHANE	13	U	11	U	11	U	13	R	13	U
VINYL CHLORIDE	13	U	11	U	11	U	18	R	13	U
CHLOROETHANE	13	U	11	U	11	U	13	R	13	U
METHYLENE CHLORIDE	17	U	11	U	25	U	13	U	24	U
ACETONE	13	UJ	11	UJ	11	UJ	13	R	13	UJ
CARBON DISULFIDE	13	U	11	U	11	U	13	R	18	U
1,1-DICHLOROETHENE	13	U	11	U	11	U	13	R	13	U
1,1-DICHLOROETHANE	13	U	11	U	11	U	13	R	13	U
TOTAL 1,2-DICHLOROETHANE	13	U	11	U	11	U	13	R	13	U
CHLOROFORM	13	U	11	U	11	U	13	R	13	U
1,2-DICHLOROETHANE	13	U	11	U	11	U	13	R	13	U
2-BUTANONE	13	UJ	11	UJ	11	UJ	13	R	13	UJ
1,1,1-TRICHLOROETHANE	13	U	11	UJ	11	U	13	R	13	UJ
CARBON TETRACHLORIDE	13	U	11	UJ	11	U	13	R	13	UJ
BROMODICHLOROMETHANE	13	U	11	UJ	11	U	13	R	13	UJ
1,2-DICHLOROPROPANE	13	U	11	UJ	11	U	13	R	13	UJ
CIS-1,3-DICHLOROPROPANE	13	U	11	UJ	11	U	13	R	13	UJ
TRICHLOROETHENE	13	U	11	UJ	11	U	13	R	13	UJ
DIBROMOCHLOROMETHANE	13	U	11	UJ	11	U	13	R	13	UJ
1,1,2-TRICHLOROETHANE	13	U	11	UJ	11	U	13	R	13	UJ
BENZENE	5	J	11	UJ	11	U	13	R	13	UJ
TRANS-1,3-DICHLOROPROPANE	13	U	11	UJ	11	U	13	R	13	UJ
BROMOFORM	13	U	11	UJ	11	U	13	R	13	UJ
4-METHYL-2-PENTANONE	13	UJ	11	UJ	11	UJ	13	R	13	UJ
2-HEXANONE	13	UJ	11	UJ	11	UJ	13	R	13	UJ
TETRACHLOROETHENE	13	U	11	UJ	11	UJ	13	R	13	UJ
1,1,2,2-TETRACHLOROETHANE	13	UJ	11	UJ	11	UJ	13	R	13	UJ
TOLUENE	1	J	11	UJ	11	UJ	13	R	13	UJ
CHLOROBENZENE	13	U	11	UJ	11	UJ	13	R	13	UJ
ETHYLBENZENE	13	U	11	UJ	11	UJ	13	R	13	UJ
STYRENE	13	U	11	UJ	11	UJ	13	R	13	UJ
XYLENE (TOTAL)	13	U	11	UJ	1	J	13	R	13	UJ

Analytical Results (Qualified Data)

Page ____ of ____

Case #: 27178 SDG : ECNR1
 Site : TERRE HAUTE MUNICIPAL WELL
 Lab. : ATAS
 Reviewer :
 Date :

Sample Number :	ECNS3	ECNS4	ECNS5	ECNW3	ECNW4					
Sampling Location :	8B5	8B10	8B15	9B5	9B10					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	08/02/1999	08/02/1999	08/02/1999	08/02/1999	08/02/1999					
Time Sampled :	05:15	05:20	05:25	03:00	03:05					
%Moisture :	11	13	20	12	14					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	8	J	11	U	12	U	11	U	12	U

BROMOMETHANE	11	U	11	U	12	U	11	U	12	U
VINYL CHLORIDE	11	U	11	U	12	U	11	U	12	U
CHLOROETHANE	11	U	11	U	12	U	11	U	12	U
METHYLENE CHLORIDE	11	U	12	U	12	U	11	U	12	U
ACETONE	13	U	11	UJ	12	UJ	11	UJ	12	U
CARBON DISULFIDE	11	U	11	U	12	U	11	U	12	U
1,1-DICHLOROETHENE	11	U	11	U	12	U	11	U	12	U
1,1-DICHLOROETHANE	11	U	11	U	12	U	11	U	12	U
TOTAL 1,2-DICHLOROETHANE	11	U	11	U	3	J	11	U	12	U
CHLOROFORM	11	U	11	U	12	U	11	U	12	U
1,2-DICHLOROETHANE	11	U	11	U	12	U	11	U	12	U
2-BUTANONE	11	UJ	11	UJ	12	UJ	11	UJ	12	UJ
1,1,1-TRICHLOROETHANE	11	U	11	U	12	U	11	U	12	U
CARBON TETRACHLORIDE	11	U	11	U	12	U	11	U	12	U
BROMODICHLOROMETHANE	11	U	11	U	12	U	11	U	12	U
1,2-DICHLOROPROPANE	11	U	11	U	12	U	11	U	12	U
CIS-1,3-DICHLOROPROPENE	11	U	11	U	12	U	11	U	12	U
TRICHLOROETHENE	7	J	11	U	12	U	11	U	12	U
DIBROMOCHLOROMETHANE	11	U	11	U	12	U	11	U	12	U
1,1,2-TRICHLOROETHANE	11	U	11	U	4	J	11	U	12	U
BENZENE	2	J	11	U	12	U	11	U	12	U
TRANS-1,3-DICHLOROPROPENE	11	U	11	U	12	U	11	U	12	U
BROMOFORM	11	U	11	U	12	U	11	U	12	U
4-METHYL-2-PENTANONE	11	UJ	11	UJ	12	UJ	11	UJ	12	UJ
2-HEXANONE	11	UJ	11	UJ	12	UJ	11	UJ	12	UJ
TETRACHLOROETHENE	85	J	3	J	57	J	11	U	2	J
1,1,2,2-TETRACHLOROETHANE	11	U	11	UJ	12	UJ	11	UJ	12	UJ
TOLUENE	1	J	11	U	12	U	11	U	12	U
CHLOROBENZENE	11	U	11	U	12	U	11	U	12	U
ETHYLBENZENE	11	U	11	U	12	U	11	U	12	U
STYRENE	11	U	11	U	12	U	11	U	12	U
XYLENE (TOTAL)	11	U	11	U	12	U	11	U	12	U

Analytical Results (Qualified Data)

Page ____ of ____

Case #: 27178

SDG : ECNR1

Site :

TERRE HAUTE MUNICIPAL WELL

Lab. :

ATAS

Reviewer :

Date :

Sample Number :	ECNW5		VHBLKCW		VBLKCR		VBLKCS		VBLKCT	
Sampling Location :	9B15									
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	08/02/1999									
Time Sampled :	03:10									
%Moisture :	14		0		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	6	J	10	U	10	U	10	U	10	U
BROMOMETHANE	12	U	10	U	10	U	10	U	10	U
VINYL CHLORIDE	12	U	10	U	10	U	10	U	10	U
CHLOROETHANE	12	U	10	U	10	U	10	U	10	U
METHYLENE CHLORIDE	14	U	5	J	6	J	6	J	5	J
ACETONE	14	U	10	UJ	3	J	5	J	10	UJ
CARBON DISULFIDE	12	U	10	U	10	U	10	U	10	U

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on Sept 24, 1999

FROM: Stephen L. Ostroder, Chief (HSRL-5J)
Superfund Technical Support Section

*On the order of
Richard Z Byrnes
10/25/99*

TO: Data User: IOEM

We have reviewed the data for the following case:

SITE NAME: Terry Haute Mun. Well Field (IN)

CASE NUMBER: 27308 SDG NUMBER: ECNS6

Number and Type of Samples: 20 (water)

Sample Numbers: ECNS6-9 ECNT0-9 ECNW0-2 ECWM1-3

Laboratory: PDP Analytical Hrs. for Review: 8 + 1^{hr}

Following are our findings:

*The data is usable and acceptable with the
qualifications described in the attached narrative.
Richard Z Byrnes*

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

Well H₂O

NARRATIVE

Page 1 of 4

Laboratory: PDP Analytical
Site: Terry Haute Mun Well Field (IN)

Case: 27308
SDG: ECNS6

Below is a summary of the out-of-control audits and possible effects on the data for this Case/SDG:

Twenty (20) water samples, numbered ECNS6 through ECNS9, ECNT0 through ECNT9, ECNW0 through ECNW2, ECWM1 Through ECWM3 were collected on August 30 and 31, 1999. The lab received the samples on September 1, 1999 in good condition. All samples were analyzed for the full list of volatile organic analytes. All were analyzed according to CLP SOW OLC02.0.

The VOA analyses were performed within the technical holding times of 14 days after sample collection; therefore the results are acceptable.

Reviewed by: Thomas Seifried, Lockheed Martin/ESAT
Date: October 19, 1999

NARRATIVE

Page 2 of 4

Laboratory: PDP Analytical
Site: Terry Haute Mun Well Field (IN)

Case: 27308
SDG: ECNS6

1. HOLDING TIME

Twenty (20) water samples, numbered ECNS6 through ECNS9, ECNT0 through ECNT9, ECNW0 through ECNW2, ECWM1 Through ECWM3 were collected on August 30 and 31, 1999. The lab received the samples on September 1, 1999 in good condition. All samples were analyzed for the full list of volatile organic analytes. All were analyzed according to CLP SOW OLCO20.

The VOA analyses were performed within the technical holding times of 14 days after sample collection; therefore the results are acceptable.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

All GC/MS tuning complied with mass list and ion abundance criteria for BFB, and all samples were analyzed within the twelve (12) hour periods for instrument performance checks.

3. CALIBRATION

Initial and continuing calibrations of the Volatile standards were evaluated for target compound list and outliers are recorded on the forms included as part of this narrative.

4. BLANKS

VBLK49, VBLK50 and VBLK51 are the low level matrix volatile method blanks. VBLK49, VBLK50 and VBLK51 contained no target compounds or TICs. The Volatile method blank summary (FORM IV VOA) lists the samples associated with each blank.

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

The volatile system monitoring compounds were within QC required limits for recovery and retention time; therefore the results are acceptable.

6. LABORATORY CONTROL SAMPLES

For VLCS49, VLSC50 and VLCS51, all spike recoveries were within QC limits; therefore the results for the samples are

Reviewed by: Thomas Sedlacek Lockheed Martin/ESAT
Date: October 15, 1999

NARRATIVE

Page 3 of 4

Laboratory: PDP Analytical
Site: Terry Haute Mun Well Field (IN)

Case: 27308
SDG: ECNS6

acceptable.

7. FIELD BLANK AND FIELD DUPLICATE

Sample ECNS7 is a field duplicate of Sample ECNS6. No positive hits or TICs were found in either sample.

8. INTERNAL STANDARDS

The internal standards retention times and area counts were all within the required QC limits: therefore the results are acceptable.

9. COMPOUND IDENTIFICATION

Target compounds (TCLs) and Tentatively Identified Compounds (TICs) were identified using a "best fit" library search method.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All samples were waters. All target CRQLs were properly reported. All target compound quantitation was properly reported.

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

12. ADDITIONAL INFORMATION

In the initial calibration for this data set, several of the compounds had response factors below the required minimum, for those compounds non-detects are considered unusable.

Reviewed by: Thomas Sedlacek Lockheed Martin/ESAT
Date: October 15, 1999

CASE/SAS#: 27308
COLUMN: DB-624
HEATED PURGE(Y/N):

LABORATORY: PDP
SITE NAME: Terry House Man. Well Field (TMS)

Instrument#	Date/Time	Initial cal.		Contin. cal.		Contin. Cal.		Contin. Cal.		Contin. Cal.	
		#	%rsd	#	%d	#	%d	#	%d	#	%d
B-HP547111											
Chloromethane	.01										
Bromomethane	.10										
Vinyl chloride	.10										
Chloroethane	.01										
Methylene chloride	.01										
Acetone	.01	0.004	5.7	J/R	0.004	0.0	J/R	0.004	0.0	J/R	0.004
Carbon disulfide	.01										
1,1-Dichloroethene	.10										
1,1-Dichloroethane	.20										
cis-1,2-Dichloroethene	.10										
trans-1,2-Dichloroethene	.10										
Chloroform	.20										
1,2-Dichloroethane	.10										
2-Butanone	.01										
Bromochloromethane	.05										
1,1,1-Trichloroethane	.10										
Carbon tetrachloride	.10										
Bromodichloromethane	.20										
1,2-Dichloropropane	.01										
cis-1,3-Dichloropropene	.20										
Trichloroethene	.30										
Dibromochloromethane	.10										
1,1,2-trichloroethane	.10										
Benzene	.40										
trans-1,3-Dichloropropene	.10										
Bromoform	.05										
4-Methyl-2-Pentanone	.01										
2-Hexanone	.01										
Tetrachloroethene	.10										
1,1,2,2-Tetrachloroethane	.10										
1,2-Dibromoethane	.10										
Toluene	.40										
Chlorobenzene	.50										
Ethylbenzene	.10										
Styrene	.30										
Xylene (total)	.30										
1,2-Dibromo-3-chloropropane	.10	0.002	10.0	J/R	0.004	3.2	J/R	0.006	6.5	J/R	0.006
1,3-Dichlorobenzene	.40										
1,4-Dichlorobenzene	.40										
1,2-Dichlorobenzene	.40										
4-Bromofluorobenzene	.20										

Samples affected:				
		VBLK49	VL0549	VBLK50
		VL0550	VBLK50	VL0550
		ECNS6	ECNT2	ECNT6
		ECNT7	ECNT3	ECNT4
		ECNT5	ECNT4	ECNT3
		ECNS8	ECNT4	ECNW0
		ECNS9	ECNT5	ECNW1
		ECNT0	ECNT6	ECNW2
		ECNT1	ECNT7	ECNM1

Reviewer's Init /Date: 215 11/1/94

J/R = All positive results are estimated "J" and non-detected results are unusable "R"
 ** = These flags should be applied to the analytes on the sample data sheets
 # = Minimum Relative Response Factor

ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature used in this document, the following code letters and associated definitions are provided:

VALUE - when/if the result of a value is greater than or equal to the Contract Required Quantitation Limit (CRQL).

- U Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.
- J Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound where the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a reported result having an associated QC problem.
- R Indicates the data are unusable. (NOTE: The analyte may or may not be present.)
- N Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.
- P Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.
- C Indicates pesticide results that have been confirmed by GC/MS.
- B Indicates the analyte is detected in the associated blank as well as in the sample.
- E Indicates compounds whose concentrations exceed the calibration range of the instrument.
- D Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.
- A Indicates tentatively identified compounds that are suspected to be aldol condensation products.
- G Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.
- L Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.
- T Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.

X,Y,Z are reserved for laboratory defined flags.



United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record (For Organic CLP Analysis)

Case No.

1 Matrix
(Enter in Column A)

2 Preservative
(Enter in Column D)

2 Region No

Sampling Co.

4. Date Shipped Carrier

6. Date Received -- Received by:

- 1 Surface Water
- 2 Ground Water
- 3 Leachate
- 4 Field QC
- 5 Soil/Sediment
- 6 Oil (High only)
- 7 Waste (High only)
- 8 Other (Specify in Column A)

- 1. HCl
- 2. HNO3
- 3. NaHSO4
- 4. H2SO4
- 5. Ice only
- 6. Other (Specify in Column D)
- N. Not preserved

Sampler (Name)

Sampler Signature

3 Purpose

- | | | | |
|------|------------------------------|-------------------------------|-------------------------------|
| Lead | <input type="checkbox"/> SF | <input type="checkbox"/> CLEM | <input type="checkbox"/> FS |
| | <input type="checkbox"/> PRP | <input type="checkbox"/> PA | <input type="checkbox"/> RD |
| | <input type="checkbox"/> ST | <input type="checkbox"/> REM | <input type="checkbox"/> RA |
| | <input type="checkbox"/> TED | <input type="checkbox"/> SI | <input type="checkbox"/> O&M |
| | | <input type="checkbox"/> ESI | <input type="checkbox"/> NPLD |

Airbill Number

5. Ship To

Laboratory Contract Number

Unit Price

7. Transfer to:

Date Received

Received by

Contract Number

Price

CLP Sample Numbers (from labels)	A Matrix (from Box 1)	B Conc Low Med High	C Sample Type Comp Grab	D Preservative (from Box 2)	E Analysis			F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K High Phases					
					VOA	BNA	Pres PCB						High only	Solids	Water-Miscible Liq	Water-Immisc. Liq		
							E-021227	MW10S	8/30/99 1910									
							E-021273	MW12D	8/31/99 0730									
							E-021274	MW12S	8/31/99 0715									
							E-021280	MW30	8/31/99 0250									
							E-021283	MW2S	8/31/99 0905									
							E-021284	MW12D	8/31/99 1010									
							E-021285	MW2S	8/31/99 1030									
							E-021286	MW15S	8/31/99 1115									
							E-021287	MW1D	8/31/99 1135									
							E-021288	MW1S	8/31/99 1145									

Shipment for Case Complete? (Y/N)

Page

Sample(s) to be Used for Laboratory QC

Additional Sampler Signatures

Chain of Custody Seal Number(s)

1 of 2

ECNT6, ECNT8

231011 231013

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	Is custody seal intact? (Y/N)/none
		Carlor Fair	9-1-99 1:38 AM	Case: 27308 SDG: ECNS6	

SUNNY

PDP ANALYTICAL SERVICES

1600 Lakes Front Circle, Suite B • The Woodlands, TX 77380 • Phone (281)363-2233

Contract No. 68-D7-0004

Case No. 27308

SDG No. ECNS6

SDG NARRATIVE

SAMPLE RECEIPT :

SEP 2 1999

09/01/99 @1338 P.M. - Received one shipment consisting of two cooler:

Cooler 2: temp 4°C. as 9/1/99

Cooler 1: temperature: 4°C (COC 382324, 382325) contained the following:

ECNS6- 2-40 ml vials
ECNS7- 2-40 ml vials
ECNS8- 2-40 ml vials
ECNS9- 2-40 ml vials
ECNT0- 2-40 ml vials
ECNT1- 2-40 ml vials
ECNT2- 2-40 ml vials
ECNT3- 2-40 ml vials
ECNT4- 2-40 ml vials
ECNT5- 2-40 ml vials
ECNT6- 4-40 ml vials
ECNT7- 2-40 ml vials
ECNT8- 4-40 ml vials
ECNT9- 2-40 ml vials
ECNW0- 2-40 ml vials
ECNW1- 2-40 ml vials
ECNW2- 2-40 ml vials

No problems were encountered during sample log-in.

VOLATILES:

All samples were analyzed on a HP5971A GC/MS using a 60 meters long DB-624 column having a 0.53mm ID and 3um film thickness. The trap used was a OV-1/Tenax/Silica Gel (Tekmar #6. Cat 14-1755-003). A 20 mL purge volume was used for all samples, blanks and standards. The concentrations of the standards and spikes were maintained at the levels required by the Statement of Work (SOW).

The following field samples are analyzed for volatiles in this SDG. The pH of the samples is listed against them.

ECNS6	2.0	ECNT2	2.0	ECNT8	2.0
ECNS7	2.0	ECNT3	2.0	ECNT9	2.0
ECNS8	2.0	ECNT4	2.0	ECNW0	2.0
ECNS9	2.0	ECNT5	2.0	ECNW1	2.0
ECNT0	2.0	ECNT6	2.0	ECNW2	2.0
ECNT1	2.0	ECNT7	2.0	ECWM1	2.0
ECWM2	2.0	ECWM3	2.0		

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United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record (For Organic CLP Analysis)

Case No. 27308

FORM 1

1 Matrix (Enter in Column A)	2 Preservative (Enter in Column D)	2 Region No	Sampling Co.	4. Date Shipped	Carrier	6. Date Received -- Received by:
1 Surface Water 2 Ground Water 3 Leachate 4 Field OC 5 Soil/Sediment 6 Oil (High only) 7 Waste (High only) 8 Other (Specify in Column A)	1 HCl 2 HNO3 3 NaHSO4 4 H2SO4 5 Ice only 6 Other (Specify in Column D) N Not preserved		TX	8/31/99	FedEx	9-1-99 Carol Furr
		3 Sampler (Name)		Altoil Number		Laboratory Contract Number
		3 Sampler Signature		8/3438623184		68-D7-0004
		3 Purpose		5. Ship To		7. Transfer to:
		<input type="checkbox"/> SF <input type="checkbox"/> PRP <input type="checkbox"/> ST <input type="checkbox"/> FED	<input type="checkbox"/> CLEM <input type="checkbox"/> PA <input type="checkbox"/> REM <input type="checkbox"/> RI <input type="checkbox"/> SI <input checked="" type="checkbox"/> ESI	<input type="checkbox"/> FS <input type="checkbox"/> RD <input type="checkbox"/> RA <input type="checkbox"/> O&M <input type="checkbox"/> INPLD	FDP Analytical Services 1480 Lake Front Circle, Suite B The Woodlands, TX 77380 ATTN Sachin Kudchadkar	Date Received
						Received by
						Contract Number
						Price
						525.00

CLP Sample Numbers (from labels)	A Matrix (from Box 1)	B Conc Low Med High	C Sample Type Comp Grab	D Preservative (from Box 2)	E RAS Analysis			F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K High Phases		
					VOA	BNA	Pest PCB						High only	Solids	Water-Miscible Liq.
ECNS5								MW75	8/30/99 1205		CF				
ECNS6								MW70	8/30/99 1130		CF				
ECNS7								MW40	8/30/99 1135		CF				
ECNS8								MW45	8/30/99 1430		CF				
ECNS9								MW13A	8/30/99 1610		CF				
ECNS10								MW13A	8/30/99 1611		CF				
ECNS11								MW13S	8/30/99 1635		CF				
ECNS12								MW85	8/30/99 1715		CF				
ECNS13								MW80	8/30/99 1800		CF				
ECNS14								MW100	8/30/99 1945		CF				

Shipment for Case Complete? (Y/N)	Page <u>1</u> of <u>21</u>	Sample(s) to be Used for Laboratory QC	Additional Sampler Signatures	Chain of Custody Seal Number(s)
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CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	Is custody seal intact? <input checked="" type="radio"/> N/none
		Carol Furr	9-1-99 1:38pm	case: 27308 SDG: ECNS6	

PDP ANALYTICAL SERVICES

1660 Lake Front Circle, Suite B • The Woodlands, TX 77380 • Phone (281) 363-2233

Contract No. 68-D7-0004

Case No. 27308

SDG No. ECNS6

SDG NARRATIVE

Manual integration's were performed for the following samples for the compounds listed against them.

VSTD00169- Chloroethane, 1,1-dichloroethene, Acetone, 2-Butanone, 1,2-Dichloroethane, 1,3-Dichlorobenzene, 1,2-Dibromo-3-chloropropane.

VSTD00269- Acetone, Methylene chloride, 2-Butanone, 1,3-Dichlorobenzene.

VSTD00569- Acetone.

VSTD01069- Bromomethane..

VSTD00577 - 1,2-Dibromo-3-chloropropane.

VSTD00579 - Acetone.

These manual integration's were necessary because the software failed to accurately integrate the entire peak. In all the above instances, the quantitation reports are flagged with "m". A hard copy printout of the manual integration's along with the scan ranges and initials of the operator is included in the data package .

Sample ECNW0 had a high concentration of Chloroform and was therefore analyzed at a 5X dilution.

All peaks in all samples, calibration standards, and QC samples are manually checked to make sure that the software has picked up the correct peak and correct integration has been performed.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature:

J. Kudachek / Project manager

Signature and Title

09/14/98

Date of Signature

Z:\NETDATA\QA\FORMS\CLIP\NARR1296.DOC

000002

2LCA
 LOW CONC. WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

	EPA SAMPLE NO.	BFB %REC #	OTHER	TOT OUT
01	VBLK49	101		0
02	VLCS49	95		0
03	ECNS6	100		0
04	ECNS7	106		0
05	ECNS8	105		0
06	ECNS9	101		0
07	ECNT0	103		0
08	ECNT1	105		0
09	ECNT2	99		0
10	ECNT3	101		0
11	ECNT4	101		0
12	ECNT5	102		0
13	ECNT6	103		0
14	ECNT7	106		0
15	VBLK50	106		0
16	VLCS50	103		0
17	ECNT8	105		0
18	ECNT9	103		0
19	ECNW0	104		0
20	ECNW1	107		0
21	ECNW2	104		0
22	ECNM1	94		0
23	ECNM2	105		0
24	ECNM3	99		0
25	VBLK51	104		0
26	VLCS51	104		0
27	ECNW0DL	103		0
28	VHBLK01	104		0
29				
30				

QC LIMITS
 %REC

BFB = Bromofluorobenzene (80-120)

Column to be used to flag recovery values
 * Values outside of contract required QC limits

VLCS49

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: BVLCS072

LCS Lot No.: 60

Lab File ID: B3089

Date Analyzed: 09/07/99

Purge Volume: 20.0 (mL)

Dilution Factor: 1.0

LCS Aliquot: 10.0 (uL)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
Vinyl chloride	100*	98	98	60-140
1,2-Dichloroethane	100	101	101	60-140
Carbon tetrachloride	100	80	80	60-140
1,2-Dichloropropane	100	92	92	60-140
Trichloroethene	100	81	81	60-140
1,1,2-Trichloroethane	100	97	97	60-140
Benzene	100	81	81	60-140
cis-1,3-Dichloropropene	100	92	92	60-140
Bromoform	100	93	93	60-140
Tetrachloroethene	100	87	87	60-140
1,2-Dibromoethane	100	113	113	60-140
1,4-Dichlorobenzene	100	104	104	60-140

Column to be used to flag LCS recovery with an asterisk.

* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 12 total.

COMMENTS: _____

3LCA
 LOW CONC. WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

VLCS50

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.:

SDG No.: ECNS6

Lab Sample ID: BVLCS073

LCS Lot No.: 60

Lab File ID: B3106

Date Analyzed: 09/07/99

Purge Volume: 20.0 (mL)

Dilution Factor: 1.0

LCS Aliquot: 10.0 (uL)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
Vinyl chloride	100	100	100	60-140
1,2-Dichloroethane	100	105	105	60-140
Carbon tetrachloride	100	84	84	60-140
1,2-Dichloropropane	100	95	95	60-140
Trichloroethene	100	83	83	60-140
1,1,2-Trichloroethane	100	106	106	60-140
Benzene	100	86	86	60-140
cis-1,3-Dichloropropene	100	96	96	60-140
Bromoform	100	102	102	60-140
Tetrachloroethene	100	92	92	60-140
1,2-Dibromoethane	100	119	119	60-140
1,4-Dichlorobenzene	100	109	109	60-140

Column to be used to flag LCS recovery with an asterisk.

* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 12 total.

COMMENTS:

VLCS51

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: BVLCS074 LCS Lot No.: 60

Lab File ID: B3118 Date Analyzed: 09/08/99

Purge Volume: 20.0 (mL) Dilution Factor: 1.0

LCS Aliquot: 10.0 (uL)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
Vinyl chloride	100	97	97	60-140
1,2-Dichloroethane	100	103	103	60-140
Carbon tetrachloride	100	82	82	60-140
1,2-Dichloropropane	100	92	92	60-140
Trichloroethene	100	82	82	60-140
1,1,2-Trichloroethane	100	100	100	60-140
Benzene	100	83	83	60-140
cis-1,3-Dichloropropene	100	90	90	60-140
Bromoform	100	97	97	60-140
Tetrachloroethene	100	92	92	60-140
1,2-Dibromoethane	100	115	115	60-140
1,4-Dichlorobenzene	100	105	105	60-140

Column to be used to flag LCS recovery with an asterisk.

* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 12 total.

COMMENTS: _____

4LCA
 LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK49

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.:

SDG No.: ECNS6

Lab Sample ID: BVBLK072

Date Analyzed: 09/07/99

Lab File ID: B3088

Time Analyzed: 1029

Instrument ID: B-HP5971A

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCS49	BVLCS072	B3089	1114
02	ECNS6	5441.002	B3090	1159
03	ECNS7	5441.003	B3091	1244
04	ECNS8	5441.004	B3092	1329
05	ECNS9	5441.005	B3093	1415
06	ECNT0	5441.006	B3094	1500
07	ECNT1	5441.007	B3095	1546
08	ECNT2	5441.008	B3096	1633
09	ECNT3	5441.009	B3097	1718
10	ECNT4	5441.010	B3098	1805
11	ECNT5	5441.011	B3099	1851
12	ECNT6	5441.012	B3100	1937
13	ECNT7	5441.013	B3101	2023
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COMMENTS:

VBLK50

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: BVBLK073 Date Analyzed: 09/07/99

Lab File ID: B3105 Time Analyzed: 2226

Instrument ID: B-HP5971A

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING ~~SAMPLES~~ AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCS50	BVLCS073	B3106	2312
02	ECNT8	5441.014	B3107	2357
03	ECNT9	5441.015	B3108	0042
04	ECNW0	5441.016	B3109	0128
05	ECNW1	5441.017	B3110	0214
06	ECNW2	5441.018	B3111	0300
07	ECNM1	5441.019	B3112	0346
08	ECNM2	5441.020	B3113	0432
09	ECNM3	5441.021	B3114	0518
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COMMENTS: _____

4LCA
 LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK51

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.:

SDG No.: ECNS6

Lab Sample ID: BVBLK074

Date Analyzed: 09/08/99

Lab File ID: B3117

Time Analyzed: 1000

Instrument ID: B-HP5971A

GC Column: DB-624

ID: 0.53 (mm)

Length: 60

(m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCS51	BVLCS074	B3118	1046
02	ECNWODL	5441.016DL	B3126	1755
03	VHBLK01	5441.001	B3127	1845
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COMMENTS:

ECNS6

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004
 Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6
 Lab Sample ID: 5441.002 Date Received: 09/01/99
 Lab File ID: B3090 Date Analyzed: 09/07/99
 Purge Volume: 20 (mL) Dilution Factor: 1.0
 GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNS6

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.002 Date Received: 09/01/99

Lab File ID: B3090 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNS7

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.003 Date Received: 09/01/99

Lab File ID: B3091 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

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LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNS7

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.003 Date Received: 09/01/99

Lab File ID: B3091 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNS8

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.004 Date Received: 09/01/99

Lab File ID: B3092 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

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LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNS8

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.004

Date Received: 09/01/99

Lab File ID: B3092

Date Analyzed: 09/07/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.				
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ECNS9

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.005 Date Received: 09/01/99

Lab File ID: B3093 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

MDS

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	3	
156-59-2	cis-1,2-Dichloroethene	12	
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	2	
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	3	
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	3	
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	8	
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

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LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNS9

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.005 Date Received: 09/01/99

Lab File ID: B3093 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.				
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ECNT0

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.006

Date Received: 09/01/99

Lab File ID: B3094

Date Analyzed: 09/07/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.6	J
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

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LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNT0

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.006 Date Received: 09/01/99

Lab File ID: B3094 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNT1

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.007

Date Received: 09/01/99

Lab File ID: B3095

Date Analyzed: 09/07/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
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74-87-3	-----Chloromethane	1	U
74-83-9	-----Bromomethane	1	U
75-01-4	-----Vinyl chloride	1	U
75-00-3	-----Chloroethane	1	U
75-09-2	-----Methylene chloride	2	U
67-64-1	-----Acetone	5	U
75-15-0	-----Carbon disulfide	1	U
75-35-4	-----1,1-Dichloroethene	1	U
75-34-3	-----1,1-Dichloroethane	1	U
156-59-2	-----cis-1,2-Dichloroethene	1	U
156-60-5	-----trans-1,2-Dichloroethene	1	U
67-66-3	-----Chloroform	1	U
107-06-2	-----1,2-Dichloroethane	1	U
78-93-3	-----2-Butanone	5	U
74-97-5	-----Bromochloromethane	1	U
71-55-6	-----1,1,1-Trichloroethane	1	U
56-23-5	-----Carbon tetrachloride	1	U
75-27-4	-----Bromodichloromethane	1	U
78-87-5	-----1,2-Dichloropropane	1	U
10061-01-5	-----cis-1,3-Dichloropropene	1	U
79-01-6	-----Trichloroethene	1	U
124-48-1	-----Dibromochloromethane	1	U
79-00-5	-----1,1,2-Trichloroethane	1	U
71-43-2	-----Benzene	1	U
10061-02-6	-----trans-1,3-Dichloropropene	1	U
75-25-2	-----Bromoform	1	U
108-10-1	-----4-Methyl-2-pentanone	5	U
591-78-6	-----2-Hexanone	5	U
127-18-4	-----Tetrachloroethene	1	U
79-34-5	-----1,1,2,2-Tetrachloroethane	1	U
106-93-4	-----1,2-Dibromoethane	1	U
108-88-3	-----Toluene	1	U
108-90-7	-----Chlorobenzene	1	U
100-41-4	-----Ethylbenzene	1	U
100-42-5	-----Styrene	1	U
1330-20-7	-----Xylenes (total)	1	U
541-73-1	-----1,3-Dichlorobenzene	1	U
106-46-7	-----1,4-Dichlorobenzene	1	U
95-50-1	-----1,2-Dichlorobenzene	1	U
96-12-8	-----1,2-Dibromo-3-chloropropane	1	U
120-82-1	-----1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNT1

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.007 Date Received: 09/01/99

Lab File ID: B3095 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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BCNT2

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.008 Date Received: 09/01/99

Lab File ID: B3096 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	0.6	J
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
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TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNT2

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.008 Date Received: 09/01/99

Lab File ID: B3096 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNT3

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.009

Date Received: 09/01/99

Lab File ID: B3097

Date Analyzed: 09/07/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNT3

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.009 Date Received: 09/01/99

Lab File ID: B3097 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNT4

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004
 Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6
 Lab Sample ID: 5441.010 Date Received: 09/01/99
 Lab File ID: B3098 Date Analyzed: 09/07/99
 Purge Volume: 20 (mL) Dilution Factor: 1.0
 GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNT4

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.010 Date Received: 09/01/99

Lab File ID: B3098 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNT5

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.011 Date Received: 09/01/99

Lab File ID: B3099 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

12

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	12	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNT5

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.011 Date Received: 09/01/99

Lab File ID: B3099 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNT6

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004
 Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6
 Lab Sample ID: 5441.012 Date Received: 09/01/99
 Lab File ID: B3100 Date Analyzed: 09/07/99
 Purge Volume: 20 (mL) Dilution Factor: 1.0
 GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNT6

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.012 Date Received: 09/01/99

Lab File ID: B3100 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNT7

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.013 Date Received: 09/01/99

Lab File ID: B3101 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO. COMPOUND CONCENTRATION (ug/L) Q

74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	2	
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	2	
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	2	
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	7	
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

00010

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNT7

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.013

Date Received: 09/01/99

Lab File ID: B3101

Date Analyzed: 09/07/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNT8

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.014

Date Received: 09/01/99

Lab File ID: B3107

Date Analyzed: 09/07/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO. COMPOUND CONCENTRATION (ug/L) Q

74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

000115

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNT8

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.014 Date Received: 09/01/99

Lab File ID: B3107 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNT9

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.015

Date Received: 09/01/99

Lab File ID: B3108

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

CAS NO. COMPOUND: CONCENTRATION (ug/L) Q

74-87-3	-----Chloromethane	1	U
74-83-9	-----Bromomethane	1	U
75-01-4	-----Vinyl chloride	1	U
75-00-3	-----Chloroethane	1	U
75-09-2	-----Methylene chloride	2	U
67-64-1	-----Acetone	5	U
75-15-0	-----Carbon disulfide	1	U
75-35-4	-----1,1-Dichloroethene	1	U
75-34-3	-----1,1-Dichloroethane	1	U
156-59-2	-----cis-1,2-Dichloroethene	2	U
156-60-5	-----trans-1,2-Dichloroethene	1	U
67-66-3	-----Chloroform	2	U
107-06-2	-----1,2-Dichloroethane	1	U
78-93-3	-----2-Butanone	5	U
74-97-5	-----Bromochloromethane	1	U
71-55-6	-----1,1,1-Trichloroethane	3	U
56-23-5	-----Carbon tetrachloride	1	U
75-27-4	-----Bromodichloromethane	1	U
78-87-5	-----1,2-Dichloropropane	1	U
10061-01-5	-----cis-1,3-Dichloropropene	1	U
79-01-6	-----Trichloroethene	4	U
124-48-1	-----Dibromochloromethane	1	U
79-00-5	-----1,1,2-Trichloroethane	1	U
71-43-2	-----Benzene	1	U
10061-02-6	-----trans-1,3-Dichloropropene	1	U
75-25-2	-----Bromoform	1	U
108-10-1	-----4-Methyl-2-pentanone	5	U
591-78-6	-----2-Hexanone	5	U
127-18-4	-----Tetrachloroethane	7	U
79-34-5	-----1,1,2,2-Tetrachloroethane	1	U
106-93-4	-----1,2-Dibromoethane	1	U
108-88-3	-----Toluene	1	U
108-90-7	-----Chlorobenzene	1	U
100-41-4	-----Ethylbenzene	1	U
100-42-5	-----Styrene	1	U
1330-20-7	-----Xylenes (total)	1	U
541-73-1	-----1,3-Dichlorobenzene	1	U
106-46-7	-----1,4-Dichlorobenzene	1	U
95-50-1	-----1,2-Dichlorobenzene	1	U
96-12-8	-----1,2-Dibromo-3-chloropropane	1	U
120-82-1	-----1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNT9

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.015 Date Received: 09/01/99

Lab File ID: B3108 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNWO

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.016

Date Received: 09/01/99

Lab File ID: B3109

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO. COMPOUND CONCENTRATION (ug/L) Q

74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	0.7	J
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	59	E
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	10	
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

00013
OLC02.C

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNWO

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.016 Date Received: 09/01/99

Lab File ID: B3109 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNWODL

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.016DL

Date Received: 09/01/99

Lab File ID: B3126

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 5.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO. COMPOUND CONCENTRATION (ug/L) Q

74-87-3	-----Chloromethane	5	U
74-83-9	-----Bromomethane	5	U
75-01-4	-----Vinyl chloride	5	U
75-00-3	-----Chloroethane	5	U
75-09-2	-----Methylene chloride	10	U
67-64-1	-----Acetone	25	U
75-15-0	-----Carbon disulfide	5	U
75-35-4	-----1,1-Dichloroethene	5	U
75-34-3	-----1,1-Dichloroethane	5	U
156-59-2	-----cis-1,2-Dichloroethene	5	U
156-60-5	-----trans-1,2-Dichloroethene	5	U
67-66-3	-----Chloroform	60	D
107-06-2	-----1,2-Dichloroethane	5	U
78-93-3	-----2-Butanone	25	U
74-97-5	-----Bromochloromethane	5	U
71-55-6	-----1,1,1-Trichloroethane	5	U
56-23-5	-----Carbon tetrachloride	5	U
75-27-4	-----Bromodichloromethane	10	D
78-87-5	-----1,2-Dichloropropane	5	U
10061-01-5	-----cis-1,3-Dichloropropene	5	U
79-01-6	-----Trichloroethene	5	U
124-48-1	-----Dibromochloromethane	5	U
79-00-5	-----1,1,2-Trichloroethane	5	U
71-43-2	-----Benzene	5	U
10061-02-6	-----trans-1,3-Dichloropropene	5	U
75-25-2	-----Bromoform	5	U
108-10-1	-----4-Methyl-2-pentanone	25	U
591-78-6	-----2-Hexanone	25	U
127-18-4	-----Tetrachloroethene	5	U
79-34-5	-----1,1,2,2-Tetrachloroethane	5	U
106-93-4	-----1,2-Dibromoethane	5	U
108-88-3	-----Toluene	5	U
108-90-7	-----Chlorobenzene	5	U
100-41-4	-----Ethylbenzene	5	U
100-42-5	-----Styrene	5	U
1330-20-7	-----Xylenes (total)	5	U
541-73-1	-----1,3-Dichlorobenzene	5	U
106-46-7	-----1,4-Dichlorobenzene	5	U
95-50-1	-----1,2-Dichlorobenzene	5	U
96-12-8	-----1,2-Dibromo-3-chloropropane	5	U
120-82-1	-----1,2,4-Trichlorobenzene	5	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNWODL

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.016DL Date Received: 09/01/99

Lab File ID: B3126 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 5.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.				
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ECNW1

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.017 Date Received: 09/01/99

Lab File ID: B3110 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO. COMPOUND CONCENTRATION (ug/L) Q

74-87-3	-----Chloromethane	1	U
74-83-9	-----Bromomethane	1	U
75-01-4	-----Vinyl chloride	1	U
75-00-3	-----Chloroethane	1	U
75-09-2	-----Methylene chloride	2	U
67-64-1	-----Acetone	5	U
75-15-0	-----Carbon disulfide	1	U
75-35-4	-----1,1-Dichloroethene	1	U
75-34-3	-----1,1-Dichloroethane	1	U
156-59-2	-----cis-1,2-Dichloroethene	1	U
156-60-5	-----trans-1,2-Dichloroethene	1	U
67-66-3	-----Chloroform	1	U
107-06-2	-----1,2-Dichloroethane	1	U
78-93-3	-----2-Butanone	5	U
74-97-5	-----Bromochloromethane	1	U
71-55-6	-----1,1,1-Trichloroethane	1	U
56-23-5	-----Carbon tetrachloride	1	U
75-27-4	-----Bromodichloromethane	1	U
78-87-5	-----1,2-Dichloropropane	1	U
10061-01-5	-----cis-1,3-Dichloropropene	1	U
79-01-6	-----Trichloroethene	1	U
124-48-1	-----Dibromochloromethane	1	U
79-00-5	-----1,1,2-Trichloroethane	1	U
71-43-2	-----Benzene	1	U
10061-02-6	-----trans-1,3-Dichloropropene	1	U
75-25-2	-----Bromoform	1	U
108-10-1	-----4-Methyl-2-pentanone	5	U
591-78-6	-----2-Hexanone	5	U
127-18-4	-----Tetrachloroethene	1	U
79-34-5	-----1,1,2,2-Tetrachloroethane	1	U
106-93-4	-----1,2-Dibromoethane	1	U
108-88-3	-----Toluene	1	U
108-90-7	-----Chlorobenzene	1	U
100-41-4	-----Ethylbenzene	1	U
100-42-5	-----Styrene	1	U
1330-20-7	-----Xylenes (total)	1	U
541-73-1	-----1,3-Dichlorobenzene	1	U
106-46-7	-----1,4-Dichlorobenzene	1	U
95-50-1	-----1,2-Dichlorobenzene	1	U
96-12-8	-----1,2-Dibromo-3-chloropropane	1	U
120-82-1	-----1,2,4-Trichlorobenzene	1	U

000149

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNW1

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.017 Date Received: 09/01/99

Lab File ID: B3110 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNW2

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.018

Date Received: 09/01/99

Lab File ID: B3111

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	-----Chloromethane	1	U
74-83-9	-----Bromomethane	1	U
75-01-4	-----Vinyl chloride	1	U
75-00-3	-----Chloroethane	1	U
75-09-2	-----Methylene chloride	2	U
67-64-1	-----Acetone	5	U
75-15-0	-----Carbon disulfide	1	U
75-35-4	-----1,1-Dichloroethene	1	U
75-34-3	-----1,1-Dichloroethane	1	U
156-59-2	-----cis-1,2-Dichloroethene	1	U
156-60-5	-----trans-1,2-Dichloroethene	1	U
67-66-3	-----Chloroform	6	U
107-06-2	-----1,2-Dichloroethane	1	U
78-93-3	-----2-Butanone	5	U
74-97-5	-----Bromochloromethane	1	U
71-55-6	-----1,1,1-Trichloroethane	1	U
56-23-5	-----Carbon tetrachloride	1	U
75-27-4	-----Bromodichloromethane	1	U
78-87-5	-----1,2-Dichloropropane	1	U
10061-01-5	-----cis-1,3-Dichloropropene	1	U
79-01-6	-----Trichloroethene	2	U
124-48-1	-----Dibromochloromethane	1	U
79-00-5	-----1,1,2-Trichloroethane	1	U
71-43-2	-----Benzene	1	U
10061-02-6	-----trans-1,3-Dichloropropene	1	U
75-25-2	-----Bromoform	1	U
108-10-1	-----4-Methyl-2-pentanone	5	U
591-78-6	-----2-Hexanone	5	U
127-18-4	-----Tetrachloroethene	5	U
79-34-5	-----1,1,2,2-Tetrachloroethane	1	U
106-93-4	-----1,2-Dibromoethane	1	U
108-88-3	-----Toluene	1	U
108-90-7	-----Chlorobenzene	1	U
100-41-4	-----Ethylbenzene	1	U
100-42-5	-----Styrene	1	U
1330-20-7	-----Xylenes (total)	1	U
541-73-1	-----1,3-Dichlorobenzene	1	U
106-46-7	-----1,4-Dichlorobenzene	1	U
95-50-1	-----1,2-Dichlorobenzene	1	U
96-12-8	-----1,2-Dibromo-3-chloropropane	1	U
120-82-1	-----1,2,4-Trichlorobenzene	1	U

0001

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNW2

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.018 Date Received: 09/01/99

Lab File ID: B3111 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.019

Date Received: 09/01/99

Lab File ID: B3112

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

4/S

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	0.7	J
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNM1

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.019

Date Received: 09/01/99

Lab File ID: B3112

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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ECNM2

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.020

Date Received: 09/01/99

Lab File ID: B3113

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNM2

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.020 Date Received: 09/01/99

Lab File ID: B3113 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

ILCA

EPA SAMPLE NO.

ECM3

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.021 Date Received: 09/01/99

Lab File ID: B3114 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	-----Chloromethane	1	U
74-83-9	-----Bromomethane	1	U
75-01-4	-----Vinyl chloride	1	U
75-00-3	-----Chloroethane	1	U
75-09-2	-----Methylene chloride	2	U
67-64-1	-----Acetone	5	U
75-15-0	-----Carbon disulfide	1	U
75-35-4	-----1,1-Dichloroethene	1	U
75-34-3	-----1,1-Dichloroethane	1	U
156-59-2	-----cis-1,2-Dichloroethene	1	U
156-60-5	-----trans-1,2-Dichloroethene	1	U
67-66-3	-----Chloroform	1	U
107-06-2	-----1,2-Dichloroethane	1	U
78-93-3	-----2-Butanone	5	U
74-97-5	-----Bromochloromethane	1	U
71-55-6	-----1,1,1-Trichloroethane	1	U
56-23-5	-----Carbon tetrachloride	1	U
75-27-4	-----Bromodichloromethane	1	U
78-87-5	-----1,2-Dichloropropane	1	U
10061-01-5	-----cis-1,3-Dichloropropene	1	U
79-01-6	-----Trichloroethene	1	U
124-48-1	-----Dibromochloromethane	1	U
79-00-5	-----1,1,2-Trichloroethane	1	U
71-43-2	-----Benzene	1	U
10061-02-6	-----trans-1,3-Dichloropropene	1	U
75-25-2	-----Bromoform	1	U
108-10-1	-----4-Methyl-2-pentanone	5	U
591-78-6	-----2-Hexanone	5	U
127-18-4	-----Tetrachloroethene	1	U
79-34-5	-----1,1,2,2-Tetrachloroethane	1	U
106-93-4	-----1,2-Dibromoethane	1	U
108-88-3	-----Toluene	1	U
108-90-7	-----Chlorobenzene	1	U
100-41-4	-----Ethylbenzene	1	U
100-42-5	-----Styrene	1	U
1330-20-7	-----Xylenes (total)	1	U
541-73-1	-----1,3-Dichlorobenzene	1	U
106-46-7	-----1,4-Dichlorobenzene	1	U
95-50-1	-----1,2-Dichlorobenzene	1	U
96-12-8	-----1,2-Dibromo-3-chloropropane	1	U
120-82-1	-----1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECNM3

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.021 Date Received: 09/01/99

Lab File ID: B3114 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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VBLK49

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: BVBLK072 Date Received: _____

Lab File ID: B3088 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	-----Chloromethane	1	U
74-83-9	-----Bromomethane	1	U
75-01-4	-----Vinyl chloride	1	U
75-00-3	-----Chloroethane	1	U
75-09-2	-----Methylene chloride	2	U
67-64-1	-----Acetone	5	U
75-15-0	-----Carbon disulfide	1	U
75-35-4	-----1,1-Dichloroethene	1	U
75-34-3	-----1,1-Dichloroethane	1	U
156-59-2	-----cis-1,2-Dichloroethene	1	U
156-60-5	-----trans-1,2-Dichloroethene	1	U
67-66-3	-----Chloroform	1	U
107-06-2	-----1,2-Dichloroethane	1	U
78-93-3	-----2-Butanone	5	U
74-97-5	-----Bromochloromethane	1	U
71-55-6	-----1,1,1-Trichloroethane	1	U
56-23-5	-----Carbon tetrachloride	1	U
75-27-4	-----Bromodichloromethane	1	U
78-87-5	-----1,2-Dichloropropane	1	U
10061-01-5	-----cis-1,3-Dichloropropene	1	U
79-01-6	-----Trichloroethene	1	U
124-48-1	-----Dibromochloromethane	1	U
79-00-5	-----1,1,2-Trichloroethane	1	U
71-43-2	-----Benzene	1	U
10061-02-6	-----trans-1,3-Dichloropropene	1	U
75-25-2	-----Bromoform	1	U
108-10-1	-----4-Methyl-2-pentanone	5	U
591-78-6	-----2-Hexanone	5	U
127-18-4	-----Tetrachloroethene	1	U
79-34-5	-----1,1,2,2-Tetrachloroethane	1	U
106-93-4	-----1,2-Dibromoethane	1	U
108-88-3	-----Toluene	1	U
108-90-7	-----Chlorobenzene	1	U
100-41-4	-----Ethylbenzene	1	U
100-42-5	-----Styrene	1	U
1330-20-7	-----Xylenes (total)	1	U
541-73-1	-----1,3-Dichlorobenzene	1	U
106-46-7	-----1,4-Dichlorobenzene	1	U
95-50-1	-----1,2-Dichlorobenzene	1	U
96-12-8	-----1,2-Dibromo-3-chloropropane	1	U
120-82-1	-----1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK49

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: BVBLK072 Date Received: _____

Lab File ID: B3088 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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VBK50

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: BVBLK073

Date Received: _____

Lab File ID: B3105

Date Analyzed: 09/07/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK50

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: BVBLK073 Date Received: _____

Lab File ID: B3105 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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VBLK51

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004
 Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6
 Lab Sample ID: BVBLK074 Date Received: _____
 Lab File ID: B3117 Date Analyzed: 09/08/99
 Purge Volume: 20 (mL) Dilution Factor: 1.0
 GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	-----Chloromethane	1	U
74-83-9	-----Bromomethane	1	U
75-01-4	-----Vinyl chloride	1	U
75-00-3	-----Chloroethane	1	U
75-09-2	-----Methylene chloride	2	U
67-64-1	-----Acetone	5	U
75-15-0	-----Carbon disulfide	1	U
75-35-4	-----1,1-Dichloroethene	1	U
75-34-3	-----1,1-Dichloroethane	1	U
156-59-2	-----cis-1,2-Dichloroethene	1	U
156-60-5	-----trans-1,2-Dichloroethene	1	U
67-66-3	-----Chloroform	1	U
107-06-2	-----1,2-Dichloroethane	1	U
78-93-3	-----2-Butanone	5	U
74-97-5	-----Bromochloromethane	1	U
71-55-6	-----1,1,1-Trichloroethane	1	U
56-23-5	-----Carbon tetrachloride	1	U
75-27-4	-----Bromodichloromethane	1	U
78-87-5	-----1,2-Dichloropropane	1	U
10061-01-5	-----cis-1,3-Dichloropropene	1	U
79-01-6	-----Trichloroethene	1	U
124-48-1	-----Dibromochloromethane	1	U
79-00-5	-----1,1,2-Trichloroethane	1	U
71-43-2	-----Benzene	1	U
10061-02-6	-----trans-1,3-Dichloropropene	1	U
75-25-2	-----Bromoform	1	U
108-10-1	-----4-Methyl-2-pentanone	5	U
591-78-6	-----2-Hexanone	5	U
127-18-4	-----Tetrachloroethene	1	U
79-34-5	-----1,1,2,2-Tetrachloroethane	1	U
106-93-4	-----1,2-Dibromoethane	1	U
108-88-3	-----Toluene	1	U
108-90-7	-----Chlorobenzene	1	U
100-41-4	-----Ethylbenzene	1	U
100-42-5	-----Styrene	1	U
1330-20-7	-----Xylenes (total)	1	U
541-73-1	-----1,3-Dichlorobenzene	1	U
106-46-7	-----1,4-Dichlorobenzene	1	U
95-50-1	-----1,2-Dichlorobenzene	1	U
96-12-8	-----1,2-Dibromo-3-chloropropane	1	U
120-82-1	-----1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK51

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: BVBLK074 Date Received: _____

Lab File ID: B3117 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
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LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

ILCA

EPA SAMPLE NO.

VHBLK01

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: 5441.001

Date Received: 09/01/99

Lab File ID: B3127

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK01

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: 5441.001 Date Received: 09/01/99

Lab File ID: B3127 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.				
2.				
3.				
4.				
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6.				
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30.				

VLCS49

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: BVLCS072

Date Received: _____

Lab File ID: B3089

Date Analyzed: 09/07/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	5	
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	5	
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	4	
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	5	
10061-01-5	cis-1,3-Dichloropropene	5	
79-01-6	Trichloroethene	4	
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	5	
71-43-2	Benzene	4	
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	5	
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	4	
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	6	
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	5	
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

11CA
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLCS50

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECNS6

Lab Sample ID: BVLCS073 Date Received: _____

Lab File ID: B3106 Date Analyzed: 09/07/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	5	
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	5	
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	4	
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	5	
10061-01-5	cis-1,3-Dichloropropene	5	
79-01-6	Trichloroethene	4	
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	5	
71-43-2	Benzene	4	
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	5	
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	6	
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	5	
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

VLCS51

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECNS6

Lab Sample ID: BVLCS074

Date Received: _____

Lab File ID: B3118

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	-----Chloromethane	1	U
74-83-9	-----Bromomethane	1	U
75-01-4	-----Vinyl chloride	5	
75-00-3	-----Chloroethane	1	U
75-09-2	-----Methylene chloride	2	U
67-64-1	-----Acetone	5	U
75-15-0	-----Carbon disulfide	1	U
75-35-4	-----1,1-Dichloroethene	1	U
75-34-3	-----1,1-Dichloroethane	1	U
156-59-2	-----cis-1,2-Dichloroethene	1	U
156-60-5	-----trans-1,2-Dichloroethene	1	U
67-66-3	-----Chloroform	1	U
107-06-2	-----1,2-Dichloroethane	5	
78-93-3	-----2-Butanone	5	U
74-97-5	-----Bromochloromethane	1	U
71-55-6	-----1,1,1-Trichloroethane	1	U
56-23-5	-----Carbon tetrachloride	4	
75-27-4	-----Bromodichloromethane	1	U
78-87-5	-----1,2-Dichloropropane	5	
10061-01-5	-----cis-1,3-Dichloropropene	4	
79-01-6	-----Trichloroethene	4	
124-48-1	-----Dibromochloromethane	1	U
79-00-5	-----1,1,2-Trichloroethane	5	
71-43-2	-----Benzene	4	
10061-02-6	-----trans-1,3-Dichloropropene	1	U
75-25-2	-----Bromoform	5	
108-10-1	-----4-Methyl-2-pentanone	5	U
591-78-6	-----2-Hexanone	5	U
127-18-4	-----Tetrachloroethene	5	
79-34-5	-----1,1,2,2-Tetrachloroethane	1	U
106-93-4	-----1,2-Dibromoethane	6	
108-88-3	-----Toluene	1	U
108-90-7	-----Chlorobenzene	1	U
100-41-4	-----Ethylbenzene	1	U
100-42-5	-----Styrene	1	U
1330-20-7	-----Xylenes (total)	1	U
541-73-1	-----1,3-Dichlorobenzene	1	U
106-46-7	-----1,4-Dichlorobenzene	5	
95-50-1	-----1,2-Dichlorobenzene	1	U
96-12-8	-----1,2-Dibromo-3-chloropropane	1	U
120-82-1	-----1,2,4-Trichlorobenzene	1	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: 1N/22
Case No: 27308 Site Name Location: Terry Haute Min. Well
Contractor or EPA Lab: PD Analytical Data User: IDEM
No. of Samples: 20 Date Sampled or Data Received: 9-23-99

Have Chain-of-Custody records been received? Yes No
Have traffic reports or packing lists been received? Yes No
If no, are traffic report or packing list numbers written on the chain
of-custody record? Yes No
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes No
No of samples claimed: 20 No. of samples received: 20
Received by: Lynette Burnett Date: 9-23-99
Received by LSSS: Lynette Burnett Date: 9-23-99
Review started: 10/15/99 Reviewer Signature: [Signature]
Total time spent on review: 8 Date review completed: 10/15/99
Copied by: Lynette Burnett Date: 11-8-99
Mailed to user by: Lynette Burnett Date: 11-8-99

DATA USER:

Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [] Suitable for Intended Purpose [] if
Organic Data Complete [] Suitable for Intended Purpose [] if
Dioxin Data Complete [] Suitable for Intended Purpose [] if
SAS Data Complete [] Suitable for Intended Purpose [] if

PROBLEMS: Please indicate reasons why data are not suitable for y
uses. _____

Received by Data Mgmt. Coordinator for Files. Data: _____

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on

Sept 24, 1999

FROM: Stephen L. Ostrodka, Chief (HSP-53)
Superfund Technical Support Section

*for Steve Ostrodka
Richard J. Byrnes
10/21/99*

TO: Data User:

IDEM:

We have reviewed the data for the following case:

SITE NAME:

Terry Haute Mun. Well Field (IN)

CASE NUMBER:

27308

SDG NUMBER:

ECWL2

Number and Type of Samples:

5 (water)

Sample Numbers:

ECWL2-6

Laboratory:

PDI Analytical

Hrs. for Review:

3.0 + 0.5

Following are our findings:

*the data is usable and acceptable with the
qualifications described in the attached narrative.
Richard J. Byrnes*

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

*Well
H2O*

NARRATIVE

Page 1 of 4

Laboratory: PDP Analytical
Site: Terry Haute Mun Well Field (IN)

Case: 27308
SDG: ECWL2

Below is a summary of the out-of-control audits and possible effects on the data for this Case/SDG:

FF
09/21/99
F.V. < (5)

~~Ten~~ (10) water samples, numbered ECWL2 through ECWL6, were collected on August 31, 1999. The lab received the samples on September 4, 1999 in good condition. All samples were analyzed for the full list of volatile organic analytes. All were analyzed according to CLP SOW OLC02.0.

The VOA analyses were performed within the technical holding times of 14 days after sample collection; therefore the results are acceptable.

Samples ECWL5 and ECWL6 are field duplicates.

Reviewed by: Thomas Sedlacek Lockheed Martin/ESAT
Date: October 15, 1999

NARRATIVE

Laboratory: PDP Analytical
Site: Terry Haute Mun Well Field (IN)

Case: 27308
SDG: ECWL2

1. HOLDING TIME

Five (5)

*1x8
10/21/14*
~~Ten (10)~~ water samples, numbered ECWL2 through ECWL6, were collected on August 31, 1999. The lab received the samples on September 4, 1999 in good condition. All samples were analyzed for the full list of volatile organic analytes. All were analyzed according to CLP SGW OLC02.0.

The VOA analyses were performed within the ~~technical~~ holding times of 14 days after sample collection; therefore the results are acceptable.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

All GC/MS tuning complied with mass list and ion abundance criteria for BFB, and all samples were analyzed within the twelve (12) hour periods for instrument performance checks.

3. CALIBRATION

Initial and continuing calibrations of the Volatile, standards were evaluated for target compound list and outliers are recorded on the forms included as part of this narrative.

4. BLANKS

VBLK51 was the water low level matrix volatile method blanks. VBLK51 contained no target compounds or TICs. The Volatile method blank summary (FORM IV VOA) lists the samples associated with each blank.

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

The volatile system monitoring compounds were within QC required limits for recovery and retention time, therefore the results are acceptable.

6. LABORATORY CONTROL SAMPLE

All spike recoveries were within QC limits; therefore the results for the samples are acceptable.

Reviewed by: Thomas Sedlacek Lockheed Martin/ESAT
Date: October 15, 1999

NARRATIVE

Page 3 of 4

Laboratory: PDP Analytical
Site: Terry Haute Mun Well Field (IN)

Case: 27308
SDG: ECWL2

7. FIELD BLANK AND FIELD DUPLICATE

No field blank in this data set. Sample ECWL5 is a field duplicate of Sample ECWL6. No positive hits or TICs were found in either sample.

8. INTERNAL STANDARDS

The internal standards retention times and area counts were all within the required QC limits: therefore the results are acceptable.

9. COMPOUND IDENTIFICATION

Target compounds (TCLs) and Tentatively Identified Compounds (TICs) were identified using a "best fit" library search method.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All samples were waters. All target CRQLs were properly reported. All target compound quantitation was properly reported.

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

12. ADDITIONAL INFORMATION

In the initial calibration for this data set, several of the compounds had response factors below the required minimum, for those compounds non-detects are considered unusable.

Reviewed by: Thomas Sedlacek Lockheed Martin/ESAT
Date: October 15, 1999

LOW CONCENTRATION WATER VOLATILE TCL COMPOUNDS
(page 1 of 1)

CASE/SASH: 27308
COLUMN: DB-624
HEATED PURGE(Y/N): N

LABORATORY: PDP
SITE NAME: Terry Harte, Mun. Well #11

Instrument: Date/Time:	#	Initial cal.		Contin. cal.		Contin. Cal.		Contin. Cal.		Contin. Cal.	
		rf	%RSD	rf	%RSD	rf	%RSD	rf	%RSD	rf	%RSD
Chloromethane	0.01										
Bromomethane	0.10										
Vinyl chloride	0.10										
Chloroethane	0.01										
Methylene chloride	0.01										
Acetone	0.01	7.02	5.7	1/R	0.09	12.5	1/R				
Carbon disulfide	0.01										
1,1-Dichloroethene	0.10										
1,1-Dichloroethane	0.20										
Cis-1,2-Dichloroethene	0.10										
Trans-1,2-Dichloroethene	0.10										
Chloroform	0.20										
1,2-Dichloroethane	0.10										
2-Butanone	0.01										
Bromochloromethane	0.05										
1,1,1-Trichloroethane	0.10										
Carbon tetrachloride	0.10										
Bromodichloromethane	0.20										
1,2-Dichloropropane	0.01										
Cis-1,3-Dichloropropene	0.20										
Trichloroethene	0.30										
Dibromochloromethane	0.10										
1,1,2-trichloroethane	0.10										
Benzene	0.40										
trans-1,3-Dichloropropene	0.10										
Bromofom	0.05										
4-Methyl-2-Pentanone	0.01										
2-Hexanone	0.01										
Tetrachloroethene	0.10										
1,1,2,2-Tetrachloroethane	0.10										
1,2-Dibromoethane	0.10										
Toluene	0.40										
Chlorobenzene	0.50										
Ethylbenzene	0.10										
Styrene	0.30										
Xylene (total)	0.30										
1,2-Dibromo-3-chloropropane	0.10	0.062	10.0	1/R	0.06	6.5	1/R				
1,3-Dichlorobenzene	0.40										
1,4-Dichlorobenzene	0.40										
1,2-Dichlorobenzene	0.40										
1,2,4-Trichlorobenzene	0.40										
4-Bromofluorobenzene	0.20										

Samples affected:				
		WALK 51		
		WALK 51		
		EWL 2		
		EWL 3		
		EWL 4		
		EWL 5		
		EWL 6		
		WALK 01		

Reviewer's Init./Date: JAS/11/06/99

J/R = All positive results are estimated "J" and non-detected results are unusable "R"
 ** = These flags should be applied to the analytes on the sample data sheets
 # = Minimum Relative Response Factor

CALIBRATION OUTLIERS
LOW CONCENTRATION WATER VOLATILE TCL COMPOUNDS

(Page 1 of 1)

CASE/SAS#: 7-7306
 COLUMN: DB-624
 HEATED PURGE (Y/N): N

LABORATORY: PDP
 SITENAME: Terry Haute Mun Well Site

Instrument#	Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:	rf	%rd	*	rf	%rd	*	rf	%rd	*	rf	%rd	*
Chloromethane	0.01											
Bromomethane	0.10											
Vinyl chloride	0.10											
Chloroethane	0.01											
Methylene chloride	0.01											
Acetone	0.01	1.04	5.7	J/R	0.01	12.5	J/R					
Carbon disulfide	0.01											
1,1-Dichloroethane	0.10											
1,1-Dichloroethane	0.20											
cis-1,2-Dichloroethane	0.10											
trans-1,2-Dichloroethane	0.10											
Chloroform	0.20											
1,2-Dichloroethane	0.10											
2-Butanone	0.01											
Bromochloromethane	0.10	2.4	J/R									
1,1,1-Trichloroethane	0.10											
Carbon tetrachloride	0.10											
Bromodichloromethane	0.20											
1,2-Dichloropropane	0.01											
cis-1,3-Dichloropropane	0.20											
Trichloroethane	0.30											
Dibromochloromethane	0.10											
1,1,2-Trichloroethane	0.10											
Benzene	0.50											
trans-1,3-Dichloropropane	0.10											
Bromoform	0.10											
4-Methyl-2-pentanone	0.01											
2-Hexanone	0.01											
Tetrachloroethene	0.20											
1,1,2,2-Tetrachloroethane	0.50	2.2	M.L.	J/R								
1,2-Dibromoethane	0.10											
Toluene	0.40											
Chlorobenzene	0.50											
Ethylbenzene	0.10											
Styrene	0.30											
Xylene (total)	0.30											
1,2-Dibromo-3-chloropropane	0.10	0.02	16.0	J/R	0.01	6.5	J/R					
1,3-Dichlorobenzene	0.60											
1,4-Dichlorobenzene	0.50											
1,2-Dichlorobenzene	0.40											
Bromofluorobenzene	0.40											
Samples affected:												

Reviewer's Init/Date: [Signature] 10/15/99

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

- * = These flags should be applied to the analytes on the sample data sheets.
- # = Minimum Relative Response Factor

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: 1N/22

Case No: 27308 Site Name Location: Terry Hute Men. Well

Contractor or EPA Lab: PDPA analytical Data User: IDEM

No. of Samples: 5 27308¹⁸ Date Sampled or Data Received: 9-24-99

Have Chain-of-Custody records been received? Yes No

Have traffic reports or packing lists been received? Yes No

If no, are traffic report or packing list numbers written on the chain-of-custody record? Yes No

If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes No
No of samples claimed: 5 No. of samples received: 5

Received by: Lynette Burnett Date: 9-24-99

Received by LSSS: Lynette Burnett Date: 9-24-99

Review started: 10/15/99 Reviewer Signature: [Signature]

Total time spent on review: 3.0 Date review completed: 10/15/99

Copied by: _____ Date: _____

Mailed to user by: _____ Date: _____

DATA USER:

Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

- Inorganic Data Complete [] Suitable for Intended Purpose [] if O
- Organic Data Complete [] Suitable for Intended Purpose [] if O
- Dioxin Data Complete [] Suitable for Intended Purpose [] if O
- SAS Data Complete [] Suitable for Intended Purpose [] if O

PROBLEMS: Please indicate reasons why data are not suitable for you uses.

Received by Data Mgmt. Coordinator for Files. Data: _____

ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature used in this document, the following code letters and associated definitions are provided:

VALUE - when/if the result of a value is greater than or equal to the Contract Required Quantitation Limit (CRQL).

- U** Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound where the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a reported result having an associated QC problem.
- R** Indicates the data are unusable. (NOTE: The analyte may or may not be present.)
- N** Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.
- P** Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.
- C** Indicates pesticide results that have been confirmed by GC/MS.
- B** Indicates the analyte is detected in the associated blank as well as in the sample.
- E** Indicates compounds whose concentrations exceed the calibration range of the instrument.
- D** Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.
- A** Indicates tentatively identified compounds that are suspected to be aldol condensation products.
- G** Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.
- L** Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.
- T** Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.

X,Y,Z are reserved for laboratory defined flags.

PDF ANALYTICAL SERVICES

1699 Lake Front Circle, Suite B • The Woodlands, TX 77380 • Phone (281)363-2233

Contract No. 68-D7-0004	Case No. 27308	SDG No. ECWL2
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SDG NARRATIVE

SEP 22 1999

SAMPLE RECEIPT :

09/01/99 @1338 P.M. - Received one shipment consisting of two coolers:

Cooler 1: temperature: 4°C, Cooler 2: temperature: 4°C (COC 382324, 382325) contained the following:

- ECWL2- 2-40 ml vials
- ECWL3- 2-40 ml vials
- ECWL4- 2-40 ml vials
- ECWL5- 2-40 ml vials
- ECLW6- 2-40 ml vials

No problems were encountered during sample log-in. The original Federal Express label is submitted with Case: 27308 SDG: ECNS6.

VOLATILES:

All samples were analyzed on a HP5971A GC/MS using a 60 meters long DB-624 column having a 0.53mm ID and 3um film thickness. The trap used was a OV-1/Tenax/Silica Gel (Tekmar #6. Cat 14-1755-003) . A 20 mL purge volume was used for all samples, blanks and standards. The concentrations of the standards and spikes were maintained at the levels required by the Statement of Work (SOW).

The following field samples are analyzed for volatiles in this SDG. The pH of the samples is listed against them.

- ECWL2 2.0
- ECWL3 2.0
- ECWL4 2.0
- ECWL5 2.0
- ECWL6 2.0

Manual integration's were performed for the following samples for the compounds listed against them.

- VSTD00169- Chloroethane, 1,1-dichloroethene, Acetone, 2-Butanone, 1,2-Dichloroethane, 1,3-Dichlorobenzene, 1,2-Dibromo-3-chloropropane.
- VSTD00269- Acetone, Methylene chloride, 2-Butanone, 1,3-Dichlorobenzene.
- VSTD00569- Acetone.
- VSTD01069- Bromomethane..
- VSTD00579 - Acetone.

These manual integration's were necessary because the software failed to accurately integrate the entire peak. In all the above instances, the quantitation reports are flagged with "m". A hard copy printout of the manual integration's along with the scan ranges and initials of the operator is included in the data package .

000001

PDP ANALYTICAL SERVICES

1680 Lake Front Circle, Suite B • The Woodlands, TX 77380 • Phone (281)363-2233

Contract No. 68-D7-0004	Case No. 27308	SDG No. ECWL2
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SDG NARRATIVE

All peaks in all samples, calibration standards, and QC samples are manually checked to make sure that the software has picked up the correct peak and correct integration has been performed.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature:

Michael Chadke / Project Manager
Signature and Title

09/14/99
Date of Signature

Z:\NETDATA\QA\FORMS\CLP\NARR1296.DOC

2LCA
 LOW CONC. WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECWL2

	EPA SAMPLE NO.	BFB %REC #	OTHER	TOT OUT
01	VBLK51	104		0
02	VLCS51	104		0
03	ECWL2	97		0
04	ECWL3	108		0
05	ECWL4	106		0
06	ECWL5	108		0
07	ECWL6	109		0
08	VHBLK01	106		0
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QC LIMITS

%REC

BFB = Bromofluorobenzene (80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3LCA
 LOW CONC. WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

VLCS51

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECWL2

Lab Sample ID: BVLCS074

LCS Lot No.: 60

Lab File ID: B3118

Date Analyzed: 09/08/99

Purge Volume: 20.0 (mL)

Dilution Factor: 1.0

LCS Aliquot: 10.0 (uL)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
Vinyl chloride	100	97	97	60-140
1,2-Dichloroethane	100	103	103	60-140
Carbon tetrachloride	100	82	82	60-140
1,2-Dichloropropane	100	92	92	60-140
Trichloroethene	100	82	82	60-140
1,1,2-Trichloroethane	100	100	100	60-140
Benzene	100	83	83	60-140
cis-1,3-Dichloropropene	100	90	90	60-140
Bromoform	100	97	97	60-140
Tetrachloroethene	100	92	92	60-140
1,2-Dibromoethane	100	115	115	60-140
1,4-Dichlorobenzene	100	105	105	60-140

Column to be used to flag LCS recovery with an asterisk.

* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 12 total.

COMMENTS:

4LCA
 LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK51

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECWL2

Lab Sample ID: BVBLK074

Date Analyzed: 09/08/99

Lab File ID: B3117

Time Analyzed: 1000

Instrument ID: B-HP5971A

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCS51	BVLCS074	B3118	1046
02	ECWL2	5442.002	B3119	1210
03	ECWL3	5442.003	B3120	1258
04	ECWL4	5442.004	B3121	1347
05	ECWL5	5442.005	B3122	1436
06	ECWL6	5442.006	B3123	1525
07	VHBLK01	5442.001	B3128	1936
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COMMENTS: _____

1LCA
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ECWL2

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECWL2

Lab Sample ID: 5442.002 Date Received: 09/01/99

Lab File ID: B3119 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

1-D

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

000012

1LCE
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECWL2

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECWL2

Lab Sample ID: 5442.002 Date Received: 09/01/99

Lab File ID: B3119 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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1LCA
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ECWL3

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECWL2

Lab Sample ID: 5442.003

Date Received: 09/01/99

Lab File ID: B3120

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

5-5

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	3	
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	0.7	J
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	0.8	J
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	14	
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

~~ILCS~~
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECWL3

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECWL2

Lab Sample ID: 5442.003 Date Received: 09/01/99

Lab File ID: B3120 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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1LCA
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ECWL4

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECWL2

Lab Sample ID: 5442.004

Date Received: 09/01/99

Lab File ID: B3121

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECWL4

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECWL2

Lab Sample ID: 5442.004 Date Received: 09/01/99

Lab File ID: B3121 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.				
2.				
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1LCA
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ECWL5

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECWL2

Lab Sample ID: 5442.005

Date Received: 09/01/99

Lab File ID: B3122

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromo-chloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromo-chloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECWL5

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECWL2

Lab Sample ID: 5442.005 Date Received: 09/01/99

Lab File ID: B3122 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 5

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1. _____	Unknown	22.56	3	J
2. 91-17-8	Naphthalene, decahydro-	25.57	2	JN
3. _____	Unknown	27.10	2	J
4. _____	Unknown	27.57	3	J
5. _____	Unknown	30.21	4	J
6. _____	_____	_____	_____	_____
7. _____	_____	_____	_____	_____
8. _____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____
16. _____	_____	_____	_____	_____
17. _____	_____	_____	_____	_____
18. _____	_____	_____	_____	_____
19. _____	_____	_____	_____	_____
20. _____	_____	_____	_____	_____
21. _____	_____	_____	_____	_____
22. _____	_____	_____	_____	_____
23. _____	_____	_____	_____	_____
24. _____	_____	_____	_____	_____
25. _____	_____	_____	_____	_____
26. _____	_____	_____	_____	_____
27. _____	_____	_____	_____	_____
28. _____	_____	_____	_____	_____
29. _____	_____	_____	_____	_____
30. _____	_____	_____	_____	_____

1LCA
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ECWL6

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECWL2

Lab Sample ID: 5442.006

Date Received: 09/01/99

Lab File ID: B3123

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECWL6

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECWL2

Lab Sample ID: 5442.006 Date Received: 09/01/99

Lab File ID: B3123 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 5

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.	Unknown	22.56	3	J
2. 493-02-7	Naphthalene, decahydro-, tr	25.59	2	JN
3.	Unknown	27.59	3	J
4.	Unknown	30.23	4	J
5.	Unknown	30.86	3	J
6.				
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1LCA
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK51

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.: _____

SDG No.: ECWL2

Lab Sample ID: BVBLK074

Date Received: _____

Lab File ID: B3117

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK51

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECWL2

Lab Sample ID: BVBLK074 Date Received: _____

Lab File ID: B3117 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONCENT. (ug/L)	Q
1.				
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1LCA
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK01

Lab Name: PDP ANALYTICAL SERVICES

Contract: 68-D7-0004

Lab Code: PDP

Case No.: 27308

SAS No.:

SDG No.: ECWL2

Lab Sample ID: 5442.001

Date Received: 09/01/99

Lab File ID: B3128

Date Analyzed: 09/08/99

Purge Volume: 20 (mL)

Dilution Factor: 1.0

GC Column: DB-624

ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE
LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK01

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECWL2

Lab Sample ID: 5442.001 Date Received: 09/01/99

Lab File ID: B3128 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
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1LCA
 LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLCSS51

Lab Name: PDP ANALYTICAL SERVICES Contract: 68-D7-0004

Lab Code: PDP Case No.: 27308 SAS No.: _____ SDG No.: ECWL2

Lab Sample ID: BVLCS074 Date Received: _____

Lab File ID: B3118 Date Analyzed: 09/08/99

Purge Volume: 20 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.53 (mm) Length: 60 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	5	
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	5	
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	4	
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	5	
10061-01-5	cis-1,3-Dichloropropene	4	
79-01-6	Trichloroethene	4	
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	5	
71-43-2	Benzene	4	
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	5	
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	6	
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	5	
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

Date: November 15, 2000

To: Rich Molini
Site Assessment/Brownfields Section

Thru: Fran Metcalfe *FM 11/15/2000*
Barry Steward *BS 11/15/00*

From: Nancy Britt *NB 11-15-2000*
OLQ Chemistry Section

Subject: Analytical Results for Municipal Well Field site
Terre Haute, Vigo County, Indiana
Site No. 7500090
Sampled: October 2,3 and 4, 2000
Sample Numbers: RI6697 – RI6708
Indiana State Department of Health (ISDH) Laboratories

The analytical results for the samples identified above have been evaluated. The ISDH does not currently submit the necessary documentation for a complete quality assurance/quality control evaluation. Based on the evaluation, it has been determined that the results are acceptable for screening purposes only. This memorandum should remain attached to the original laboratory reports for reference.

General Comments:

The purpose of this event was to monitor the conditions in a municipal well field that is contaminated with chlorinated solvents. In 1999, IDEM installed twenty-two (22) monitoring wells near the facility. The wells were first sampled in 1999. This sampling event will provide the second set of results for this site.

Sampling Quality Assurance/Quality Control:

Field documentation did allow for interpretation of the data. The missing time notation for sample RI6702 does not affect the data results since all preservation procedures and holding times were performed appropriately.

Field duplicate samples are used to establish the representativeness of field sampling (i.e., the homogeneity and sample variability). Field duplicates were groundwater collected from the MW7D sample point. The field duplicate samples show a high degree of sample homogeneity.

Trip blanks are used to identify sample contamination resulting from the handling and transportation of samples. The trip blank that was submitted with this sampling event did not contain any analytes above the laboratory detection limit. Equipment blanks are used to identify sample contamination resulting from sampling equipment. No equipment blank was included with this sampling event.

Errant data on field sheets are appropriately corrected by marking one line through the incorrect entry leaving the original entry legible. The correct data is entered, dated and initialed. White out, write overs, and mark out are not permitted on sampling forms.

Laboratory Quality Assurance/Quality Control:

The samples were analyzed within the recommended holding time.

Volatile Organic Compounds:

Samples were analyzed for VOCs by SW-846 Method 8260.

Results:

Three (3) sample points contained VOC concentrations above the maximum contaminant level (MCLs). Location MW12S contained 7.2 parts per billion (ppb) 1,1-dichloroethene and 600 ppb 1,1,1-trichloroethane. Location MW9S contained 220 ppb 1,1,1-trichloroethane. Location MW5S contained 5.3 ppb tetrachloroethene. Results that are above the MCL appear in bold type on the accompanying table.

Conclusions:

The data are usable for the overall project goal.

Attachment

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Volatile Organic Analysis

Site Name:	Municipal Well Field	Water
Site Number:	7500090	Units ug/l (ppb)
Location:	Terre Haute	
Date Sampled:	October 2,3, and 4, 2000	
Date Reported:	19-Oct-00	
Sample Numbers:	RI6688 - RI6708	
Lab:	State Department of Health Laboratories - ISDH	

Sample #		Type/ID#						
Lab	IDEM							
		DL	0.50	0.50	0.50	0.50	0.50	0.50
MCL >			100	5	7	NA	200	5
			chloroform	tetrachloroethene	1,1-dichloroethene	1,1-dichloroethane	1,1,1-trichloroethane	trichloroethene
852	RI6697	MW13D ✓						
853	RI6698	MW13S ✓	1.6	0.50				
854	RI6699	MW7D						
855	RI6700	**MW7D						
856	RI6701	MW7S	1.8					
857	RI6702	MW4D						
858	RI6703	MW5S	1.3	8.3			1.6	2.2
859	RI6704	*Trip Blank						
860	RI6705	MW12S	3.6		7.2	1.2	860	
861	RI6706	MW12D					2.8	
862	RI6707	MW9D					1.0	
863	RI6708	MW9S	1.4		0.50	9.3	220	

* BLANK (Type indicated)
 ** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE
Bold = above action level or MCL

NA indicates that no MCL has been assigned for that analyte



INDIANA STATE DEPARTMENT OF HEALTH
Environmental Laboratory
CHAIN OF CUSTODY

OCT 19 2000

I certify that sample(s) listed below was (were) collected by me or in my presence

Signature

Rich Molini Rich Molini

Date:

3 Oct 2000

LAB ASSIGNED NUMBER	CONTROL NUMBER	MATRIX	CONSISTING OF THE INDICATED NUMBER OF BOTTLES										DATE AND TIME COLLECTED	
			2000 ml P.N.M.	1000 ml P.N.M.	1000 ml G.N.M.	500 ml G.W.M.	40 ml Vial	120 ml G.(B.O.)	500 ml P.N.M.	250 ml P.N.M.	METHOD 8260			
00R0080														
000852	RI 6697	G Well						2					✓	10/2/00 3:20 AM/PM
000853	RI 6698	G Well						2					✓	10/3/00 9:15 AM/PM
000854	RI 6699	G Wells						2					✓	10/3/00 10:45 AM/PM
000855	RI 6700	G wells						2					✓	10/3/00 11:30 AM/PM
000856	RI 6701	wells						2					✓	10/3/00 2:30 AM/PM
000857	RI 6702	wells						2					✓	10/3/00 3:00 AM/PM
														1/1 : AM/PM
														1/1 : AM/PM
														1/1 : AM/PM
														1/1 : AM/PM
														1/1 : AM/PM
														1/1 : AM/PM

REPORTED

OCT 16 2000

Indiana State Department of Health
 Laboratory Resource Center
 Environmental Laboratory Section

SIGNATURE	DATE AND TIME	SEALS INTACT ?	COMMENTS	Please send report to:
RELINQUISHED BY: <i>Rich Molini</i> RICH MOLINI	10/3/00	Yes No		
RECEIVED BY: <i>L.E. Sullivan</i>	4:10 AM/PM	Yes No		
RELINQUISHED BY:	1/1	Yes No		
RECEIVED BY:	: AM/PM	Yes No		
RELINQUISHED BY:	1/1	Yes No		
RECEIVED BY:	: AM/PM	Yes No		

LABORATORY CUSTODIAN

I certify that I have received the above sample(s) and it (they) is (are) recorded in the official record book. The same sample(s) will be in the custody of competent laboratory personnel at all times or locked in a secure area.

Signature: *Lawrence E. Sullivan*

Date: 10/3/00 Time: 4:11 AM/PM

REPORTED

OCT 16 2000

Page 1 of 2

Indiana State Dept. of Health *Method 8260* Report

Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Client : IDEM
Collected: Oct 03 2000
Received : Oct 03 2000
Analyzed : Oct 10 2000
Reported : Oct 10 2000
Detection Limit = 0.5 µg/L

Analyst: MS 10-10-00
Reviewer: RB 10-11-00
CC: BBS

Name	RI6697	RI6698	RI6699	RI6700	RI6701	RI6702
	R852 Well	R853 Well	R854 Well	R855 Well	R856 Well	R857 Well
1) Dichlorodifluoromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
2) Chloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
3) Vinyl Chloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
4) Bromomethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
5) Chloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
6) Trichlorofluoromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
7) 1,1-Dichloroethene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
8) Methylene Chloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
9) trans-1,2-Dichloroethene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
10) 1,1-Dichloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
11) 2,2-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
12) cis-1,2-Dichloroethene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
13) Chloroform	<D.L.	1.6	<D.L.	<D.L.	1.8	<D.L.
14) Bromochloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
15) 1,1,1-Trichloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
16) 1,1-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
17) Carbon Tetrachloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
18) 1,2-Dichloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
19) Benzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
20) Fluorobenzene (Int.Std.)	4.0	4.0	4.0	4.0	4.0	4.0
21) Trichloroethene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
22) 1,2-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
23) Bromodichloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
24) Dibromomethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
25) cis-1,3-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
26) Toluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
27) trans-1,3-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
28) 1,1,2-Trichloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
29) 1,3-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
30) Tetrachloroethene	<D.L.	0.5	<D.L.	<D.L.	<D.L.	<D.L.
31) Dibromochloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
32) 1,2-Dibromoethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
33) Chlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
34) 1,1,1,2-Tetrachloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
35) Ethyl Benzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
36) m&p Xylene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
37) o-Xylene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
38) Styrene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
39) Isopropylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
40) Bromoform	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

Indiana State Dept. of Health Method 8260 Report

Client : IDEM
 Collected: Oct 03 2000
 Received : Oct 03 2000
 Analyzed : Oct 10 2000
 Reported : Oct 10 2000
 Detection Limit = 0.5 µg/L

Analyst: MS 10-10-00

Reviewer: RB 10-11-00

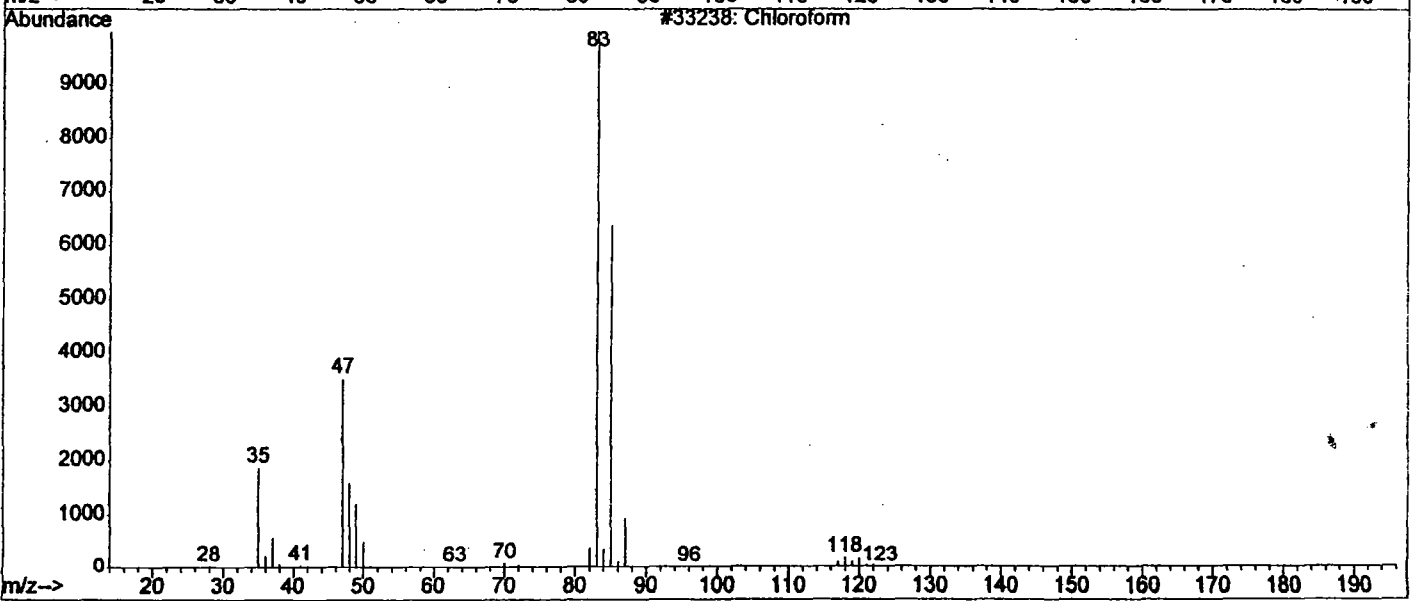
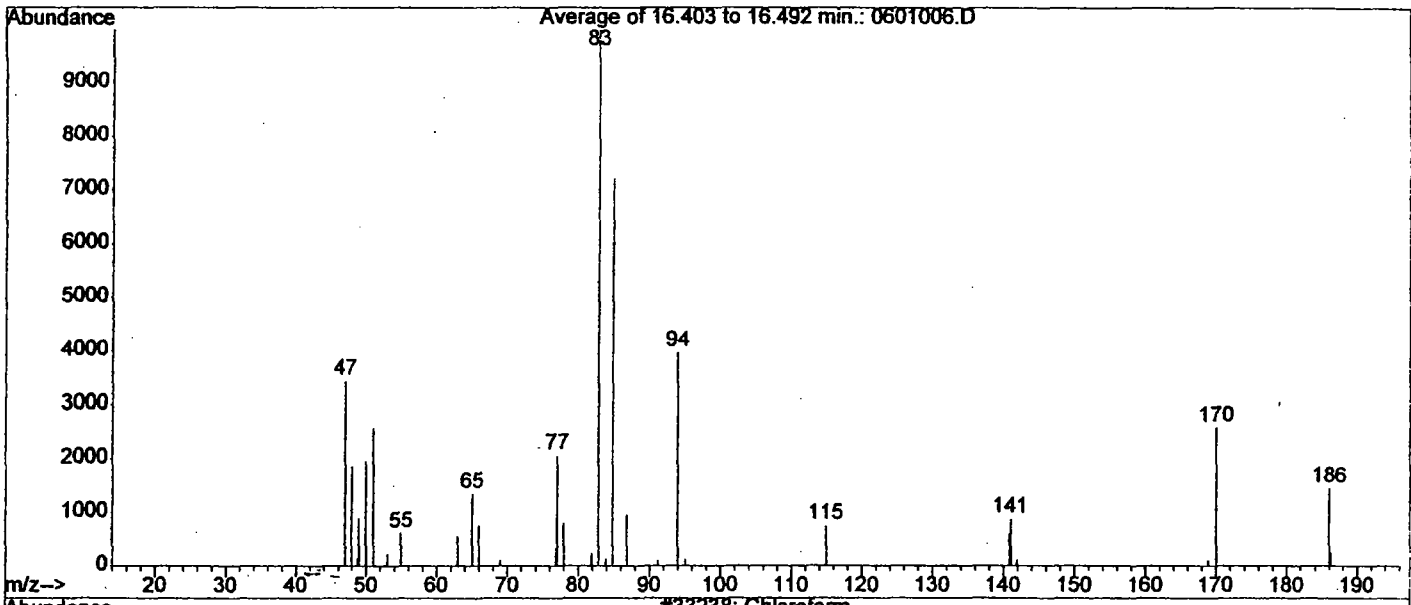
Name	RI6697	RI6698	RI6699	RI6700	RI6701	RI6702
	R852 Well	R853 Well	R854 Well	R855 Well	R856 Well	R857 Well
41) 1,1,2,2-Tetrachloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
42) p-BFB (Surr.)	4.6	4.7	4.6	4.5	4.4	4.5
43) 1,2,3-Trichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
44) n-Propylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
45) Bromobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
46) 1,3,5-Trimethylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
47) 2-Chlorotoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
48) 4-Chlorotoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
49) tert-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
50) 1,2,4-Trimethylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
51) sec-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
52) p-Isopropyltoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
53) 1,3-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
54) 1,4-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
55) n-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
56) 1,2-Dichlorobenzene d4 (Surr.)	3.2	3.4	3.4	3.2	3.2	3.3
57) 1,2-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
58) 1,2-Dibromo-3-Chloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
59) 1,2,4-Trichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
50) Hexachlorobutadiene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
51) Naphthalene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
52) 1,2,3-Trichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
53) MTBE	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

REPORTED

OCT 16 2000

Indiana State Department of Health
 Laboratory Resource Center
 Environmental Laboratory Section

Library Searched : C:\DATABASE\nist98.l
Quality : 38
ID : Chloroform



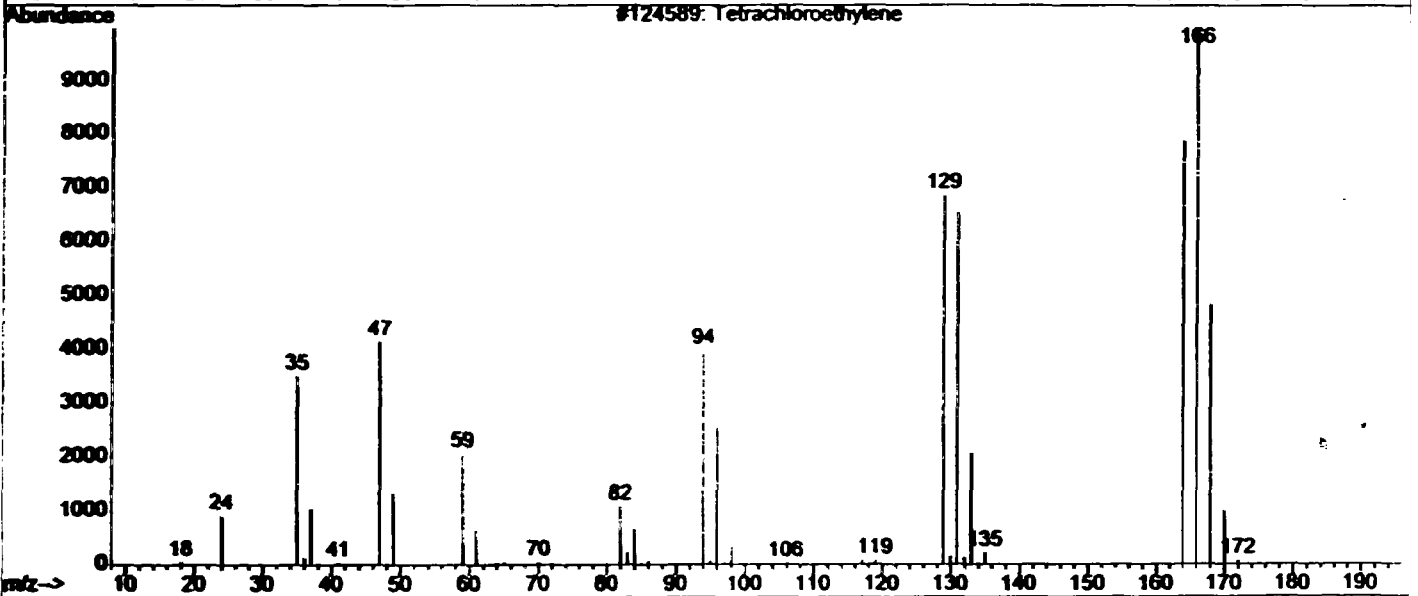
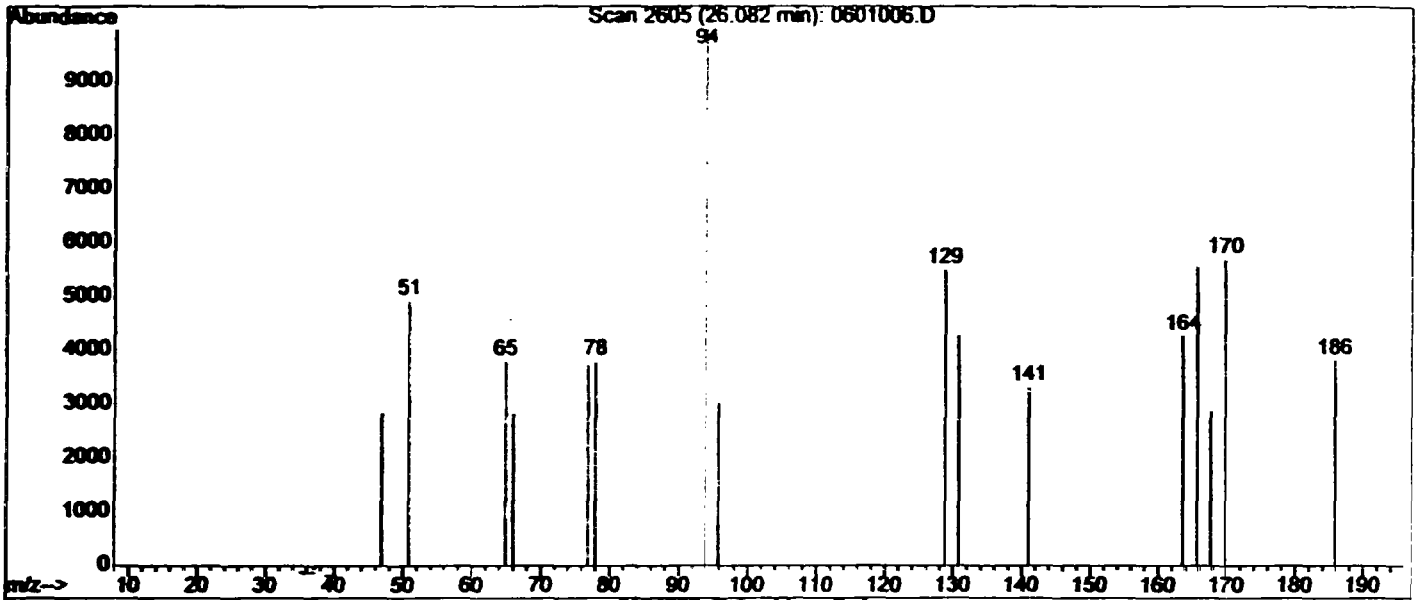
R 853

REPORTED

OCT 16 2000

Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 45
ID : Tetrachloroethylene



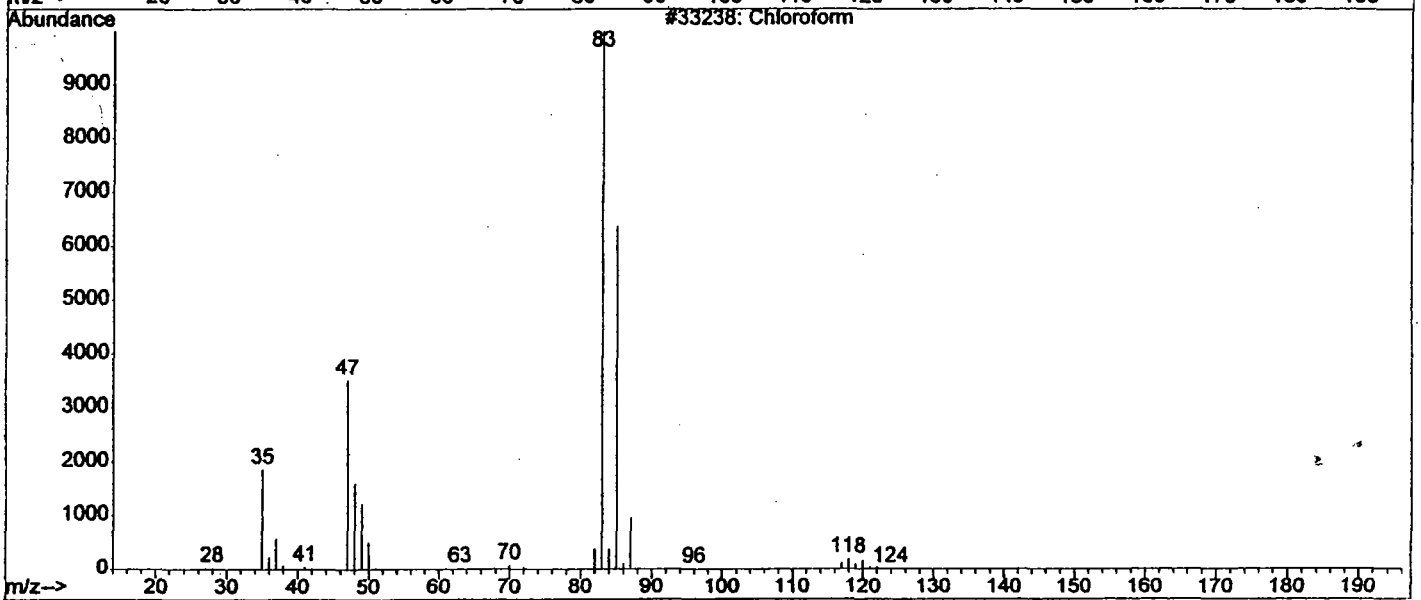
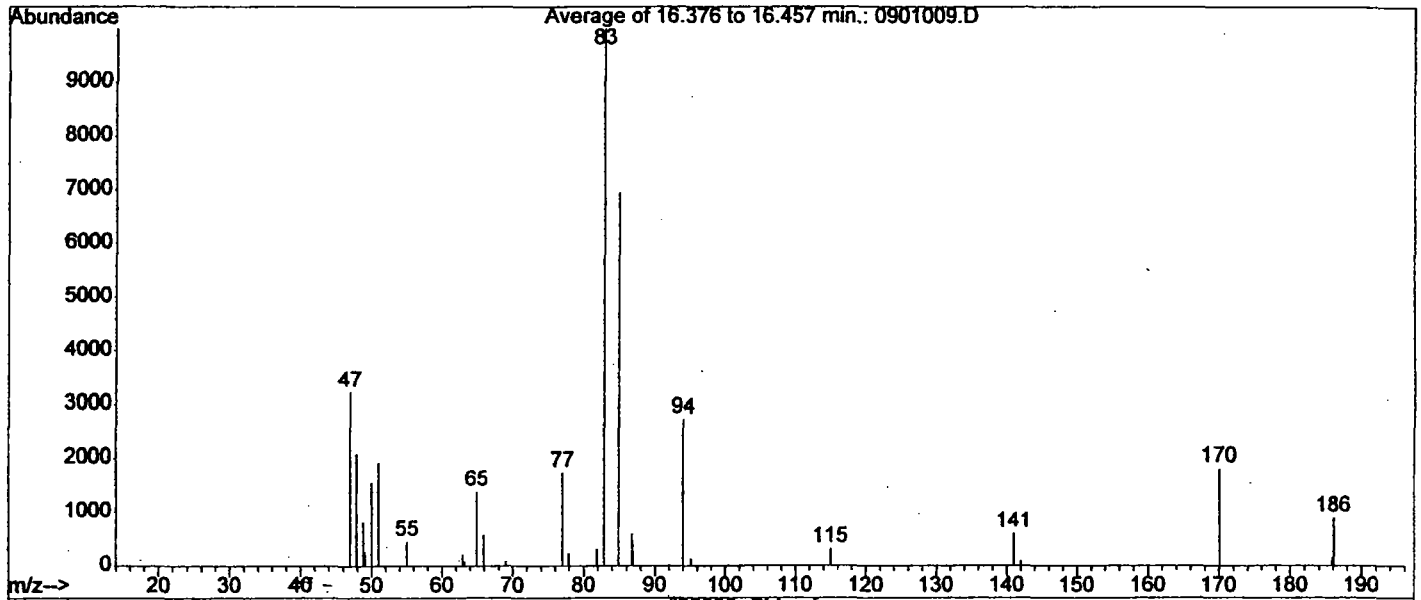
R 853

REPORTED

OCT 16 2000

Indiana State Department of Health
Laboratory Resource Center
Environmental Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 42
ID : Chloroform



R 856

REPORTED

OCT 16 2000

J.S.
Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>UL60</u>
Sample I.D.: <u>MW130</u>	IDEM/OLQ Control #: <u>RT 6697</u>
Collection Date: <u>10 / 2 / 00</u>	Time: <u>3 : 20 AM / PM</u>

- Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
- Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
- Waste Pile Soil Truck Solvent Oil Drummed Waste
- Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
- Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: 1 creek, w/ wial

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

Sampler Signature: [Signature] Date: 10/2/00

* This form is for general use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>V160</u>
Sample I.D.: <u>MW 135</u>	IDEM/OLQ Control #: <u>R26698</u>
Collection Date: <u>10/3/00</u>	Time: <u>9:15</u> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM

- Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
- Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
- Waste Pile Soil Truck Solvent Oil Drummed Waste
- Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
- Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: _____

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

aw

Deviations from Sampling Plan: None

Revised 03-16-00

Sampler Signature: [Signature] Date: 10/3/00

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>VILO</u>
Sample I.D.: <u>MW7D</u>	IDEM/OLQ Control #: <u>RI 6699</u>
Collection Date: <u>10/3/00</u>	Time: <u>10:45 AM</u>

- Sample Types (check all applicable):
- Mon. Well Res. Well Creek Leachate Ditch
 - Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
 - Waste Pile Soil Truck Solvent Oil Drummed Waste
 - Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
 - Background MS/MSD Duplicate of REG 700 Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Rock, wiper

Field Test Performed	Result	Field Test Performed	Result
_____	<u>N/A</u>	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

Sampler Signature: [Signature] Date: 10/3/00

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>V160</u>
Sample I.D.: <u>MW7D</u>	IDEM/OLQ Control #: <u>RI 6700</u>
Collection Date: <u>10/3/00</u>	Time: <u>11:30</u> <u>AM</u> / PM

- Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
- Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
- Waste Pile Soil Truck Solvent Oil Drummed Waste
- Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
- Background MS/MSD Duplicate of RI 6699 Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)
N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: _____

Field Test Performed	Result	Field Test Performed	Result
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)
Clear

Deviations from Sampling Plan: N/A

Sampler Signature: [Signature] Date: 10/3/00

* This form is for ground use in OLO sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>VIGO</u>
Sample I.D.: <u>MW 75</u>	IDEM/OLQ Control #: <u>RI 6701</u>
Collection Date: <u>10 13 00</u>	Time: <u>2:30</u> AM/PM

- Sample Types (check all applicable):
- Mon. Well Res. Well Creek Leachate Ditch
 - Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
 - Waste Pile Soil Truck Solvent Oil Drummed Waste
 - Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
 - Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)
N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: _____

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)
Clear

Deviations from Sampling Plan: None

Sampler Signature: Karl Miller Date: 10/30/00

* This form is for general use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>UI60</u>
Sample I.D.: <u>MW40</u>	IDEM/OLQ Control #: <u>RT6702</u>
Collection Date: <u>10/3/00</u>	Time: ____ : ____ AM/PM

- Sample Types (check all applicable):
- | | | | | | |
|---|------------------------------------|---|--------------------------------------|--------------------------------------|---|
| <input checked="" type="checkbox"/> Mon. Well | <input type="checkbox"/> Res. Well | <input type="checkbox"/> Creek | <input type="checkbox"/> Leachate | <input type="checkbox"/> Ditch | |
| <input type="checkbox"/> Drainage Tile | <input type="checkbox"/> Lagoon | <input type="checkbox"/> Pond | <input type="checkbox"/> Sludge | <input type="checkbox"/> Sediment | <input type="checkbox"/> Industrial Waste |
| <input type="checkbox"/> Waste Pile | <input type="checkbox"/> Soil | <input type="checkbox"/> Truck | <input type="checkbox"/> Solvent | <input type="checkbox"/> Oil | <input type="checkbox"/> Drummed Waste |
| <input type="checkbox"/> Waste Liquid | <input type="checkbox"/> Sand | <input type="checkbox"/> Ash | <input type="checkbox"/> Trip Blank | <input type="checkbox"/> Field Blank | <input type="checkbox"/> Equipment Blank |
| <input type="checkbox"/> Background | <input type="checkbox"/> MS/MSD | <input type="checkbox"/> Duplicate of _____ | <input type="checkbox"/> Other _____ | | |

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: _____

Field Test Performed	Result	Field Test Performed	Result
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: N/A



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OCT 19 2000

OWM

OSHWM

OER

OAM

CHAIN OF CUSTODY

I certify that the sample(s) listed below was/were collected by me or in my presence.

Date: 10, 4, 00

P.O. #: _____

Signature: Rich Molini

RICH MOLINI

Section: SIS-068

000081
LAB NUMBER ASSIGNED

IDEM CONTROL NUMBER

CONSISTING OF THE INDICATED NUMBER OF BOTTLES

L-10

DATE AND TIME COLLECTED

2000 ml P.N.M. 1000 ml P.N.M. 1000 ml G.N.M. 500 ml G.W.M. 250 ml G.W.M. 125 ml G.W.M. 40 ml VIAL 120 ml P.(B.O.) 500 ml P.N.M. 250 ml P.N.M. 8100 YDCS

Table with columns for Lab Number, IDEM Control Number, and various bottle types (2000 ml, 1000 ml, 500 ml, 250 ml, 125 ml, 40 ml, 120 ml, 500 ml, 250 ml). Rows include samples 000858, 000859, 000860, 000861, 000862, 000863 with their respective control numbers and collection times.

P-Plastic G-Glass N.M.-Narrow Mouth W.M.-Wide Mouth B. O.- Bactl. Only

CARRIERS

Should samples be iced?

Y N

I certify that I received the above sample(s)

Table with columns: SIGNATURE, DATE AND TIME, SEALS INTACT (Y/N), COMMENTS. Contains multiple rows for 'RELINQUISHED BY' and 'RECEIVED BY' with signatures and dates.

Lab Custodian

I certify that I received the above sample(s) and is/are recorded in the official record book. The same samples will be in custody of competent laboratory personnel at all times kept in a secure area.

Signature: K. Patel

Date: 10/4/00 Time: 3:40 AM/PM

Lab: ISDH

Address: 635 N. Bernhill Dr.

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>VI60</u>
Sample I.D.: <u>MW55</u>	IDEM/OLQ Control #: <u>RI 6703</u>
Collection Date: <u>10/4/00</u>	Time: <u>10:30</u> <input checked="" type="radio"/> AM / <input type="radio"/> PM

- Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
- Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
- Waste Pile Soil Truck Solvent Oil Drummed Waste
- Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
- Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>5</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Ruby wizer

Field Test Performed	Result	Field Test Performed	Result
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

Sampler Signature: R. Q. Miller Date: 10/4/00

* This form is for general use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>Vigo</u>
Sample I.D.: <u>MW</u>	IDEM/OLQ Control #: <u>RI 6704</u>
Collection Date: <u>10/4/00</u>	Time: <u>11:00</u> AM/PM

- Sample Types (check all applicable):
- | | | | | | |
|--|------------------------------------|---|--|--------------------------------------|---|
| <input type="checkbox"/> Mon. Well | <input type="checkbox"/> Res. Well | <input type="checkbox"/> Creek | <input type="checkbox"/> Leachate | <input type="checkbox"/> Ditch | |
| <input type="checkbox"/> Drainage Tile | <input type="checkbox"/> Lagoon | <input type="checkbox"/> Pond | <input type="checkbox"/> Sludge | <input type="checkbox"/> Sediment | <input type="checkbox"/> Industrial Waste |
| <input type="checkbox"/> Waste Pile | <input type="checkbox"/> Soil | <input type="checkbox"/> Truck | <input type="checkbox"/> Solvent | <input type="checkbox"/> Oil | <input type="checkbox"/> Drummed Waste |
| <input type="checkbox"/> Waste Liquid | <input type="checkbox"/> Sand | <input type="checkbox"/> Ash | <input checked="" type="checkbox"/> Trip Blank | <input type="checkbox"/> Field Blank | <input type="checkbox"/> Equipment Blank |
| <input type="checkbox"/> Background | <input type="checkbox"/> MS/MSD | <input type="checkbox"/> Duplicate of _____ | <input type="checkbox"/> Other _____ | | |

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Keds, Wip

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

(scribble)

Deviations from Sampling Plan: None

Sampler Signature: [Signature] Date: 10/4/00

SAMPLE FIELD SHEET *

Site Name: <u>TH MWF</u>	County: <u>Vigo</u>
Sample I.D.: <u>MW 125</u>	IDEM/OLQ Control #: <u>RI6705</u>
Collection Date: <u>10/4/00</u>	Time: <u>12:40 AM</u> (PM)

- Sample Types (check all applicable):
- Mon. Well Res. Well Creek Leachate Ditch
 - Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
 - Waste Pile Soil Truck Solvent Oil Drummed Waste
 - Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
 - Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)
N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Kaet, wizard

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
_____	<u>N/A</u>	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)
Clear

Deviations from Sampling Plan: None

Sampler Signature: [Signature] Date: 10/4/00

* This form is for general use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>Vigo</u>
Sample I.D.: <u>MW12D</u>	IDEM/OLQ Control #: <u>RL6706</u>
Collection Date: <u>10/4/00</u>	Time: <u>1:10</u> AM/PM

- Sample Types (check all applicable):
- Mon. Well Res. Well Creek Leachate Ditch
 - Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
 - Waste Pile Soil Truck Solvent Oil Drummed Waste
 - Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
 - Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Keck, wind

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

Sampler Signature: [Signature] Date: 10/4/00

* This form is for general use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>Vigo</u>
Sample I.D.: <u>MW9D</u>	IDEM/OLQ Control #: <u>RI 6707</u>
Collection Date: <u>10/14/00</u>	Time: <u>1:30 AM/PM</u>

- Sample Types (check all applicable):
- Mon. Well Res. Well Creek Leachate Ditch
 - Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
 - Waste Pile Soil Truck Solvent Oil Drummed Waste
 - Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
 - Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Keck, w/d

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
_____	<u>N/A</u>	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

Revised 03-16-00 Sampler Signature: [Signature] Date: 10/14/00

* This form is for ground use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>IHMWF</u>	County: <u>Vigo</u>
Sample I.D.: <u>MW 9 Shallow</u>	IDEM/OLQ Control #: <u>RT 6708</u>
Collection Date: <u>12/4/00</u>	Time: <u>2:15</u> AM/PM

- Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
- Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
- Waste Pile Soil Truck Solvent Oil Drummed Waste
- Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
- Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Kaob, wizard

Field Test Performed	Result	Field Test Performed	Result
_____	<u>N/A</u>	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

clear

Deviations from Sampling Plan: N/A

Sampler Signature: [Signature] Date: 12/4/00

* This form is for general use in OLQ sampling projects

REPORTED

OCT 16 2000

Indiana State Dept. of Health

Indiana State Department of Health
Method 8260 Report
Laboratory Resource Center
Environment Laboratory Section

Client : IDEM
Collected: Oct 04 2000
Received : Oct 04 2000
Analyzed : Oct 06 2000
Reported : Oct 12 2000
Detection Limit = 0.5 µg/L

Analyst: MS 10-12-00Reviewer: RB 10-13-00OC-100

Name	RI6703	RI6704	RI6705	RI6706	RI6707	RI6708
	R858 Well	R859 Well	R860 Well	R861 Well	R862 Well	R863 Well
1) Dichlorodifluoromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
2) Chloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
3) Vinyl Chloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
4) Bromomethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
5) Chloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
6) Trichlorofluoromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
7) 1,1-Dichloroethene	<D.L.	<D.L.	7.2	<D.L.	<D.L.	0.5
8) Methylene Chloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
9) trans-1,2-Dichloroethene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
10) 1,1-Dichloroethane	<D.L.	<D.L.	1.2	<D.L.	<D.L.	9.3
11) 2,2-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
12) cis-1,2-Dichloroethene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
13) Chloroform	1.3	<D.L.	3.6	<D.L.	<D.L.	1.4
14) Bromochloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
15) 1,1,1-Trichloroethane	1.6	<D.L.	600	2.8	1.0	220
16) 1,1-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
17) Carbon Tetrachloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
18) 1,2-Dichloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
19) Benzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
20) Fluorobenzene (Int.Std.)	4.0	4.0	4.0	4.0	4.0	4.0
21) Trichloroethene	2.2	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
22) 1,2-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
23) Bromodichloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
24) Dibromomethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
25) cis-1,3-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
26) Toluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
27) trans-1,3-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
28) 1,1,2-Trichloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
29) 1,3-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
30) Tetrachloroethene	5.3	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
31) Dibromochloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
32) 1,2-Dibromoethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
33) Chlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
34) 1,1,1,2-Tetrachloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
35) Ethyl Benzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
36) m&p Xylene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
37) o-Xylene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
38) Styrene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
39) Isopropylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
40) Bromoform	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

Indiana State Dept. of Health Method 8260 Report

Client : IDEM
 Collected: Oct 04 2000
 Received : Oct 04 2000
 Analyzed : Oct 06 2000
 Reported : Oct 12 2000
 Detection Limit = 0.5 µg/L

Analyst: MS 10-12-00
 Reviewer: RB 10-13-00

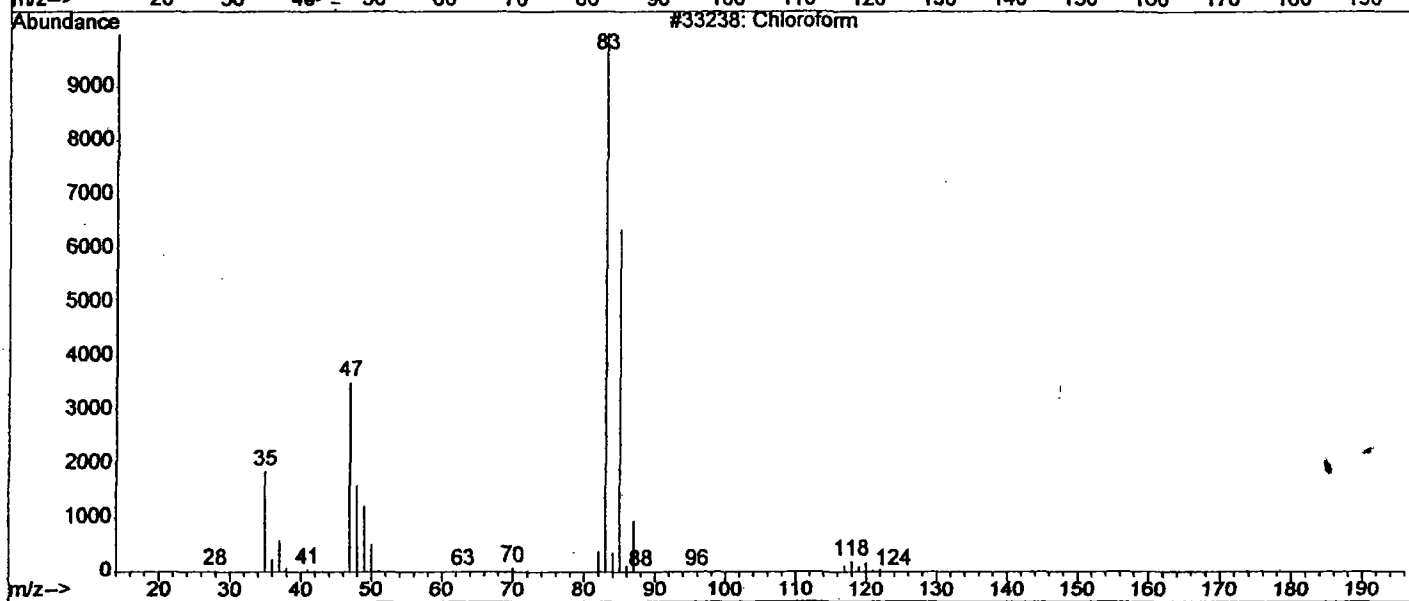
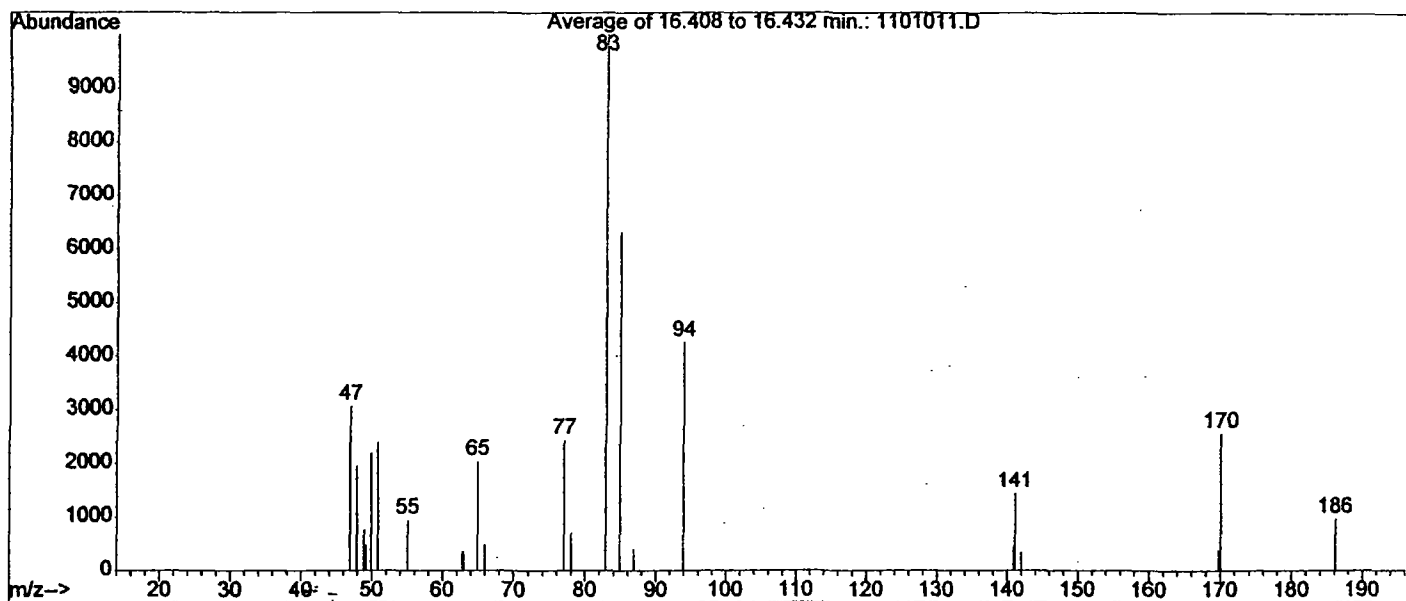
Name	RI6703	RI6704	RI6705	RI6706	RI6707	RI6708
	R858 Well	R859 Well	R860 Well	R861 Well	R862 Well	R863 Well
41) 1,1,2,2-Tetrachloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
42) p-BFB (Surr.)	4.5	4.5	4.6	4.6	4.6	4.6
43) 1,2,3-Trichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
44) n-Propylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
45) Bromobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
46) 1,3,5-Trimethylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
47) 2-Chlorotoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
48) 4-Chlorotoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
49) tert-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
50) 1,2,4-Trimethylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
51) sec-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
52) p-Isopropyltoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
53) 1,3-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
54) 1,4-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
55) n-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
56) 1,2-Dichlorobenzene d4 (Surr.)	3.2	3.3	3.3	3.4	3.5	3.4
57) 1,2-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
58) 1,2-Dibromo-3-Chloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
59) 1,2,4-Trichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
60) Hexachlorobutadiene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
61) Naphthalene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
62) 1,2,3-Trichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
63) MTBE	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

REPORTED

OCT 16 2000

Indiana State Department of Health
 Laboratory Resource Center
 Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 38
ID : Chloroform



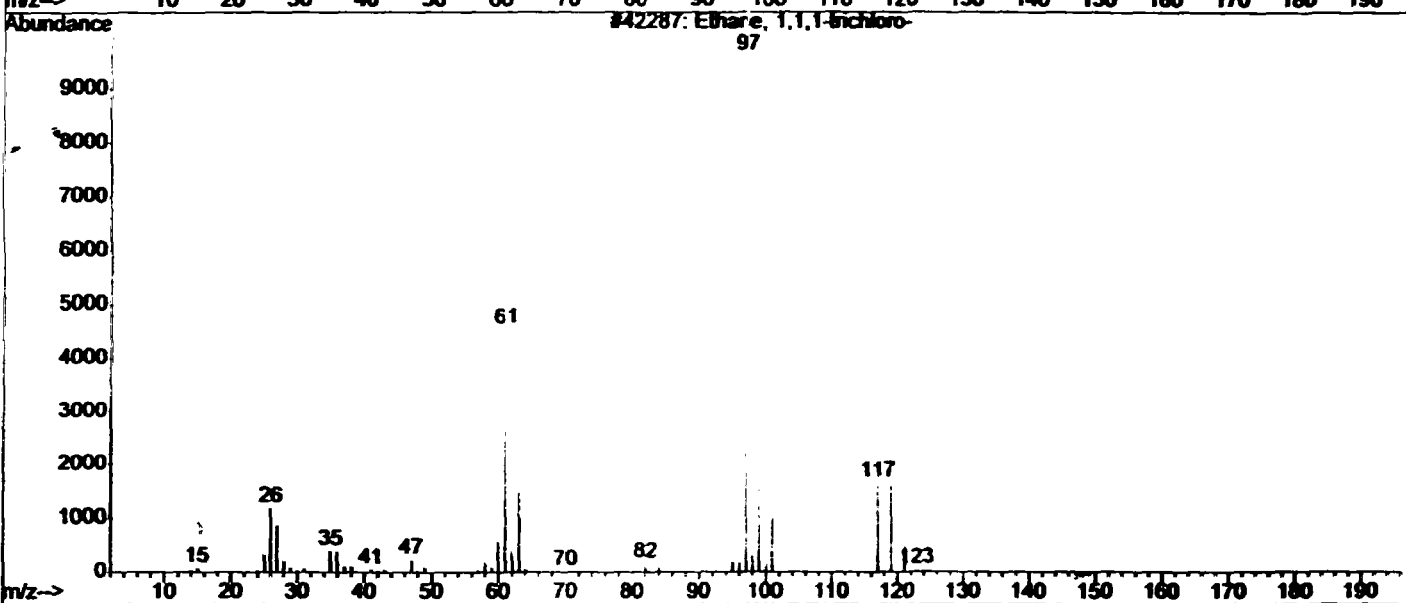
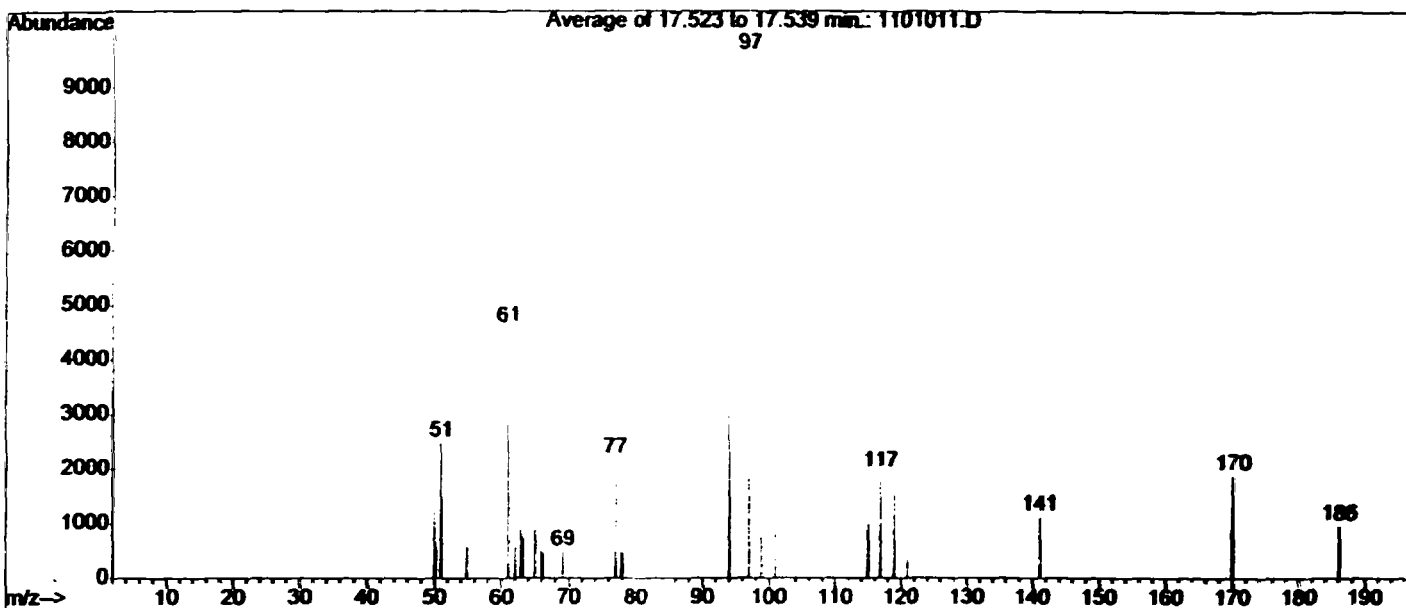
R 858

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OCT 16 2000

Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 53
ID : Ethane, 1,1,1-trichloro-



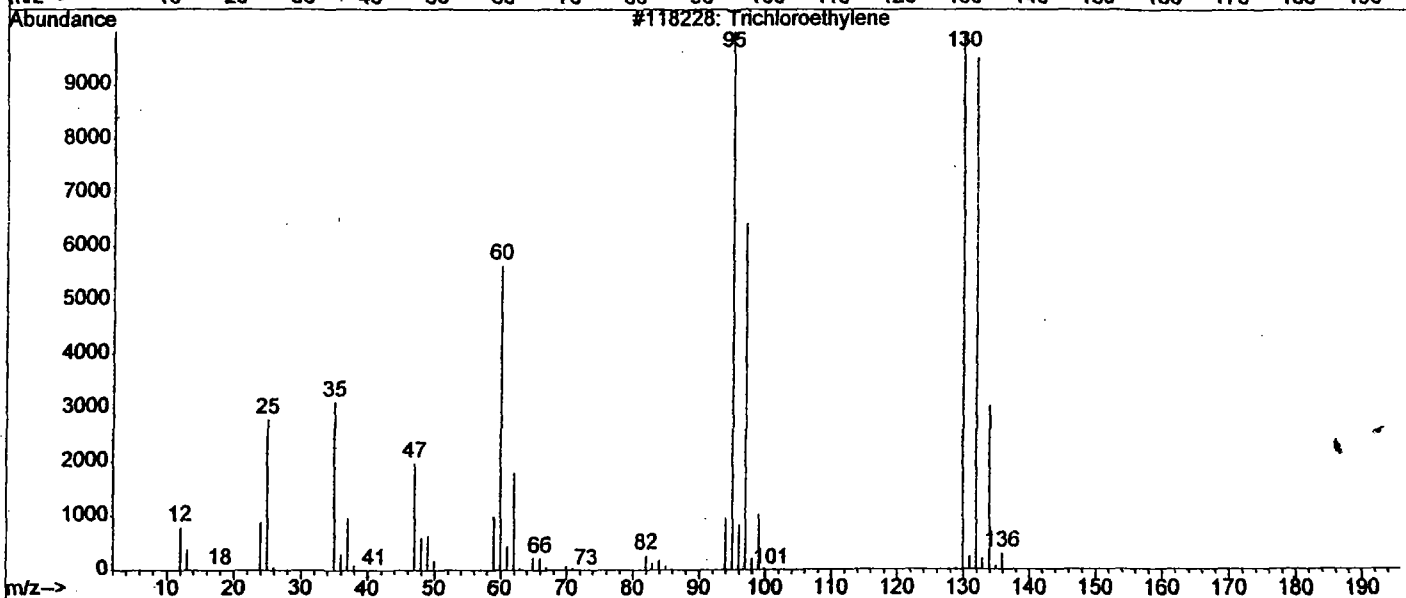
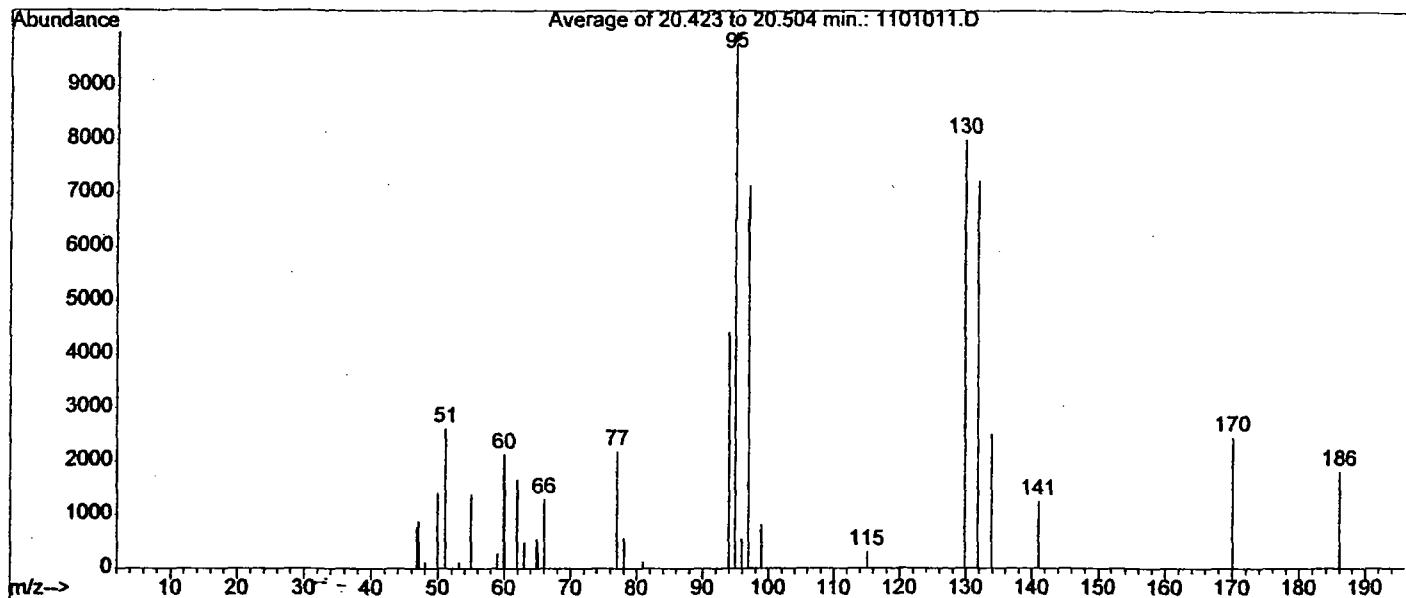
R858

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OCT 16 2000

L.S.
Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 91
ID : Trichloroethylene



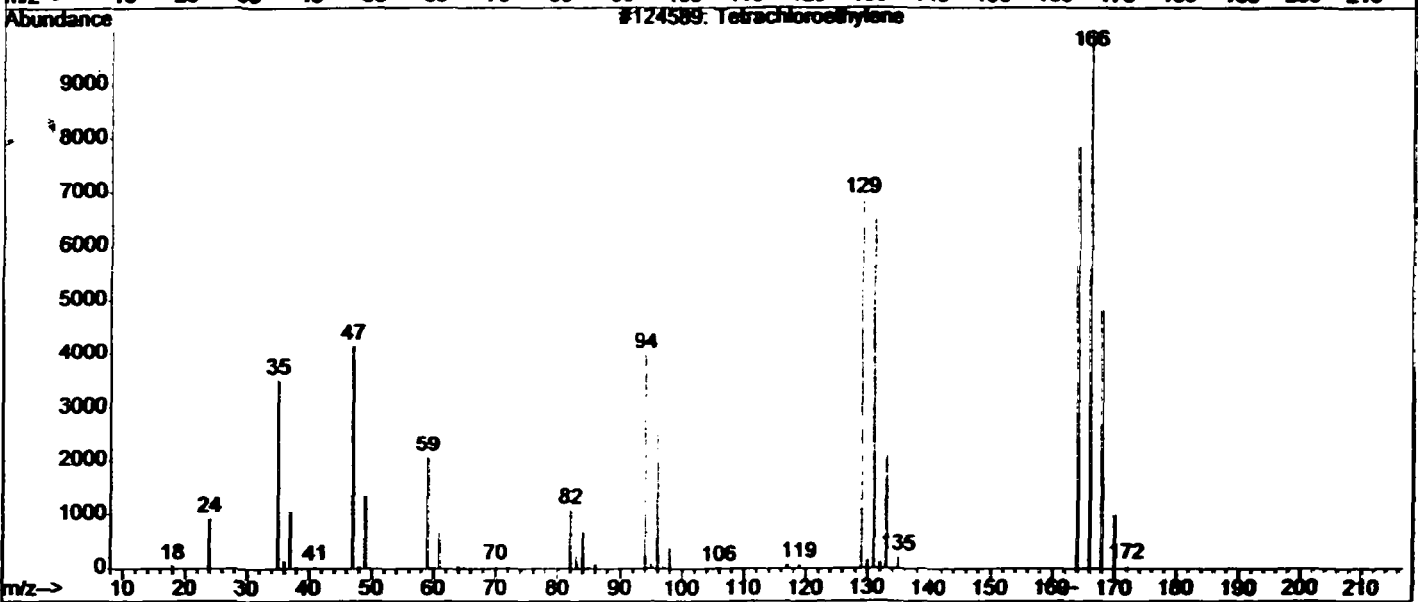
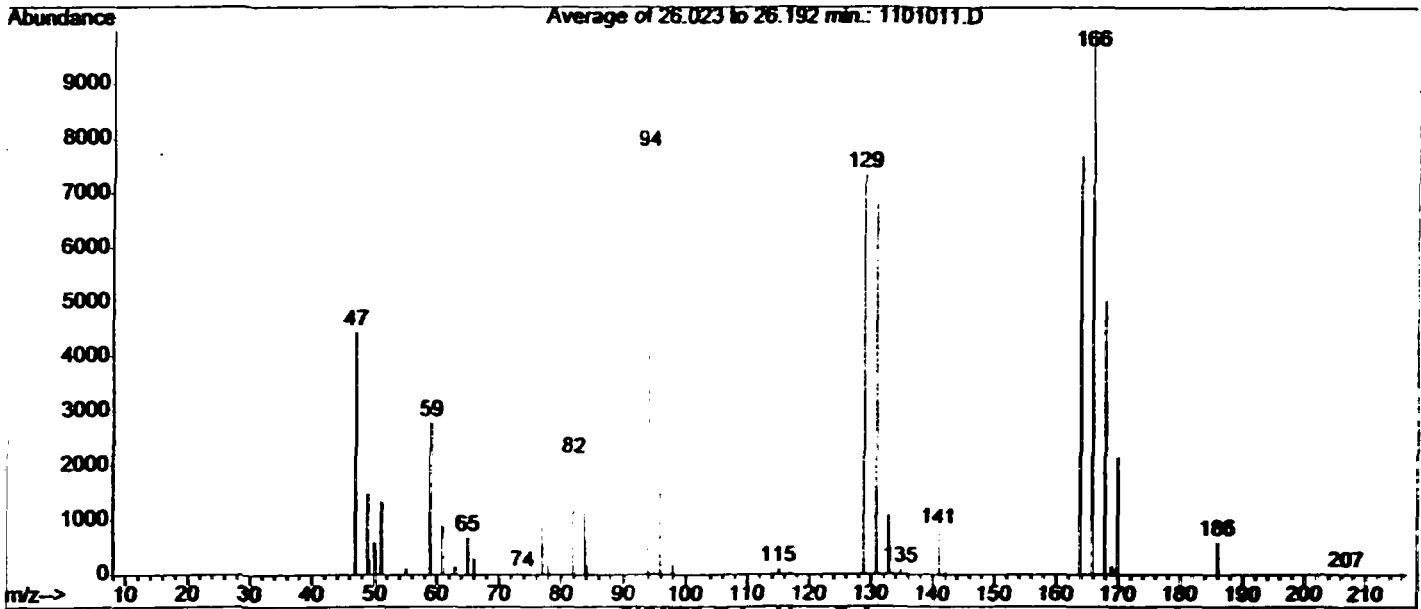
R858

REPORTED

OCT 16 2000

Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 94
ID : Tetrachloroethylene



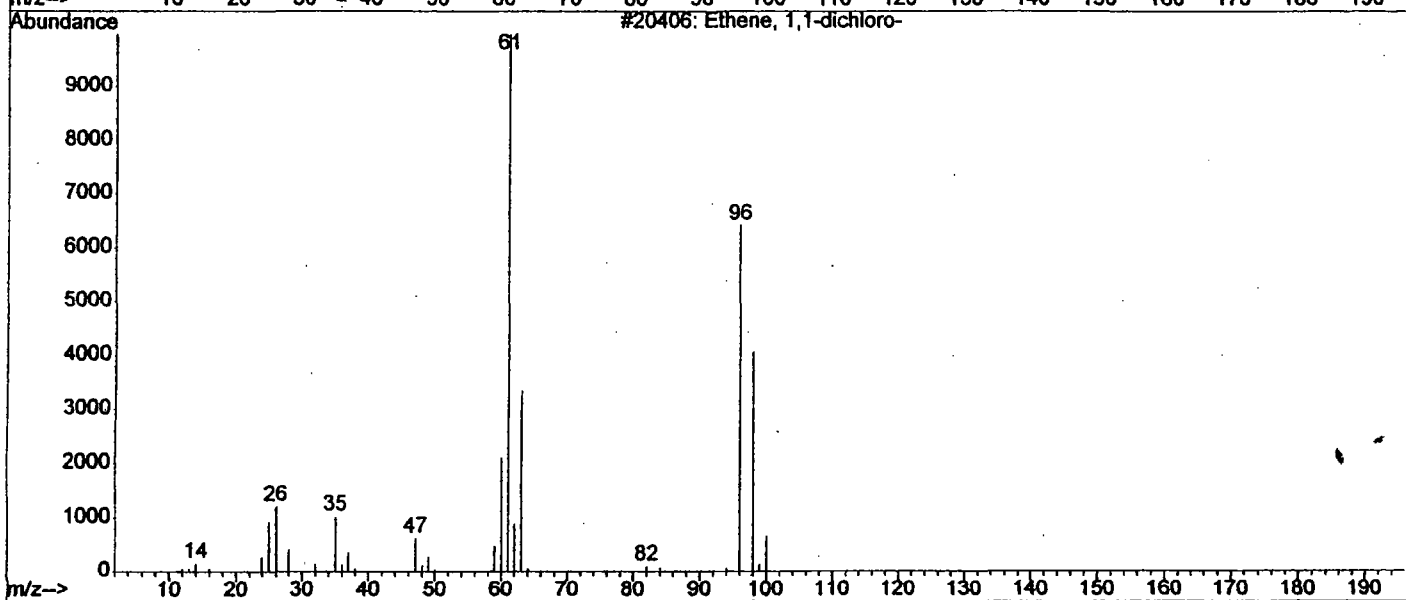
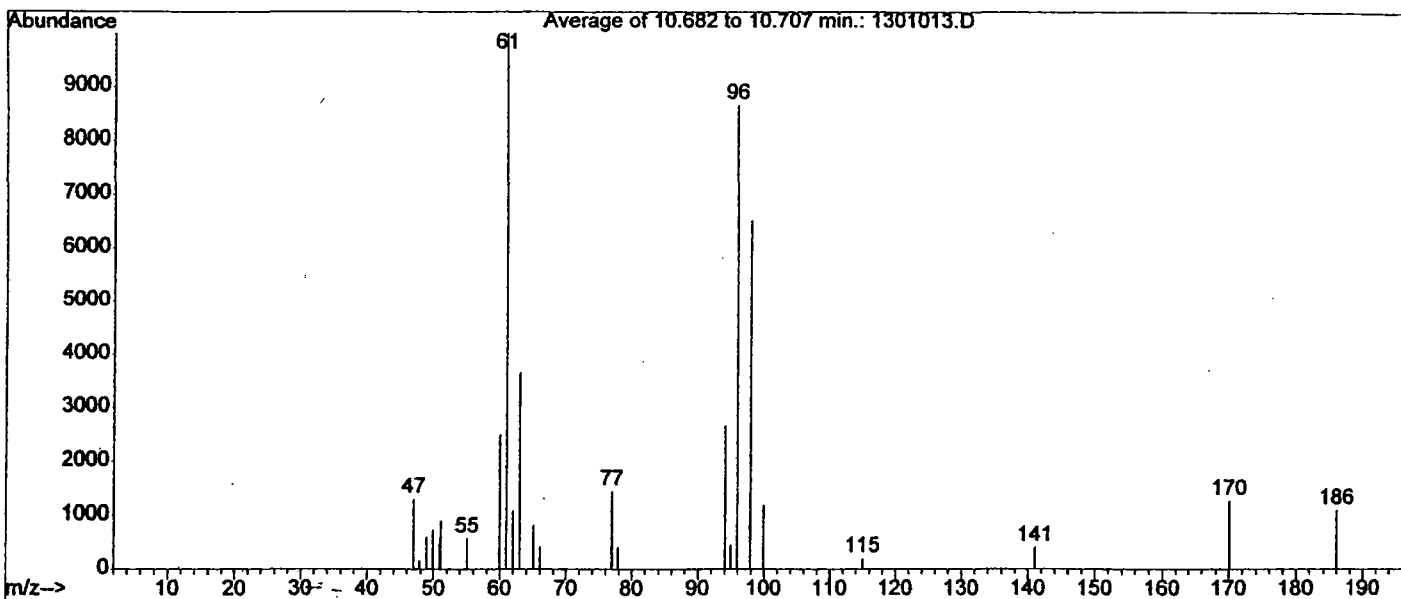
R 858

REPORTED

OCT 16 2000

Indiana State Department of Health
Laboratory Resource Center
Environmental Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 87
ID : Ethene, 1,1-dichloro-



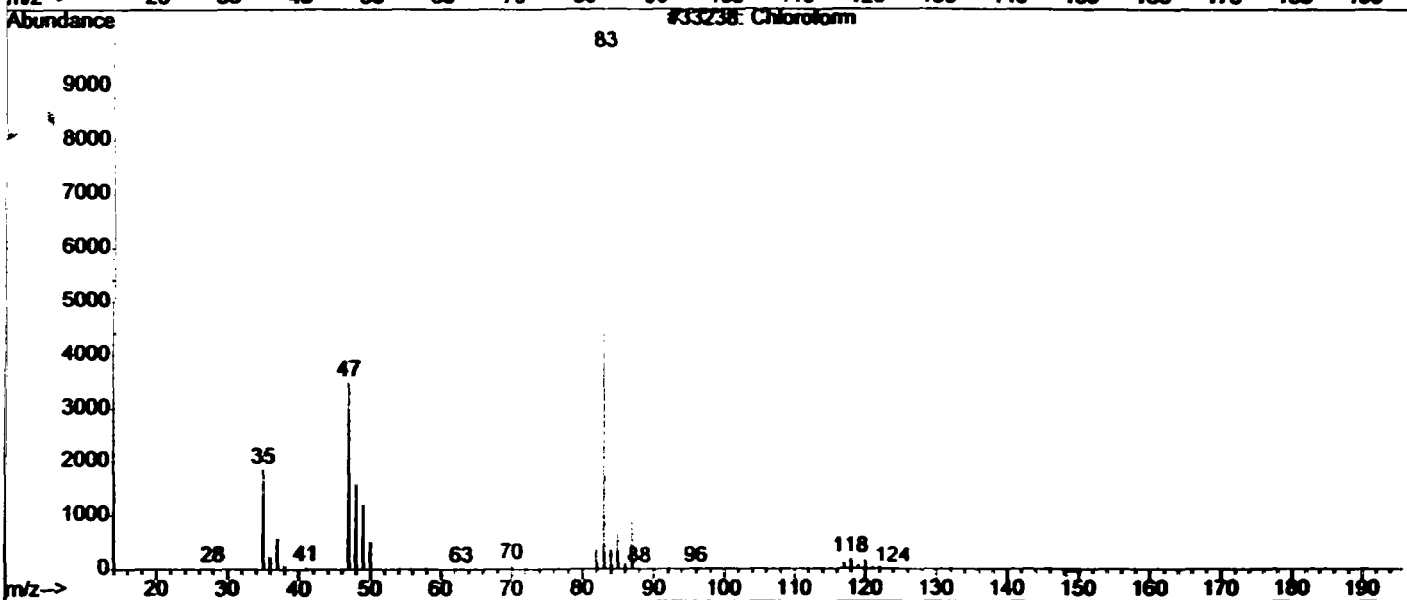
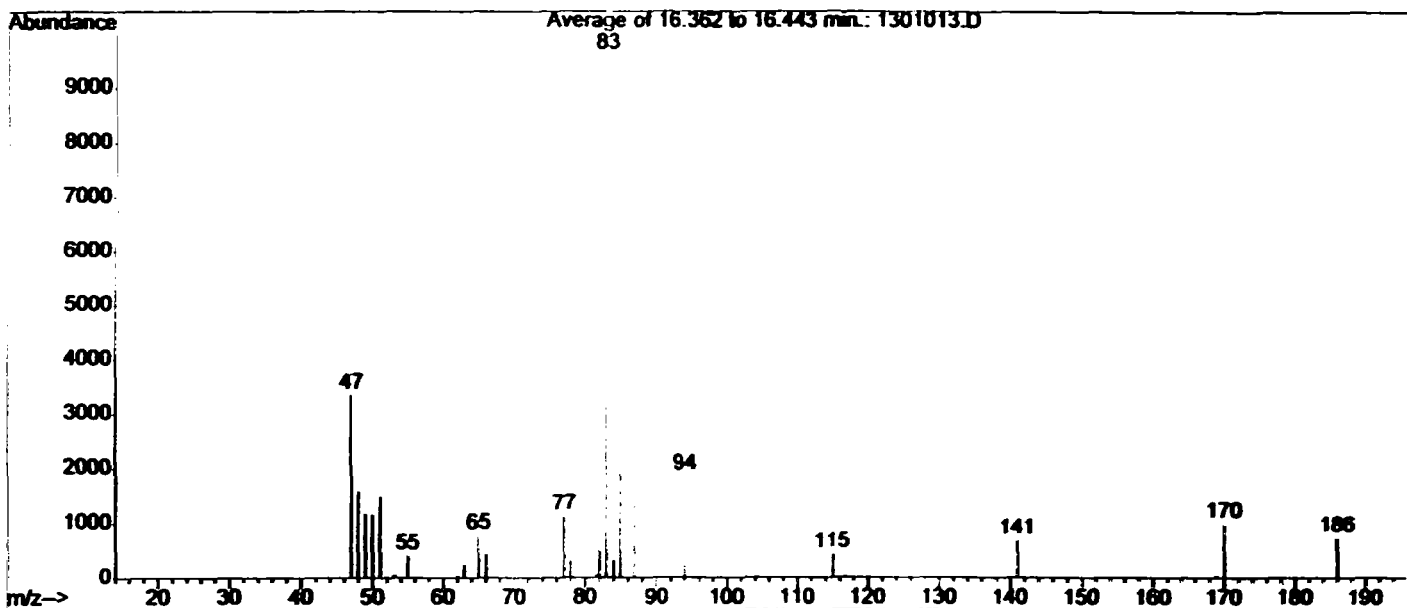
R 860

REPORTED

OCT 16 2000

PL
Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.l
Quality : 72
ID : Chloroform



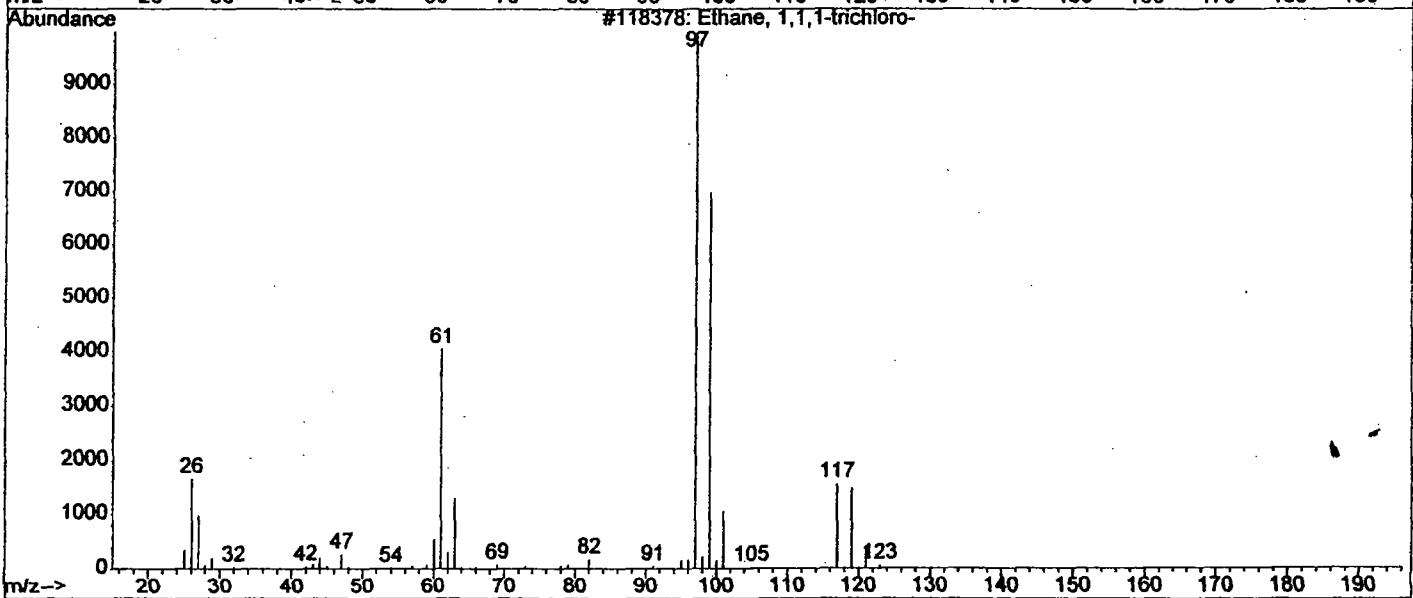
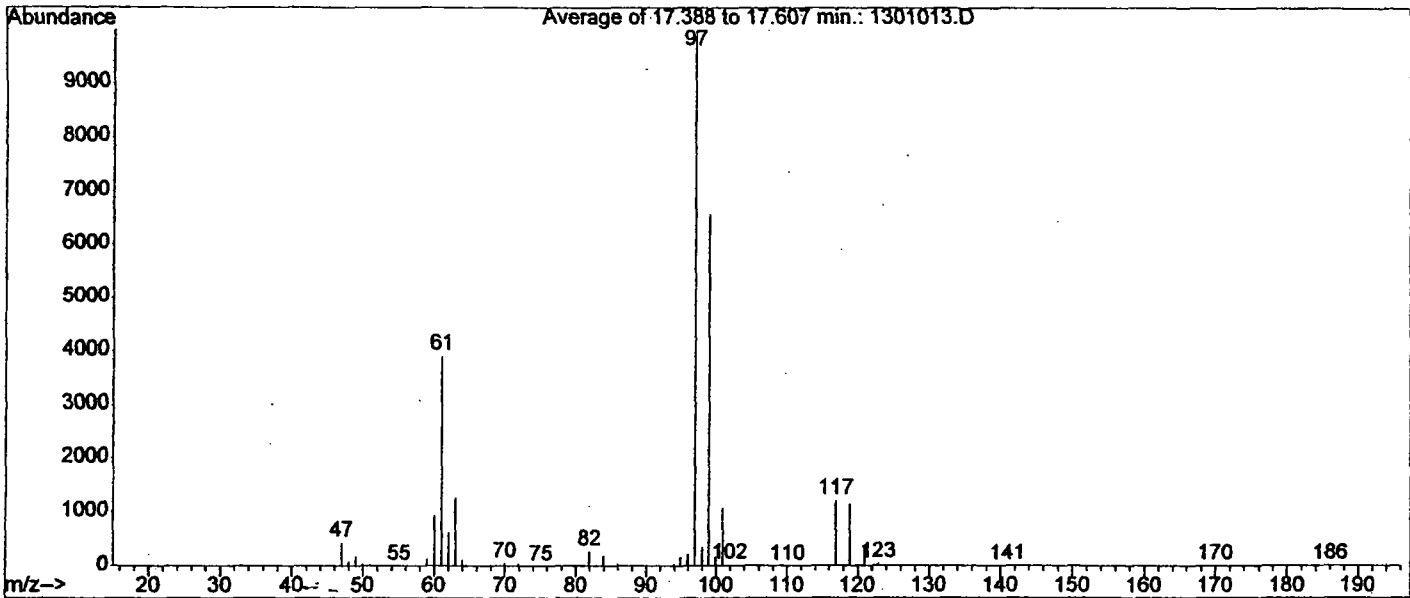
R 860

REPORTED

OCT 16 2000

J.P.
Indiana State Department of Health
Laboratory Resource Center
Environmental Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 90
ID : Ethane, 1,1,1-trichloro-



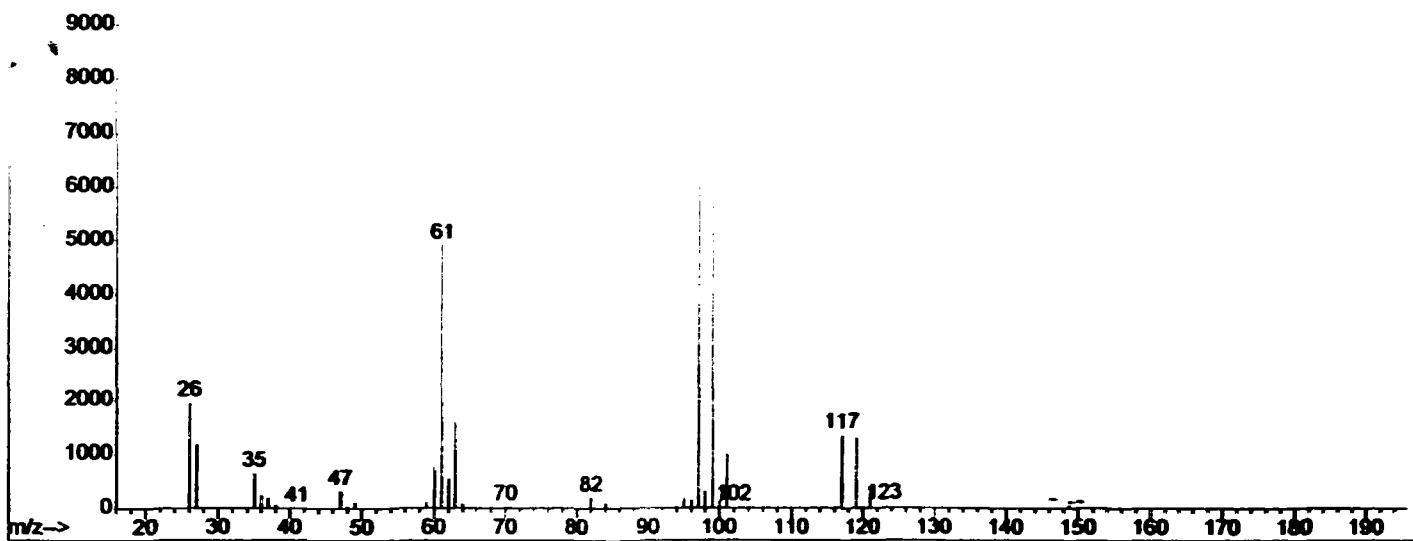
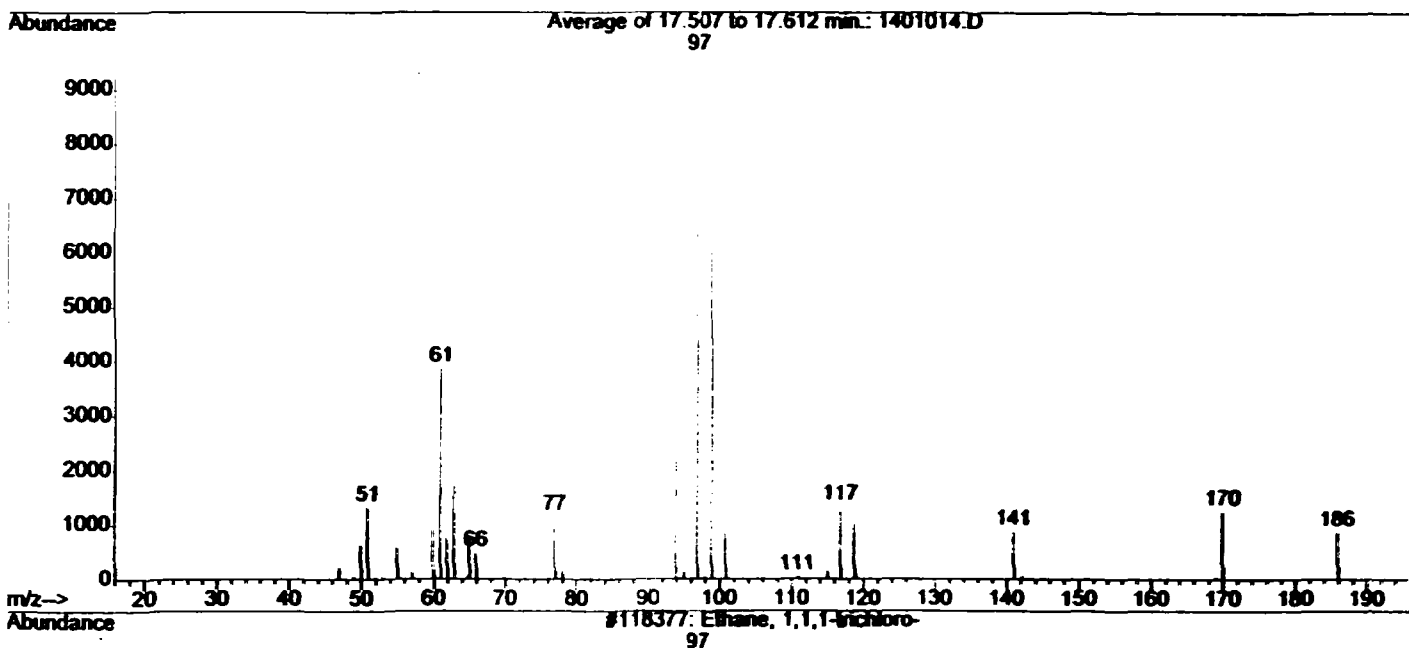
R 860

REPORTED

OCT 16 2000

S.S.
Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 72
ID : Ethane, 1,1,1-trichloro-



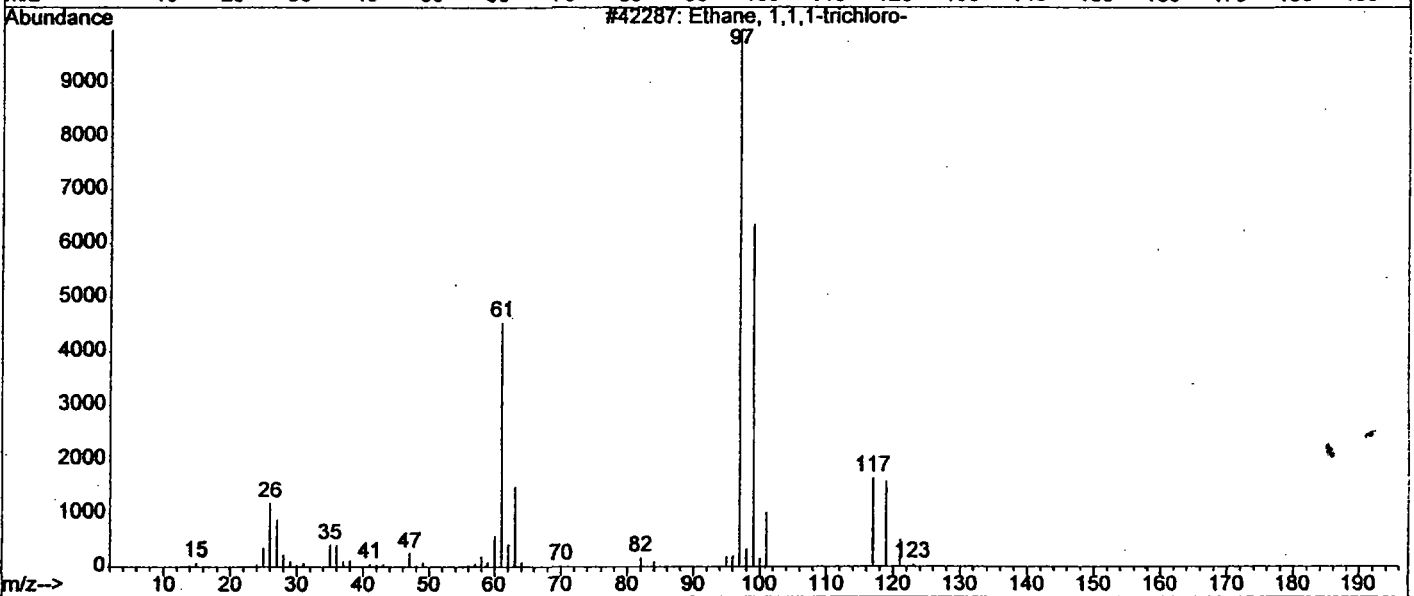
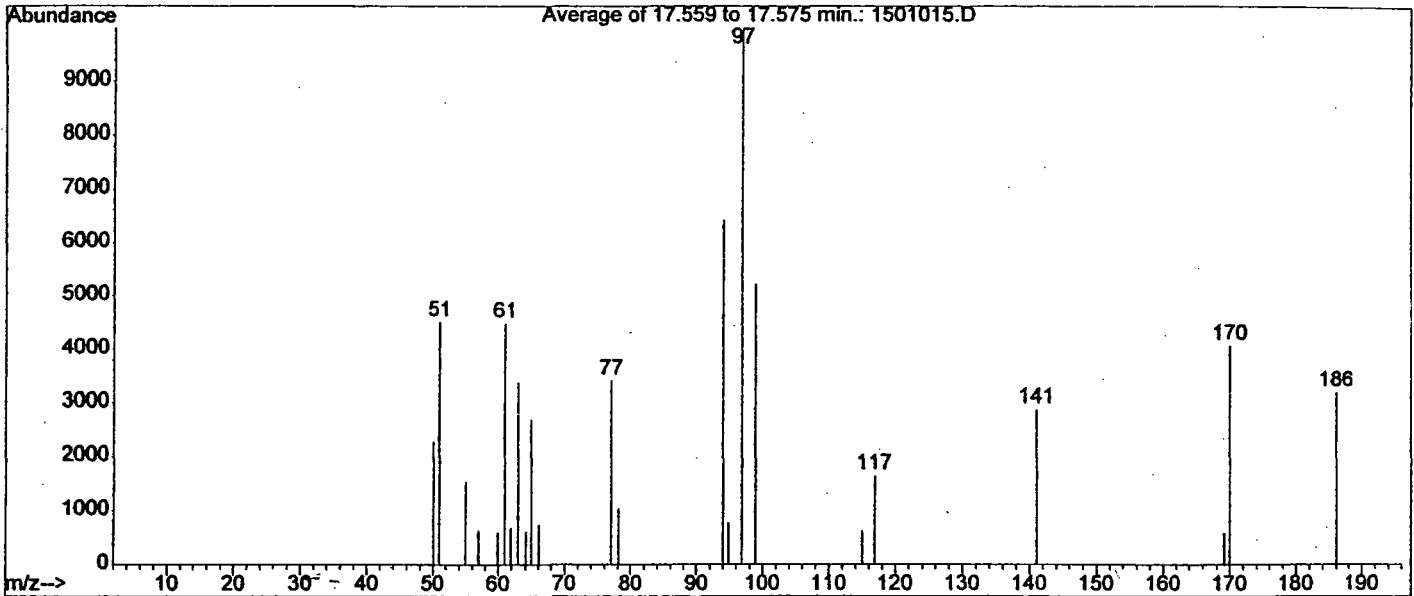
R861

REPORTED

OCT 16 2000

L. J.
Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 25
ID : Ethane, 1,1,1-trichloro-



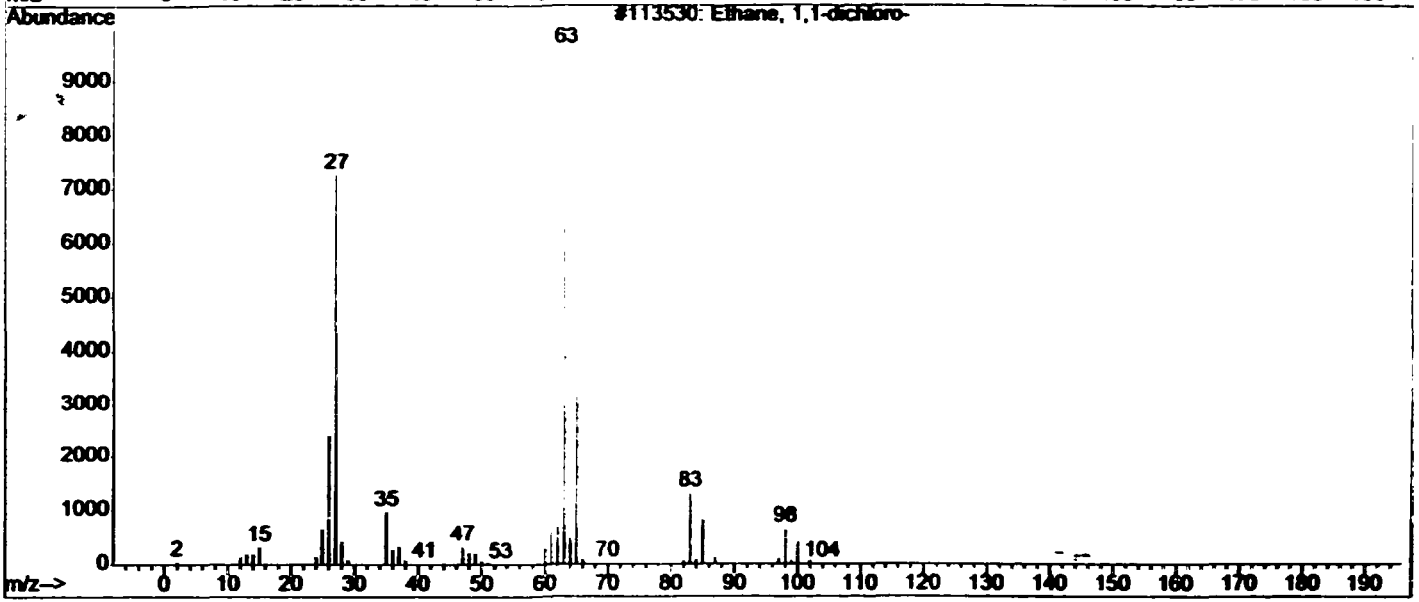
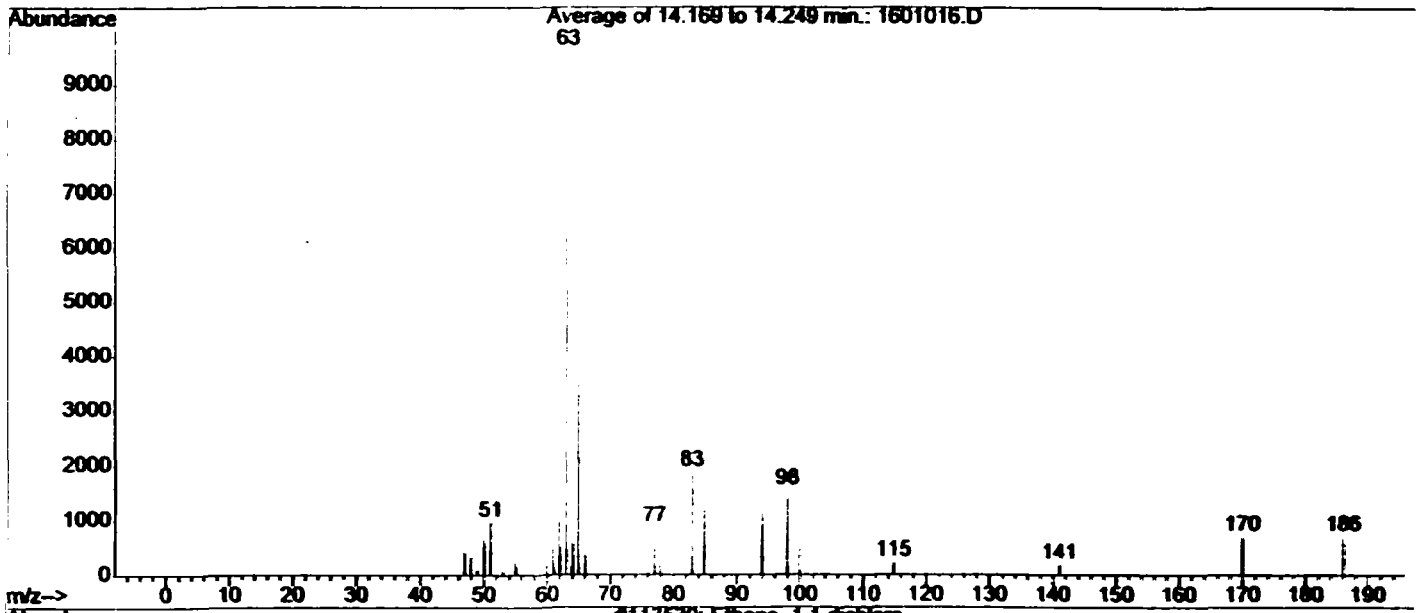
R 862

REPORTED

OCT 16 2000

L.A.
Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 78
ID : Ethane, 1,1-dichloro-



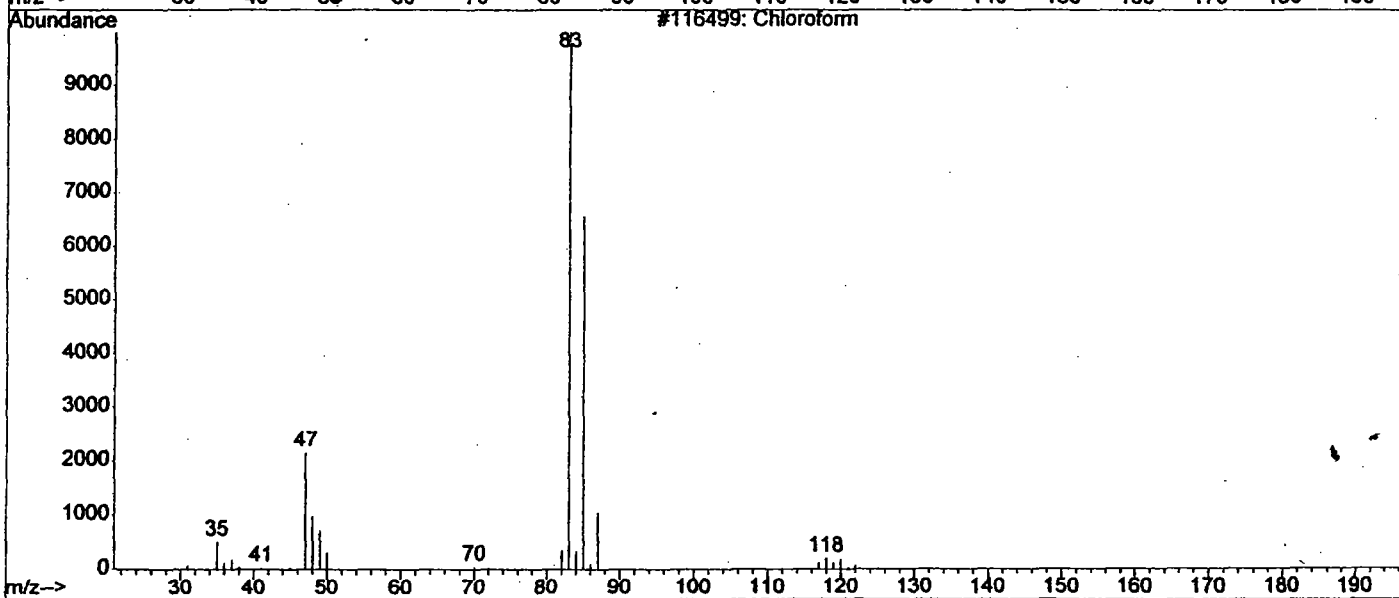
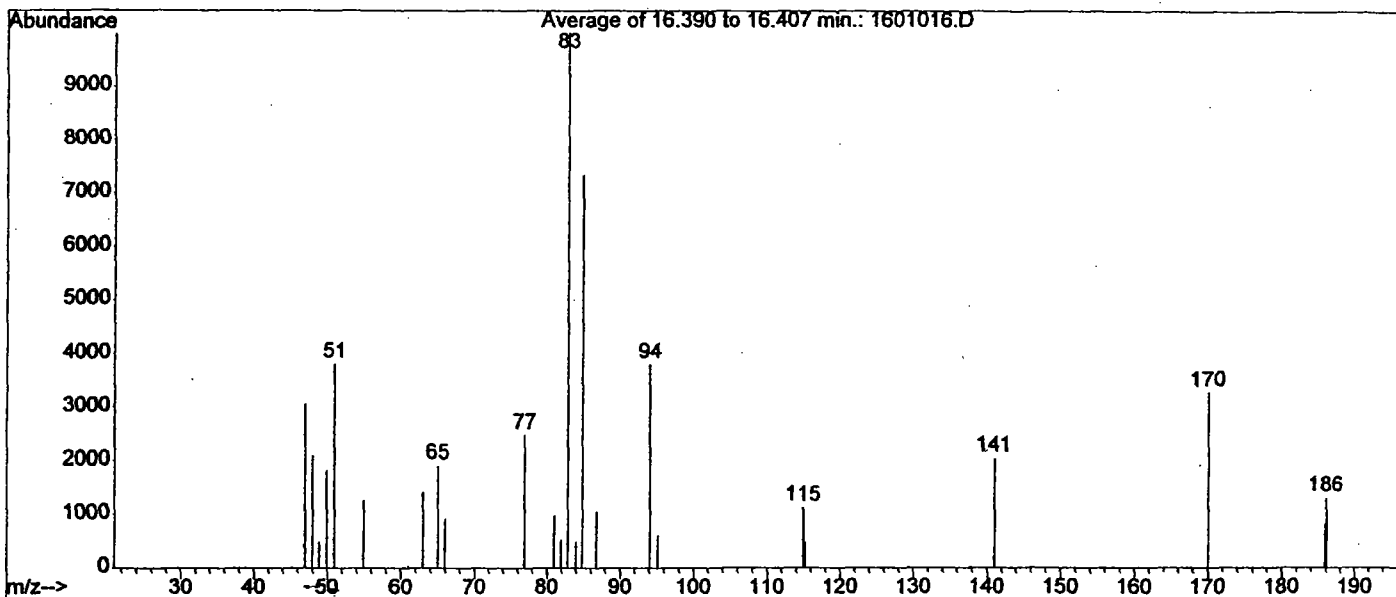
R 863

REPORTED

OCT 16 2000

Indiana State Department of Health
Laboratory Research Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 38
ID : Chloroform



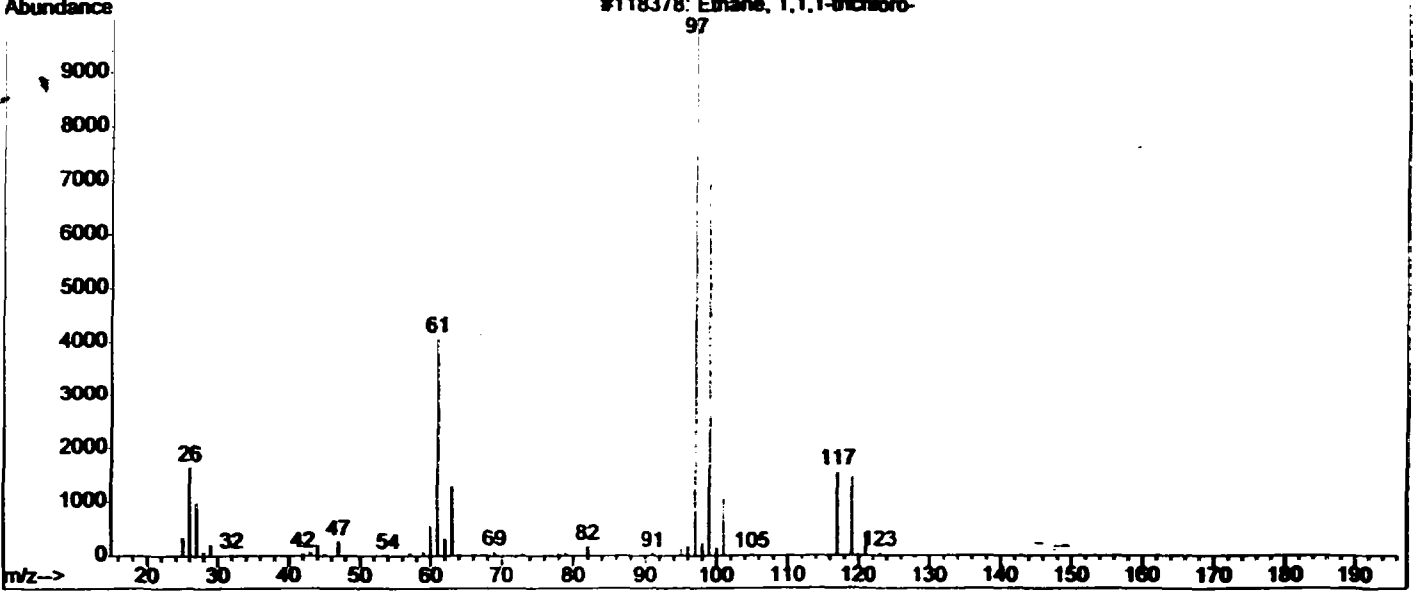
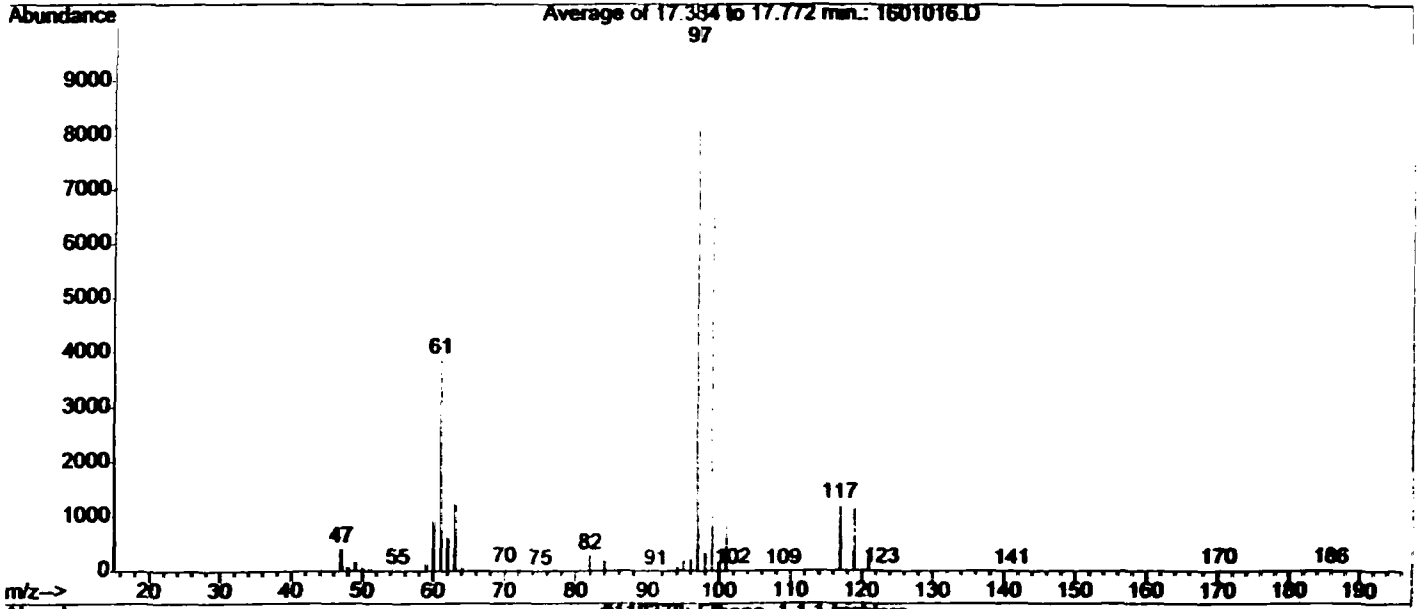
R863

REPORTED

OCT 16 2000

PL
Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 90
ID : Ethane, 1,1,1-trichloro-



R 863

REPORTED

OCT 16 2000

Indiana State Department of Health
Laboratory Resource Center
Environmental Laboratory Section

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

Date: November 15, 2000

To: Rich Molini
Site Assessment Brownfields Section

Thru: Fran Metcalfe
Barry Steward

JM 11/15/2000
BY 11/15/2000

From: Nancy Britt *NB 11-15-2000*
OLQ Chemistry Section

Subject: Analytical Results for Municipal Well Field site
Terre Haute, Vigo County, Indiana
Site No. 7500090
Sampled: October 5 and 6, 2000
Sample Numbers: RI6709 – RI6712
Indiana State Department of Health (ISDH) Laboratories

The analytical results for the samples identified above have been evaluated. The ISDH does not currently submit the necessary documentation for a complete quality assurance/quality control evaluation. Based on the evaluation, it has been determined that the results are acceptable for screening purposes only. This memorandum should remain attached to the original laboratory reports for reference.

General Comments:

The purpose of this event was to monitor the conditions in a municipal well field that is contaminated with chlorinated solvents. In 1999, IDEM installed twenty-two (22) monitoring wells near the facility. The wells were first sampled in 1999. This second round of sampling has taken place over the course of several days resulting in more than one submittal to the laboratory and more than one chain-of-custody. Separate memos will be prepared for each laboratory submittal.

Sampling Quality Assurance/Quality Control:

Field documentation did allow for interpretation of the data.

Field duplicate samples are used to establish the representativeness of field sampling (i.e., the homogeneity and sample variability). No duplicate samples were collected with the sample set collected on these dates. Field duplicates of groundwater were collected from the MW7D sample point and submitted with the set of samples collected October 2, 3, and 4, 2000. The field

duplicate samples showed a high degree of sample homogeneity.

Trip blanks are used to identify sample contamination resulting from the handling and transportation of samples. No trip blank was collected with this set of samples. Since the sample RI6712, MW-1D, did not contain any compounds, it would appear that contamination resulting from the handling and transportation did not occur and the reported results may be considered to be indicative of contamination at the sample points.

Equipment blanks are used to identify sample contamination resulting from sampling equipment. Equipment improperly rinsed between uses at heavily contaminated sites may demonstrate carryover. Carryover is the appearance of residual contamination from a previous sampling point at the next sampling point. No equipment blank was included with this sampling event. However, the sample point RI6710, MW-2D, between the two (2) sample points, RI6709 and RI6711, with levels of tetrachloroethene above the maximum contaminant level, demonstrates that contamination carryover did not occur in the case of tetrachloroethene. The only questionable carryover issue would be the 0.50 ppb of 1,1,1-trichloroethane in RI6710, but this trace level of 1,1,1-trichloroethane is not an issue.

Laboratory Quality Assurance/Quality Control:

The samples were analyzed within the recommended holding time.

Water

Volatile Organic Compounds:

Samples were analyzed for Volatile Organic Compounds (VOCs) by SW-846 Method 8260.

Results:

The two (2) shallow wells contained levels of tetrachloroethene above the maximum contaminant level (MCL) of 5 parts per billion. Location MW-2S contained more detectable analytes than MW-2D. Location MW-1S contained more detectable analytes than MW-1D.

Conclusions:

The data are usable for the overall project goal.

Attachment

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Volatile Organic Analysis

Site Name:	Municipal Well Field	Water
Site Number:	7500090	Units ug/l (ppb)
Location:	Terre Haute	
Date Sampled:	October 5 and 6, 2000	
Date Reported:	24-Oct-00	
Sample Numbers:	RI6709 - RI6712	
Lab:	State Department of Health Laboratories - ISDH	

Sample #	Type/ID#	chloroform	tetrachloroethene	cis-1,2-dichloroethene	1,1-dichloroethane	1,1,1-trichloroethane	trichloroethene
Lab	- IDEM						
	DL	0.50	0.50	0.50	0.50	0.50	0.50
	MCL >	100	5	70	NA	200	5
865	RI6709 MW-2S ✓	0.90	7.6	26	11	2.1	1.4
866	RI6710 MW-2D ✓					0.50	
867	RI6711 MW-1S	2.3	8.7			2.1	2.5
868	RI6712 MW-1D						

* BLANK (Type Indicated)
 ** FIELD DUPLICATE

Empty Box Indicates NON-DETECTABLE
Bold = above action level or MCL



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

 OWM OSHWM OER OAM

CHAIN OF CUSTODY

I Certify that the sample(s) listed below was/were collected by me or in my presence.

Date: 10/6/00

P.O. #:

Signature: [Signature]

Section: SL5 029

LAB NUMBER ASSIGNED	IDEM CONTROL NUMBER	CONSISTING OF THE INDICATED NUMBER OF BOTTLES										DATE AND TIME COLLECTED				
		2000 ml P, N, M.	1000 ml P, N, M.	1000 ml G, N, M.	500 ml G, W, M.	250 ml G, W, M.	125 ml G, W, M.	40 ml VIAL	120 ml P, (B. O.)	500 ml P, N, M.	250 ml P, N, M.					
	RI 6709							2						10/5/00	11:00	AM/PM
	RI 6710							2						10/5/00	12:05	AM/PM
	RI 6711							2						10/6/00	1:00	AM/PM
	RI 6712							2						10/6/00	1:30	AM/PM
														1/1	:	AM/PM
														1/1	:	AM/PM
														1/1	:	AM/PM
														1/1	:	AM/PM
														1/1	:	AM/PM
														1/1	:	AM/PM
														1/1	:	AM/PM

P-Plastic

G-Glass

N.M.-Narrow Mouth

W.M.-Wide Mouth

B. O.- Bactl. Only

CARRIERS

Should samples be iced?

Y	N
---	---

I certify that I received the above sample(s)

SIGNATURE	DATE AND TIME	SEALS INTACT		COMMENTS
		Y	N	
RELINQUISHED BY: <u>[Signature]</u>	<u>10/6/00</u>	Y	N	
RECEIVED BY: <u>[Signature]</u>	<u>3:15 AM/PM</u>			
RELINQUISHED BY:	<u>1/1</u>	Y	N	
RECEIVED BY:	<u>: AM/PM</u>			
RELINQUISHED BY:	<u>1/1</u>	Y	N	
RECEIVED BY:	<u>: AM/PM</u>			
RELINQUISHED BY:	<u>1/1</u>	Y	N	
RECEIVED BY:	<u>: AM/PM</u>			
RELINQUISHED BY:	<u>1/1</u>	Y	N	
RECEIVED BY:	<u>: AM/PM</u>			

Lab Custodian

I certify that I received the above sample(s) and is/are recorded in the official record book. The same samples will be in custody of competent laboratory personnel at all times or locked in a secure area.

Signature: [Signature]

Date: 10/6/00

Time: 3:16 AM/PM

Lab: TSDH

Address: 635 N. BALNHILL

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>VI60</u>
Sample I.D.: <u>MW2S</u>	IDEM/OLQ Control #: <u>RI 6709</u>
Collection Date: <u>10/5/00</u>	Time: <u>11:00</u> AM/PM

- Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
- Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
- Waste Pile Soil Truck Solvent Oil Drummed Waste
- Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
- Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)
N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Keck, Wizard

Field Test Performed	Result	Field Test Performed	Result
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)
clear

Deviations from Sampling Plan: Na

Sampler Signature: [Signature] Date: 10/5/00

* This form is for general use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>TAMWF</u>	County: <u>VI60</u>
Sample I.D.: <u>MW 20</u>	IDEM/OLQ Control #: <u>RI 6710</u>
Collection Date: <u>10/5/00</u>	Time: <u>12:03 AM</u> (PM)

- Sample Types (check all applicable):
- Mon. Well Res. Well Creek Leachate Ditch
 - Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
 - Waste Pile Soil Truck Solvent Oil Drummed Waste
 - Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
 - Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Ketchum W-200

Field Test Performed Result

N/A

Field Test Performed Result

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

SAMPLE FIELD SHEET *

Site Name: <u>TKMWF</u>	County: <u>VI60</u>
Sample I.D.: <u>MWIS</u>	IDEM/OLQ Control #: <u>RI 6711</u>
Collection Date: <u>10/6/00</u>	Time: <u>1:00</u> AM/PM

- Sample Types (check all applicable):
- Mon. Well Res. Well Creek Leachate Ditch
 - Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
 - Waste Pile Soil Truck Solvent Oil Drummed Waste
 - Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
 - Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Rads, Wield

Field Test Performed Result

N/A

Field Test Performed Result

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>0160</u>
Sample I.D.: <u>MW 1 D</u>	IDEM/OLQ Control #: <u>RT 6712</u>
Collection Date: <u>10/6/00</u>	Time: <u>1:30 AM/PM</u>

- Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
- Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
- Waste Pile Soil Truck Solvent Oil Drummed Waste
- Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
- Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Keck, vial

Field Test Performed	Result	Field Test Performed	Result
_____	<u>N/A</u>	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

Revised 03-16-00 Sampler Signature: Paul W. [Signature] Date: 10/6/00

* This form is for general use in OLQ sampling projects

Site & Requestor Details		Date		Sample Numbers	
		10/27/00		NI 6736-6738	
1. Site Name Terre Haute Municipal Well Field		2. Site ID Number 7500090		3. Grant Code 3-139-000	
4. Street Address Elm Street and First Street		5. City Terre Haute		6. County Vigo	
7. Person Requesting Samples Rich Molini		Branch/Section RS/Site Investigations		Phone 233-1512	
8. Sampler(s) Same		Branch/Section		Phone	
9. Site Manager / Facility Contact				Phone	
10. Reason for Sampling The well field is contaminated with chlorinated solvents. In 1999, IDEM installed 22 monitoring wells near the facility for investigative purposes. The wells were sampled in 1999 and follow-up sampling is needed this year.					
11. Data Quality: Results Only (ISDH)			12. Methodology: Drinking Water		
13. Matrix Type: Groundwater (unfiltered)			14. Dedicated Equipment? Yes		
15. Analysis:	VOCs				
16. Samples:	1				
Duplicates:	1				
Trip Blanks:	1				
Equipment Blanks:					
Total:	3				
17. Projected Sample Date(s) 10/27/00		18. Projected Date(s) to Lab 10/27/00		19. Turnaround Time 30 Days	
Lab Assigned ISDH		Lab Contact NA		Lab Contact Date NA	
Actual Date to Lab 10-27-00		Data Package Due		Preliminary Results Received	
Gatekeeper <i>Stephen J. Loman</i>		Site Chemist			
Section Chief <i>Wayne E. Whisler</i>		Branch Chief			
Assistant Commissioner		Deputy Commissioner			
\$0-\$15,000 - Gatekeeper & Section Chief		\$15,001-\$25,000 - Add Branch Chief			
\$25,001-\$40,000 - Add Assistant Commissioner		Over \$40,000 - Add Deputy Commissioner			

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

Date: December 18, 2000

To: Rich Molini
Site Assessment/Brownfields Section

Thru: Fran Metcalfe *FM 12/18/2000*
Barry Steward *BS 12-19-00*

From: Nancy Britt *NB 12-18-2000*
OLQ Chemistry Section

Subject: Analytical Results for Municipal Well Field site
Terre Haute, Vigo County, Indiana
Site No. 7500090
Sampled: October 18, 2000
Sample Numbers: RI6713 – RI6717
Indiana State Department of Health (ISDH) Laboratories

The analytical results for the samples identified above have been evaluated. The ISDH does not currently submit the necessary documentation for a complete quality assurance/quality control evaluation. Based on the evaluation, it has been determined that the results are acceptable for screening purposes only. This memorandum should remain attached to the original laboratory reports for reference.

General Comments:

The purpose of this event was to monitor the conditions in a municipal well field that is contaminated with chlorinated solvents. In 1999, IDEM installed twenty-two (22) monitoring wells near the facility. The wells were first sampled in 1999. This second round of sampling has taken place over the course of several days resulting in more than one submittal to the laboratory and more than one chain-of-custody. Separate memos will be prepared for each laboratory submittal.

Sampling Quality Assurance/Quality Control:

Field documentation did allow for interpretation of the data.

Field duplicate samples are used to establish the representativeness of field sampling (i.e., the homogeneity and sample variability). Field duplicates of groundwater were collected from the

MW-8S sample point. The field duplicate samples showed a high degree of sample homogeneity.

Trip blanks are used to identify sample contamination resulting from the handling and transportation of samples. The trip blank, RI6717, that was submitted with this sampling event did not contain any compounds above the laboratory detection limit.

Equipment blanks are used to identify sample contamination resulting from sampling equipment. Equipment improperly rinsed between uses at heavily contaminated sites may demonstrate carryover. Carryover is the appearance of residual contamination from a previous sampling point at the next sampling point. No equipment blank was included with this sampling event. However, the only compound concentrations that may appear as carryover are the trace amounts of tetrachloroethene and trichloroethene found in sample MW-8D. Both compounds are reported as being below maximum contaminant levels (MCLs) and are not an issue.

Laboratory Quality Assurance/Quality Control:

The samples were analyzed within the recommended holding time.

Water

Volatile Organic Compounds:

Samples were analyzed for Volatile Organic Compounds (VOCs) by SW-846 Method 8260.

Results:

The shallow well, MW-8S, contained levels of tetrachloroethene and trichloroethene above MCL of 5 parts per billion. Sample results are listed in the attached table. Results above the MCL are indicated by bold type.

Conclusions:

The data are usable for the overall project goal.

Attachment

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Volatile Organic Analysis

Site Name: Municipal Well Field
Site Number: 7500090
Location: Terre Haute
Date Sampled: 18-Oct-00
Date Reported: 20-Nov-00
Sample Numbers: RI6713 - RI6717
Lab: State Department of Health Laboratories - ISDH

Water
 Units ug/l (ppb)

Sample #		Type/ID#	chloroform	tetrachloroethene	cis-1,2-dichloroethene	1,1-dichloroethane	1,1,1-trichloroethane	trichloroethene	1,1,2-trichloroethane
Lab	IDEM								
		DL	0.50	0.50	0.50	0.50	0.50	0.50	0.50
MCL >			100	5	70	NA	200	5	5
873	RI6713	MW-5D							
874	RI6714	**MW-8S	0.70	22	44	11	10	25.0	2.2
875	RI6715	MW-8S	0.60	23	44	15	10	25.0	2.4
876	RI6716	MW-8D		<u>0.9</u>				<u>0.7</u>	
878	RI6717	Trip Blank							

* BLANK (Type Indicated)
 ** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE
Bold = above action level or MCL

Indiana State Dept. of Health Method 8260 Report

Client : IDEM
 Collected: Oct 18 2000
 Received : Oct 19 2000
 Analyzed : Oct 23 2000
 Reported : Oct 31 2000
 Detection Limit = 0.5 µg/L

Analyst: MS 10-31-00
 Reviewer: [Signature] 10-31-00
 QC: [Signature]

Name	RI6713 R873 Well	RI6714 R874 Well	RI6715 R875 Well	RI6716 R876 Well	RI6717 R877 Well
1) Dichlorodifluoromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
2) Chloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
3) Vinyl Chloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
4) Bromomethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
5) Chloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
6) Trichlorofluoromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
7) 1,1-Dichloroethene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
8) Methylene Chloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
9) trans-1,2-Dichloroethene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
10) 1,1-Dichloroethane	<D.L.	11.	15.	<D.L.	<D.L.
11) 2,2-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
12) cis-1,2-Dichloroethene	<D.L.	44.	44.	<D.L.	<D.L.
13) Chloroform	<D.L.	0.7	0.6	<D.L.	<D.L.
14) Bromochloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
15) 1,1,1-Trichloroethane	<D.L.	10.	10.	<D.L.	<D.L.
16) 1,1-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
17) Carbon Tetrachloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
18) 1,2-Dichloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
19) Benzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
20) Fluorobenzene (Int. Std.)	4.0	4.0	4.0	4.0	4.0
21) Trichloroethene	<D.L.	25.	25.	0.7	<D.L.
22) 1,2-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
23) Bromodichloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
24) Dibromomethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
25) cis-1,3-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
26) Toluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
27) trans-1,3-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
28) 1,1,2-Trichloroethane	<D.L.	2.2	2.4	<D.L.	<D.L.
29) 1,3-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
30) Tetrachloroethene	<D.L.	22.	23.	0.9	<D.L.
31) Dibromochloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
32) 1,2-Dibromoethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
33) Chlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
34) 1,1,1,2-Tetrachloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
35) Ethyl Benzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
36) m&p Xylene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
37) o-Xylene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
38) Styrene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
39) Isopropylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
40) Bromoform	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

REPORTED

NOV 18 2000

Indiana State Department of Health
 Laboratory Resource Center
 Environmental Laboratory Section

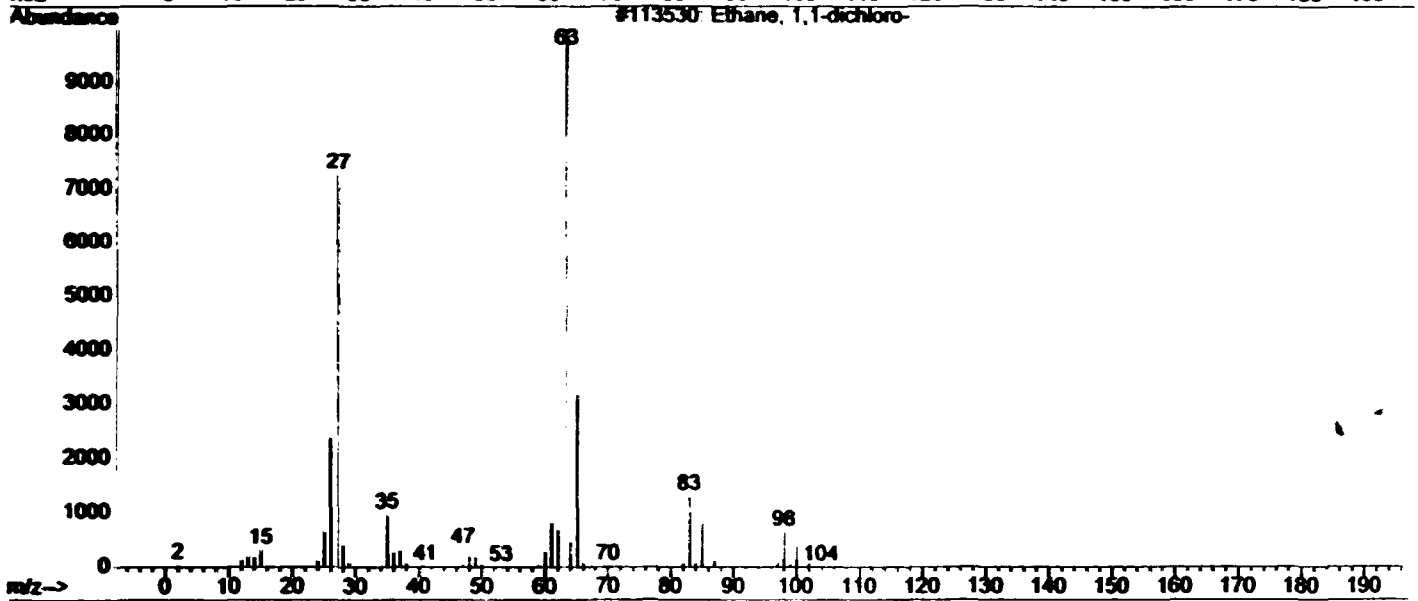
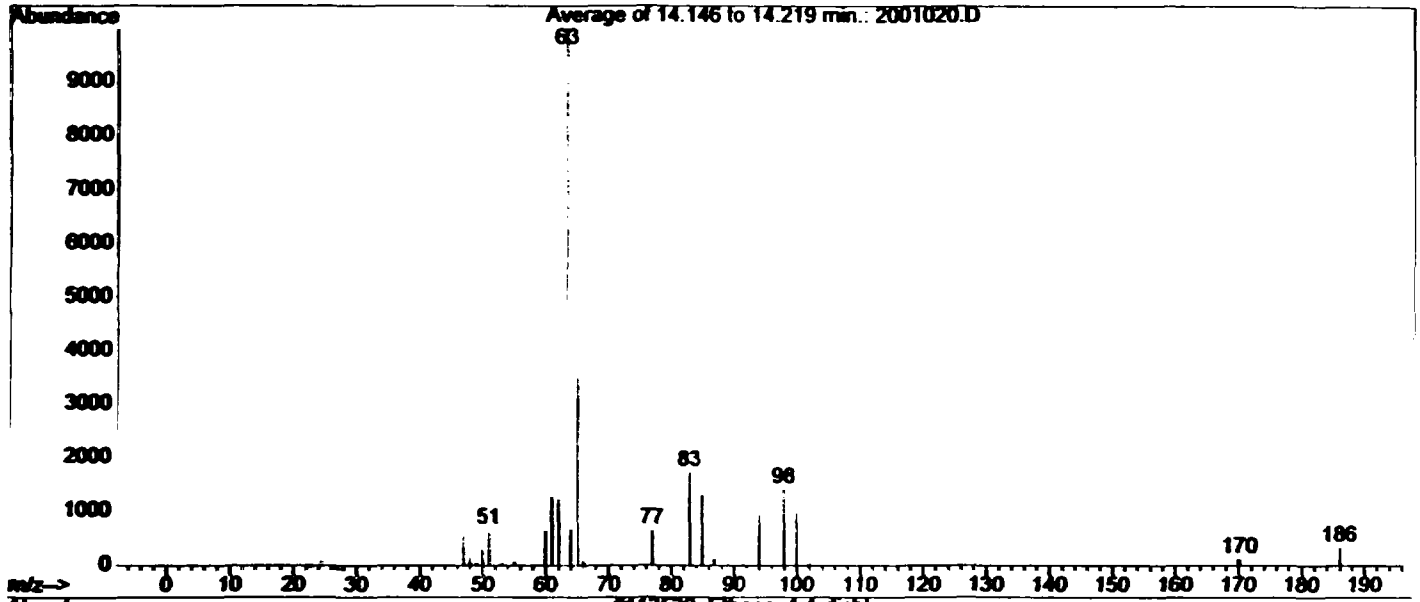
Indiana State Dept. of Health Method 8260 Report

Client : IDEM
 Collected: Oct 18 2000
 Received : Oct 19 2000
 Analyzed : Oct 23 2000
 Reported : Oct 31 2000
 Detection Limit = 0.5 µg/L

Analyst: MS 10-31-00
 Reviewer: RB 10-31-00

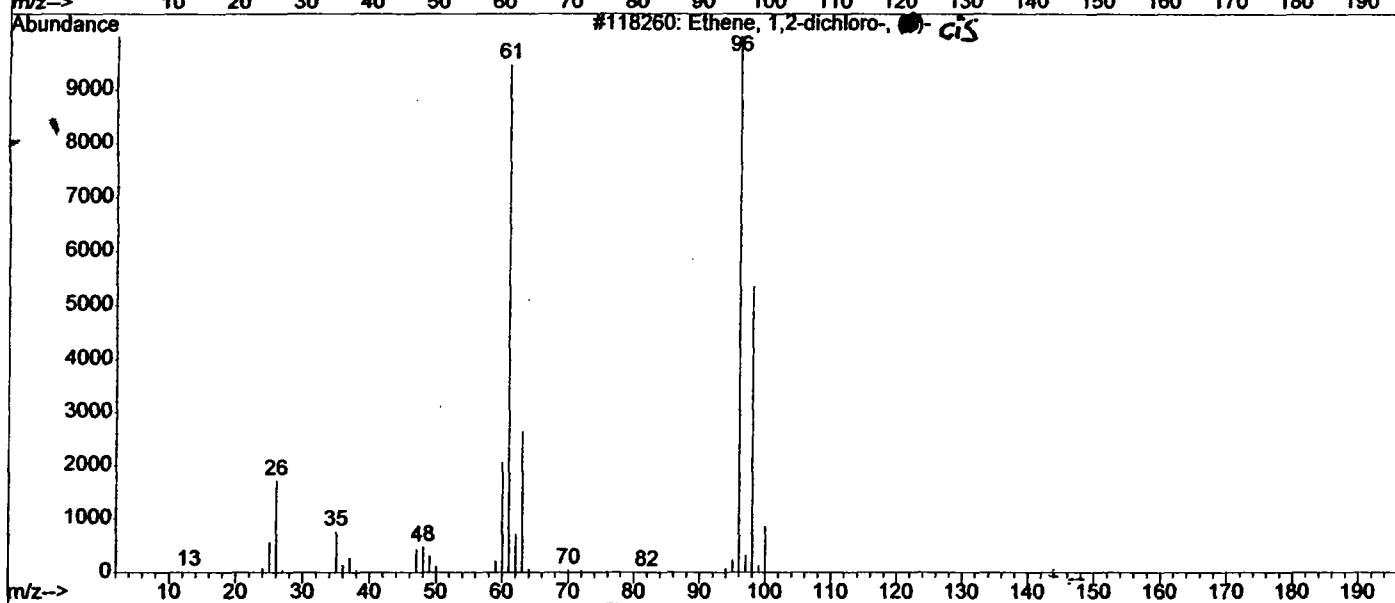
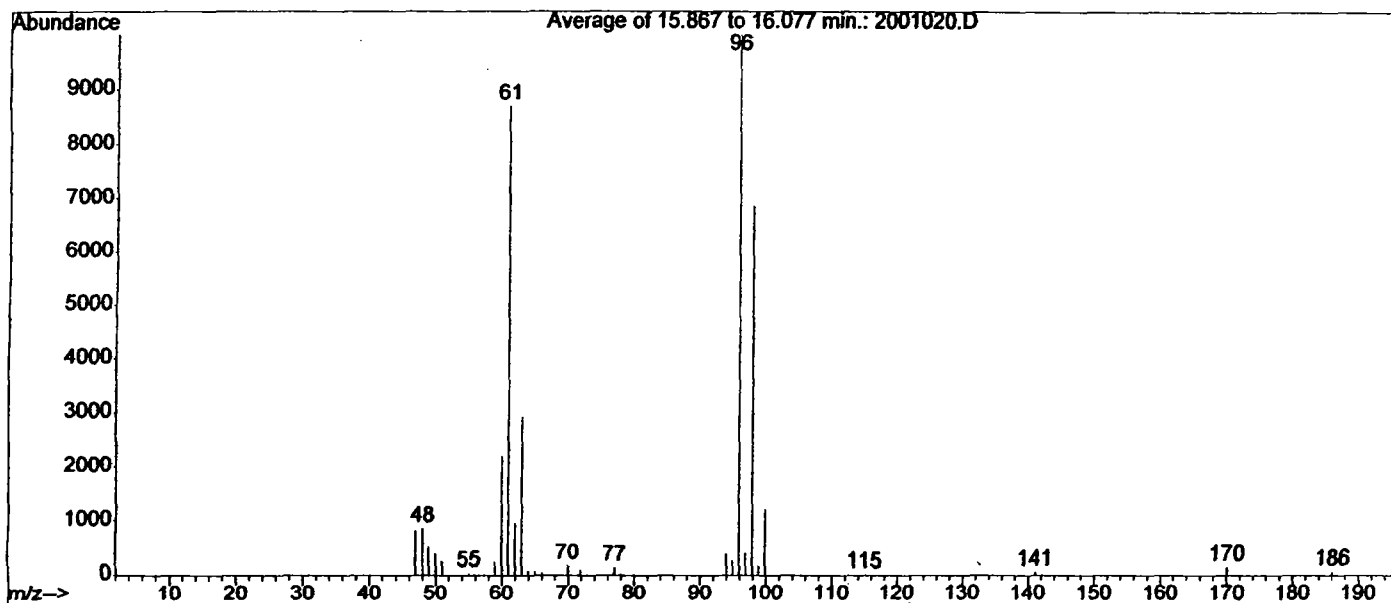
Name	RI6713	RI6714	RI6715	RI6716	RI6717
	R873 Well	R874 Well	R875 Well	R876 Well	R877 Well
41) 1,1,2,2-Tetrachloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
42) p-BFB (Surr.)	4.5	4.7	4.6	4.7	4.5
43) 1,2,3-Trichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
44) n-Propylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
45) Bromobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
46) 1,3,5-Trimethylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
47) 2-Chlorotoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
48) 4-Chlorotoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
49) tert-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
50) 1,2,4-Trimethylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
51) sec-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
52) p-Isopropyltoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
53) 1,3-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
54) 1,4-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
55) n-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
56) 1,2-Dichlorobenzene d4 (Surr.)	3.4	3.2	3.3	3.4	3.3
57) 1,2-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
58) 1,2-Dibromo-3-Chloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
59) 1,2,4-Trichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
60) Hexachlorobutadiene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
61) Naphthalene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
62) 1,2,3-Trichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
63) MTBE	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

Library Searched : C:\DATABASE\nist98.1
Quality : 91
ID : Ethane, 1,1-dichloro-



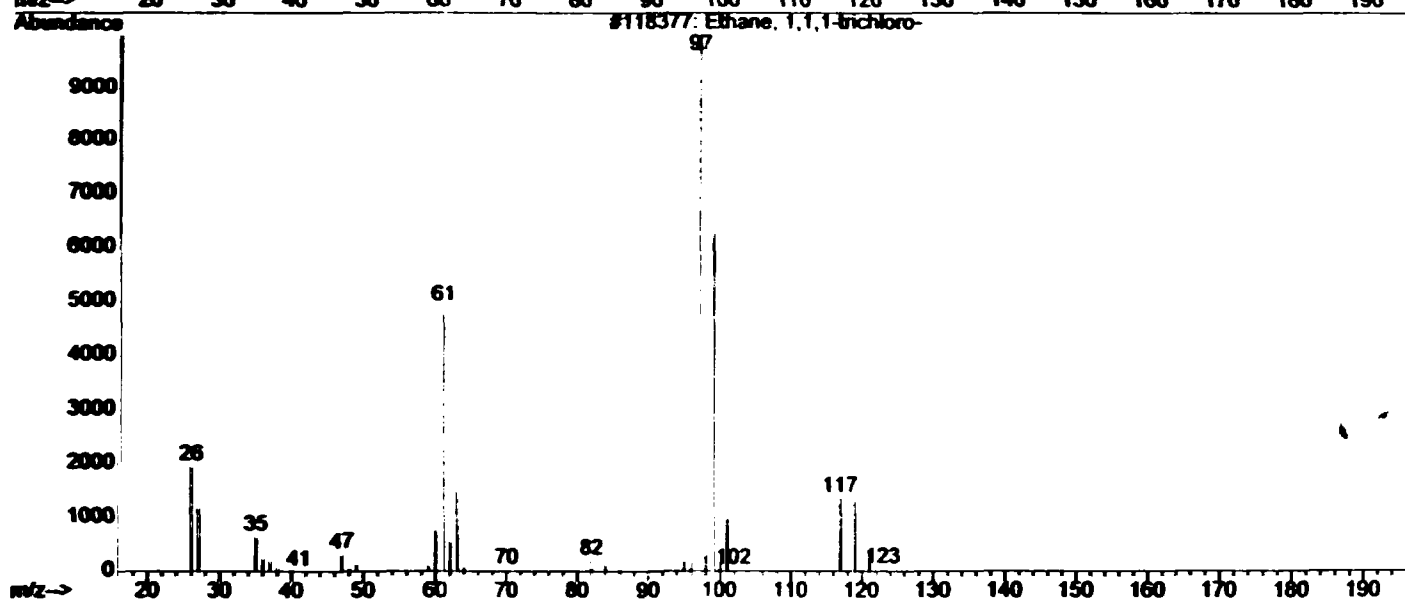
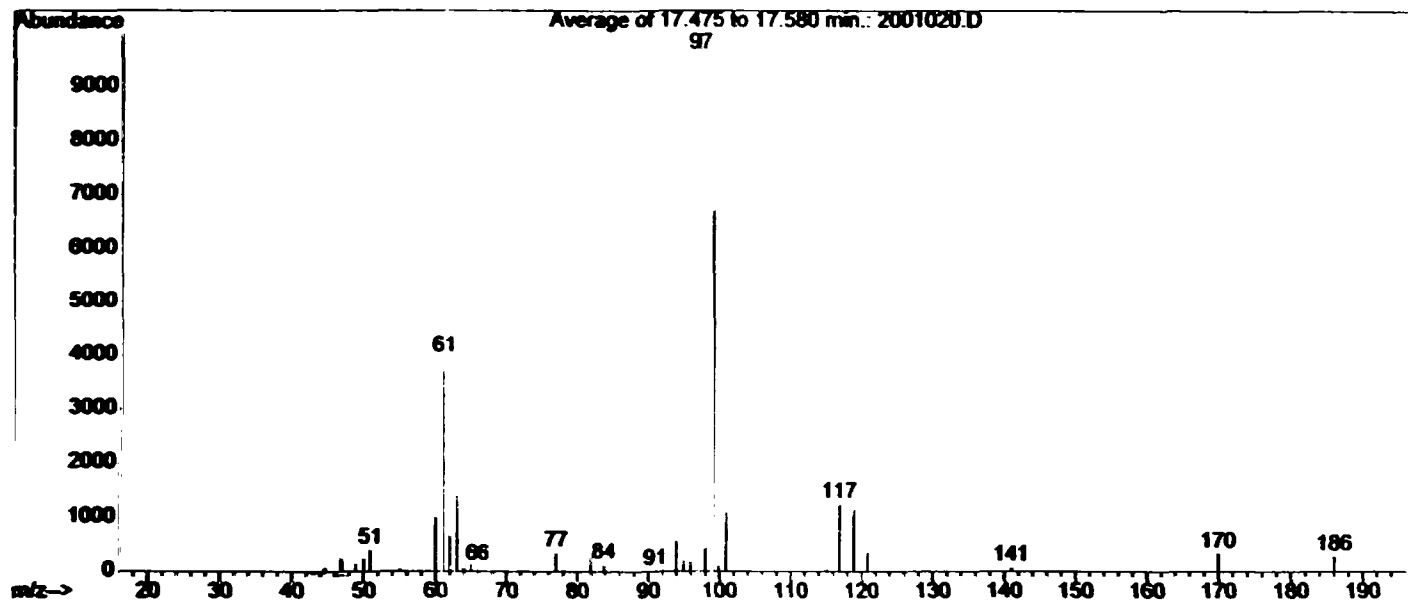
R874

Library Searched : C:\DATABASE\nist98.1
Quality : 96
ID : Ethene, 1,2-dichloro-, (Z)-*cis*



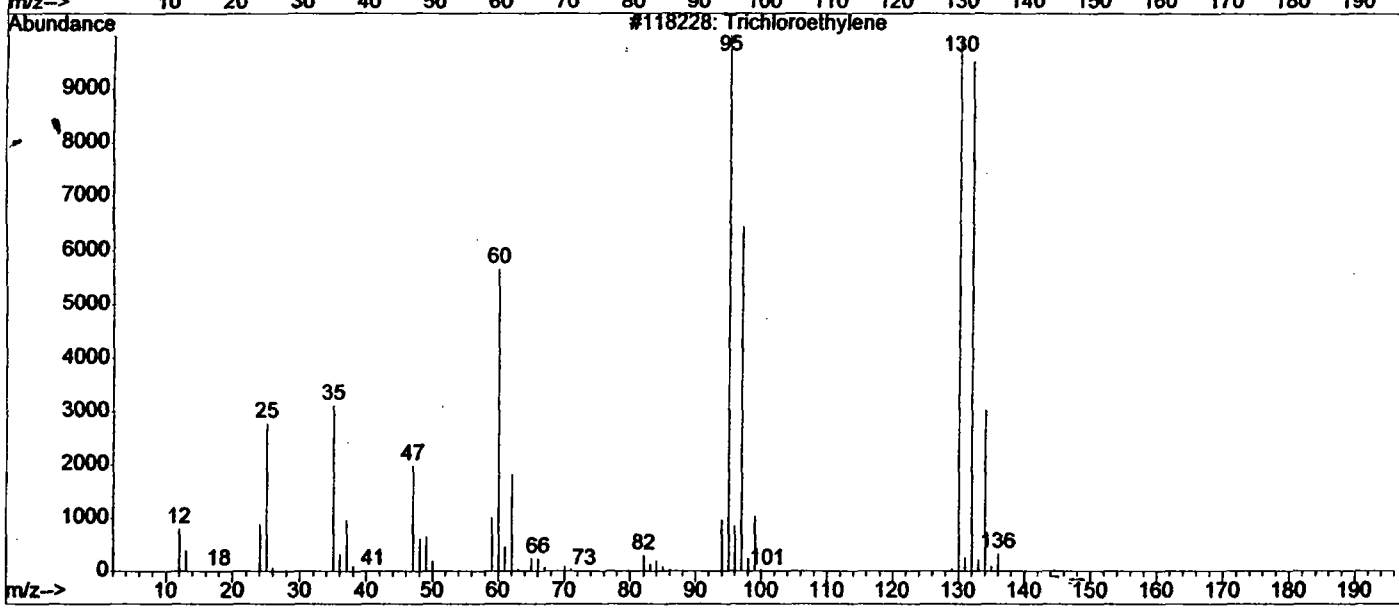
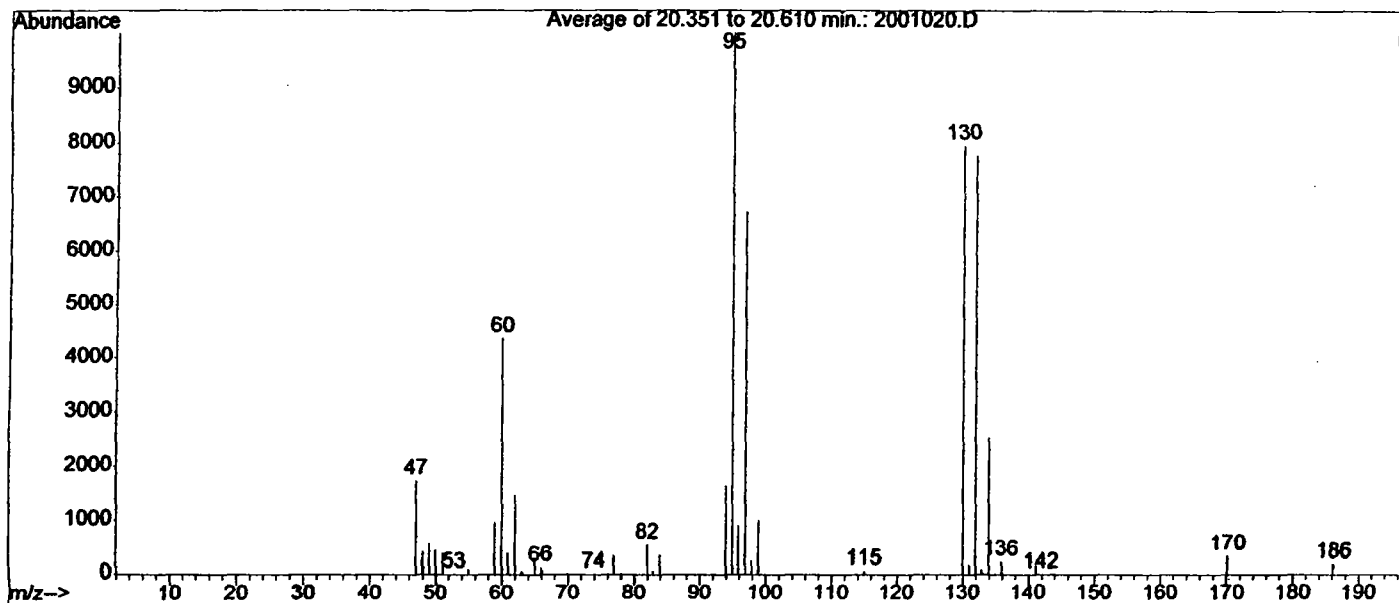
R874

Library Searched : C:\DATABASE\nist98.1
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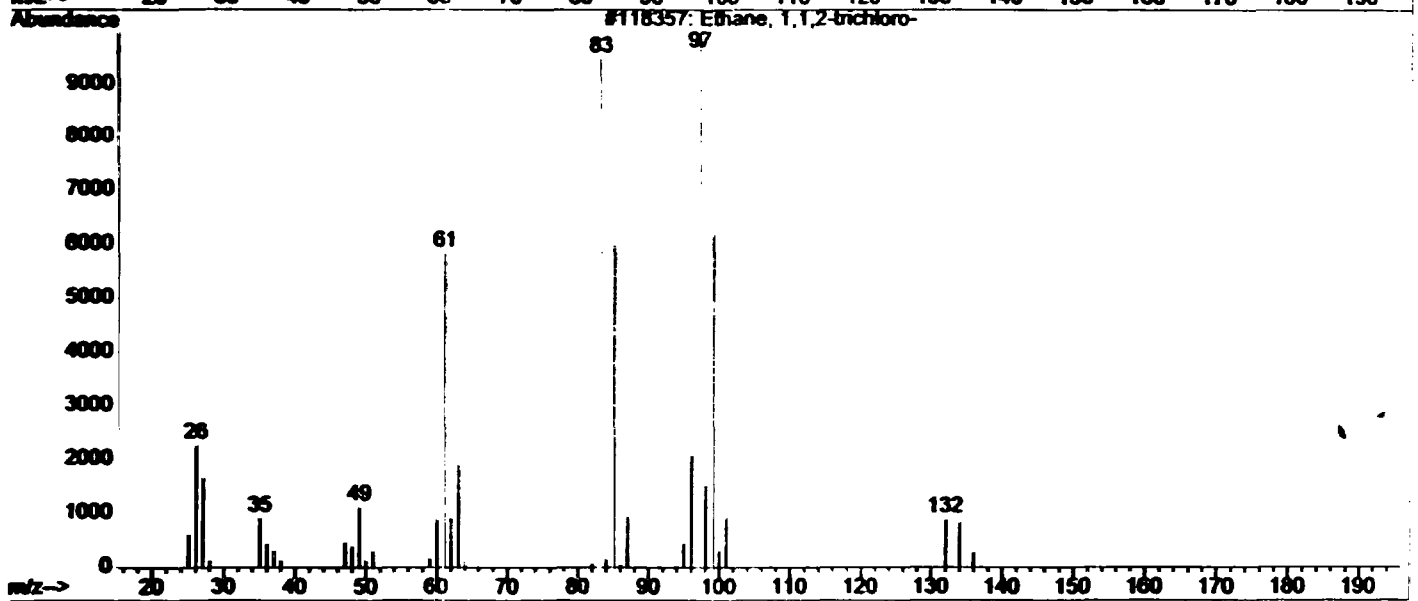
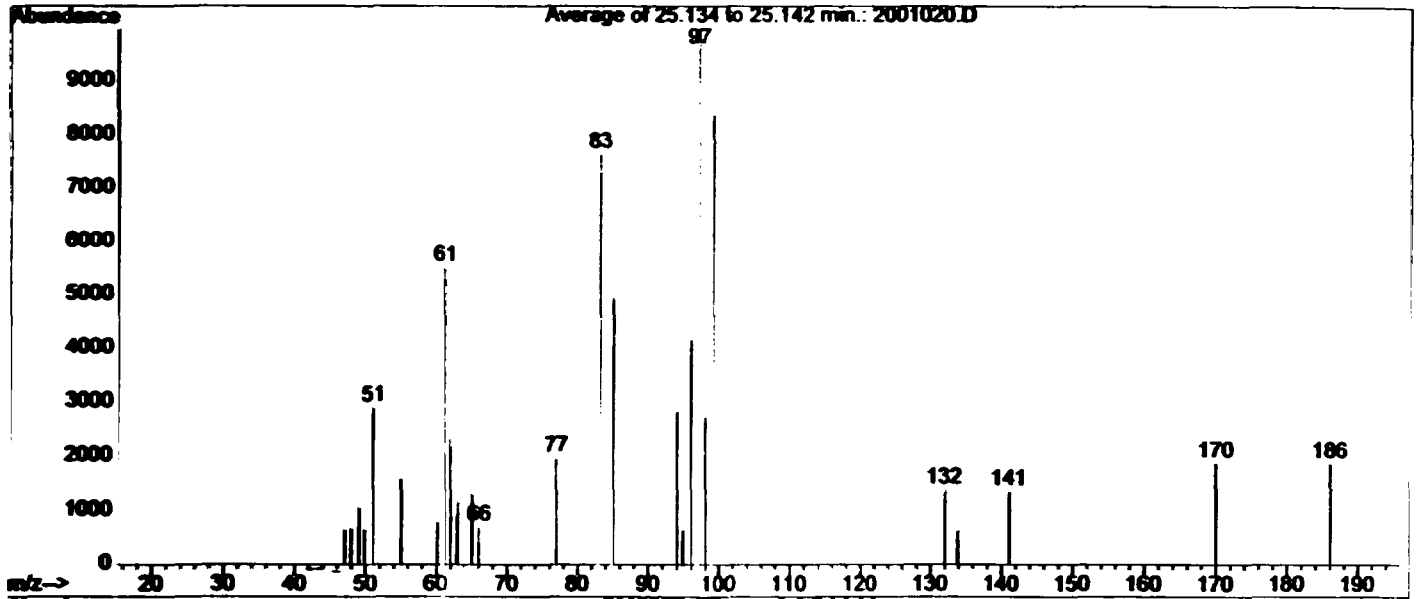
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ID : Trichloroethylene



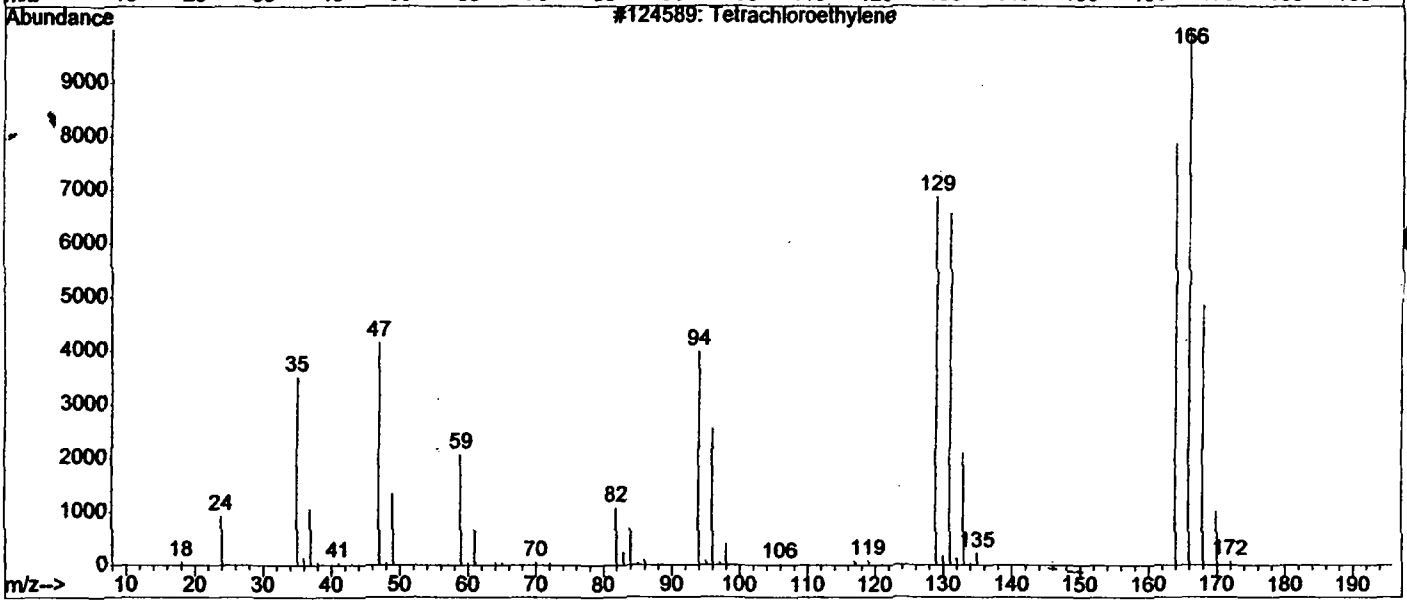
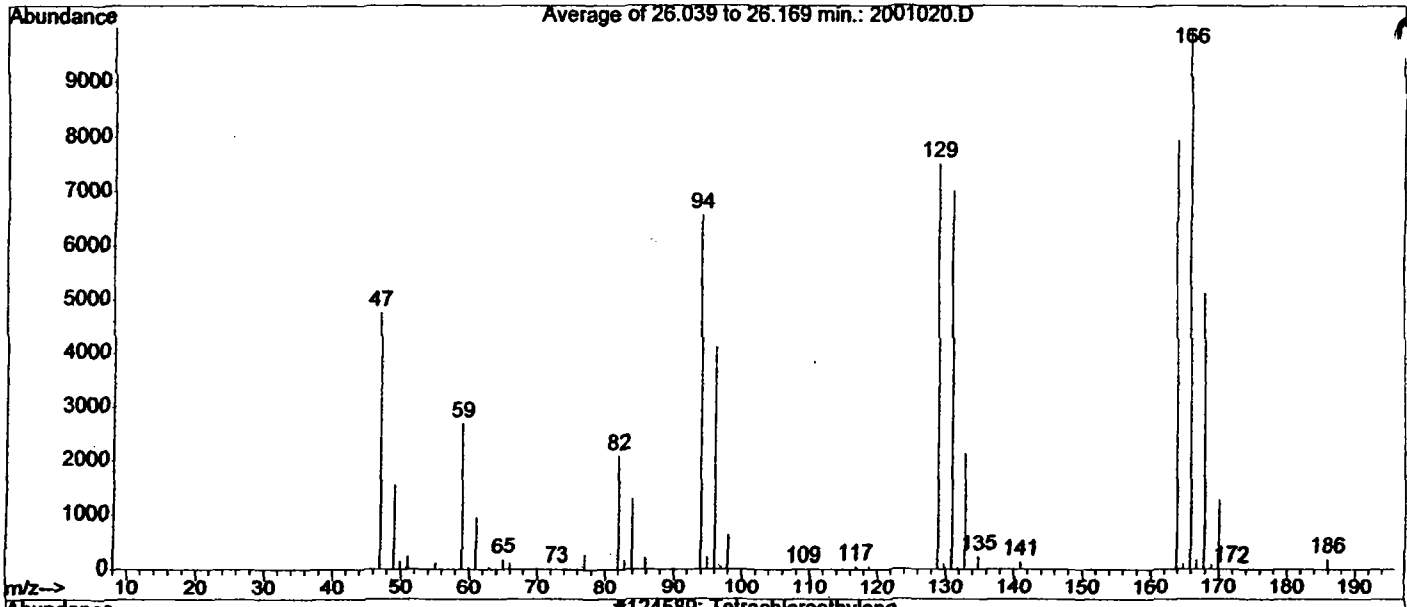
R874

Library Searched : C:\DATABASE\nist98.1
Quality : 53
ID : Ethane, 1,1,2-trichloro-



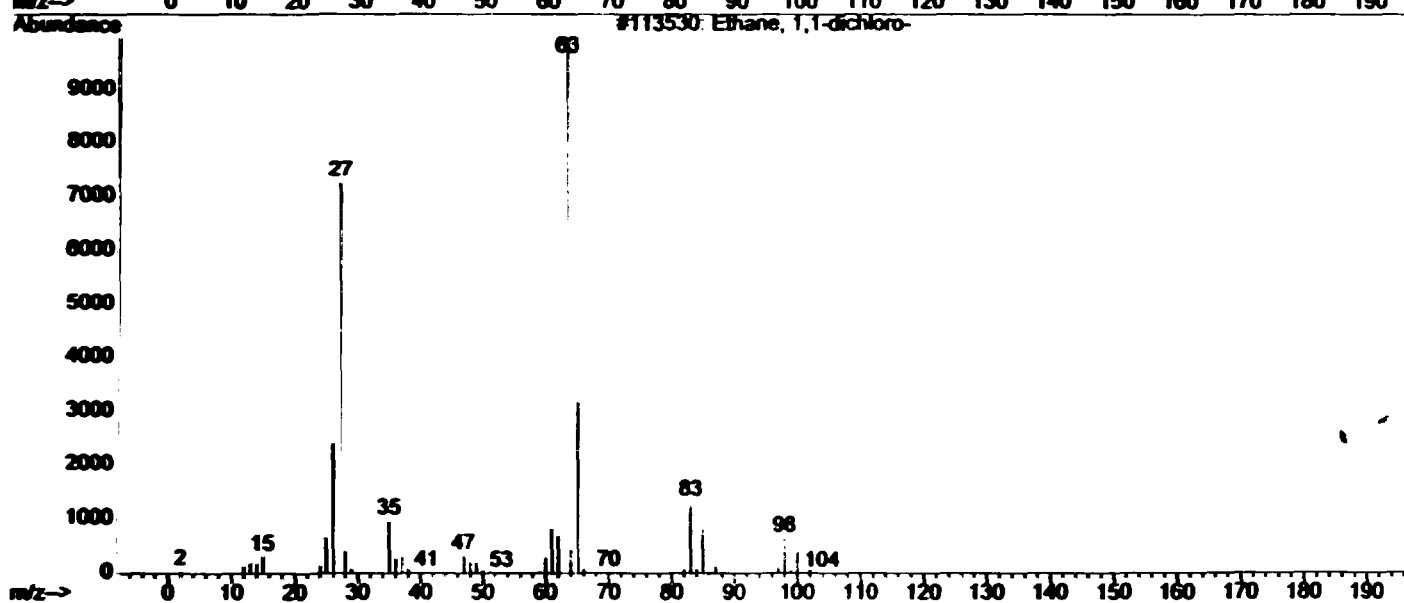
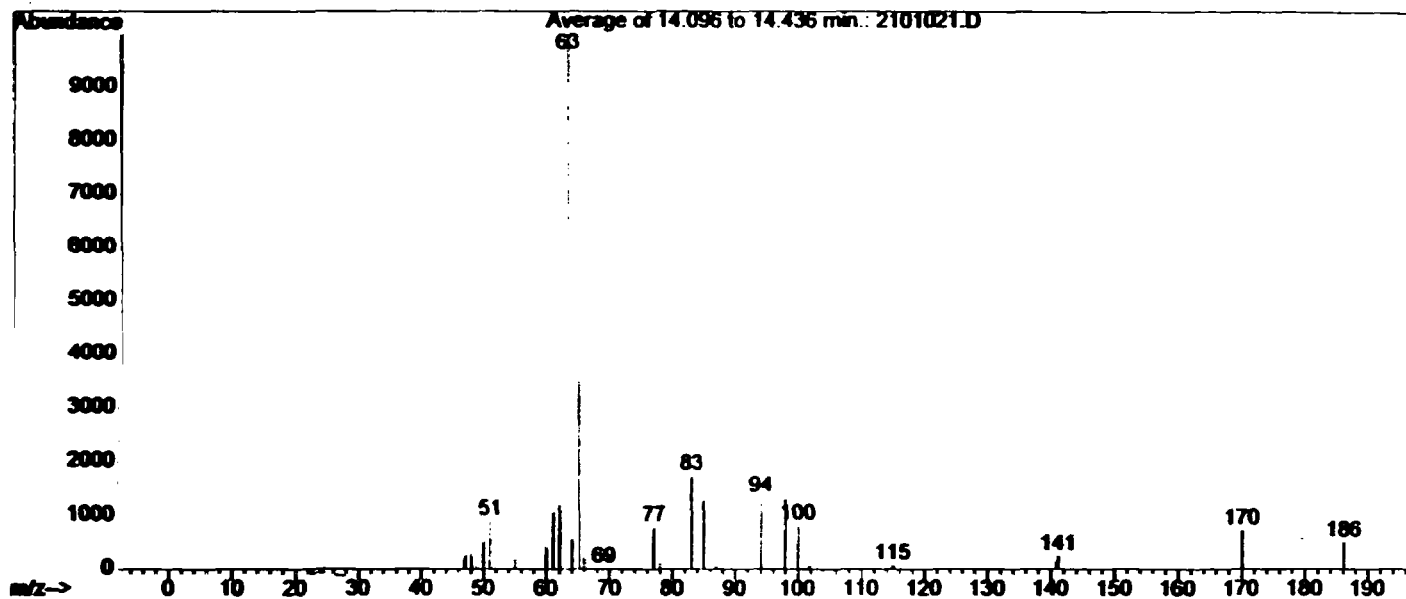
R874

Library Searched : C:\DATABASE\nist98.1
Quality : 96
ID : Tetrachloroethylene



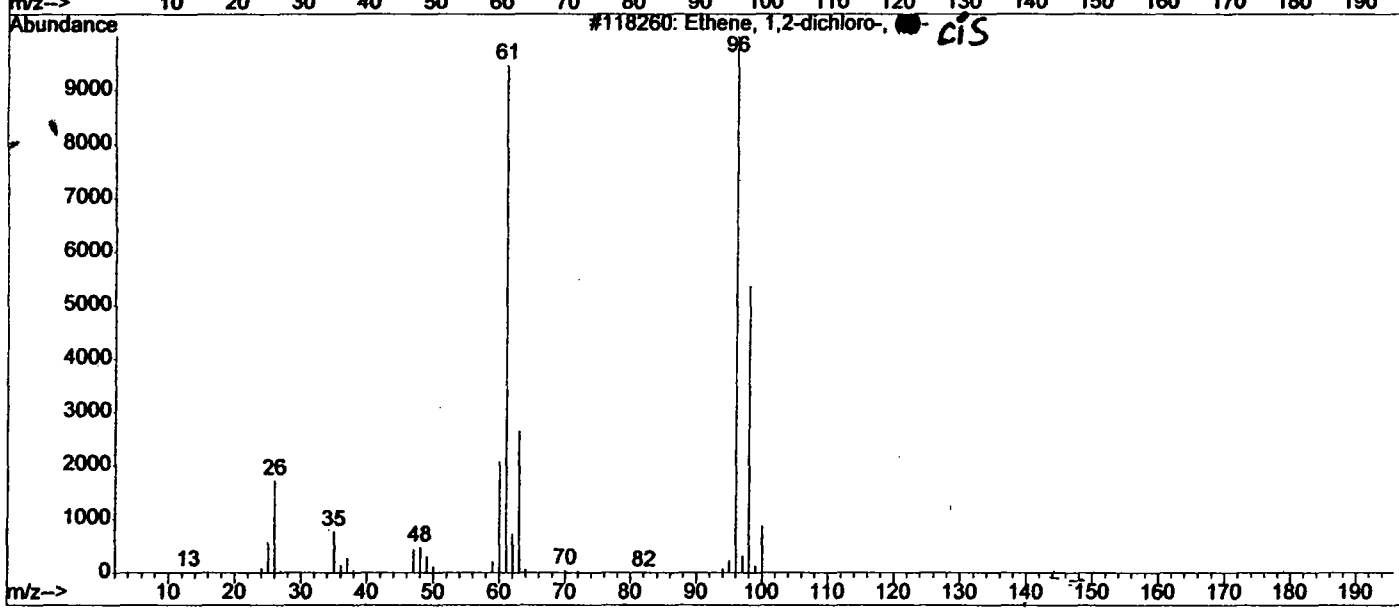
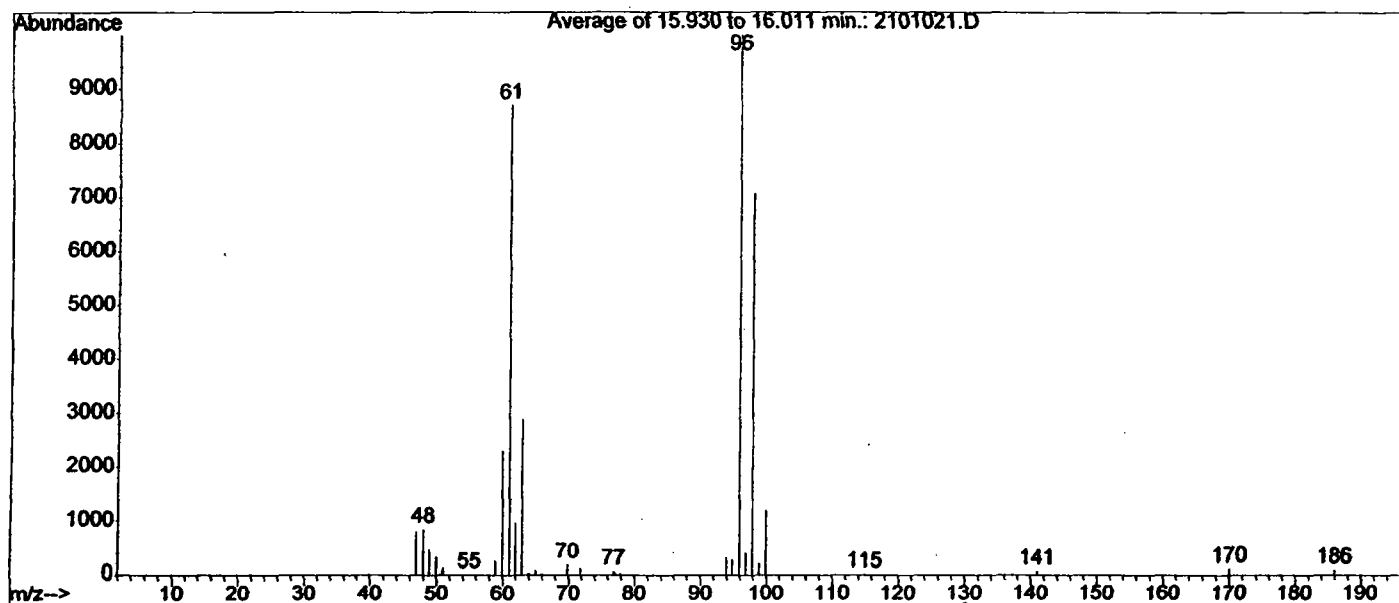
R874

Library Searched : C:\DATABASE\nist98.1
Quality : 91
ID : Ethane, 1,1-dichloro-



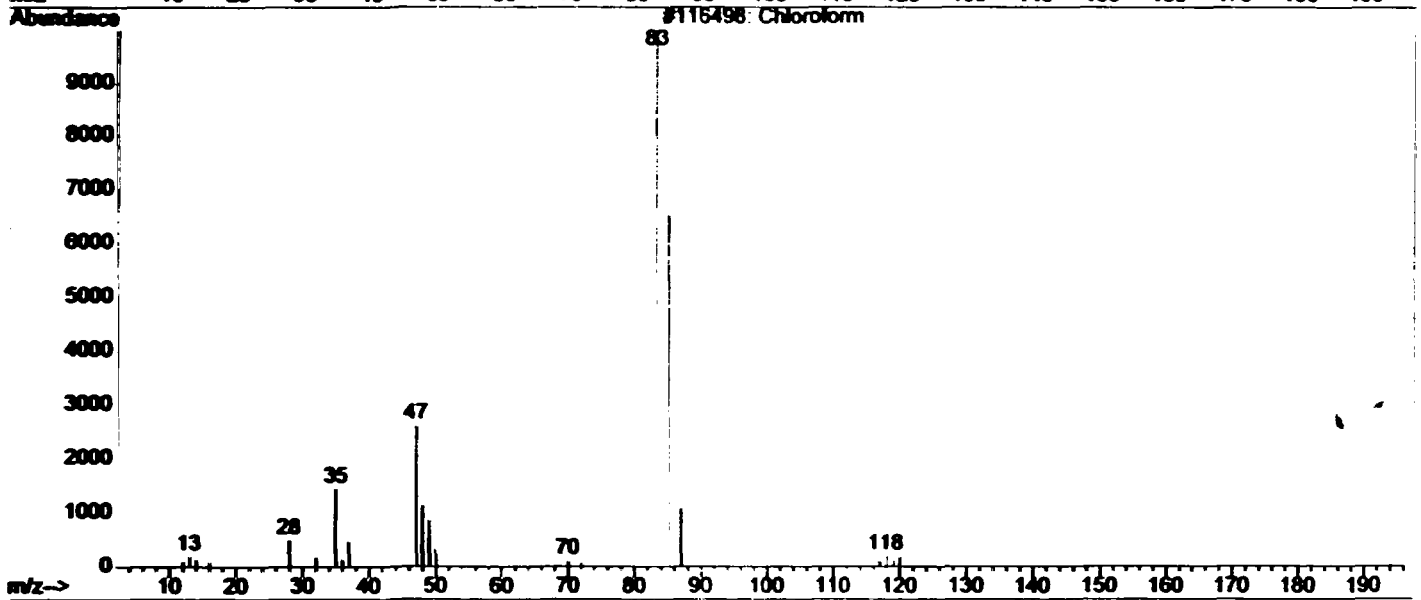
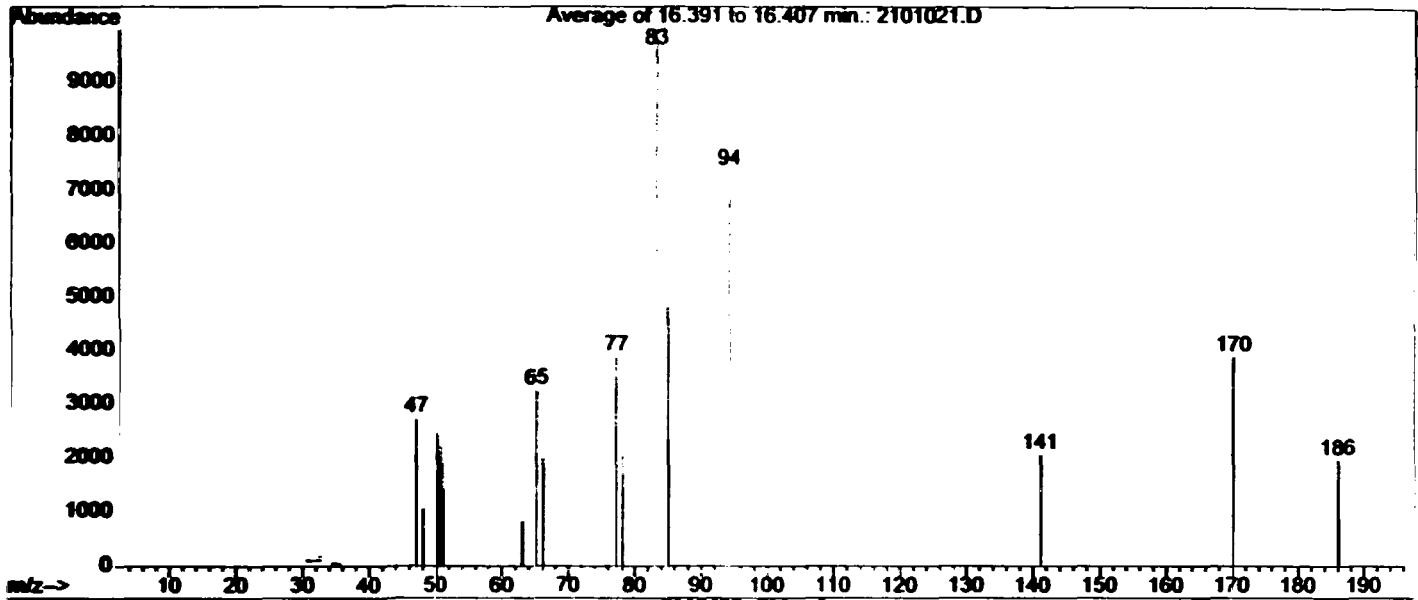
R875

Library Searched : C:\DATABASE\nist98.1
Quality : 96
ID : Ethene, 1,2-dichloro-, **cis**



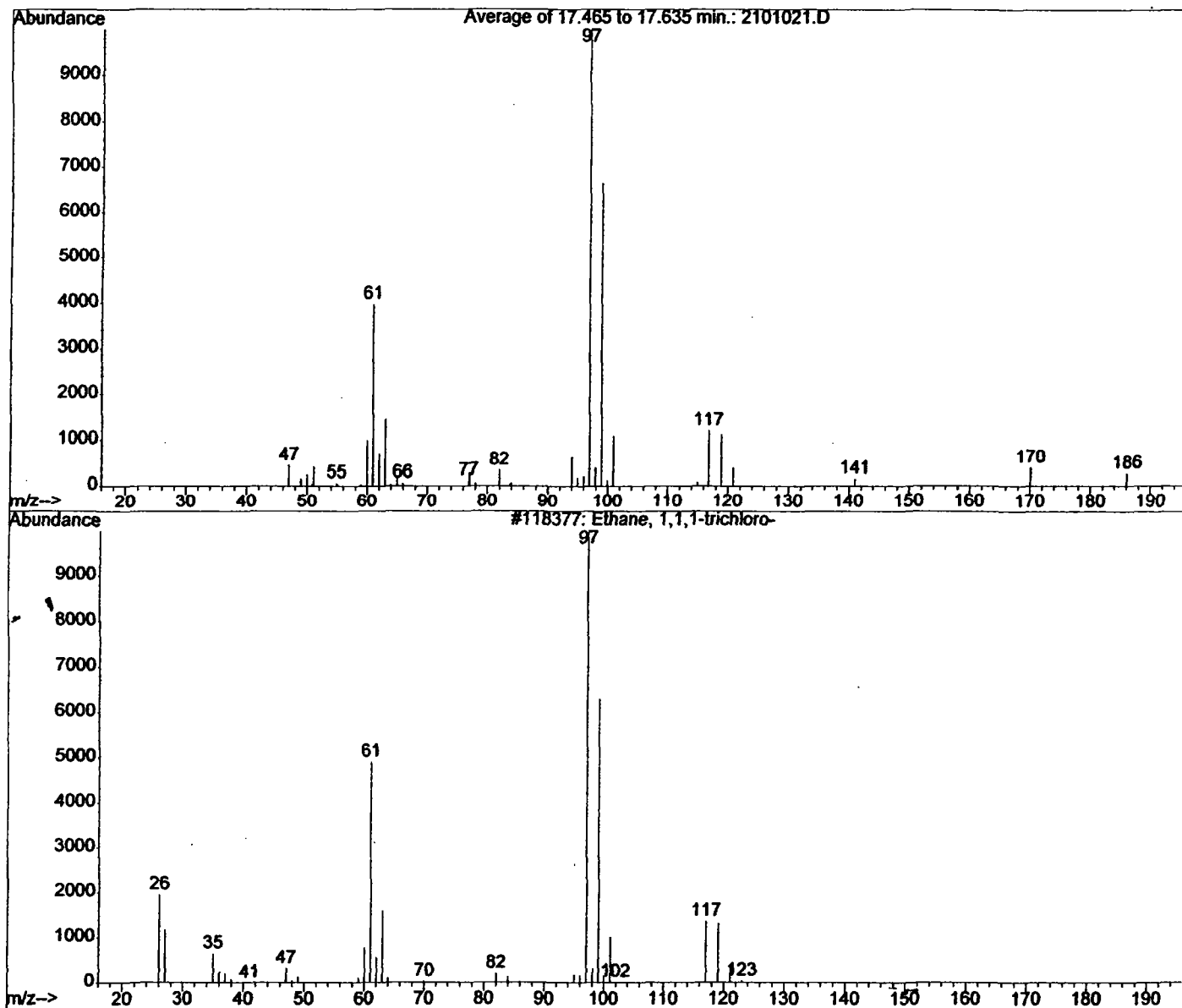
R875

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Quality : 10
ID : Chloroform



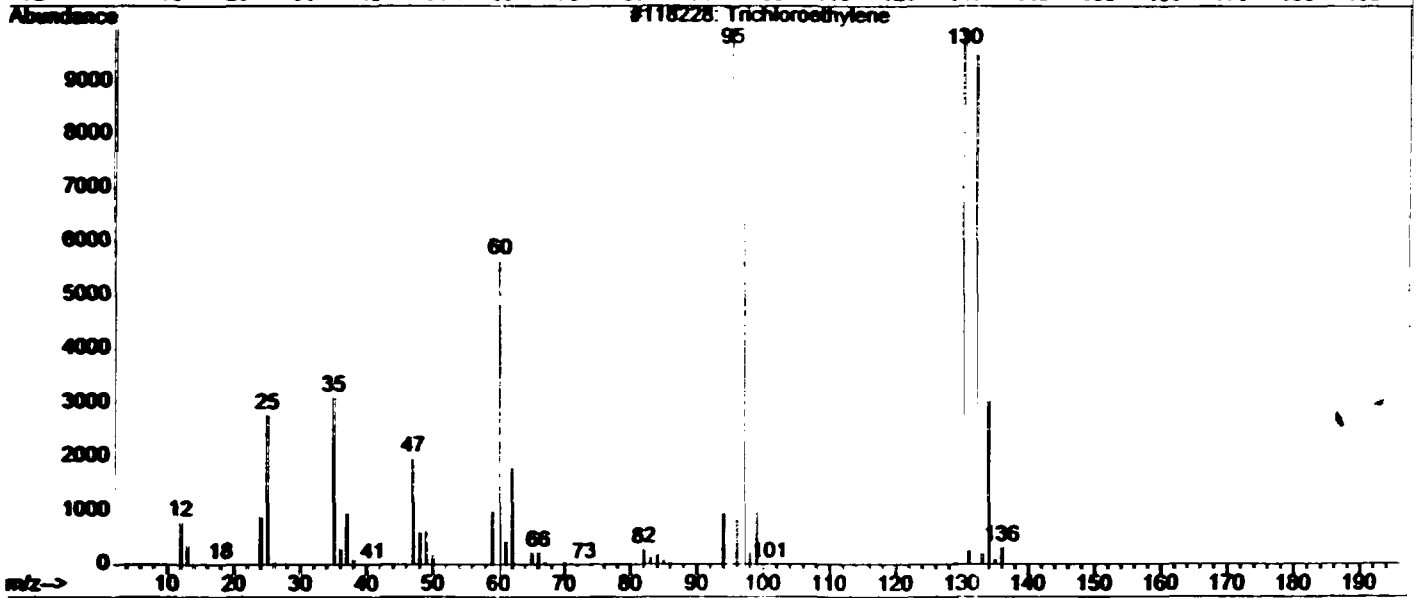
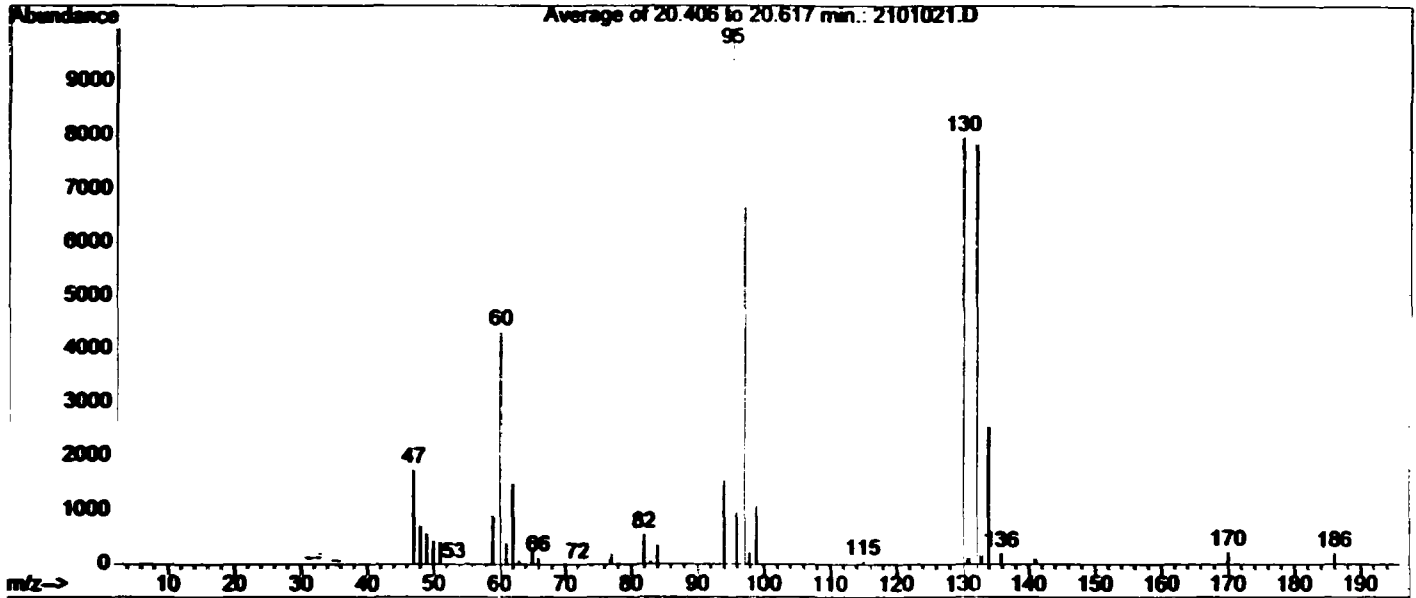
R875

Library Searched : C:\DATABASE\nist98.1
Quality : 90
ID : Ethane, 1,1,1-trichloro-



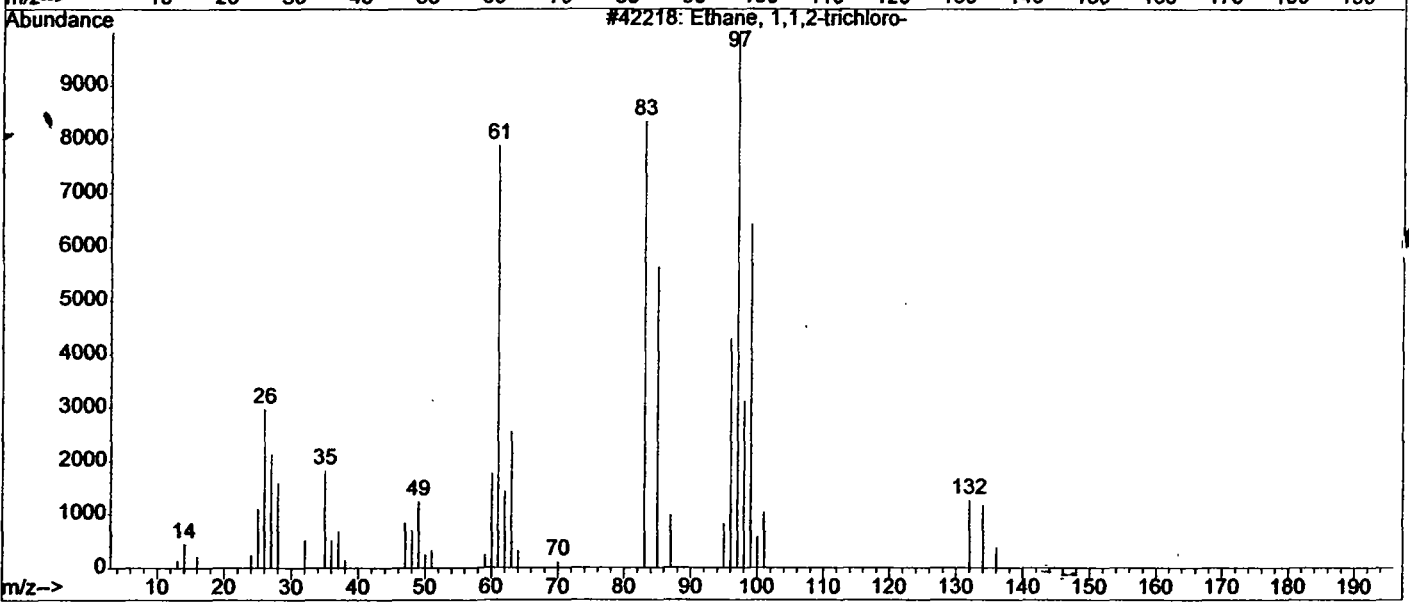
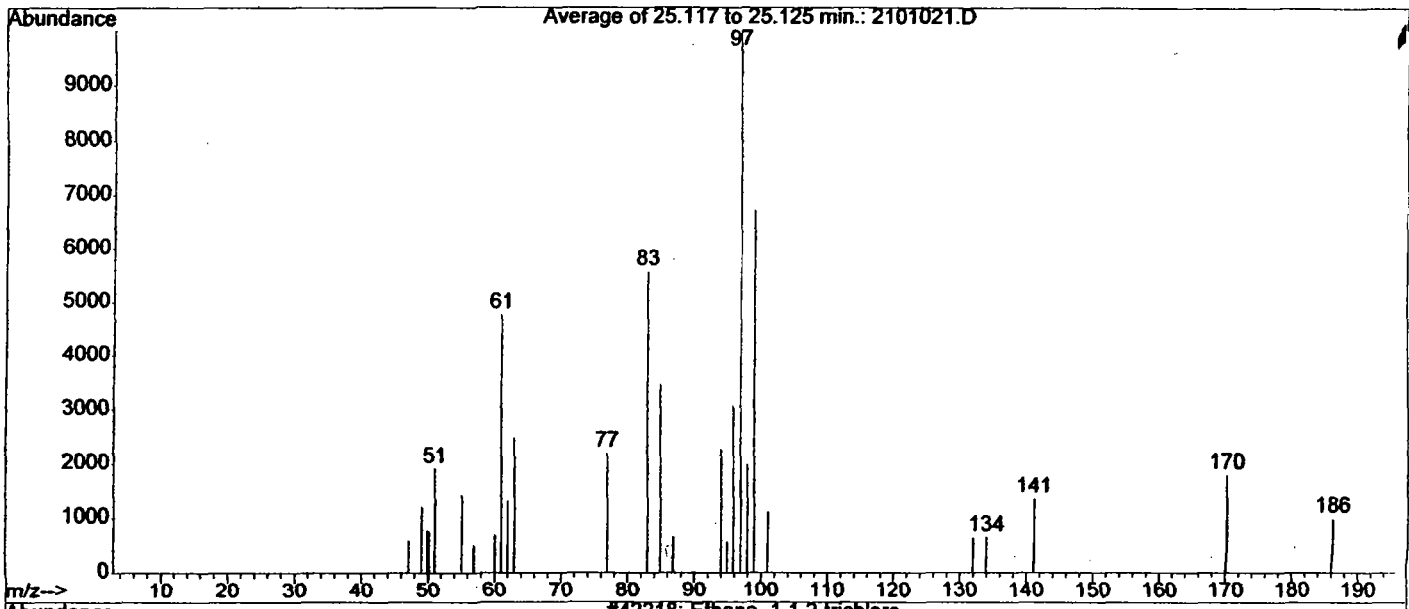
R875

Library Searched : C:\DATABASE\nist98.1
Quality : 98
ID : Trichloroethylene



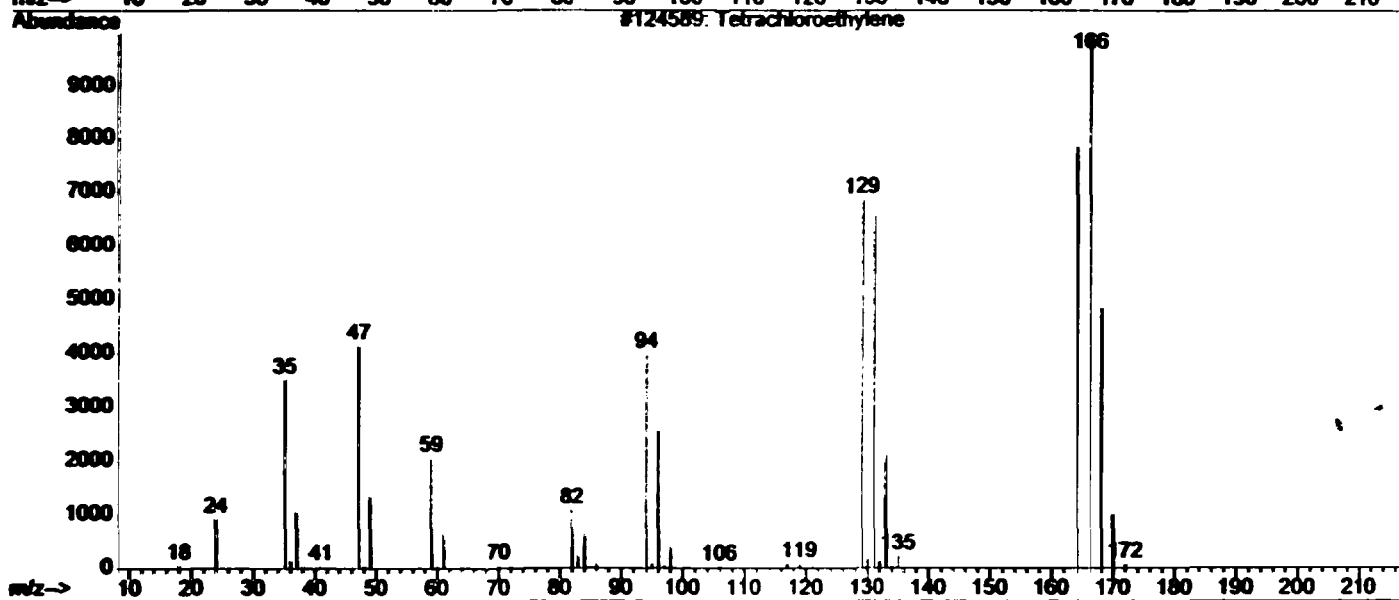
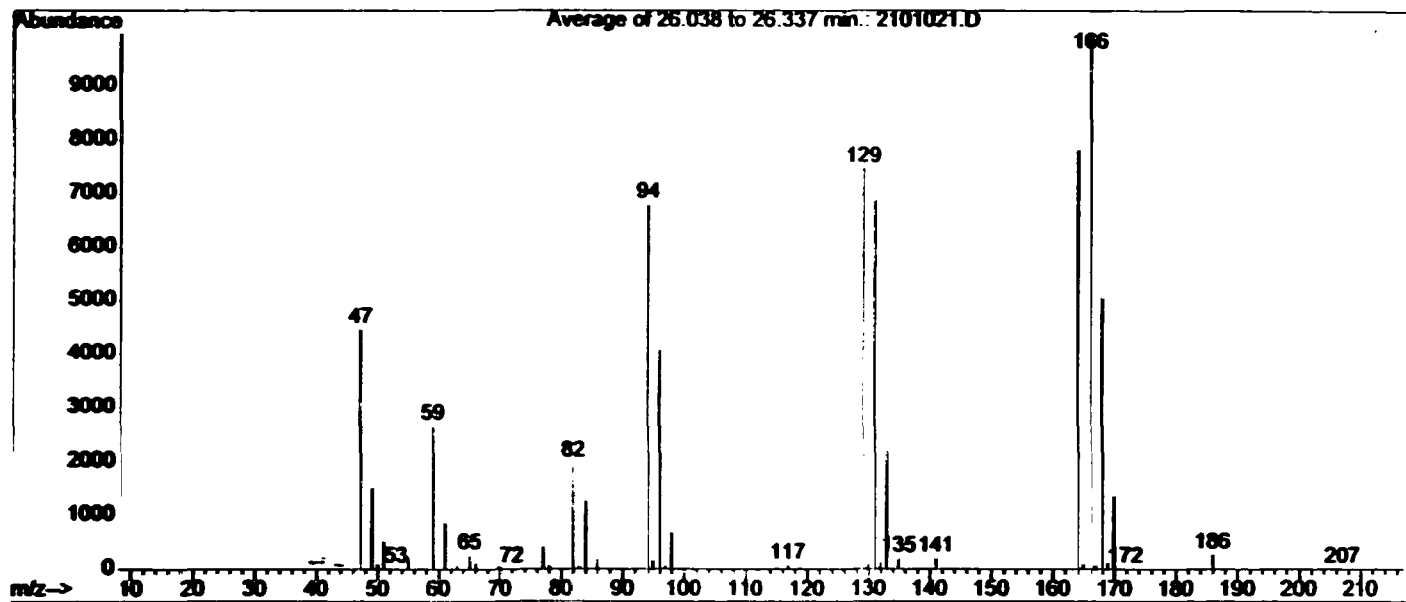
R 875

Library Searched : C:\DATABASE\nist98.1
Quality : 93
ID : Ethane, 1,1,2-trichloro-



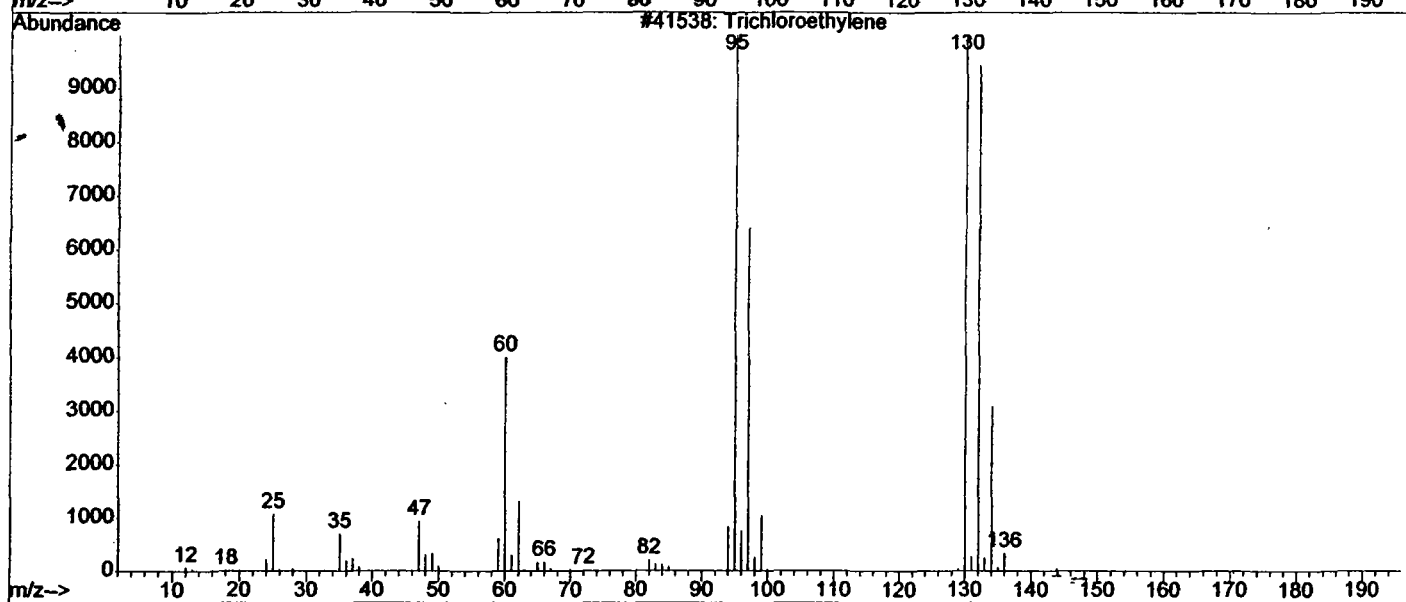
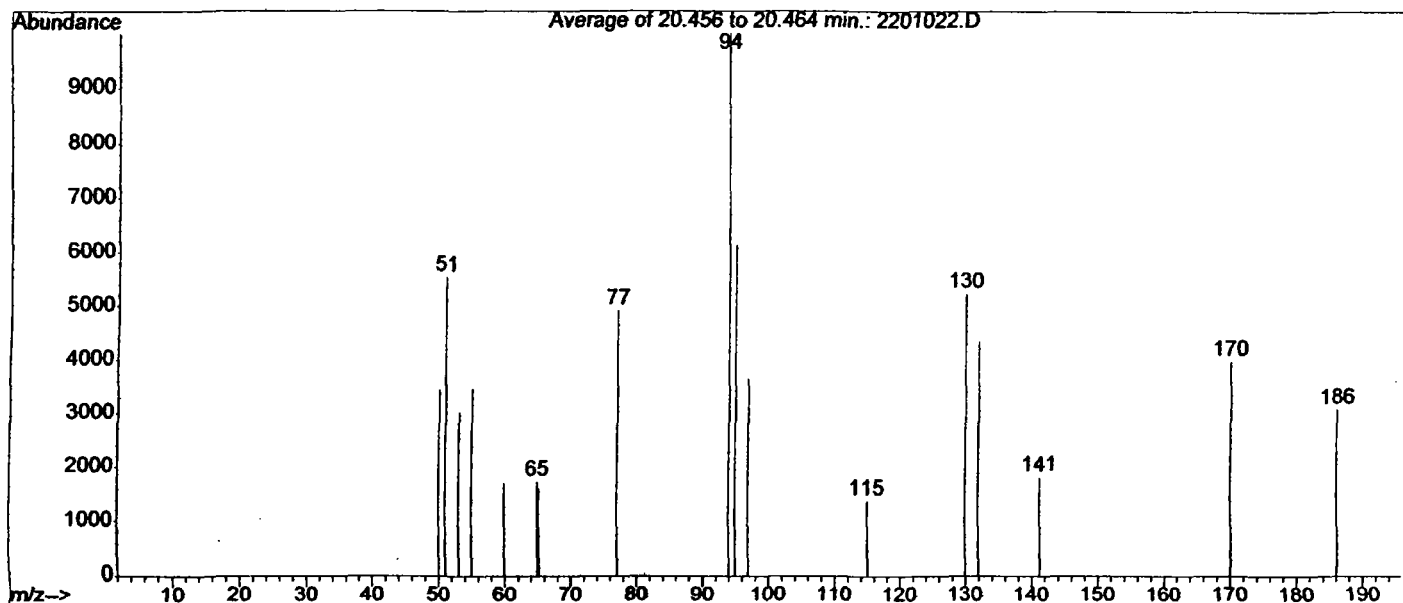
R 875

Library Searched : C:\DATABASE\nist98.1
Quality : 95
ID : Tetrachloroethylene



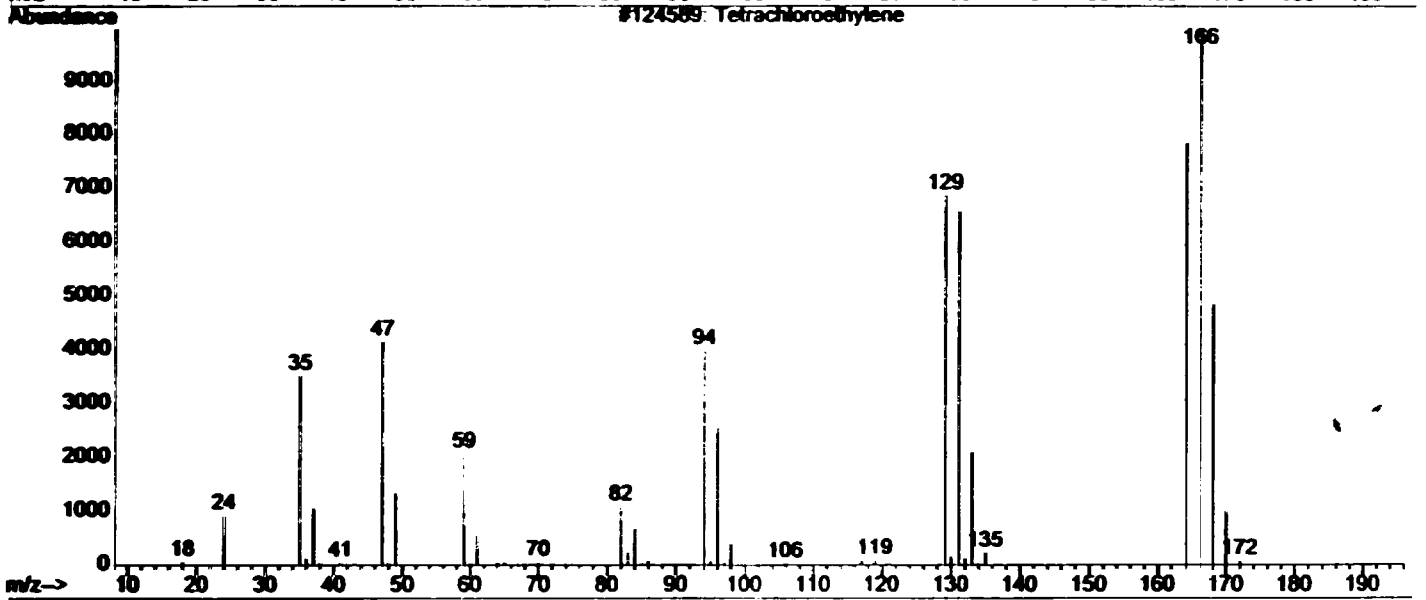
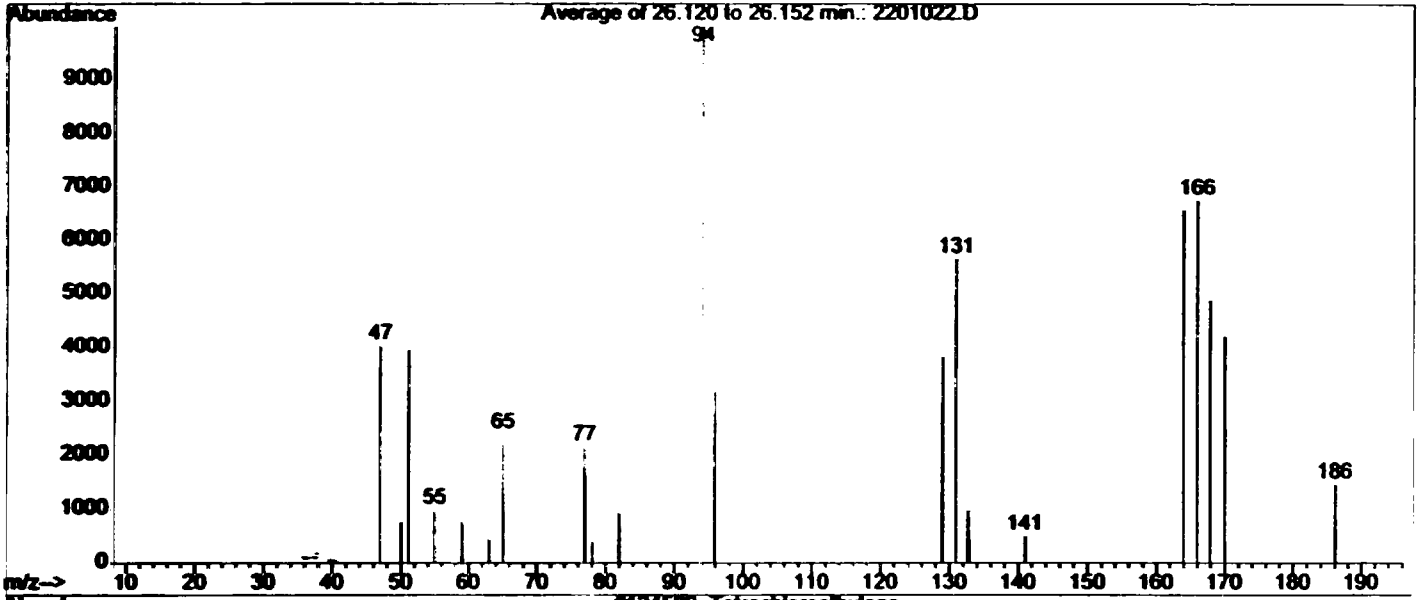
R 875

Library Searched : C:\DATABASE\nist98.1
Quality : 30
ID : Trichloroethylene



R876

Library Searched : C:\DATABASE\nist98.1
Quality : 70
ID : Tetrachloroethylene



R876

SAMPLE FIELD SHEET *

Site Name: <u>TWMWF</u>	County: <u>VI60</u>
Sample I.D.: <u>MW50</u>	IDEM/OLQ Control #: <u>RI6713</u>
Collection Date: <u>10/18/00</u>	Time: <u>1:00 AM</u>

- Sample Types (check all applicable):
- Mon. Well
 - Res. Well
 - Creek
 - Leachate
 - Ditch
 - Drainage Tile
 - Lagoon
 - Pond
 - Sludge
 - Sediment
 - Industrial Waste
 - Waste Pile
 - Soil
 - Truck
 - Solvent
 - Oil
 - Drummed Waste
 - Waste Liquid
 - Sand
 - Ash
 - Trip Blank
 - Field Blank
 - Equipment Blank
 - Background
 - MSMSD
 - Duplicate of _____
 - Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>5</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Keck, wizard

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

clear

Deviations from Sampling Plan: None

Sampler Signature: [Signature] Date: 10-18-00

* This form is for general use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>TH MWF</u>	County: <u>Vigo</u>
Sample I.D.: <u>MW 85</u>	IDEM/OLQ Control #: <u>RI 6714</u>
Collection Date: <u>10/18/00</u>	Time: <u>2:10 AM</u> (PM)

- Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
- Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
- Waste Pile Soil Truck Solvent Oil Drummed Waste
- Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
- Background MS/MSD Duplicate of RI 6715 Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48- hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Rock, w/rod

Field Test Performed	Result	Field Test Performed	Result
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

clear

Deviations from Sampling Plan: None

Sampler Signature: Ril Miller Date: 10-18-00

* This form is for general use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>Vigo</u>
Sample I.D.: <u>MW 85</u>	IDEM/OLQ Control #: <u>RI 6715</u>
Collection Date: <u>10/18/00</u>	Time: <u>2:17</u> AM/PM <u>(P)</u>

- Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
- Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
- Waste Pile Soil Truck Solvent Oil Drummed Waste
- Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
- Background MS/MSD Duplicate of RI 6714 Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Keek, used

Field Test Performed Result

N/A

Field Test Performed Result

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

clear

Deviations from Sampling Plan: None

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>Vigo</u>
Sample I.D.: <u>MW8D</u>	IDEM/OLQ Control #: <u>RI 6716</u>
Collection Date: <u>10 / 18 / 00</u>	Time: <u>3 : 30</u> AM (PM)

- Sample Types (check all applicable):
- Mon. Well Res. Well Creek Leachate Ditch
 - Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
 - Waste Pile Soil Truck Solvent Oil Drummed Waste
 - Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
 - Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Kedco Wizard

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

Revised 03-16-00

Sampler Signature: [Signature] Date: 10/18/00

* This form is for general use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>TNMWF</u>	County: <u>Vigo</u>
Sample I.D.: <u>MW</u>	IDEM/OLQ Control #: <u>6717</u>
Collection Date: <u>10/28/00</u>	Time: <u>4:00</u> AM/PM

- Sample Types (check all applicable):
- | | | | | | |
|--|------------------------------------|---|--|--------------------------------------|---|
| <input type="checkbox"/> Mon. Well | <input type="checkbox"/> Res. Well | <input type="checkbox"/> Creek | <input type="checkbox"/> Leachate | <input type="checkbox"/> Ditch | |
| <input type="checkbox"/> Drainage Tile | <input type="checkbox"/> Lagoon | <input type="checkbox"/> Pond | <input type="checkbox"/> Sludge | <input type="checkbox"/> Sediment | <input type="checkbox"/> Industrial Waste |
| <input type="checkbox"/> Waste Pile | <input type="checkbox"/> Soil | <input type="checkbox"/> Truck | <input type="checkbox"/> Solvent | <input type="checkbox"/> Oil | <input type="checkbox"/> Drummed Waste |
| <input type="checkbox"/> Waste Liquid | <input type="checkbox"/> Sand | <input type="checkbox"/> Ash | <input checked="" type="checkbox"/> Trip Blank | <input type="checkbox"/> Field Blank | <input type="checkbox"/> Equipment Blank |
| <input type="checkbox"/> Background | <input type="checkbox"/> MS/MSD | <input type="checkbox"/> Duplicate of _____ | <input type="checkbox"/> Other _____ | | |

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: _____

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

Sampler Signature: [Signature] Date: 10-28-00

* This form is for general use in OLQ sampling projects



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OWM

OSHWM

OER

OAM

CHAIN OF CUSTODY

I Certify that the sample(s) listed below was/were collected by me or in my presence.

Date: 10/27/00

P.O. #: _____

Signature: Rich Molini

Rich Molini

Section: SIS

SDG # LAB NUMBER ASSIGNED R	IDEM CONTROL NUMBER	CONSISTING OF THE INDICATED NUMBER OF BOTTLES										DATE AND TIME COLLECTED
		2000 ml P, N.M.	1000 ml P, N.M.	1000 ml G, N.M.	500 ml G, W.M.	250 ml G, W.M.	125 ml G, W.M.	40 ml VIAL	120 ml P, (B. O.)	500 ml P, N.M.	250 ml P, N.M.	
000892	RI6718							2				10/26/00 11:40 AM/PM
000893	RI6719							2				10/26/00 12:10 AM/PM
000894	RI6720							5				10/26/00 3:30 AM/PM
000895	RI6721							2				10/26/00 4:30 AM/PM
000896	RI6736							2				10/27/00 9:30 AM/PM
000897	RI6737							2				10/27/00 10:30 AM/PM
												/ / : AM/PM
												/ / : AM/PM
												/ / : AM/PM
												/ / : AM/PM
												/ / : AM/PM
												/ / : AM/PM

P-Plastic

G-Glass

N.M.-Narrow Mouth

W.M.-Wide Mouth

B. O.- Bacti. Only

CARRIERS

Should samples be iced?

Y N

I certify that I received the above sample(s)

SIGNATURE	DATE AND TIME	SEALS INTACT		COMMENTS
RELINQUISHED BY: <u>Rich Molini</u>	<u>10/27/00</u>	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	VOC's
RECEIVED BY: <u>K. Patel</u>	<u>1:20 AM/PM</u>			
RELINQUISHED BY:	/ /	<input type="checkbox"/> Y	<input type="checkbox"/> N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	REPORTED
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	<input type="checkbox"/> Y	<input type="checkbox"/> N	NOV 16 2000
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	<input type="checkbox"/> Y	<input type="checkbox"/> N	Indiana State Department of Health Laboratory Resource Center Environment Laboratory Section
RECEIVED BY:	: AM/PM			

Lab Custodian

I certify that I received the above sample(s) and is/are recorded in the official record book. The same samples will be in custody of competent laboratory personnel at all times or locked in a secure area.

Signature: K. Patel

Date: 10/27/00

Time: 1:20 AM/PM

Lab: ESDH

Address: 635 N. Barnhill Dr.

Indiana State Dept. of Health Method 8260 Report

Client : IDEM
 Collected: Oct 26 2000
 Received : Oct 27 2000
 Analyzed : Nov 01 2000
 Reported : Nov 03 2000
 Detection Limit = 0.5 µg/L

Analyst: MS 11-3-00

Reviewer: RB 11-3-00

QC: RB

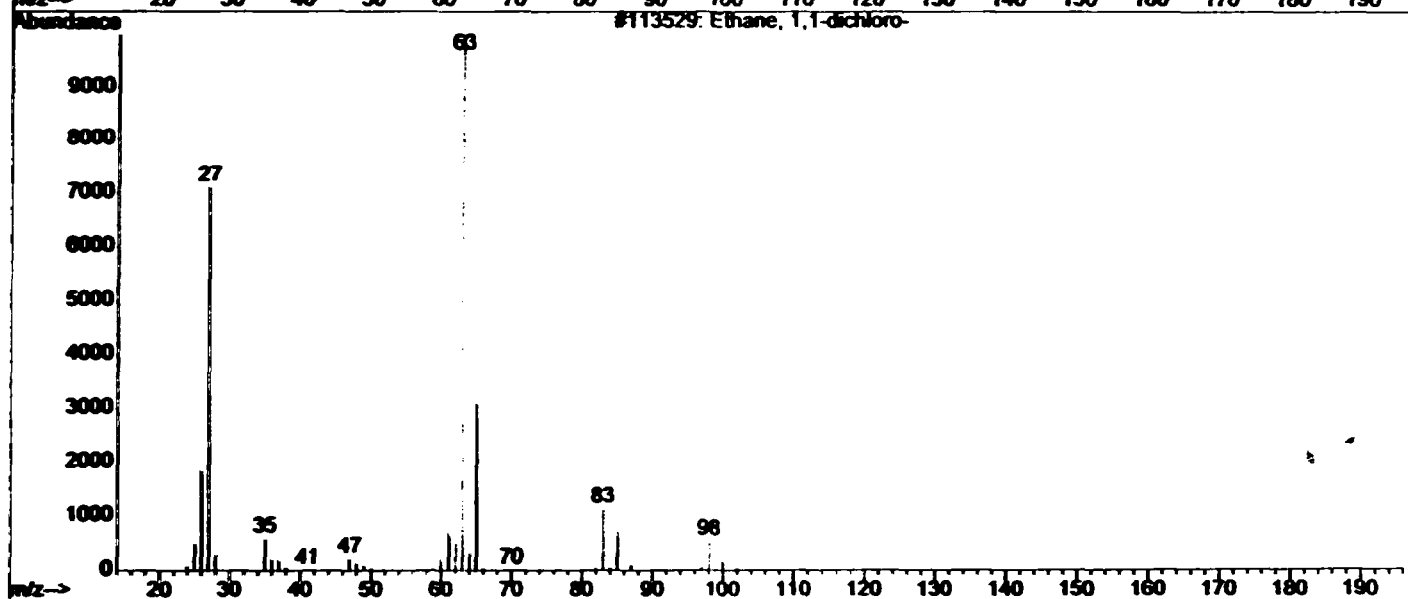
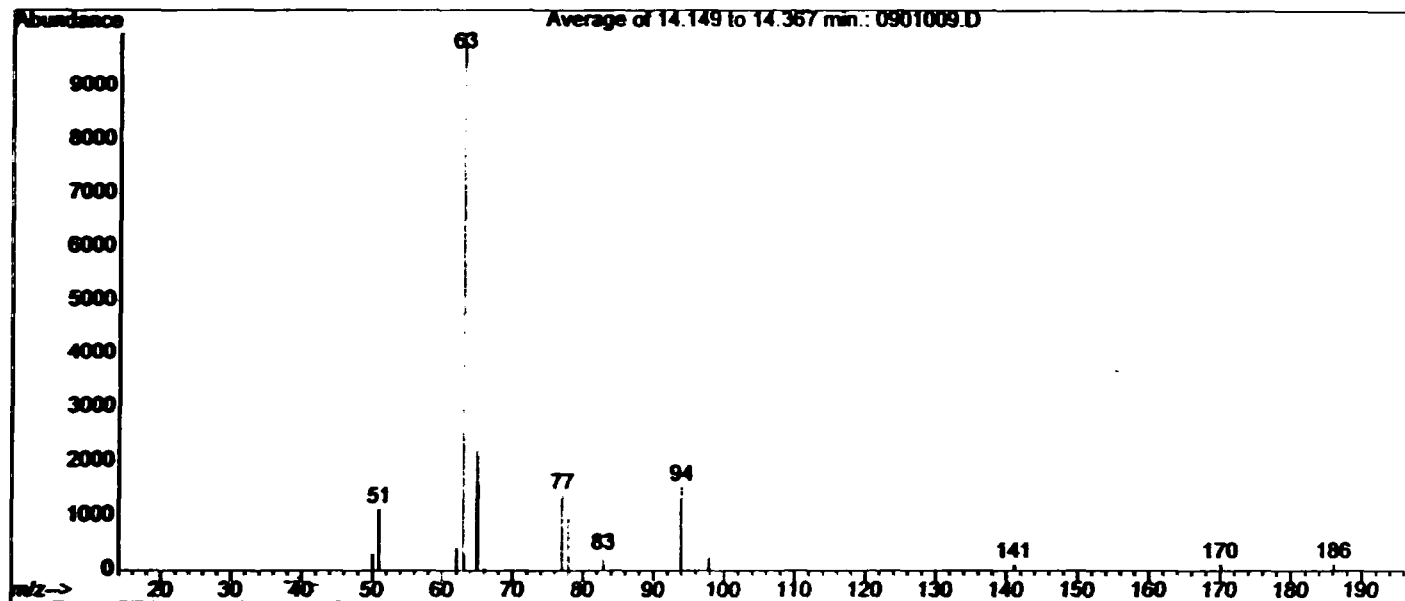
Name	RI6718	RI6719	RI6720	RI6721	RI6736	RI6737
	R892	R893	R894	R895	R896	R897
	Well	Well	Well	Well	Well	Well
1) Dichlorodifluoromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
2) Chloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
3) Vinyl Chloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
4) Bromomethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
5) Chloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
6) Trichlorofluoromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
7) 1,1-Dichloroethene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
8) Methylene Chloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
9) trans-1,2-Dichloroethene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
10) 1,1-Dichloroethane	5.0	5.5	<D.L.	<D.L.	<D.L.	<D.L.
11) 2,2-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
12) cis-1,2-Dichloroethene	11.	11.	<D.L.	<D.L.	<D.L.	<D.L.
13) Chloroform	0.6	0.6	<D.L.	0.5	<D.L.	<D.L.
14) Bromochloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
15) 1,1,1-Trichloroethane	4.1	3.9	<D.L.	37.	<D.L.	<D.L.
16) 1,1-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
17) Carbon Tetrachloride	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
18) 1,2-Dichloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
19) Benzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
20) Fluorobenzene (Int. Std.)	4.0	4.0	4.0	4.0	4.0	4.0
21) Trichloroethene	5.9	5.5	<D.L.	<D.L.	<D.L.	<D.L.
22) 1,2-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
23) Bromodichloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
24) Dibromomethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
25) cis-1,3-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
26) Toluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
27) trans-1,3-Dichloropropene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
28) 1,1,2-Trichloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
29) 1,3-Dichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
30) Tetrachloroethene	7.2	6.8	<D.L.	<D.L.	<D.L.	<D.L.
31) Dibromochloromethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
32) 1,2-Dibromoethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
33) Chlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
34) 1,1,1,2-Tetrachloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
35) Ethyl Benzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
36) m&p Xylene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
37) o-Xylene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
38) Styrene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
39) Isopropylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
40) Bromoform	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

REPORTED

NOV 16 2000

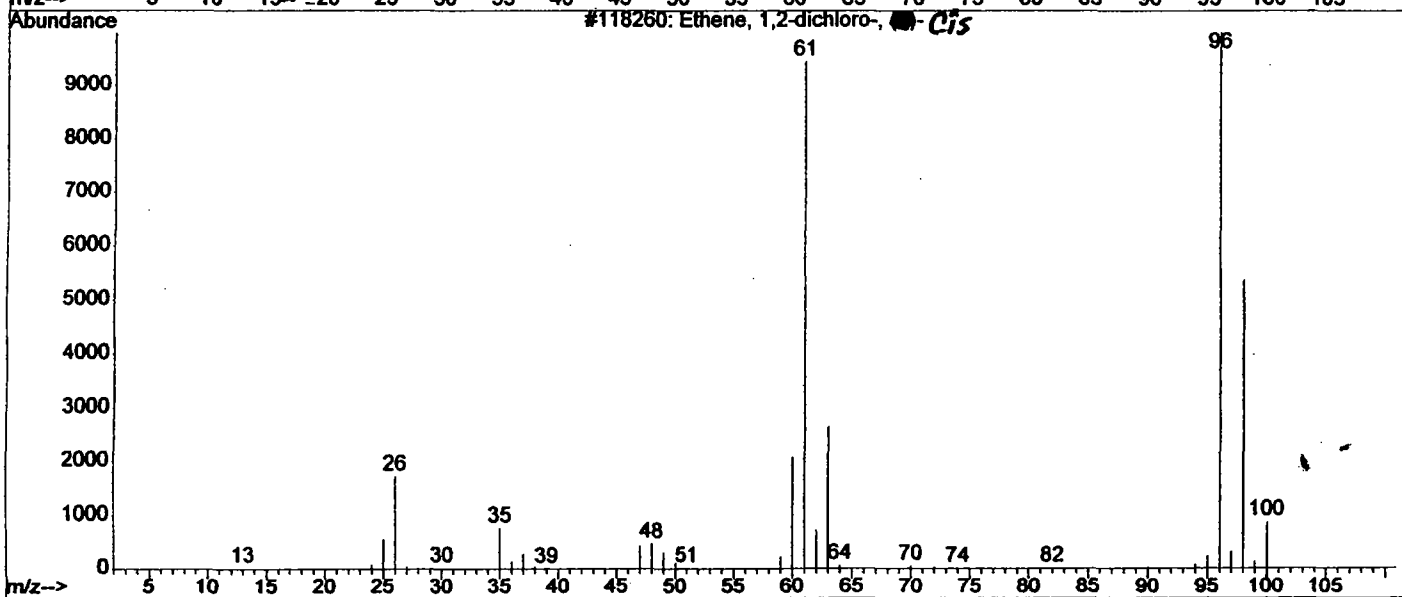
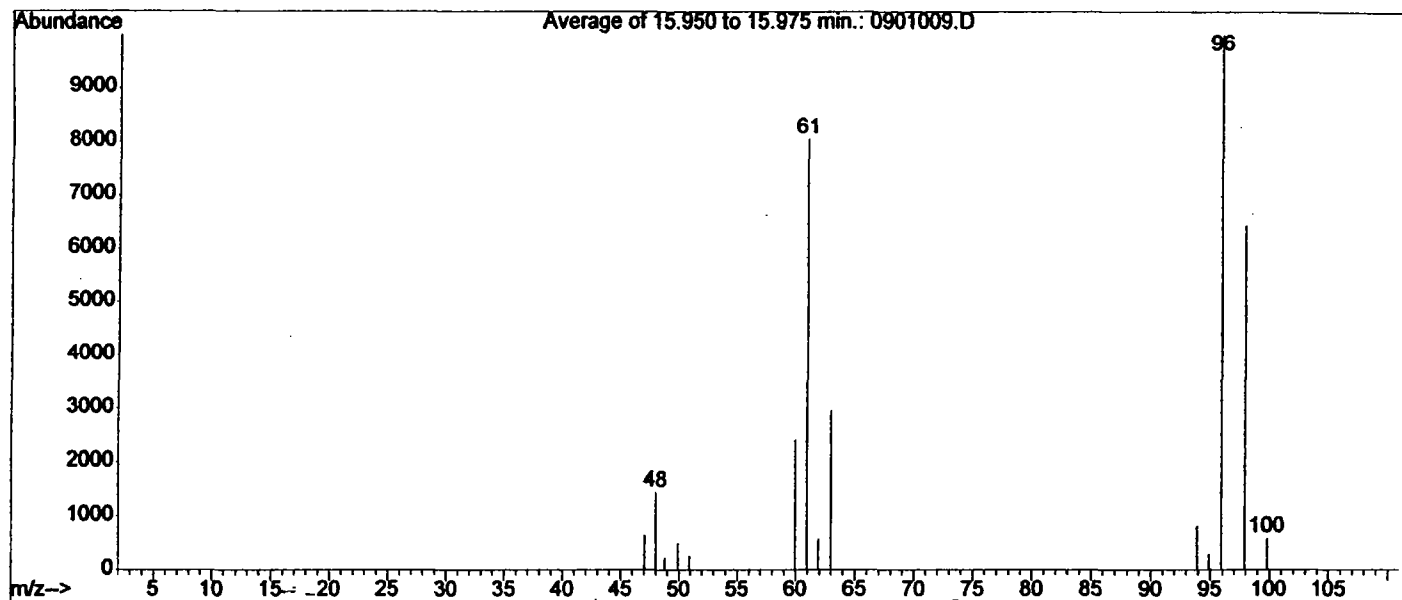
Indiana State Department of Health
 Laboratory Resource Center
 Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 4
ID : Ethane, 1,1-dichloro-



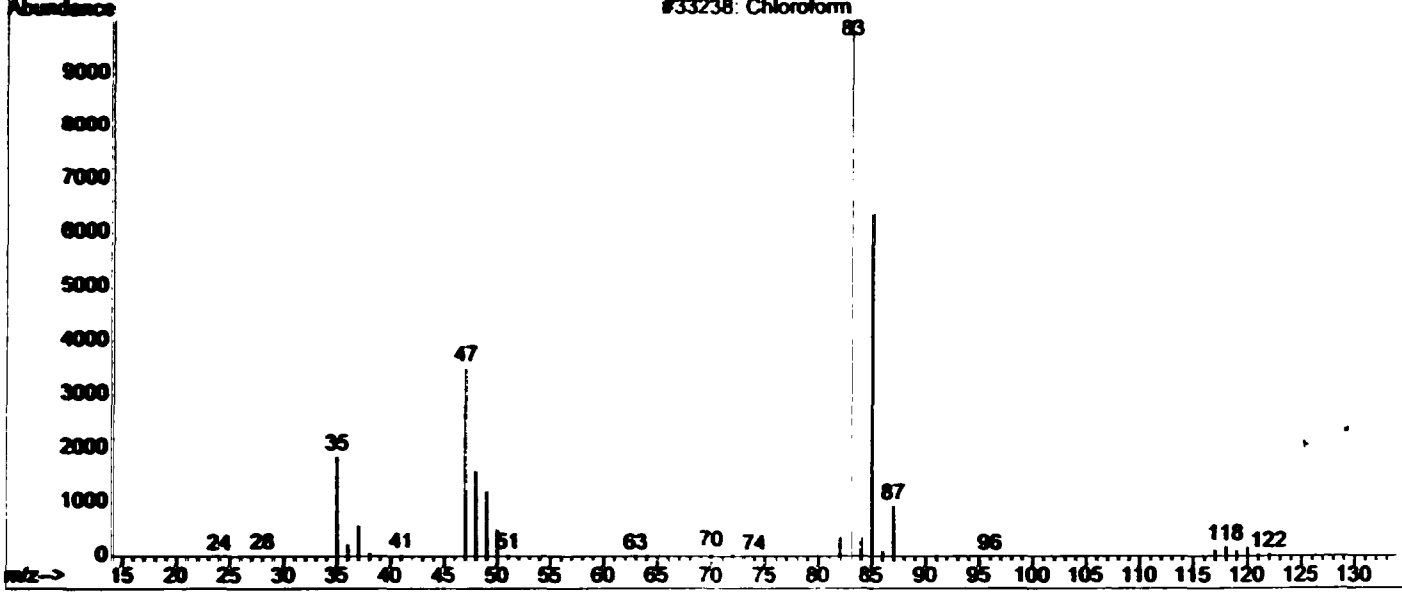
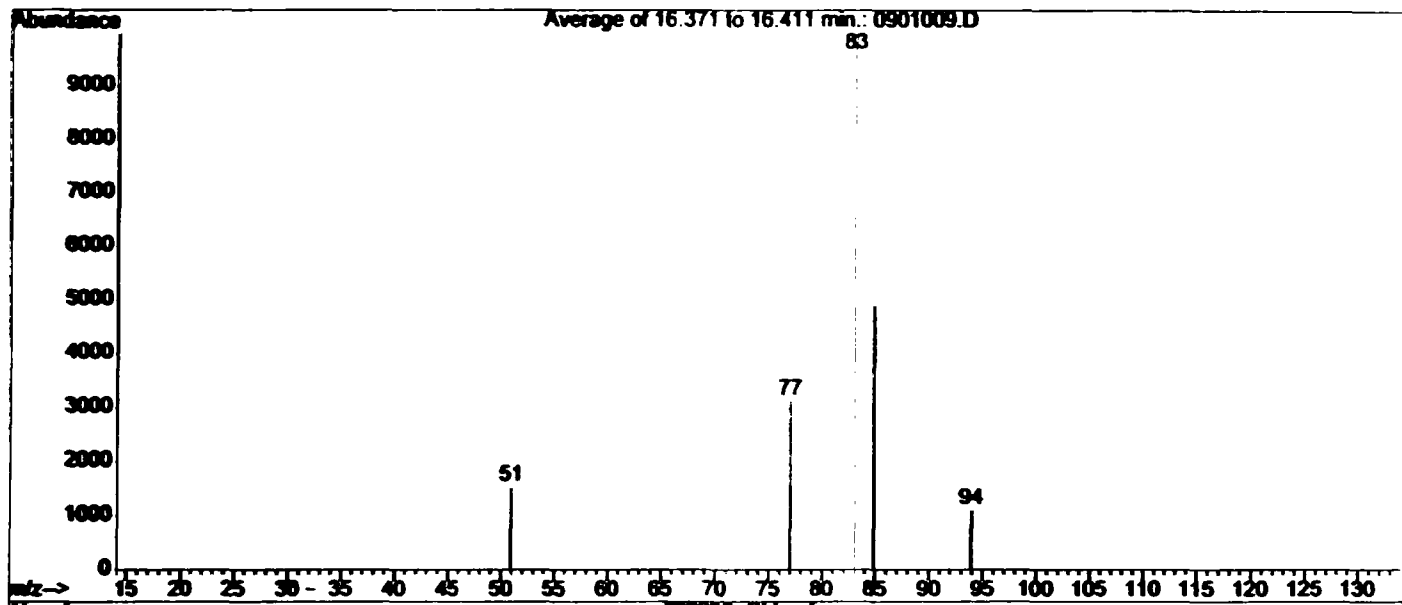
R892

Library Searched : C:\DATABASE\nist98.1
Quality : 90
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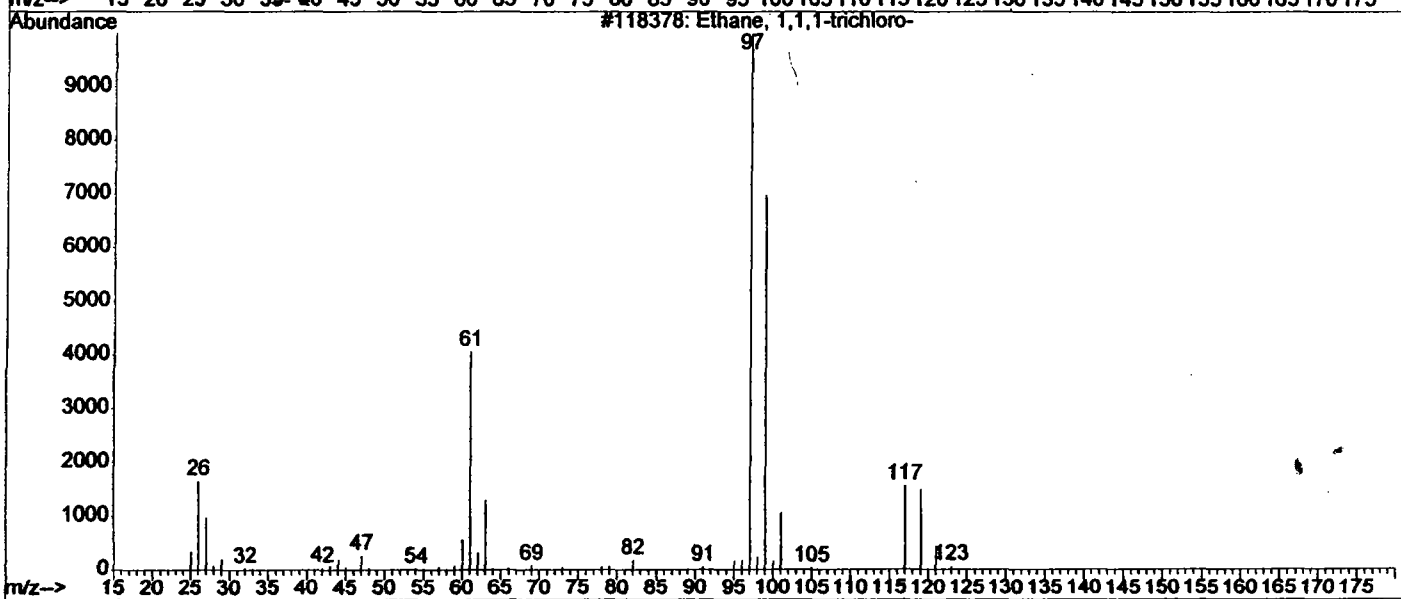
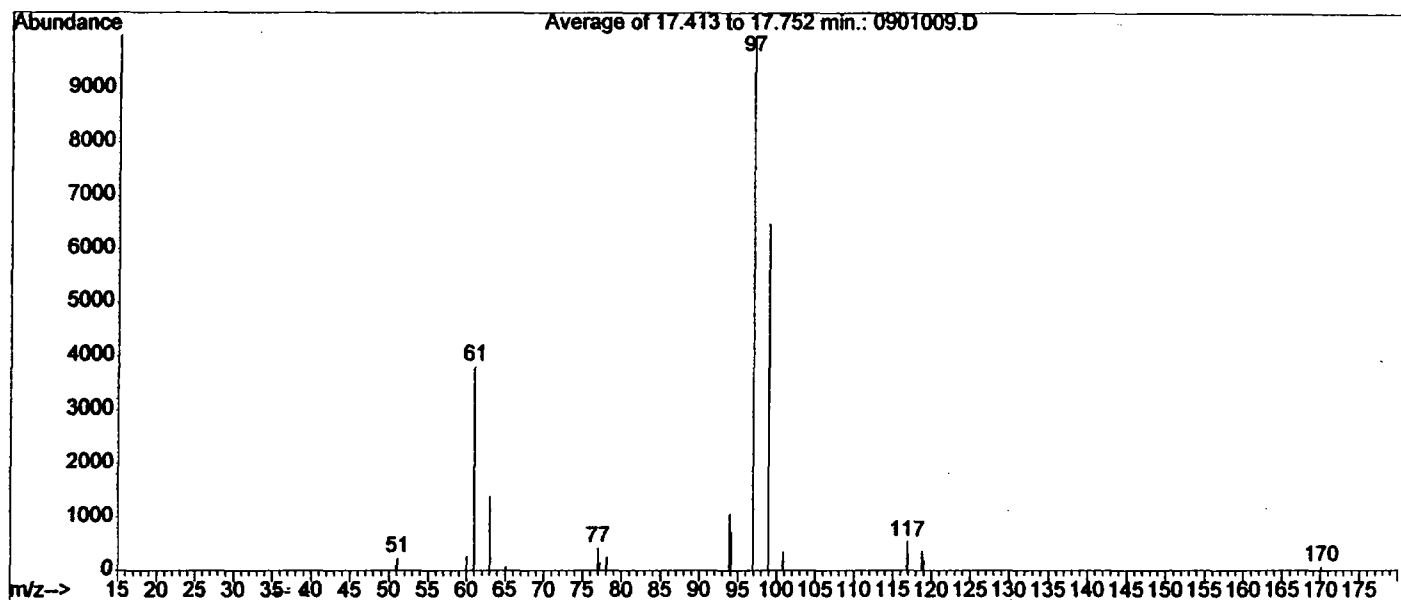
R 892

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Quality : 2
ID : Chloroform



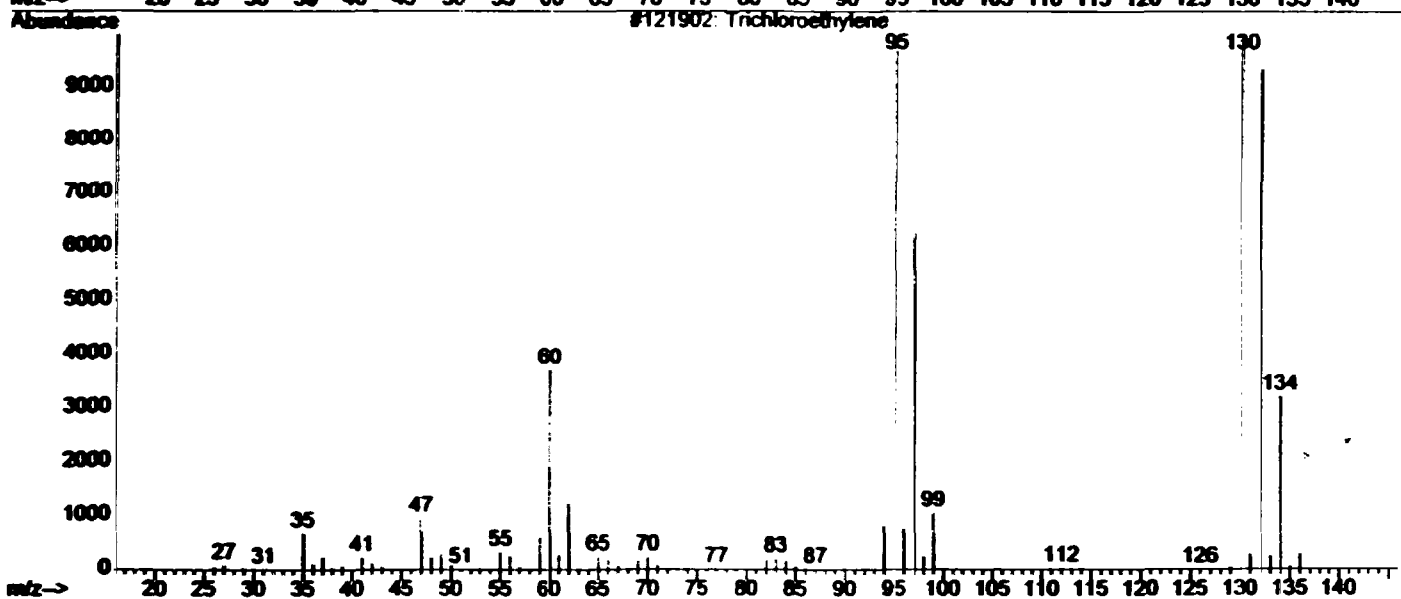
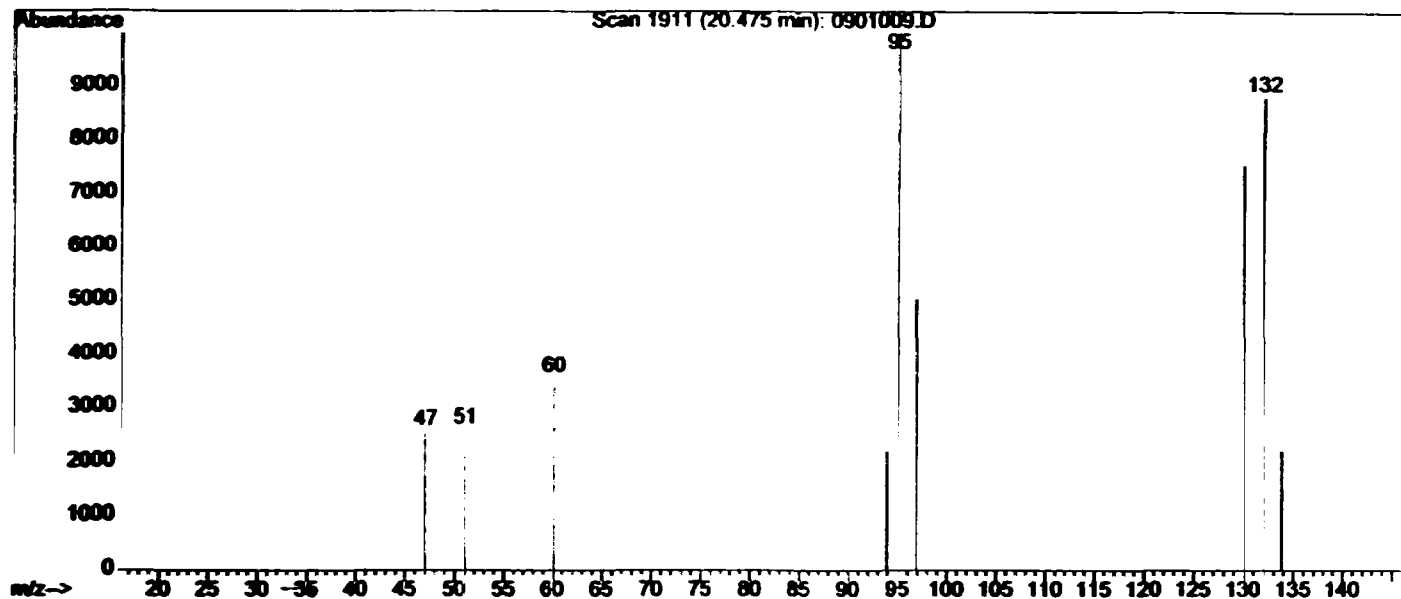
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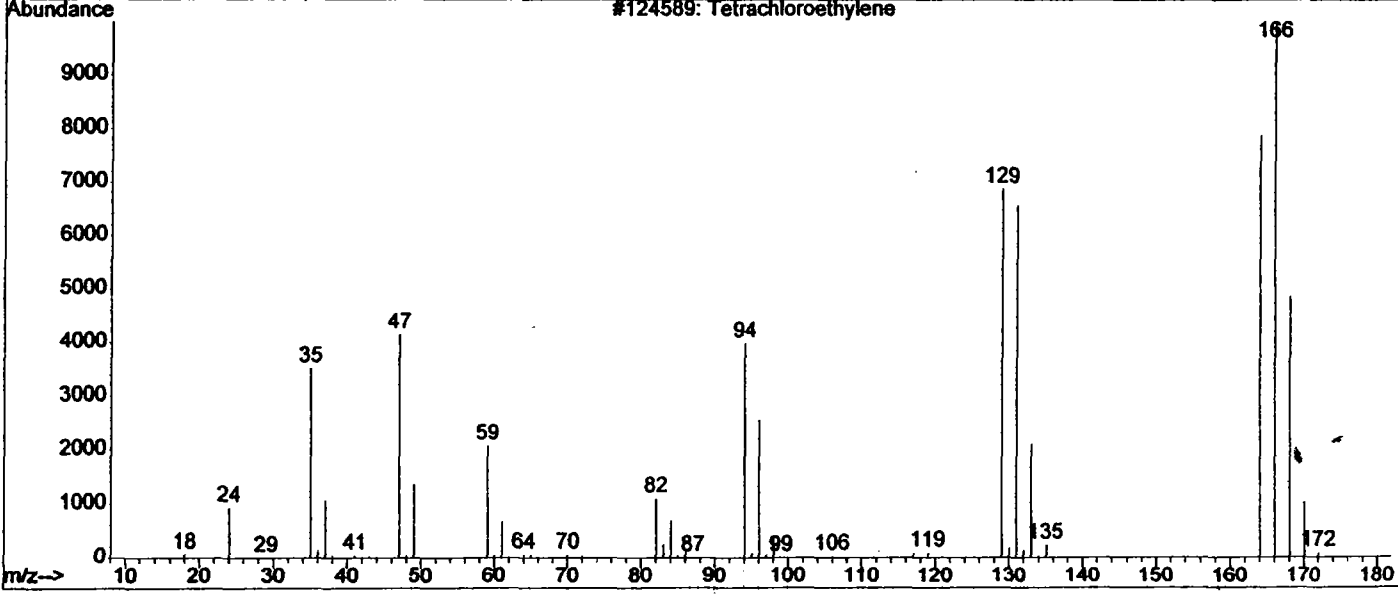
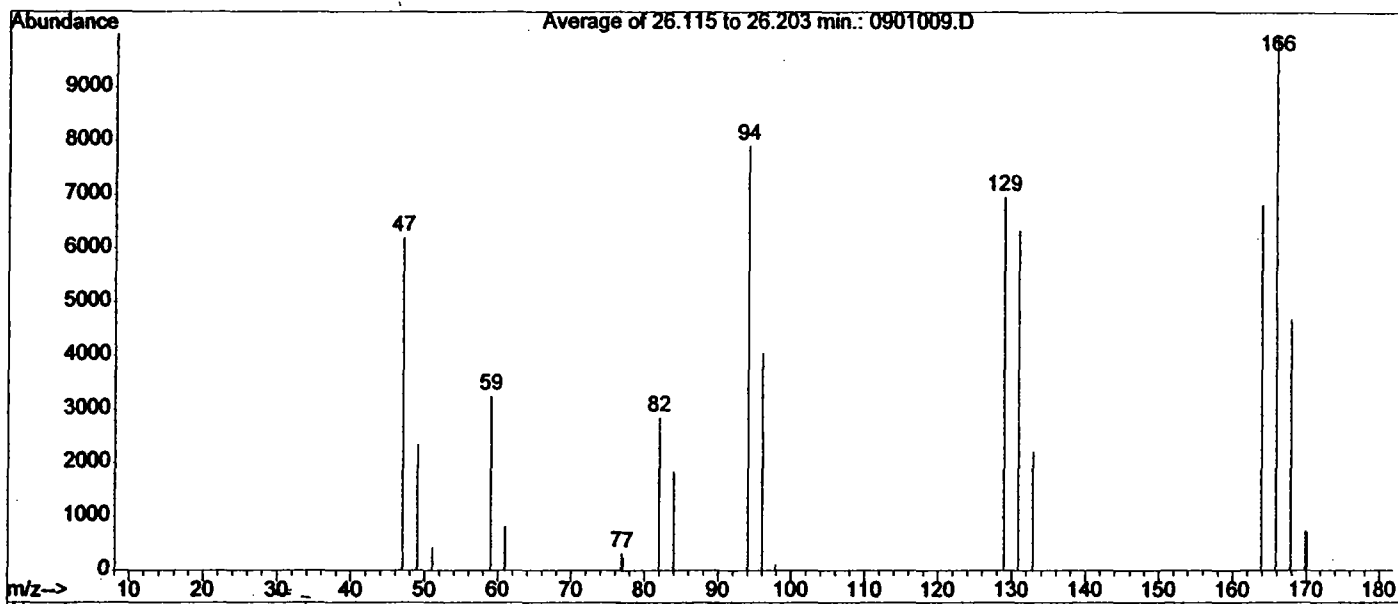
R892

Library Searched : C:\DATABASE\nist98.1
Quality : 91
ID : Trichloroethylene



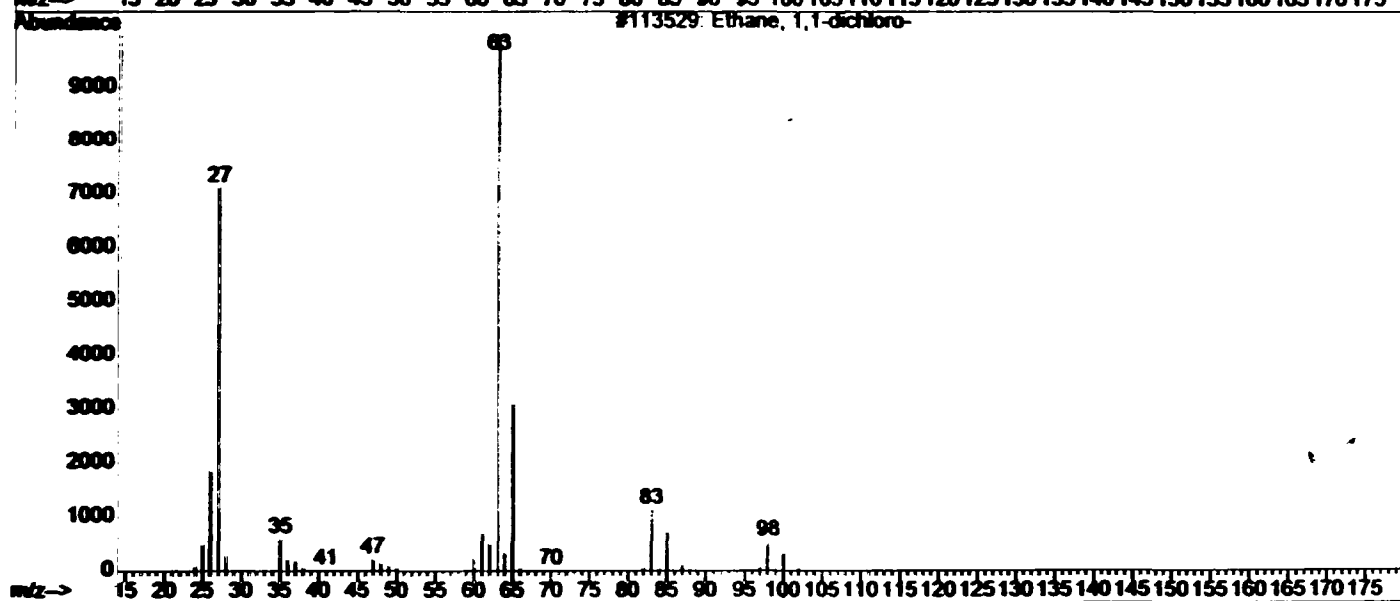
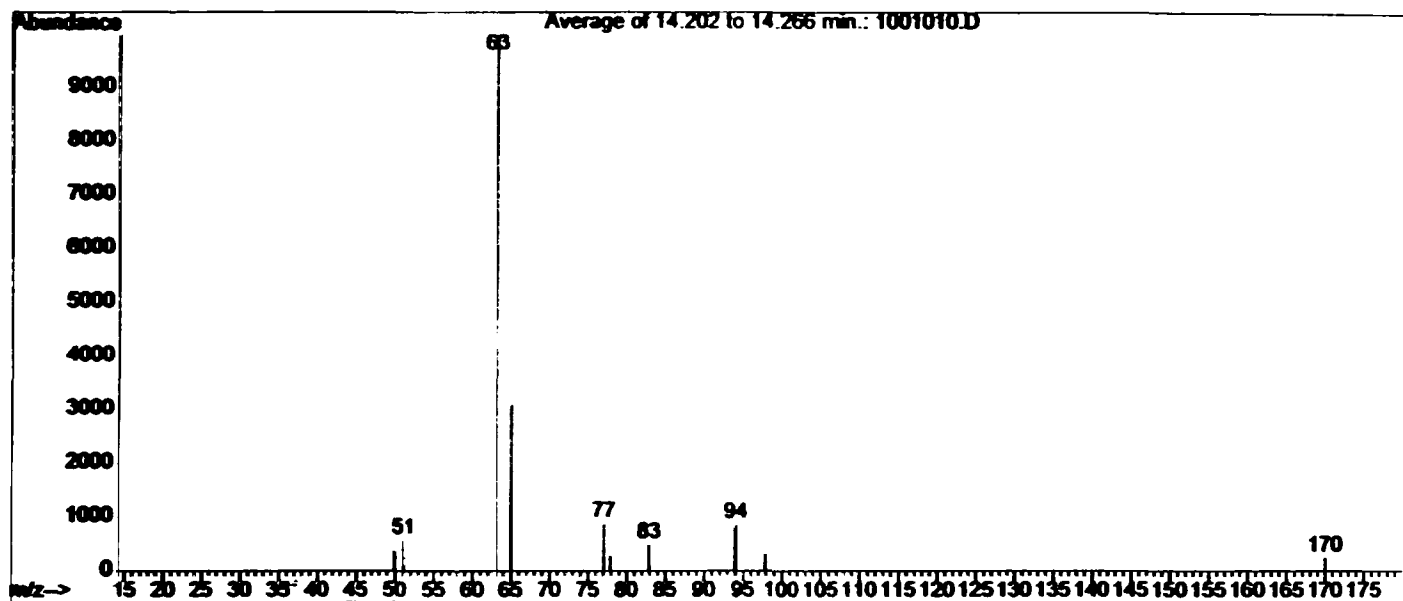
R892

Library Searched : C:\DATABASE\nist98.1
Quality : 64
ID : Tetrachloroethylene



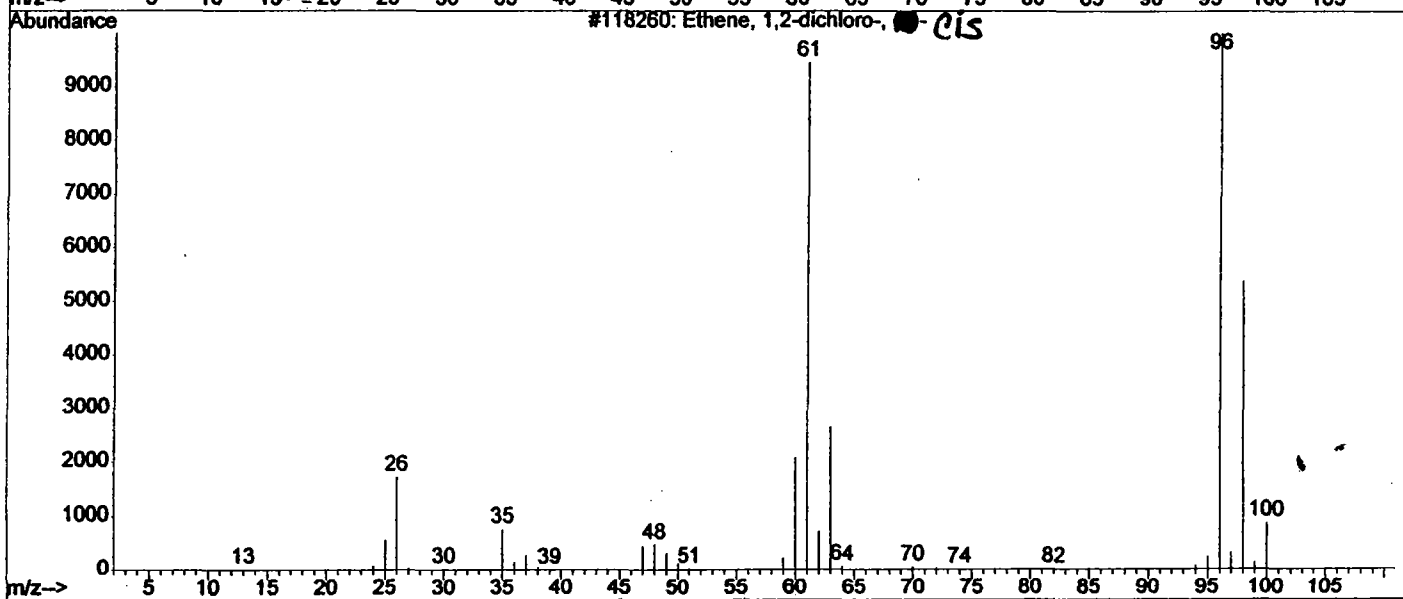
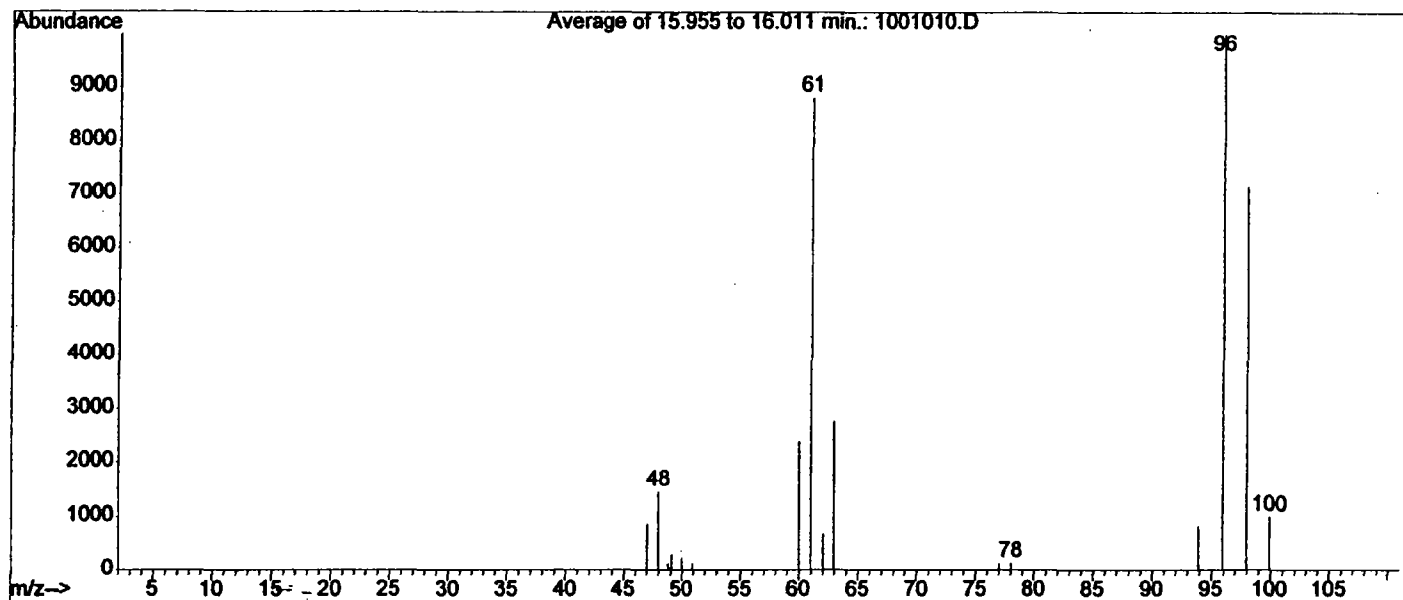
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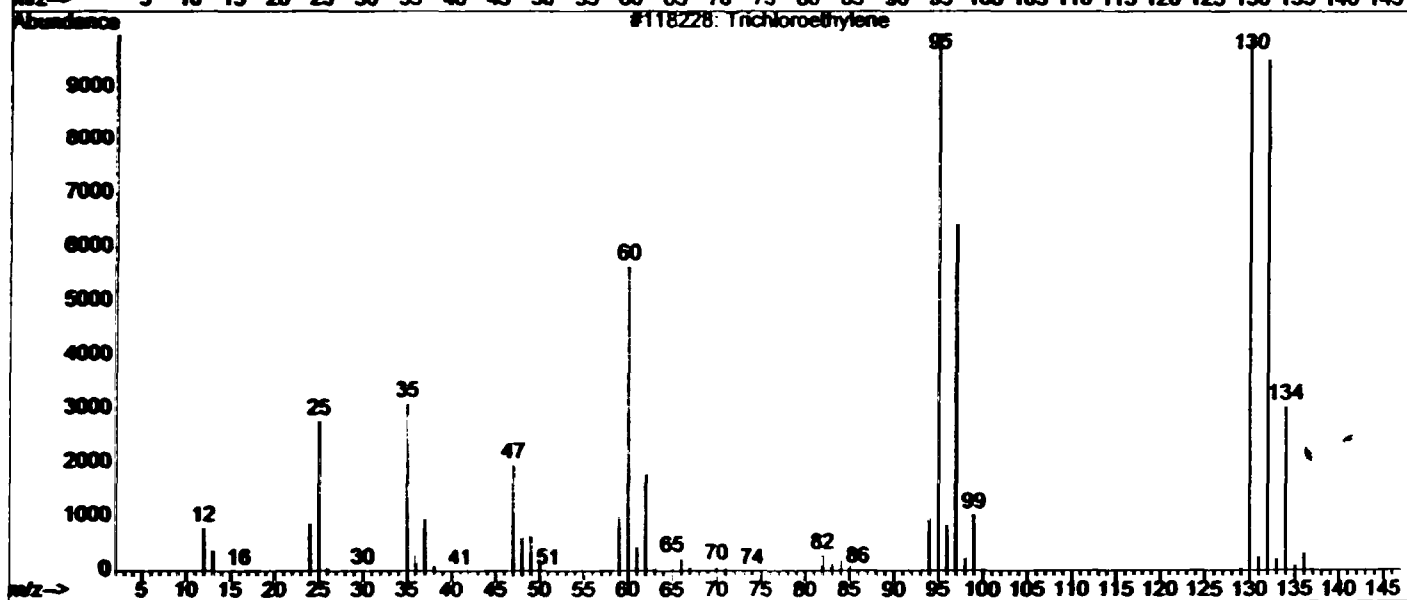
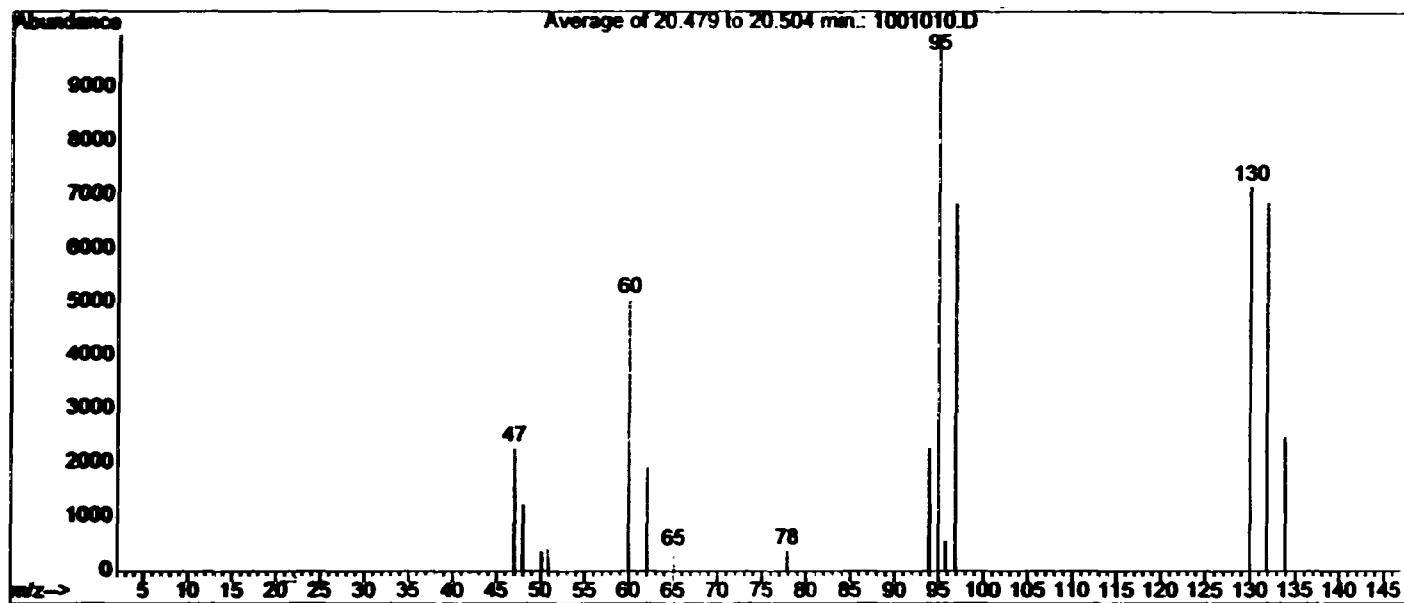
R 893

Library Searched : C:\DATABASE\nist98.1
Quality : 91
ID : Ethene, 1,2-dichloro-, **cis**



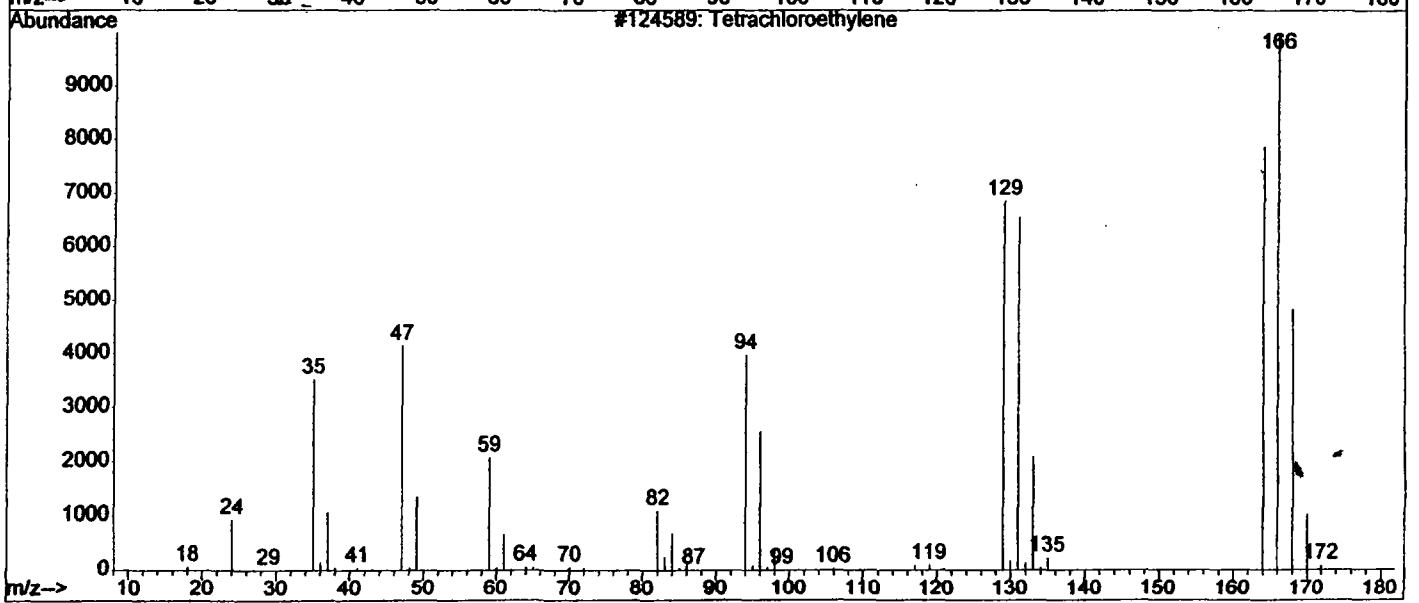
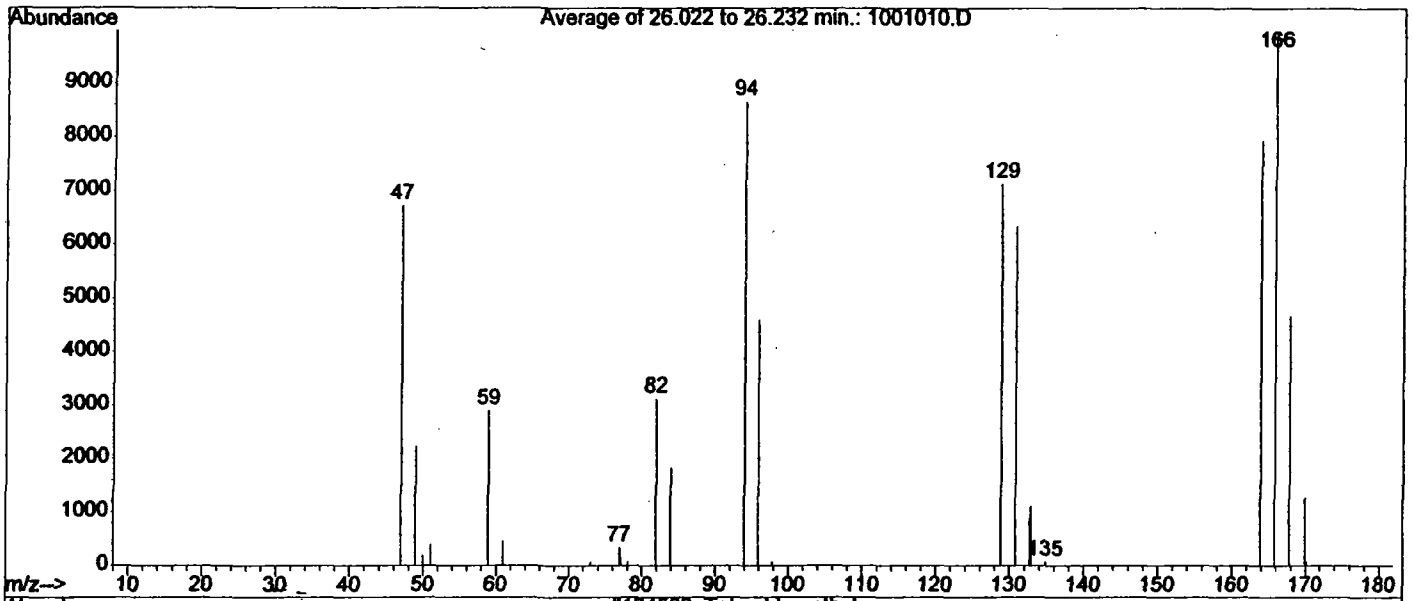
R893

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Quality : 90
ID : Trichloroethylene



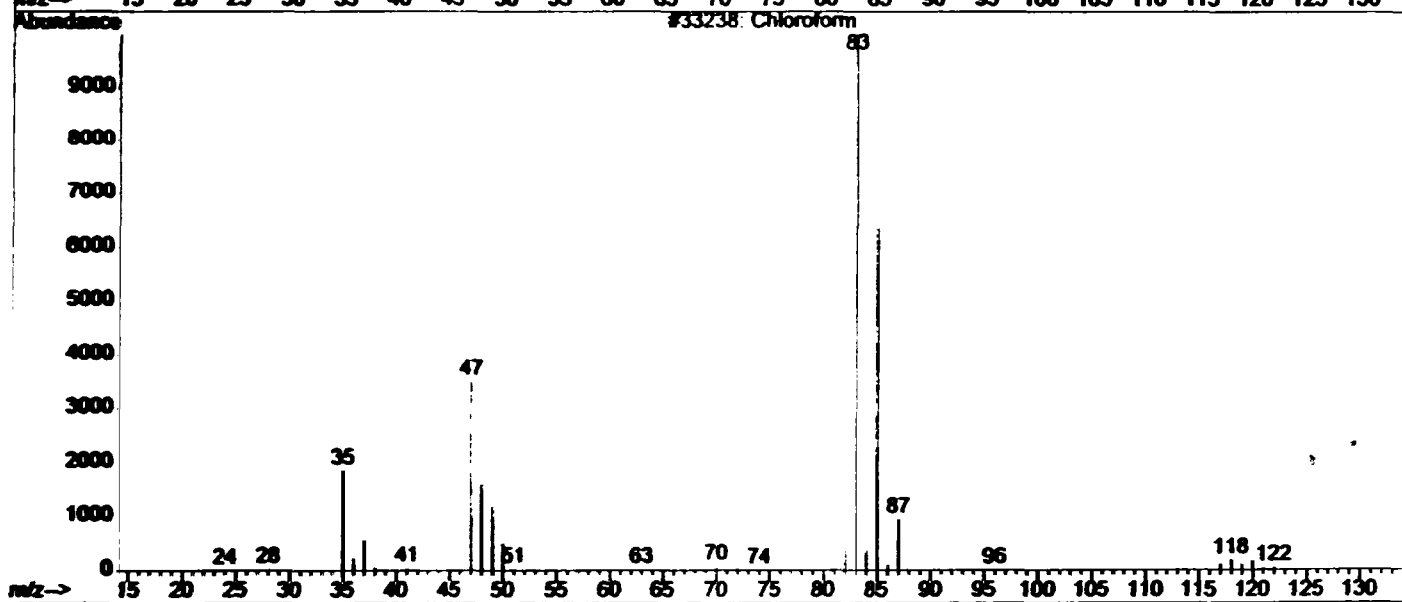
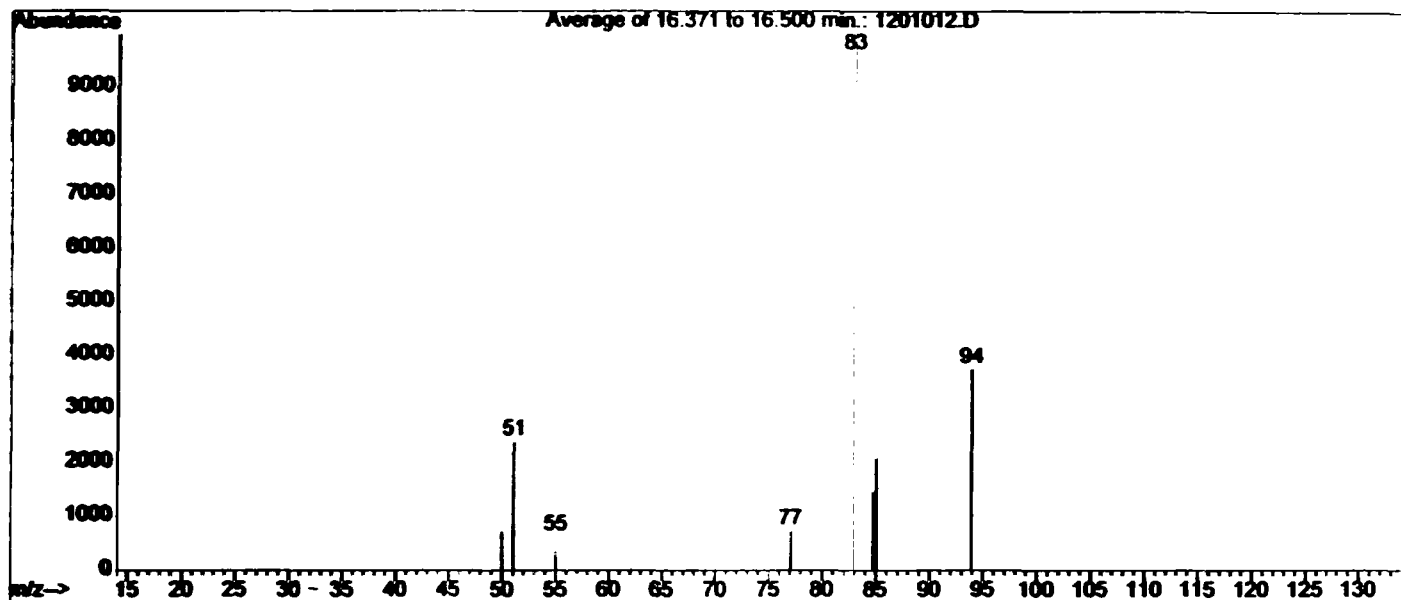
R893

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Quality : 76
ID : Tetrachloroethylene



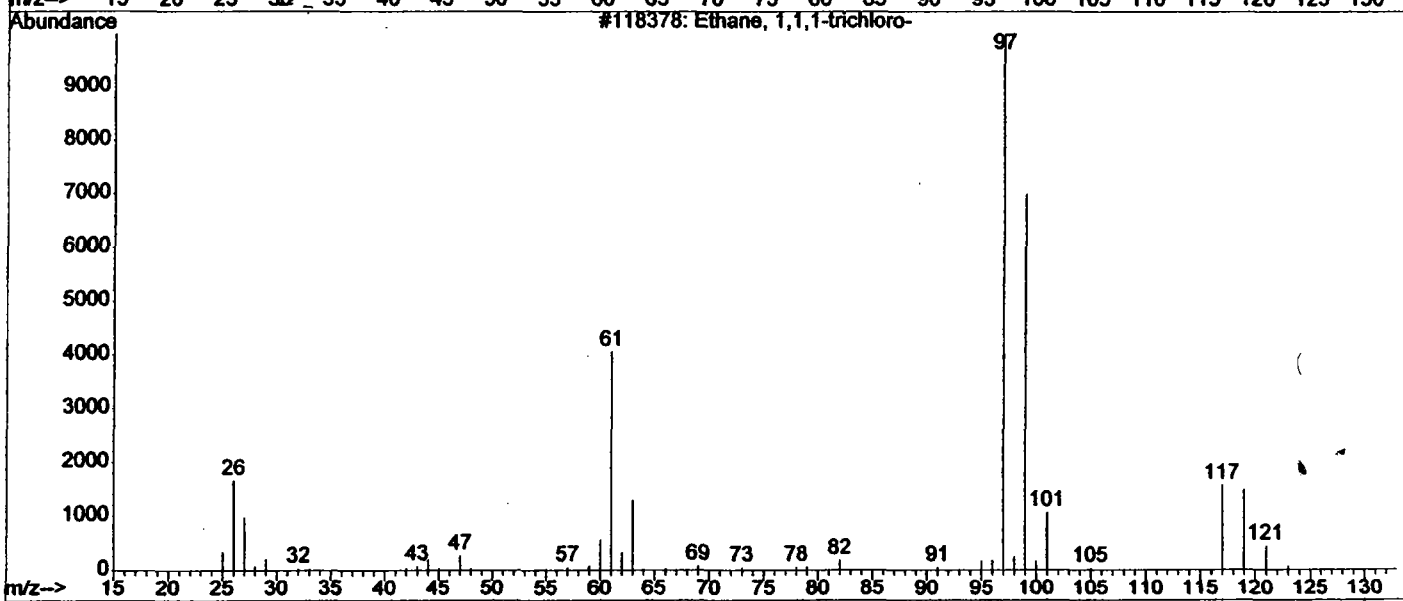
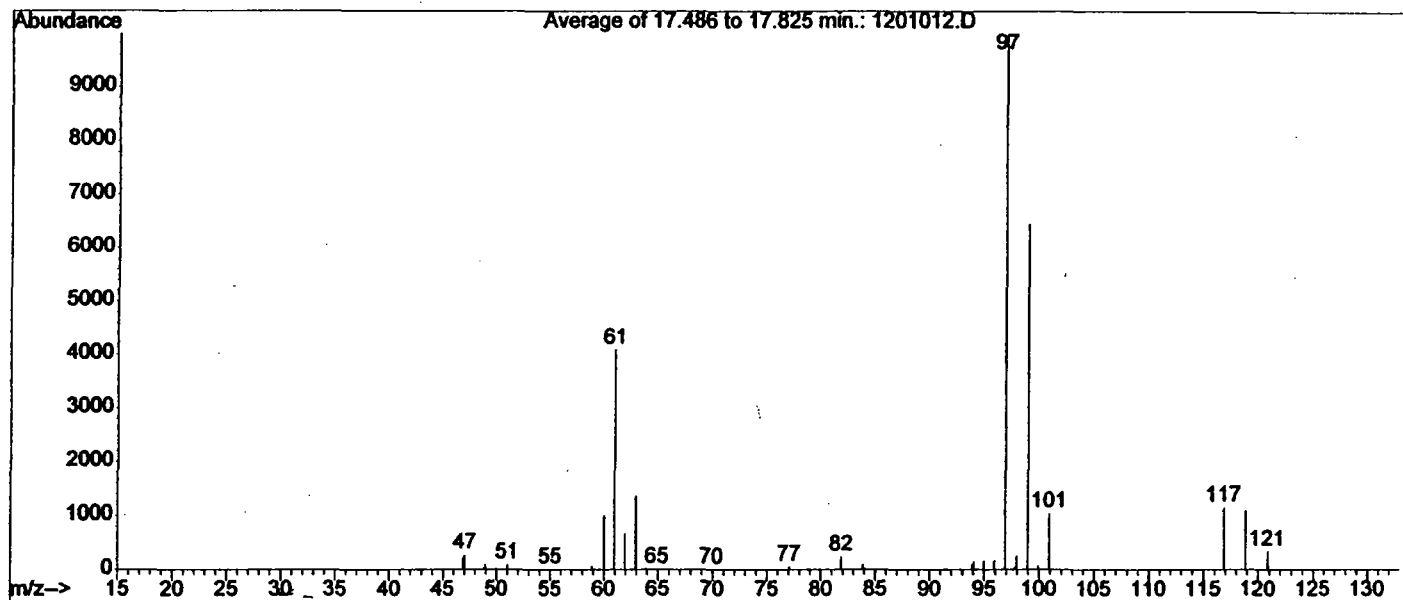
R893

Library Searched : C:\DATABASE\nist98.1
Quality : 2
ID : Chloroform



R895

Library Searched : C:\DATABASE\nist98.1
Quality : 90
ID : Ethane, 1,1,1-trichloro-



R895

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>ULCO</u>
Sample I.D.: <u>1135</u>	IDEM/OLQ Control #: <u>RI6718</u>
Collection Date: <u>10/26/00</u>	Time: <u>11:40</u> <input checked="" type="radio"/> AM <input type="radio"/> PM

- Sample Types (check all applicable):
- | | | | | | |
|---|------------------------------------|---|--------------------------------------|--------------------------------------|---|
| <input checked="" type="checkbox"/> Mon. Well | <input type="checkbox"/> Res. Well | <input type="checkbox"/> Creek | <input type="checkbox"/> Leachate | <input type="checkbox"/> Ditch | |
| <input type="checkbox"/> Drainage Tile | <input type="checkbox"/> Lagoon | <input type="checkbox"/> Pond | <input type="checkbox"/> Sludge | <input type="checkbox"/> Sediment | <input type="checkbox"/> Industrial Waste |
| <input type="checkbox"/> Waste Pile | <input type="checkbox"/> Soil | <input type="checkbox"/> Truck | <input type="checkbox"/> Solvent | <input type="checkbox"/> Oil | <input type="checkbox"/> Drummed Waste |
| <input type="checkbox"/> Waste Liquid | <input type="checkbox"/> Sand | <input type="checkbox"/> Ash | <input type="checkbox"/> Trip Blank | <input type="checkbox"/> Field Blank | <input type="checkbox"/> Equipment Blank |
| <input type="checkbox"/> Background | <input type="checkbox"/> MS/MSD | <input type="checkbox"/> Duplicate of <u>RI6719</u> | <input type="checkbox"/> Other _____ | | |

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	<u>2</u>				

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Rock, wiper

Field Test Performed	Result	Field Test Performed	Result
<u>N/A</u>			

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

Sampler Signature: [Signature] Date: 10/26/00

* This form is for ground use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>VI60</u>
Sample I.D.: <u>MW35</u>	IDEM/OLQ Control #: <u>RI6719</u>
Collection Date: <u>10/26/00</u>	Time: <u>12:10</u> AM <u>(PM)</u>

- Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
- Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
- Waste Pile Soil Truck Solvent Oil Drummed Waste
- Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
- Background MS/MSD Duplicate of RI6718 Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Ketch, w/zip

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
<u>N/A</u>	_____	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

Sampler Signature: R. Q. M. E. Date: 10/26/00

* This form is for general use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>TNMWF</u>	County: <u>VIGO</u>
Sample I.D.: <u>MW30</u>	IDEM/OLQ Control #: <u>RI 6720</u>
Collection Date: <u>10/26/00</u>	Time: <u>3:30 AM/PM</u>

- Sample Types (check all applicable):
- Mon. Well Res. Well Creek Leachate Ditch
 - Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
 - Waste Pile Soil Truck Solvent Oil Drummed Waste
 - Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
 - Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>5</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Keck, w/zip

Field Test Performed Result
N/A

Field Test Performed Result

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>Vigo</u>
Sample I.D.: <u>MW 105</u>	IDEM/OLQ Control #: <u>RE6721</u>
Collection Date: <u>10/26/00</u>	Time: <u>4:30</u> AM/PM

- Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
- Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
- Waste Pile Soil Truck Solvent Oil Drummed Waste
- Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
- Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)
N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Reed, wial

<u>Field Test Performed</u>	<u>Result</u>	<u>Field Test Performed</u>	<u>Result</u>
_____	<u>N/A</u>	_____	_____
_____	_____	_____	_____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)
Clear

Deviations from Sampling Plan: None

Revised 03-16-00 Sampler Signature: [Signature] Date: 10/26/00

* This form is for general use in OLQ sampling projects

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>Vigo</u>
Sample I.D.: <u>MW10 0</u>	IDEM/OLQ Control #: <u>RF6736</u>
Collection Date: <u>10/27/00</u>	Time: <u>9:30 AM</u> PM

- Sample Types (check all applicable):
- Mon. Well Res. Well Creek Leachate Ditch
 - Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
 - Waste Pile Soil Truck Solvent Oil Drummed Waste
 - Waste Liquid Sand Ash Trip Blank Field Blank Equipment Blank
 - Background MS/MSD Duplicate of _____ Other _____

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Ked, w/zel

Field Test Performed Result
_____ N/A

Field Test Performed Result
_____ _____

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

SAMPLE FIELD SHEET *

Site Name: <u>THMWF</u>	County: <u>UL60</u>
Sample I.D.: <u>MW 263</u>	IDEM/OLQ Control #: <u>6737</u>
Collection Date: <u>10/27/00</u>	Time: <u>10:30 AM</u> / PM

- Sample Types (check all applicable):
- | | | | | | |
|--|------------------------------------|---|--|--------------------------------------|---|
| <input type="checkbox"/> Mon. Well | <input type="checkbox"/> Res. Well | <input type="checkbox"/> Creek | <input type="checkbox"/> Leachate | <input type="checkbox"/> Ditch | |
| <input type="checkbox"/> Drainage Tile | <input type="checkbox"/> Lagoon | <input type="checkbox"/> Pond | <input type="checkbox"/> Sludge | <input type="checkbox"/> Sediment | <input type="checkbox"/> Industrial Waste |
| <input type="checkbox"/> Waste Pile | <input type="checkbox"/> Soil | <input type="checkbox"/> Truck | <input type="checkbox"/> Solvent | <input type="checkbox"/> Oil | <input type="checkbox"/> Drummed Waste |
| <input type="checkbox"/> Waste Liquid | <input type="checkbox"/> Sand | <input type="checkbox"/> Ash | <input checked="" type="checkbox"/> Trip Blank | <input type="checkbox"/> Field Blank | <input type="checkbox"/> Equipment Blank |
| <input type="checkbox"/> Background | <input type="checkbox"/> MS/MSD | <input type="checkbox"/> Duplicate of _____ | <input type="checkbox"/> Other _____ | | |

Containers:	Volume	Material	Quantity	Preservative	Analysis
	<u>40 ml</u>	<u>glass vials</u>	<u>2</u>	<u>HCl</u>	<u>VOAs</u>
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Sample Location Information: (location marker, depth taken, flow rate, vegetation damage, wildlife present, etc.)

N/A

For Well Samples: Well purged less than 1 2 4 6 12 24 48 hours prior to sampling.
Purged to dryness? Yes No Approx. 1 2 3 5 >5 well volumes.

Sampling Equipment Used: Rocky wind

Field Test Performed Result

N/A

Field Test Performed Result

Sample Appearance and Observations: (color, odor, clarity, suspended solids, reaction to preservatives, etc.)

Clear

Deviations from Sampling Plan: None

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

Date: November 27, 2000

To: Rich Molini
Site Assessment/Brownfields Section

Thru: Fran Metcalfe
Barry Steward

Handwritten: JM 11/27/2000
Handwritten: (Res) 11/29/00

From: Nancy Britt *NB 11-27-2000*
OLQ Chemistry Section

Subject: Analytical Results for Municipal Well Field site
Terre Haute, Vigo County, Indiana
Site No. 7500090
Sampled: October 26, 2000
Sample Numbers: RI6718 – RI6721
Sampled: October 27, 2000
Sample Numbers: RI6736 – RI6737
Indiana State Department of Health (ISDH) Laboratories

The analytical results for the samples identified above have been evaluated. The ISDH does not currently submit the necessary documentation for a complete quality assurance/quality control evaluation. Based on the evaluation, it has been determined that the results are acceptable for screening purposes only. This memorandum should remain attached to the original laboratory reports for reference.

General Comments:

The purpose of this event was to monitor the conditions in a municipal well field that is contaminated with chlorinated solvents. In 1999, IDEM installed twenty-two (22) monitoring wells near the facility. The wells were first sampled in 1999. This second round of sampling has taken place over the course of several days resulting in more than one submittal to the laboratory and more than one chain-of-custody. Separate memos will be prepared for each laboratory submittal.

Sampling Quality Assurance/Quality Control:

Field documentation did allow for interpretation of the data.

Field duplicate samples are used to establish the representativeness of field sampling (i.e., the homogeneity and sample variability). Field duplicates of groundwater were collected from the MW-3S sample point. The field duplicate samples showed a high degree of sample homogeneity.

Trip blanks are used to identify sample contamination resulting from the handling and transportation of samples. The trip blank associated with this set of samples was RI6737. It was designated as MW-263 on the field sheet for anonymity. No MW-236 exists at the site. No compounds above the laboratory detection limit were found in the trip blank.

Equipment blanks are used to identify sample contamination resulting from sampling equipment. Equipment improperly rinsed between uses at heavily contaminated sites may demonstrate carryover. Carryover is the appearance of residual contamination from a previous sampling point at the next sampling point. No equipment blank was included with this sampling event. However, the sample point RI6720, MW-3D, shown by the field sheets to have been collected between the two (2) sample points, RI6719 and RI6721, demonstrates that contamination carryover did not occur in the case of tetrachloroethene.

Proper procedure for making corrections on a sample field sheet is to legibly cross out the errant datum with one mark, enter the correct value, initial and date the entry.

Laboratory Quality Assurance/Quality Control:

The samples were analyzed within the recommended holding time.

Water

Volatile Organic Compounds:

Samples were analyzed for Volatile Organic Compounds (VOCs) by SW-846 Method 8260.

Results:

The shallow well, MW-3S contained levels of tetrachloroethene above the maximum contaminant level (MCL) of 5 parts per billion.

Conclusions:

The data are usable for the overall project goal.

Attachment

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Volatile Organic Analysis

Site Name: Municipal Well Field
Site Number: 7500090
Location: Terre Haute
Date Sampled: October 26 and 27, 2000
Date Reported: 20-Nov-00
Sample Numbers: RI6718 - RI6721 and RI6736 - RI6737
Lab: State Department of Health Laboratories - ISDH

Water
 Units ug/l (ppb)

Sample #		Type/ID#	chloroform	tetrachloroethene	cis-1,2-dichloroethene	1,1-dichloroethane	1,1,1-trichloroethane	trichloroethene
Lab	IDEM							
		DL	0.50	0.50	0.50	0.50	0.50	0.50
MCL >			100	5	70	NA	200	5
892	RI6718	MW-3S	0.60	7.2	11	5.0	4.1	5.9
893	RI6719	**MW-3S	0.60	6.80	11	5.5	3.9	5.5
894	RI6720	MW-3D						
895	RI6721	MW-10S	0.50				37	
896	RI6736	MW-10D						
897	RI6737	MW-263						

* BLANK (Type Indicated)
 ** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE
Bold = above action level or MCL

Site and Requestor Details

OLQ Sample Request

1. Date 12 Sept 2000 Sample Numbers RI 6697-6721

2. Site Name Terre Haute Municipal Well Field 3. Site ID Number 7500090 4. Grant Code 3-139-000-620

5. Street Address Elm Street + First Street 6. City Terre Haute 7. County Vigo

8. Person Requesting Samples Richard Molini Branch/Section SIS Phone 233-1512

9. Sampler(s) Richard Molini, Doug Fisher Branch/Section SIS Phone 233

10. Site Manager/Facility Contact None Phone _____

11. Reason for Sampling
 The municipal well field is contaminated with chlorinated solvents. In 1999, ~~DEM~~ installed 22 monitoring wells near the facility for investigation purposes. Wells were sampled in 1999 and followup is needed this year.

Sampling Details

12. Data Quality Level: Enforcement General Use Screening Results Only

13. Matrix	<u>Water</u>	_____	_____	_____	_____
14. Analysis	<u>VOA</u>	_____	_____	_____	_____
15. Samples	<u>22</u>	_____	_____	_____	_____
16. Duplicates	<u>2</u>	_____	_____	_____	_____
17. Trip Blanks	<u>1</u>	_____	_____	_____	_____
18. Equip. Blanks	<u>0</u>	_____	_____	_____	_____
19. Total	<u>25</u>	_____	_____	_____	_____

Tracking

20. Projected Sample Date(s) <u>Week of Sept 25</u>	21. Projected Date(s) to Lab <u>Sept 25, 26, 27, 28</u>	22. Turnaround Time <u>30 days</u>	Projected Cost <u>NA</u>
Lab Assigned <u>ISDH</u>	Lab Contact <u>—</u>	Lab Contact Date <u>—</u>	Cooler Arrival <u>—</u>
Actual Date to Lab <u>10-3 & 10-4</u>	Data Package Due	Preliminary Results Received	Package Received <u>RI 6703-6708 10/19/00</u> <u>RI 6697-6702 10/19/00</u>

Signatures

Gatekeeper [Signature] Site Chemist _____
 Section Chief [Signature] Branch Chief _____
 Asst. Commissioner _____ Deputy Commissioner _____

\$0 - \$15,000 - Gatekeeper & Section Chief
 \$15,001 - \$25,000 - Add Branch Chief
 \$25,001 - \$40,000 - Add Assistant Commissioner
 Over \$40,000 - Add Deputy Commissioner



INDIANA STATE DEPARTMENT OF HEALTH
Environmental Laboratory
CHAIN OF CUSTODY

OCT 19 2000

I certify that sample(s) listed below was (were) collected by me or in my presence

Signature

Rich Malini Rich Malini

Date:

3 Oct 2000

	LAB ASSIGNED NUMBER	CONTROL NUMBER	MATRIX	CONSISTING OF THE INDICATED NUMBER OF BOTTLES										DATE AND TIME COLLECTED		
				2000 ml P.N.M.	1000 ml P.N.M.	1000 ml G.N.M.	500 ml G.W.M.	40 ml Vial	120 ml G.(B.O.)	500 ml P.N.M.	250 ml P.N.M.	METHOD 8260				
1	00R0080 000852	RT 6677	Soil					2					✓			10/12/00 3:10 AM (PM)
2	000853	RT 6678	Soil					2					✓			10/12/00 7:15 AM (PM)
3	000854	RT 6679	Soil					2					✓			10/13/00 10:45 AM (PM)
4	000855	RT 6700	2 wells					2					✓			10/13/00 11:10 AM (PM)
5	000856	RT 6701	wells					2					✓			10/13/00 2:50 AM (PM)
6	000857	R. 6702	wells					2					✓			10/13/00 3:00 AM (PM)
7																1 1 : AM / PM
8																1 1 : AM / PM
9																1 1 : AM / PM
10																1 1 : AM / PM
11																1 1 : AM / PM
12																1 1 : AM / PM

REPORTED

OCT 16 2000

Indiana State Department of Health
 Laboratory Resource Center
 Environmental Laboratory Service

SIGNATURE	DATE AND TIME	SEALS INTACT ?	COMMENTS	Please send report to:
RELINQUISHED BY: <i>Rich Malini</i> RICH MALINI	10/13/00	Yes No		
RECEIVED BY: <i>Fred...</i>	4:11 AM (PM)	Yes No		
RELINQUISHED BY:	1 1	Yes No		
RECEIVED BY:	: AM / PM	Yes No		
RELINQUISHED BY:	1 1	Yes No		
RECEIVED BY:	: AM / PM	Yes No		

LABORATORY CUSTODIAN

I certify that I have received the above sample(s) and it (they) is (are) recorded in the official record book. The same sample(s) will be in the custody of competent laboratory personnel at all times or locked in a secure area.

Signature:

Fred...

Date:

10/13/00

Time:

4:11 AM (PM)

Indiana State Dept. of Health Method 8260 Report

Client : IDEM
 Collected: Oct 03 2000
 Received : Oct 03 2000
 Analyzed : Oct 10 2000
 Reported : Oct 10 2000
 Detection Limit = 0.5 µg/L

Analyst: MS 10-10-00

Reviewer: RB 10-11-00

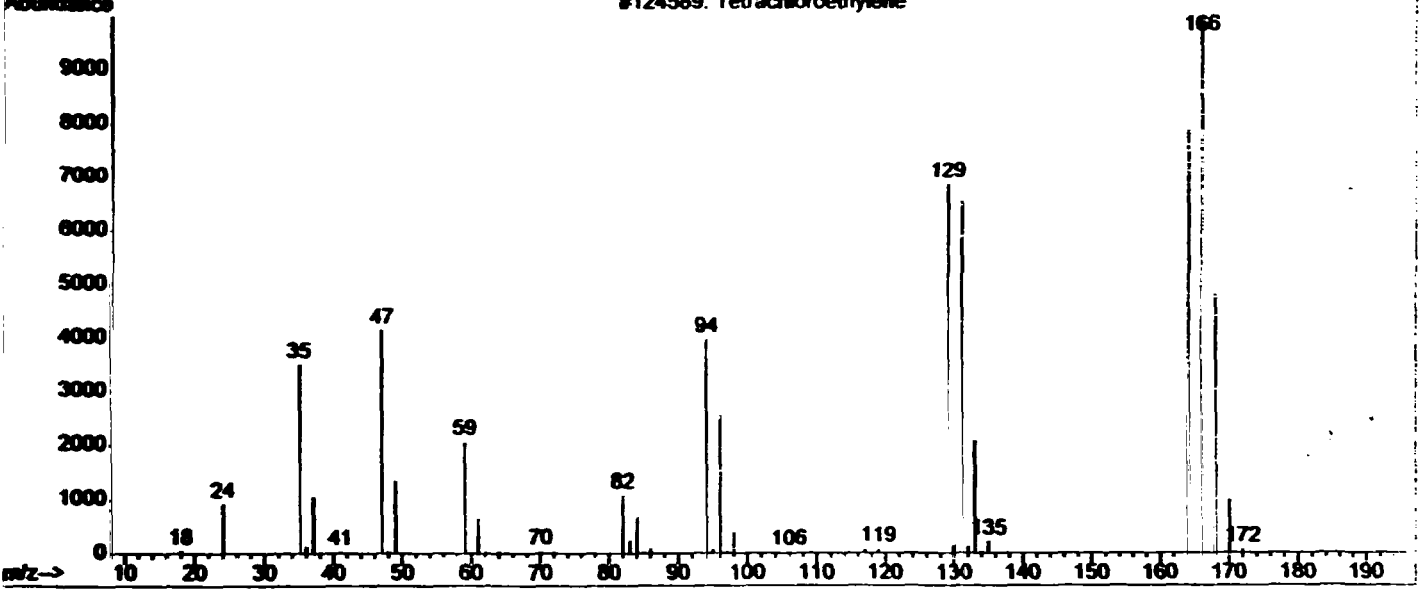
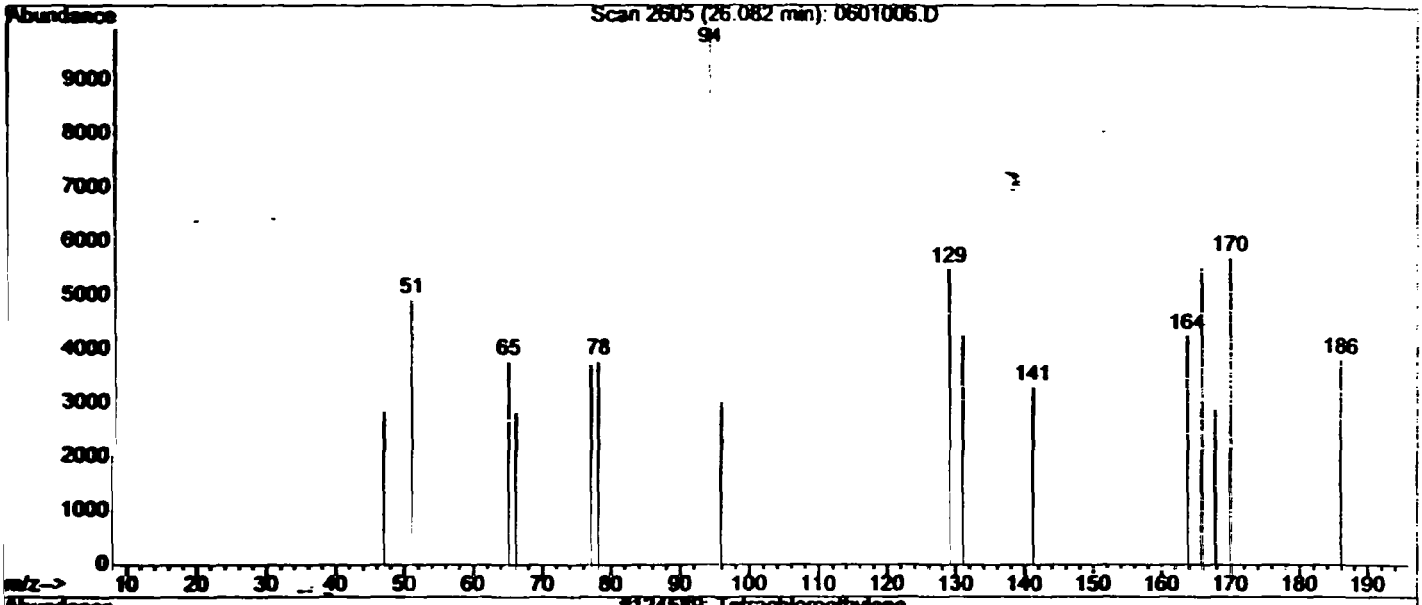
Name	RI6697	RI6698	RI6699	RI6700	RI6701	RI6702
	R852 Well	R853 Well	R854 Well	R855 Well	R856 Well	R857 Well
41) 1,1,2,2-Tetrachloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
42) p-BFB (Surr.)	4.6	4.7	4.6	4.5	4.4	4.5
43) 1,2,3-Trichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
44) n-Propylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
45) Bromobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
46) 1,3,5-Trimethylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
47) 2-Chlorotoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
48) 4-Chlorotoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
49) tert-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
50) 1,2,4-Trimethylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
51) sec-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
52) p-Isopropyltoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
53) 1,3-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
54) 1,4-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
55) n-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
56) 1,2-Dichlorobenzene d4 (Surr.)	3.2	3.4	3.4	3.2	3.2	3.3
57) 1,2-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
58) 1,2-Dibromo-3-Chloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
59) 1,2,4-Trichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
60) Hexachlorobutadiene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
61) Naphthalene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
62) 1,2,3-Trichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
63) MTBE	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

REPORTED

OCT 16 2000

Indiana State Department of Health
 Laboratory Resource Center
 Environmental Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 45
ID : Tetrachloroethylene



R 853

REPORTED

OCT 16 2000

Ill. State Dept. of Public Safety
Laboratory Services Unit
Environmental Laboratory Section



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OCT 19 2000

OWM

OSHWM

OER

OAM

CHAIN OF CUSTODY

I Certify that the sample(s) listed below was/were collected by me or in my presence.

Date: 10/4/00

P.O. #: _____

Signature: Rick Molini

RICK MOLINI

Section: SIS-OLG

0000081 LAB NUMBER ASSIGNED <u>R</u>	IDEM CONTROL NUMBER	CONSISTING OF THE INDICATED NUMBER OF BOTTLES											DATE AND TIME COLLECTED	
		2000 ml P.N.M.	1000 ml P.N.M.	1000 ml G.N.M.	500 ml G.W.M.	250 ml G.W.M.	125 ml G.W.M.	40 ml VIAL	120 ml P.(B.O.)	500 ml P.N.M.	250 ml P.N.M.	<u>8265</u> <u>YDCS</u>		
000858	RI 6703							5					✓	10/4/00 10:30 (AM/PM)
000859	RI 6704							2					✓	10/4/00 11:00 (AM/PM)
000860	RI 6705							2					✓	10/4/00 12:40 (AM/PM)
000861	RI 6706							2					✓	10/4/00 1:10 (AM/PM)
000862	RI 6707							2					✓	10/4/00 1:30 (AM/PM)
000863	RI 6708							2					✓	10/4/00 2:15 (AM/PM)
														1 1 : (AM/PM)
														1 1 : (AM/PM)
														1 1 : (AM/PM)
														1 1 : (AM/PM)
														1 1 : (AM/PM)
														1 1 : (AM/PM)

P-Plastic

G-Glass

N.M.-Narrow Mouth

W.M.-Wide Mouth

B. O.- Bactl. Only

CARRIERS

Should samples be iced?

Y	N
---	---

I certify that I received the above sample(s)

SIGNATURE	DATE AND TIME	SEALS INTACT		COMMENTS
RELINQUISHED BY: <u>Rick Molini</u>	10/4/00	Y	N	
RECEIVED BY: <u>K. Patel</u>	3:40 AM/PM			
RELINQUISHED BY:	1 1	Y	N	REPORTED
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	1 1	Y	N	OCT 16 2000
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	1 1	Y	N	State Department of Health Laboratory Resource Center Environmental Laboratory Section
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	1 1	Y	N	
RECEIVED BY:	: AM/PM			

Lab Custodian

I certify that I received the above sample(s) and is/are recorded in the official record book. The same samples will be in custody of competent laboratory personnel at all times or locked in a secure area.

Signature: K. Patel

Date: 10/4/00

Time: 3:40 AM/PM

Lab: ISDH

Address: 635 N. Barnhill Dr.

Indiana State Dept. of Health Method 8260 Report

Client : IDEM
 Collected: Oct 04 2000
 Received : Oct 04 2000
 Analyzed : Oct 06 2000
 Reported : Oct 12 2000
 Detection Limit = 0.5 µg/L

Analyst: MS 10-12-00

Reviewer: RB 10-13-00

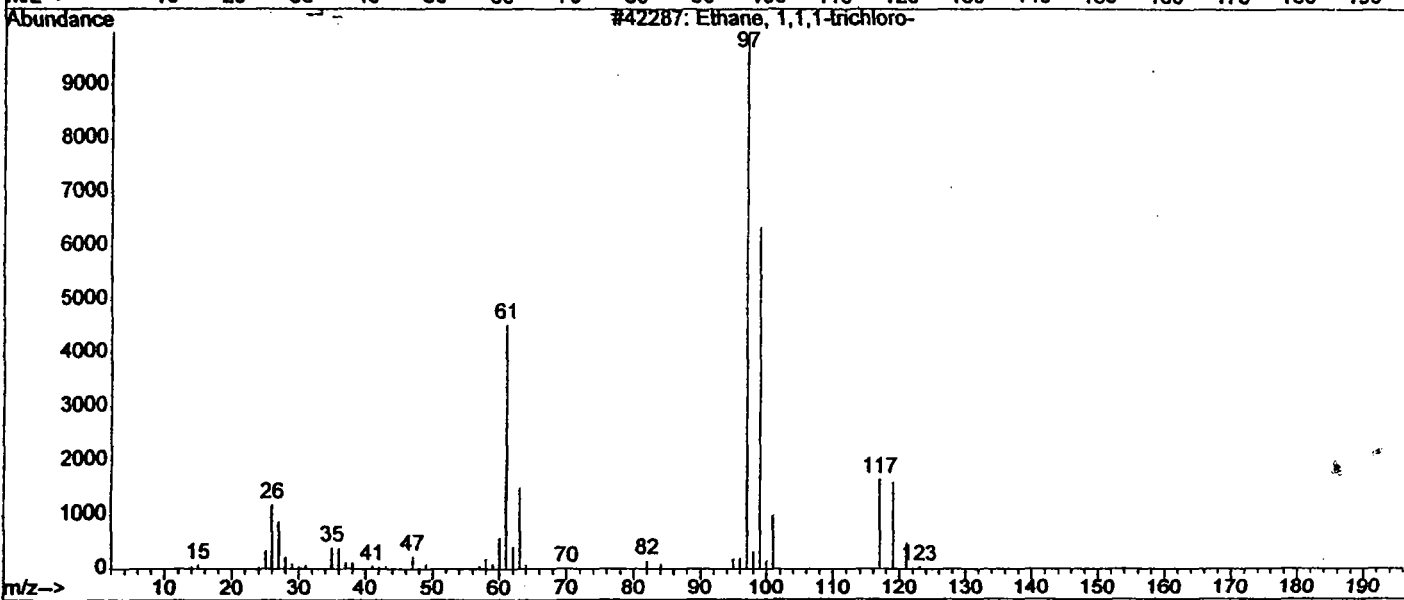
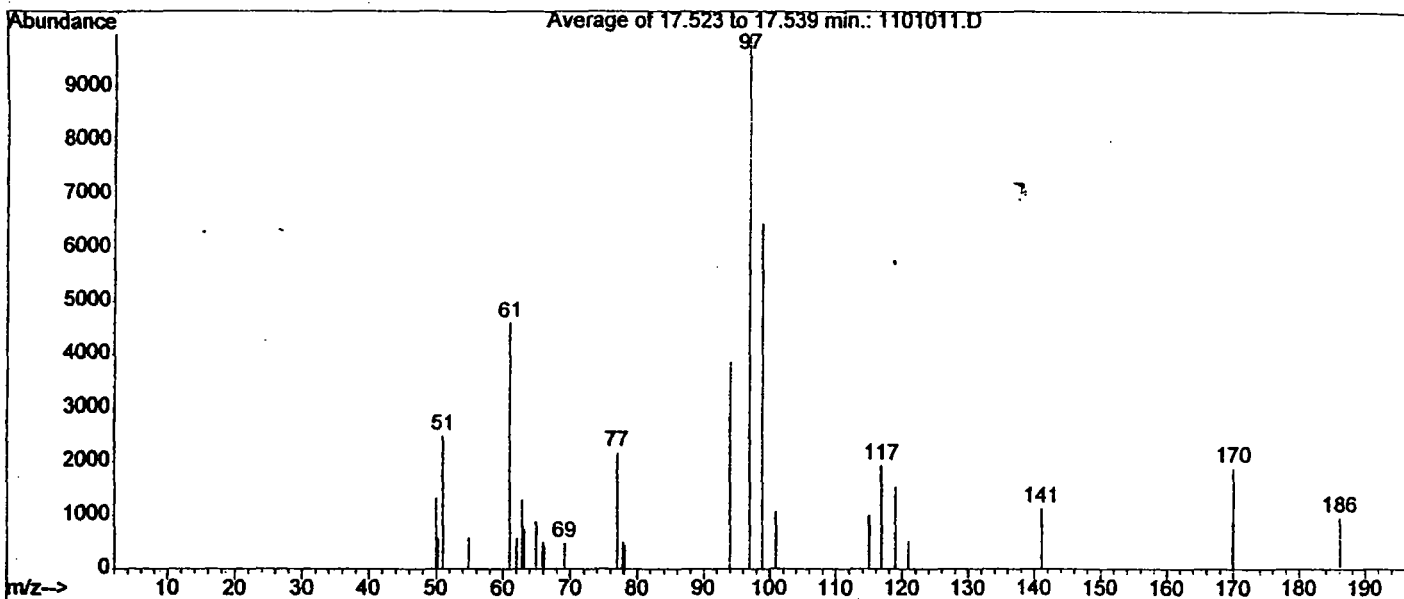
Name	RI6703	RI6704	RI6705	RI6706	RI6707	RI6708
	R858 Well	R859 Well	R860 Well	R861 Well	R862 Well	R863 Well
41) 1,1,2,2-Tetrachloroethane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
42) p-BFB (Surr.)	4.5	4.5	4.6	4.6	4.6	4.6
43) 1,2,3-Trichloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
44) n-Propylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
45) Bromobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
46) 1,3,5-Trimethylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
47) 2-Chlorotoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
48) 4-Chlorotoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
49) tert-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
50) 1,2,4-Trimethylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
51) sec-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
52) p-Isopropyltoluene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
53) 1,3-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
54) 1,4-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
55) n-Butylbenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
56) 1,2-Dichlorobenzene d4 (Surr.)	3.2	3.3	3.3	3.4	3.5	3.4
57) 1,2-Dichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
58) 1,2-Dibromo-3-Chloropropane	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
59) 1,2,4-Trichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
60) Hexachlorobutadiene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
61) Naphthalene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
62) 1,2,3-Trichlorobenzene	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
63) MTBE	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

REPORTED

OCT 16 2000

Indiana State Department of Health
 Laboratory Resource Center
 Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 53
ID : Ethane, 1,1,1-trichloro-



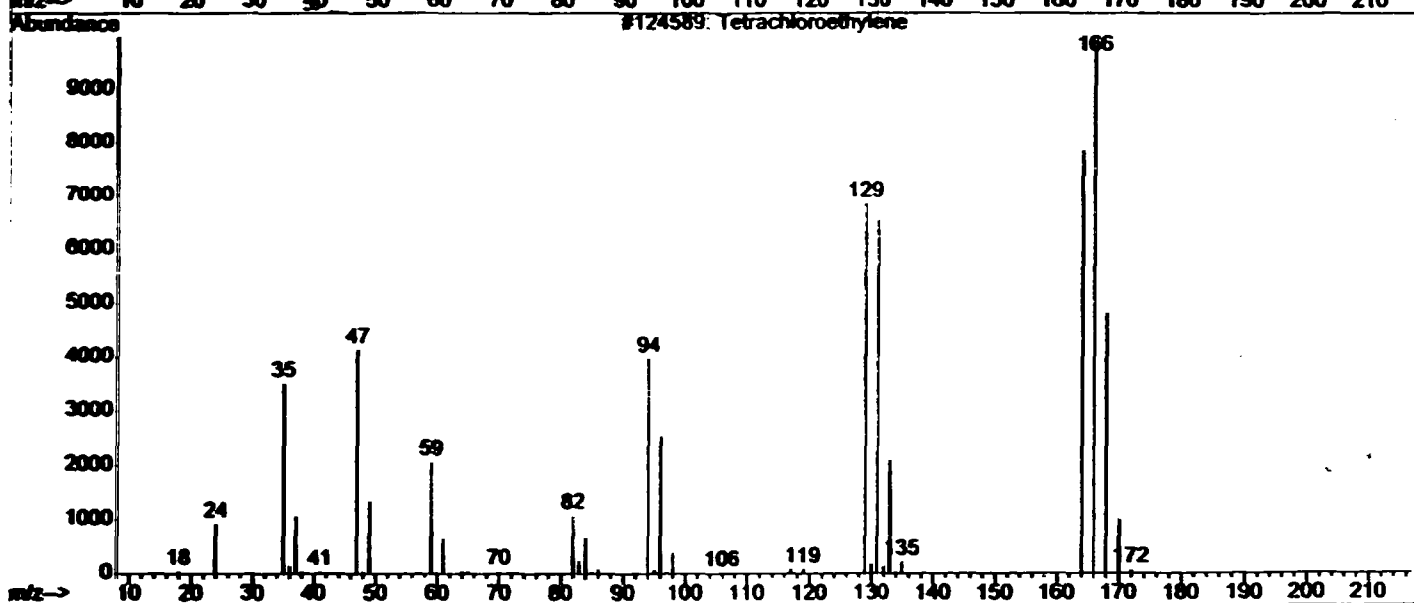
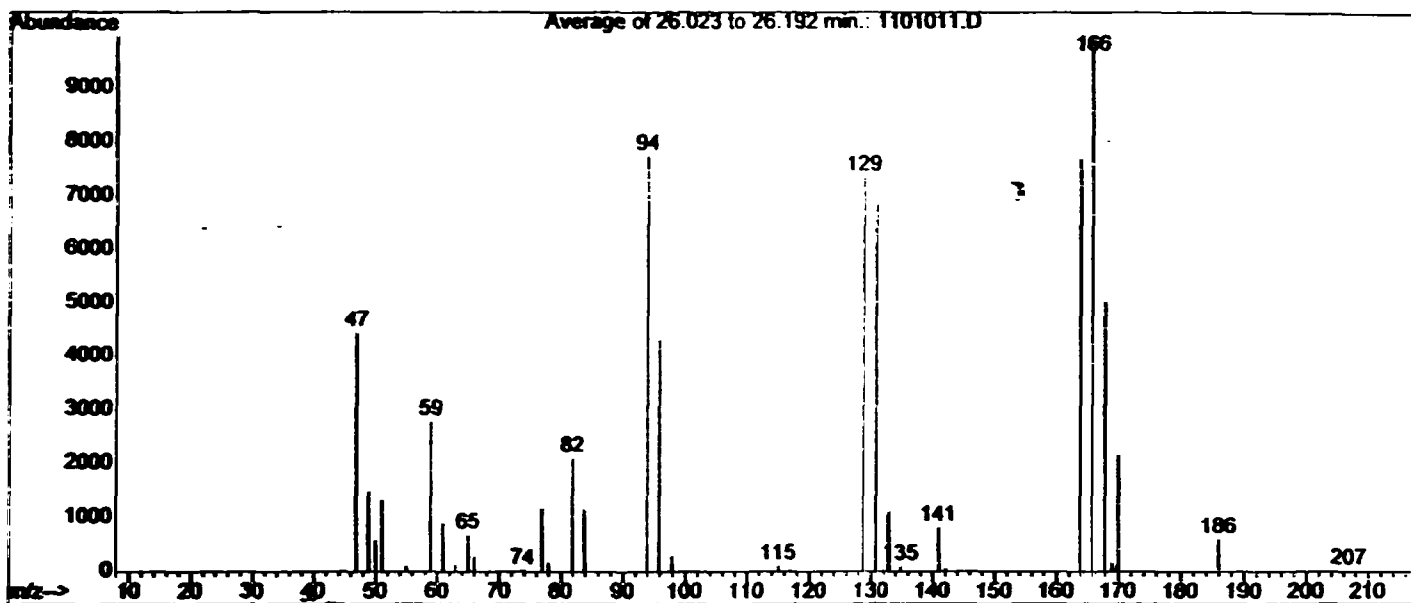
R858

REPORTED

OCT 16 2000

L.S.
Indiana State Department of Health
Laboratory Resource Center
Environmental Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 94
ID : Tetrachloroethylene



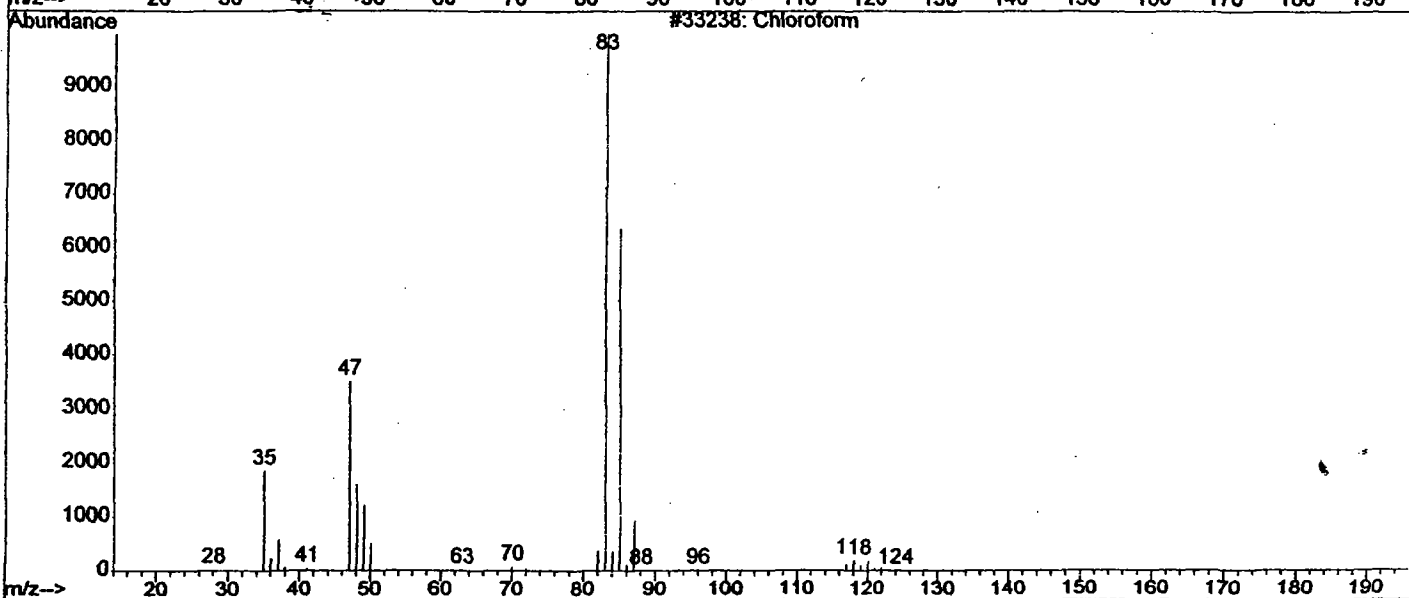
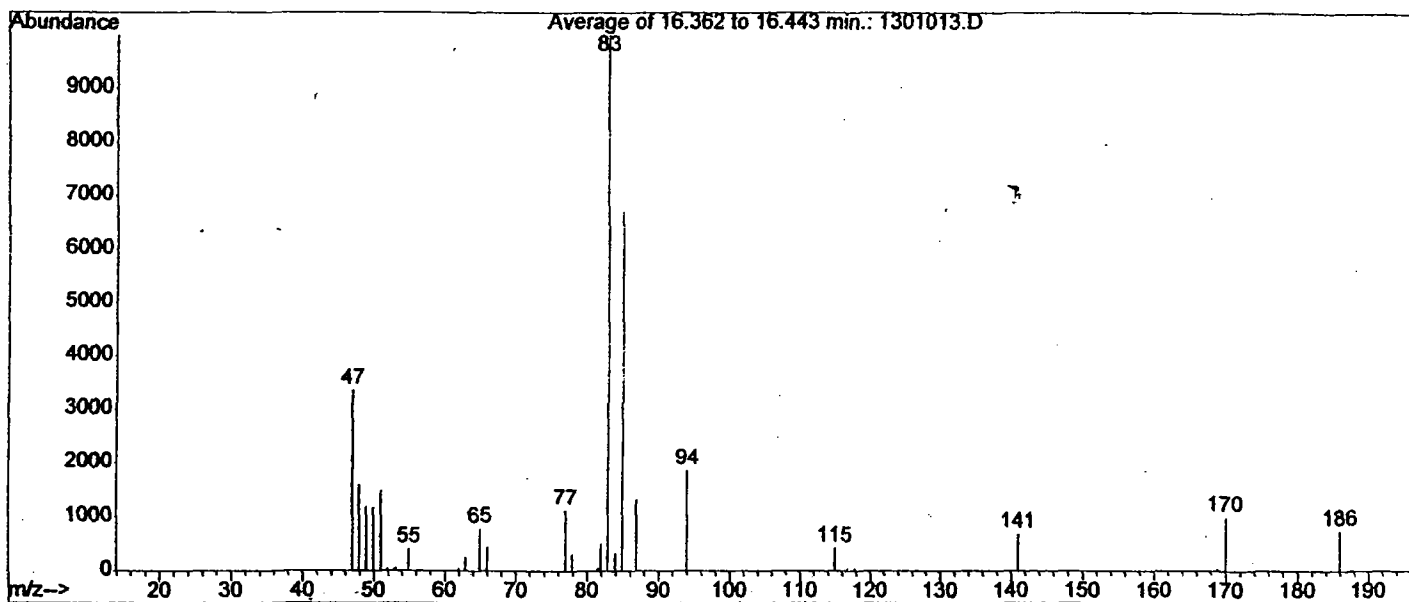
R858

REPORTED

OCT 16 2000

Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 72
ID : Chloroform



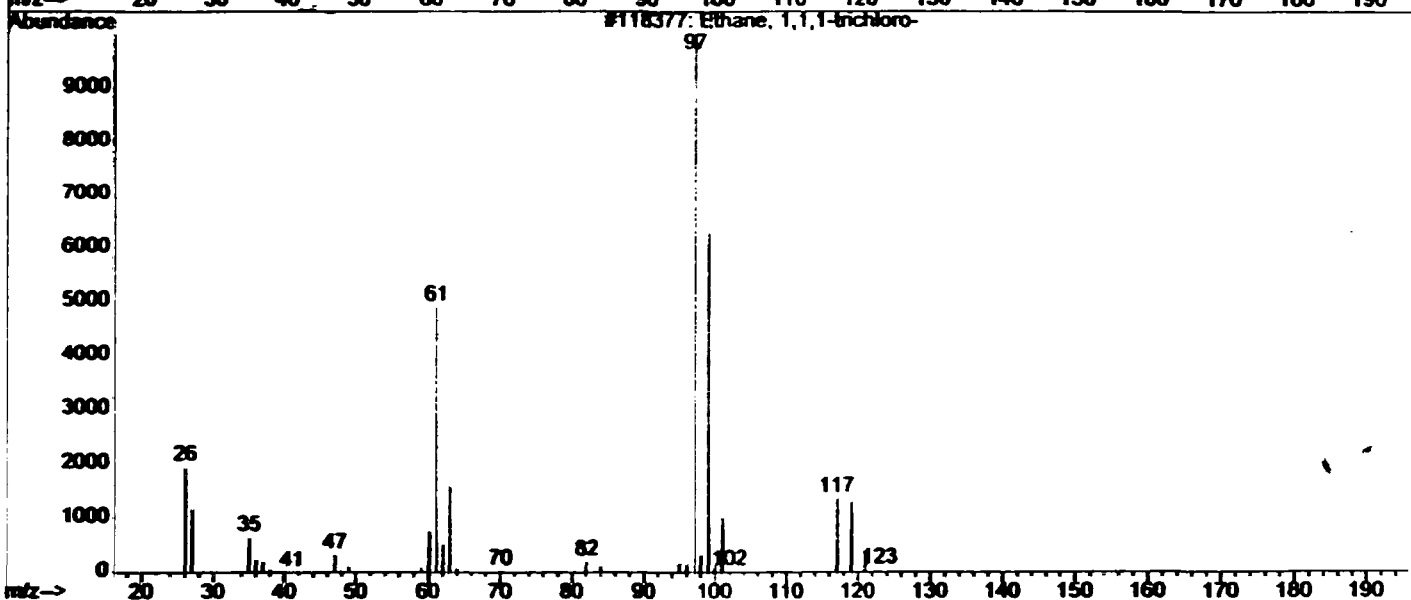
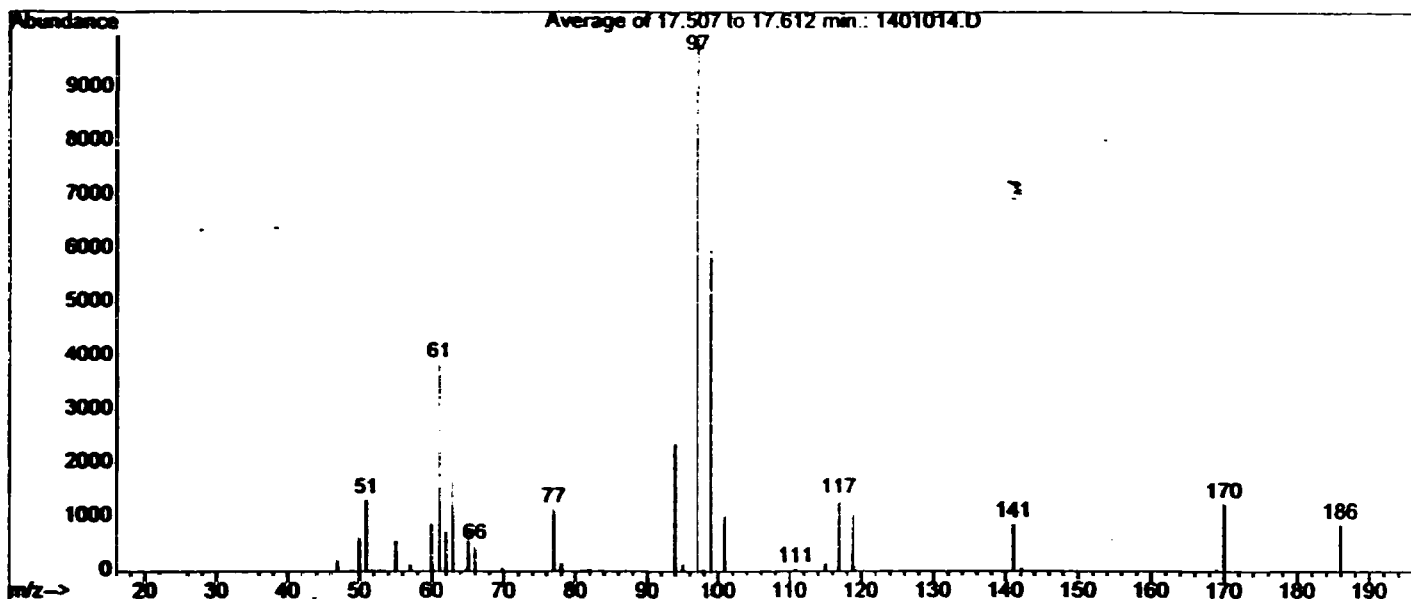
R 860

REPORTED

OCT 16 2000

J.S.
Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 72
ID : Ethane, 1,1,1-trichloro-



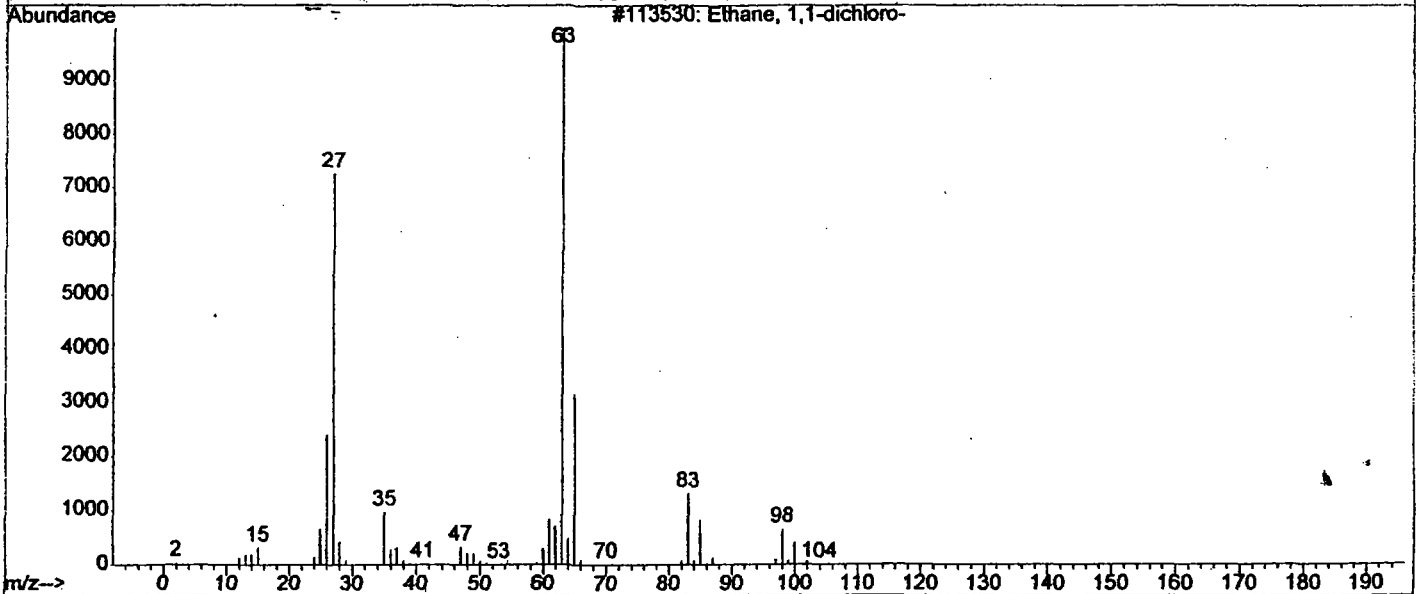
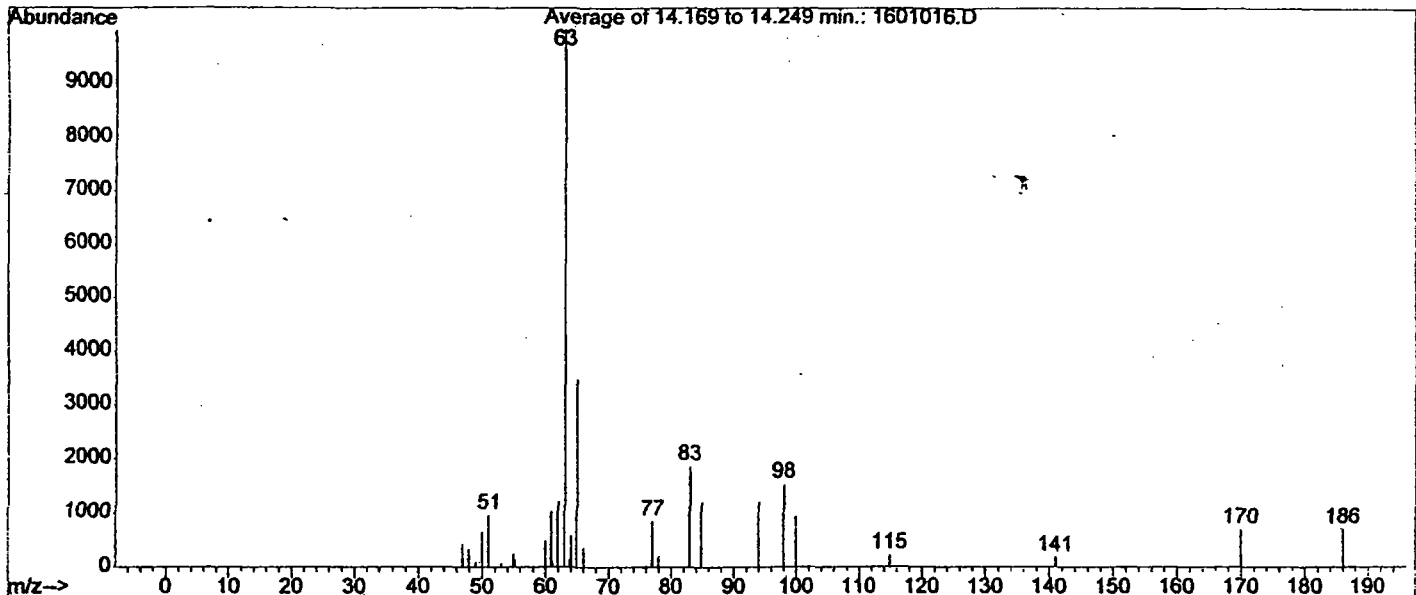
R861

REPORTED

OCT 16 2000

L.S.
Indiana State Department of Health
Laboratory Resource Center
Environmental Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 78
ID : Ethane, 1,1-dichloro-



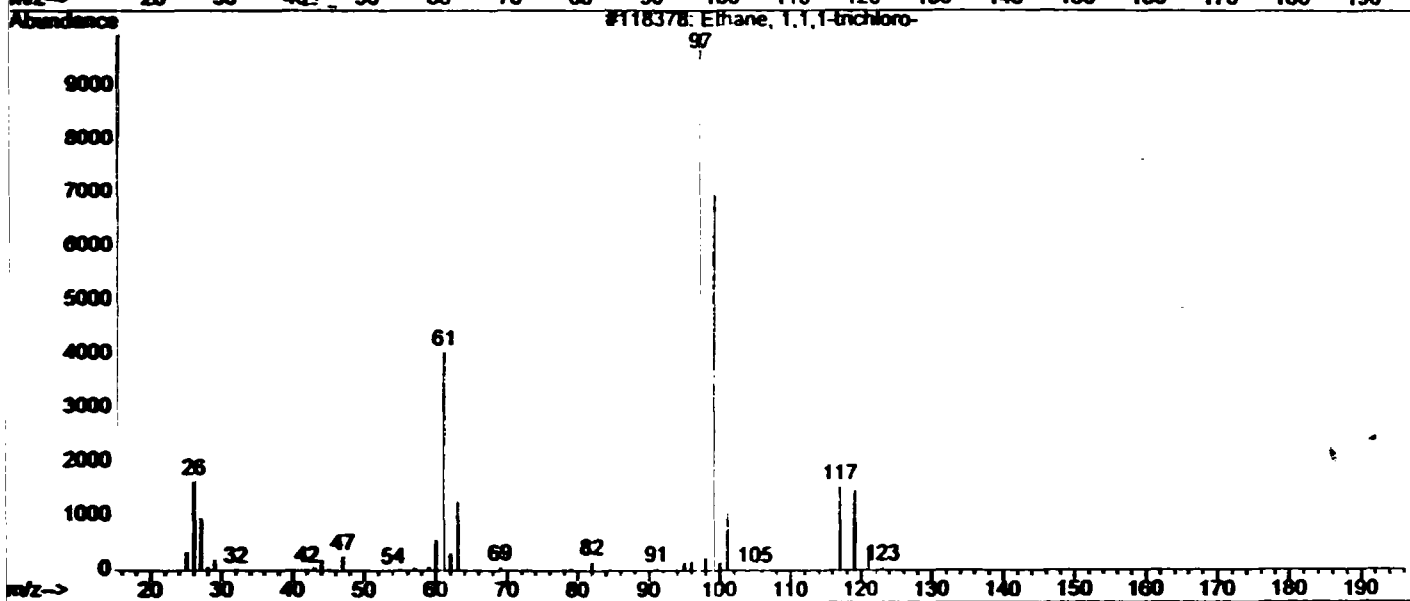
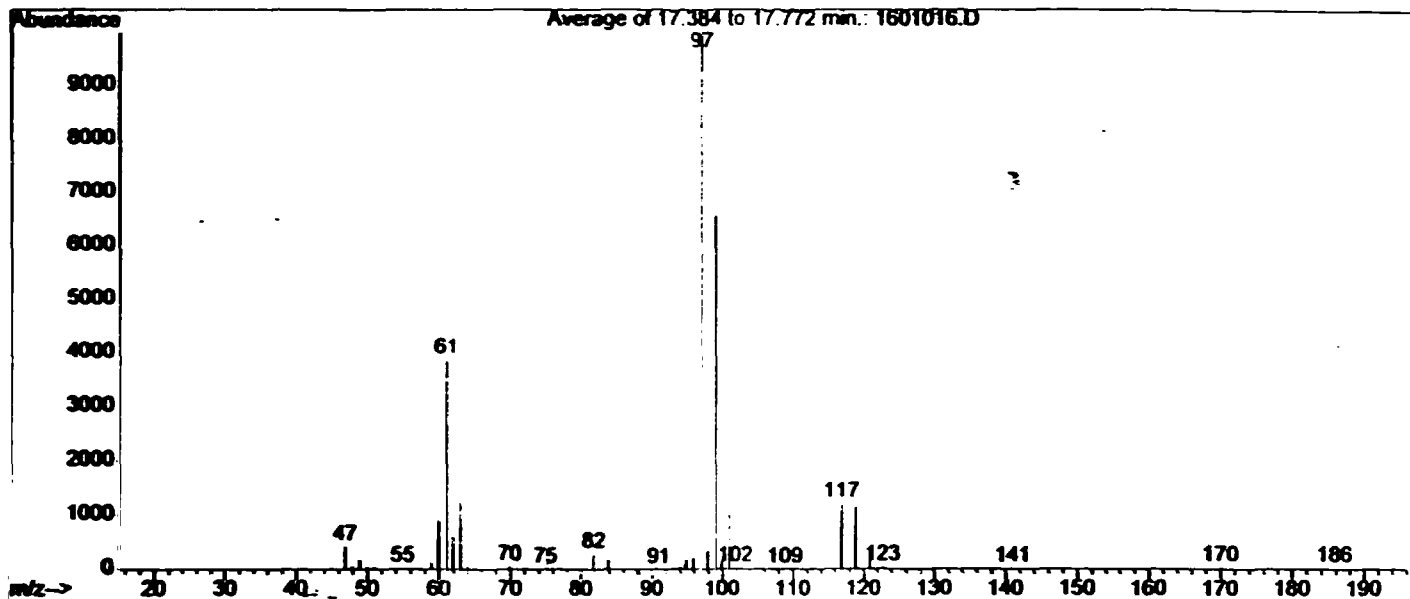
R 863

REPORTED

OCT 16 2000

P.S.
Indiana State Department of Health
Laboratory Resource Center
Environment Laboratory Section

Library Searched : C:\DATABASE\nist98.1
Quality : 90
ID : Ethane, 1,1,1-trichloro-



R 863

REPORTED

OCT 16 2000

Indiana State Department of Health
Laboratory Resource Center
Environmental Laboratory Section

SITE INFORMATION *

Terre Haute Municipal Well Field

RI6697

Site: THMWF County: VI60 IDEM Control #: RI6697-6721
Site Location (city first): Terre Haute, IN Sampling Date(s): Oct 2

Site Representative(s): Rich Mohr Company: _____

IDEM Samplers: Rich Mohr, Doug Fisher Laboratory: ISDH

Weather Conditions: Sky _____ Ground _____ Wind _____ Temp _____ Humidity _____

Sample Types (check all applicable): Mon. Well Res. Well Creek Leachate Ditch
 Drainage Tile Lagoon Pond Sludge Sediment Industrial Waste
 Waste Pile Soil Truck Drummed Waste Waste Liquid Oil
 Solvent Sand Ash Other _____
Sample Choice (check): Grab Composite Statistical Random Judgmental

Sampling Equipment Used: Koko pump well used

Decontamination Procedures: decon pump + wash with DI water after each well

Field Test Equipment Used: N/A

Calibration Notes: _____

Container Source: _____
Blank Water Source: ISDH

Sample Preservative Source: _____
Decontamination Water Source: IDEM - AIR

Program Area (check): RCRA CERCLA Solid Waste DOD LUST/UST VRP
 State Cleanup Emergency Response Other _____
Purpose (check): Complaint Compliance Enforcement Other follow-up - confirmation
Constituents Expected: VOA's Handling Precaution: Yes No

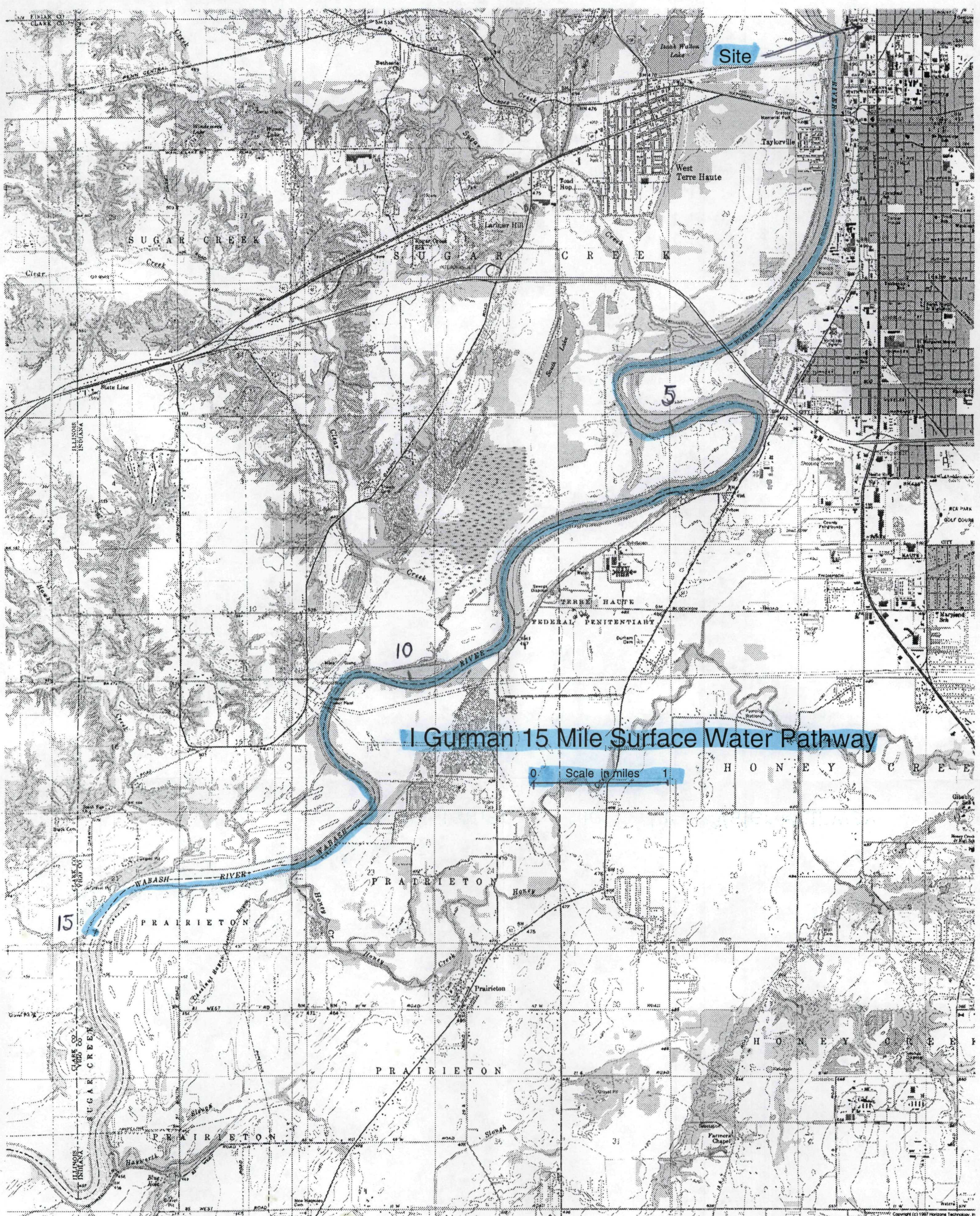
Photos Taken? Yes No Send analytical data review to: Rich Mohr Phone: 233-1812

Other Notes or Deviations from Sampling Plan: None

Revised 03-16-00 Sampler Signature: Rich Mohr Date: Sept 29, 00

* This form is for general use in OLQ sampling projects.

Appendix D -15 Mile Surface Water Pathway Map



I Gurman 15 Mile Surface Water Pathway

0 Scale in miles 1

Appendix E - Sensitive Environment/Species Information



Indiana Department of Natural Resources

Frank O'Bannon, Governor
Larry D. Macklin, Director

Division of Nature Preserves
402 W. Washington St., Rm W267
Indianapolis IN 46204

June 24, 2002

Mr. Rich Molini
Indiana Dept. of Env. Management

Dear Mr. Molini:

I am responding to your request for information on the endangered, threatened, or rare (ETR) species, high quality natural communities, and natural areas documented from the I Gurman 15 Mile Surface Water Pathway, Wabash River, Vigo County, Indiana. The Indiana Natural Heritage Data Center has been checked and enclosed you will find information on the ETR species documented from the project area.

For more information on the animal species mentioned, please contact Katie Smith, Nongame Supervisor, Division of Fish and Wildlife, 402 W. Washington Room W273, Indianapolis, Indiana 46204, (317)232-4080.

The information I am providing does not preclude the requirement for further consultation with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act of 1973. You should contact the Service at their Bloomington, Indiana office.

U.S. Fish and Wildlife Service
620 South Walker St.
Bloomington, Indiana 47403-2121
(812)334-4261

At some point, you may need to contact the Department of Natural Resources' Environmental Review Coordinator so that other divisions within the department have the opportunity to review your proposal. For more information, please contact:

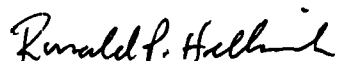
John Goss, Director
Department of Natural Resources
attn: Christie Kiefer
Environmental Coordinator
Division of Fish and Wildlife
402 W. Washington Street, Room W273
Indianapolis, IN 46204
(317)232-4080

Please note that the Indiana Natural Heritage Data Center relies on the observations of many individuals for our data. In most cases, the information is not the result of comprehensive field surveys conducted at particular sites. Therefore, our statement that there are no documented significant natural features at a site should not be interpreted to mean that the site does not support special plants or animals.

Due to the dynamic nature and sensitivity of the data, this information should not be used for any project other than that for which it was originally intended. It may be necessary for you to request updated material from us in order to base your planning decisions on the most current information.

Thank you for contacting the Indiana Natural Heritage Data Center. You may reach me at (317)232-8059 if you have any questions or need additional information.

Sincerely,



Ronald P. Hellmich
Indiana Natural Heritage Data Center

enclosure: data sheet

ENDANGERED, THREATENED AND RARE SPECIES,
HIGH QUALITY NATURAL COMMUNITIES, AND SIGNIFICANT NATURAL AREAS DOCUMENTED FROM THE I
GURMAN 15 MILE SURFACE WATER PATHWAY, WABASH RIVER VIGO COUNTY, INDIANA

<u>TYPE</u>	<u>SPECIES NAME</u>	<u>COMMON NAME</u>	<u>STATE</u>	<u>FED</u>	<u>LOCATION</u>	<u>DATE</u>	<u>COMMENTS</u>
LENNISON							
Mollusk	PLEUROBEMA CLAVA	CLUBSHELL	SE	LEXN	T11NR10W 22	1976	LIVE
Other type	MUSSEL BED	MUSSEL BED	SG	**	T11NR10W 22		
HUTTON							
Mollusk	CYPROGENIA	EASTERN FANSHELL	SE	LE	T11NR10W 33 SWQ	1988	SUBFOSSIL
	STEGARIA	PEARLYMUSSEL			SWQ		
Mollusk	EPIOBLASMA	TENNESSEE	SX	**	T11NR10W 33 SWQ	1988	SUBFOSSIL
	PROPINQUA	RIFFLESHELL			SWQ		
Mollusk	EPIOBLASMA	TUBERCLED BLOSSOM	SE	LEXN	T11NR10W 33 SWQ	1988	SUBFOSSIL
	TORULOSA TORULOSA				SWQ		
Mollusk	FUSCONAIA	LONGSOLID	SE	**	T11NR10W 33 SWQ	1988	SUBFOSSIL
	SUBROTUNDA				SWQ		
Mollusk	LAMPSILIS TERES	YELLOW SANDSHELL	**	**	T11NR10W 33 SWQ	1988	SUBFOSSIL
					SWQ		
Mollusk	OBOVARIA RETUSA	RING PINK	SX	LE	T11NR10W 33 SWQ	1988	SUBFOSSIL
					SWQ		
Mollusk	PLEUROBEMA CLAVA	CLUBSHELL	SE	LEXN	T11NR10W 33 SWQ	1988	SUBFOSSIL
					SWQ		
Mollusk	PLEUROBEMA	OHIO PIGTOE	SSC	**	T11NR10W 33 SWQ	1988	SUBFOSSIL
	CORDATUM				SWQ		
Mollusk	PLEUROBEMA	PYRAMID PIGTOE	SE	**	T11NR10W 33 SWQ	1988	SUBFOSSIL
	PYRAMIDATUM				SWQ		
Mollusk	PTYCHOBANCHUS	KIDNEY SHELL	SSC	**	T11NR10W 33 SWQ	1988	SUBFOSSIL
	FASCIOLARIS				SWQ		
TERRE HAUTE							
Fish	ACIPENSER	LAKE STURGEON	SE	**	T12NR09W	1938	
	FULVESCENS				WABASH RIVER;		
					TERRE HAUTE		
Fish	CYCLEPTUS	BLUE SUCKER	SSC	**	T12NR09W	1993	
	ELONGATUS				WABASH RIVER		
					NEAR TERRE		
Fish	ICHTHYOMYZON	OHIO LAMPREY	**	**	TERRE HAUTE	1937	
	BDELLIUM				AREA		
Mollusk	CYPROGENIA	EASTERN FANSHELL	SE	LE	T12NR09W 32 NH	1988	SUBFOSSIL
	STEGARIA	PEARLYMUSSEL			NEQ SWQ & SH		
					SEQ NWQ		
Mollusk	EPIOBLASMA	TENNESSEE	SX	**	T12NR09W 32 NH	1988	SUBFOSSIL
	PROPINQUA	RIFFLESHELL			NEQ SWQ & SH		
					SEQ NWQ		
Mollusk	EPIOBLASMA	TENNESSEE	SX	**	T11NR09W 06	1988	SUBFOSSIL
	PROPINQUA	RIFFLESHELL					
Mollusk	EPIOBLASMA	WABASH RIFFLESHELL	SX	**	T12NR09W 32 NH	1988	SUBFOSSIL
	SAMPSONII				NEQ SWQ & SH		
					SEQ NWQ		

STATE: SX=extirpated, SE=endangered, ST=threatened, SR=rare, SSC=special concern, WL=watch list,
SG=significant, ** no status but rarity warrants concern

FEDERAL: LE=endangered, LT=threatened, LELT=different listings for specific ranges of species, PE=proposed
endangered, PT=proposed threatened, E/SA=appearance similar to LE species, **=not listed

ENDANGERED, THREATENED AND RARE SPECIES,
HIGH QUALITY NATURAL COMMUNITIES, AND SIGNIFICANT NATURAL AREAS DOCUMENTED FROM THE I
GURMAN 15 MILE SURFACE WATER PATHWAY, WABASH RIVERVIGO COUNTY, INDIANA

<u>TYPE</u>	<u>SPECIES NAME</u>	<u>COMMON NAME</u>	<u>STATE</u>	<u>FED</u>	<u>LOCATION</u>	<u>DATE</u>	<u>COMMENTS</u>
Mollusk	EPIOBLASMA TORULOSA TORULOSA	TUBERCLED BLOSSOM	SE	LEXN	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	SUBFOSSIL
Mollusk	FUSCONAIA SUBROTUNDA	LONGSOLID	SE	**	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	SUBFOSSIL
Mollusk	LAMPSILIS OVATA	POCKETBOOK	**	**	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	SUBFOSSIL
Mollusk	LAMPSILIS OVATA	POCKETBOOK	**	**	T11NR09W 06	1988	SUBFOSSIL
Mollusk	LAMPSILIS TERES	YELLOW SANDSHELL	**	**	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	LIVE
Mollusk	LAMPSILIS TERES	YELLOW SANDSHELL	**	**	T11NR09W 06	1988	WEATHERED SHELLS
Mollusk	LEPTODEA LEPTODON	SCALESHELL	SX	PE	T12NR09W WABASH R. AT TERRE HAUTE	NO D	HISTORICAL
Mollusk	OBOVARIA RETUSA	RING PINK	SX	LE	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	SUBFOSSIL
Mollusk	OBOVARIA RETUSA	RING PINK	SX	LE	T11NR09W 06	1988	WEATHERED SHELLS
Mollusk	OBOVARIA SUBROTUNDA	ROUND HICKORYNUT	SSC	**	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	SUBFOSSIL
Mollusk	OBOVARIA SUBROTUNDA	ROUND HICKORYNUT	SSC	**	T11NR09W 06	1988	WEATHERED SHELLS
Mollusk	PLETHOBASUS CYPHYUS	SHEEPNOSE	SE	**	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	SUBFOSSIL
Mollusk	PLEUROBEMA CLAVA	CLUBSHELL	SE	LEXN	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	SUBFOSSIL
Mollusk	PLEUROBEMA CORDATUM	OHIO PIGTOE	SSC	**	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	SUBFOSSIL
Mollusk	PLEUROBEMA PLENUM	ROUGH PIGTOE	SE	LE	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	SUBFOSSIL
Mollusk	PLEUROBEMA PYRAMIDATUM	PYRAMID PIGTOE	SE	**	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	SUBFOSSIL
Mollusk	PLEUROBEMA PYRAMIDATUM	PYRAMID PIGTOE	SE	**	T11NR09W 06	1988	SUBFOSSIL
Mollusk	QUADRULA CYLINDRICA	RABBITSFOOT	SE	**	T12NR09W 32 NH NEQ SWQ & SH SEQ NWQ	1988	SUBFOSSIL

STATE: SX=extirpated, SE=endangered, ST=threatened, SR=rare, SSC=special concern, WL=watch list,
SG=significant, ** no status but rarity warrants concern

FEDERAL: LE=endangered, LT=threatened, LELT=different listings for specific ranges of species, PE=proposed
endangered, PT=proposed threatened, E/SA=appearance similar to LE species, **=not listed

Appendix F - Aerial Photograph

Microsoft TerraServer

Display Image

USGS Aerial Photograph

Terre Haute, Indiana, United States 24 Feb 1998





RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

App.
G

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4160

in completely

MW-10-5

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER CONTRACTOR

Name of well owner MACHINE TOOL SERVICE	Telephone number 812-232-5664
---	---

Address (number and street, city, state, ZIP code) 117 ELM ST. TERRE HAUTE, IN 47807
--

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER-MORNIER INC.	Telephone number (937)236-8805
---	--

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENBOST	License number 1236	Date of completion 7-30-95
---	-------------------------------	--------------------------------------

CONSTRUCTION DETAILS

WELL LOG

<input type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Irrigation	FORMATIONS: Type of material	From (feet)	To (feet)
---	-------------------------------------	------------------------------	-------------	-----------

Method of drilling <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev. rotary <input type="checkbox"/> Bucket rig <input checked="" type="checkbox"/> Other (6" SONIC)	TOPSOIL BR SAND & GRAVEL	0.0 1.0 45	1.0 45
---	-----------------------------	------------------	-----------

Casing length 34.5 feet	Material SCH. 40 PVC	Diameter 2 inches
-----------------------------------	--------------------------------	-----------------------------

Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches
---------------------------------	--------------------------------	-----------------------------

Screen slot size .10	Total depth of well 45
--------------------------------	----------------------------------

Depth of pump setting	Water quality (clear, cloudy, odor, etc.)
-----------------------	---

Type of pump <input type="checkbox"/> Submersible	<input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify):
--	--

WELL CAPACITY TEST

Check one <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.
---	-----------------------------------

Drawdown feet	Static level (depth of water) feet
------------------	---------------------------------------

GROUTING INFORMATION

WELL ABANDONMENT

Grout material E GLOD	Depth of grout From 30 to 1	Sealing material	Depth filled From To
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Method of installation TREMIER	Number of bags used 4	Method of installation	Number of bags used
--	---------------------------------	------------------------	---------------------

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.	Signature of owner or authorized representative Tom Nitzschke (TB)	Date 9-21-99
---	--	------------------------

RECEIVED
10-25-99
JB



RECORD OF WATER WELL
State Form 35680 (R4 - 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4180

Fill in completely

MW-10-D

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
-------------------------------------	-----------------------------------	----------	-------	-----------------------

Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER CONTRACTOR

Name of well owner MACHINE TOOL SERVICE	Telephone number 812-232-5664
---	---

Address (number and street, city, state, ZIP code) 117 ELM ST. TERRE HAUTE IN. 47807
--

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236 8805
--	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD DAYTON, OH 45424
--

Name of equipment operator DAVE SCHRECKENFEST	License number 1236	Date of completion 7-30-99
---	-------------------------------	--------------------------------------

CONSTRUCTION DETAILS

WELL LOG

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Industry <input checked="" type="checkbox"/> Test <input type="checkbox"/> Irrigation <input type="checkbox"/> Public supply <input type="checkbox"/> Stock <input type="checkbox"/> Other (specify):	FORMATIONS: Type of material	From (feet)	To (feet)
Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Jet <input type="checkbox"/> Bucket rig <input type="checkbox"/> Cable tool <input type="checkbox"/> Rev. rotary <input checked="" type="checkbox"/> Other (6") SONIC			
Casing length 120.5 feet	Material SCH. 40 PVC	Diameter 2 inches	TOP SOIL 0-0 1-0
Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	
Screen slot size .10	Total depth of well 131		GR SAND + GRAVEL 1-0 90
Depth of pump setting	Water quality (clear, cloudy, odor, etc.)		
Type of pump <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Other (specify): <input type="checkbox"/> Submersible <input type="checkbox"/> Deep-well jet			GR SAND + GRAVEL 90 130
			GR SHALE 130 132
			BOFB 132

WELL CAPACITY TEST

Check one <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.
Drawdown _____ feet	Static level (depth of water) _____ feet

GROUTING INFORMATION

WELL ABANDONMENT

Grout material PURE GLOD	Depth of grout From 115 to 1	Sealing material	Depth filled From _____ To _____
Method of installation TREMIER	Number of bags used 10	Method of installation	Number of bags used

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.	Signature of owner or authorized representative Jim [Signature] (PB)	Date 9-21-99
---	--	------------------------

(Additional space for well log on reverse side)



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4160

completely

MW-12-S

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER/CONTRACTOR

Name of well owner MACHINE TOOL SERVICE	Telephone number 812-232-5664
---	---

Address (number and street, city, state, ZIP code) 117 ELM ST. TERRE HAUTE, IN. 47807

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER - MURNER INC.	Telephone number (937) 236-8805
--	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENFEST	License number 1236	Date of completion 7-15-99
---	-------------------------------	--------------------------------------

CONSTRUCTION DETAILS

Use of well: <input checked="" type="checkbox"/> Home <input type="checkbox"/> Industry <input checked="" type="checkbox"/> Test <input type="checkbox"/> Irrigation <input type="checkbox"/> Public supply <input type="checkbox"/> Stock <input type="checkbox"/> Other (specify):	FORMATIONS: Type of material TOPSOIL From (feet) 0.0 To (feet) .5 BLK CINDERS & SAND .5 8.0 BR SAND w/ GRAVEL 8 46
Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Jet <input type="checkbox"/> Bucket rig <input type="checkbox"/> Cable tool <input type="checkbox"/> Rev. rotary <input checked="" type="checkbox"/> Other (6") SONIC	
Casing length 35.5 feet Material SCH. 40 PVC Diameter 2 inches Screen length 10 feet Material SCH. 40 PVC Diameter 2 inches Screen slot size .10 Total depth of well 46 Depth of pump setting Water quality (clear, cloudy, odor, etc.)	
Type of pump: <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Other (specify): <input type="checkbox"/> Deep-well jet	

WELL CAPACITY TEST

Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.
Drawdown _____ feet	Static level _____ feet (depth of water)

GROUTING INFORMATION

WELL ABANDONMENT

Grout material CEMENT	Depth of grout From 31 to 1	Sealing material	Depth filled From _____ To _____
Method of installation TREMIE	Number of bags used 4	Method of installation	Number of bags used

(Additional space for well log on reverse side)

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.

Signature of owner or authorized representative

Jim Niedzinski (B)

Date

9-21-99



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W284
Indianapolis, IN 46204
(317) 232-4180

Fill in completely

MW-12-D

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

Name of well owner MACHINE TOOL SERVICE	Telephone number 812-232-5664
---	---

Address (number and street, city, state, ZIP code) 117 ELM ST. TERRE HAUTE, IN. 47807

Name of building contractor	Telephone number
-----------------------------	------------------

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236 8805
--	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENFOST	License number 1236	Date of completion 7-14-99
---	-------------------------------	--------------------------------------

CONSTRUCTION DETAILS

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify): <input type="checkbox"/> Irrigation	FORMATIONS: Type of material	From (feet)	To (feet)
Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev. rotary <input checked="" type="checkbox"/> Other (6") SONIC	TOPS OIL	0.0	6"
Casing length 118.5 feet	Material SCH. 40 PVC	Diameter 2 inches	BLK. CINDERS & SAND
Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	BR SAND w/ GRAVEL
Screen slot size .10	Total depth of well 129		BR SAND w/ GRAVEL
Depth of pump setting	Water quality (clear, cloudy, odor, etc.)		w/ COBBLES
Type of pump: <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify)			BR SAND w/ GRAVEL
			GR SAND + GRAVEL

WELL CAPACITY TEST	
Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.
Drawdown _____ feet	Static level (depth of water) _____ feet
	w/ COBBLES
	WEATHERED GR SHALE
	BOFB 130

GROUTING INFORMATION		WELL ABANDONMENT	
Grout material PURE GLOD	Depth of grout From 14 to 1	Sealing material	Depth filled From _____ To _____
Method of installation TREM 1/2	Number of bags used 12	Method of installation	Number of bags used

I hereby swear or affirm, under the penalties for perjury that the information submitted hereon is to the best of my knowledge and belief, true, accurate and complete.	Signature of owner or authorized representative Jim Nitzschke (JB)	Date 9-21-99
---	--	------------------------



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W204
Indianapolis, IN 46204
(317) 232-4160

completely

MW-4-5

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER/CONTRACTOR

Name of well owner INDIANA STATE UNIVERSITY	Telephone number 812-237-7630
---	---

Address (number and street, city, state, ZIP code) 951 Sycamore St. Terre Haute, IN. 47806
--

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER-MURNIER INC.	Telephone number (937) 236-8805
---	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD DAYTON, OH 45424
--

Name of equipment operator DAVE SCHRECKENGOST	License number 1236	Date of completion 7-13-99
---	-------------------------------	--------------------------------------

CONSTRUCTION DETAILS

Use of well: <input checked="" type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify): <input type="checkbox"/> Irrigation	FORMATIONS: Type of material	From (feet)	To (feet)
---	------------------------------	-------------	-----------

Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev. rotary <input type="checkbox"/> Bucket rig <input checked="" type="checkbox"/> Other (6" SONIC)	TOPSOIL	0.0	1.0
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Casing length 36.5 feet	Material SCH. 40 PVC	Diameter 2 inches	BS SAND w/ GRAVEL	1.0	30
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Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	BS SAND w/ GRAVEL	30	47
---------------------------------	--------------------------------	-----------------------------	--------------------------	-----------	-----------

Screen slot size .10	Total depth of well 47
--------------------------------	----------------------------------

Depth of pump setting	Water quality (clear, cloudy, odor, etc.) BS-BS 47
-----------------------	--

Type of pump <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify):
--

WELL CAPACITY TEST

Check one <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.
---	-----------------------------------

Drawdown _____ feet	Static level (depth of water) _____ feet
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GROUTING INFORMATION

WELL ABANDONMENT

Grout material PRE-GRA	Depth of grout From 32 to 1	Sealing material	Depth filled From _____ To _____
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Method of installation TREMIER	Number of bags used 5	Method of installation	Number of bags used
--	---------------------------------	------------------------	---------------------

(Additional space for well log on reverse side)

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.

Signature of owner or authorized representative
Jim Nitzgesher (JB) Date
9-21-99



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W204
Indianapolis, IN 46204
(317) 232-4160

Fill in completely

MW-4-1

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER/CONTRACTOR

Name of well owner INDIANA STATE UNIVERSITY	Telephone number 812-237-7630
---	---

Address (number and street, city, state, ZIP code)
951 SYCAMORE ST. TERRE HAUTE, IN. 47806

Name of building contractor	Telephone number
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Address (number and street, city, state, ZIP code)

Name of drilling contractor BOWSER MORNER INC.	Telephone number (937) 236-8805
--	---

Address (number and street, city, state, ZIP code)
4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHNECKE	License number 1236	Date of completion 7-12-99
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CONSTRUCTION DETAILS

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify): <input type="checkbox"/> Irrigation	FORMATIONS: Type of material	From (feet)	To (feet)
Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev. rotary <input type="checkbox"/> Bucket rig <input checked="" type="checkbox"/> Other (6") SONIC	TOP SOIL	0.0	1.0
Casing length 120.5 feet	Material SCH. 40 PVC	Diameter 2 inches	BR SAND w/ GRAVEL
Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	BR SAND + GRAVEL
Screen slot size .10	Total depth of well 131	w/ COBBLES	
Depth of pump setting	Water quality (clear, cloudy, odor, etc.)	128	131
Type of pump: <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify):	WEATHERED GR SHALE		

WELL CAPACITY TEST

Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Ar <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.
---	-----------------------------------

Drawdown feet	Static level (depth of water) feet
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GROUTING INFORMATION		WELL ABANDONMENT	
Grout material PURE GOLS	Depth of grout From 116 to 1	Sealing material	Depth filled From _____ to _____
Method of installation TREMIE	Number of bags used 12	Method of installation	Number of bags used

I hereby swear or affirm, under the penalties for perjury that the information submitted herein is to the best of my knowledge and belief, true, accurate and complete.

Signature of owner or authorized representative: **Jim Nitzges (PB)** Date: **9-21-99**



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4160

Print completely

MW-9-3

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side. TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELLFIELD.				

OWNER/CONTRACTOR

Name of well owner MACHINE TOOL SERVICE	Telephone number 812-232-5664
Address (number and street, city, state, ZIP code) 117 ELM ST. TERRE HAUTE, IN. 47807	
Name of building contractor	Telephone number
Address (number and street, city, state, ZIP code)	
Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236-8805
Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424	
Name of equipment operator DAVE SCHRECKENGOST	License number 1236
Date of completion 7-19-99	

CONSTRUCTION DETAILS

WELL LOG

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Industry <input checked="" type="checkbox"/> Test <input type="checkbox"/> Irrigation <input type="checkbox"/> Public supply <input type="checkbox"/> Stock <input type="checkbox"/> Other (specify):	FORMATIONS: Type of material		From (feet)	To (feet)
Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Jet <input type="checkbox"/> Bucket rig <input type="checkbox"/> Cable tool <input type="checkbox"/> Rev. rotary <input checked="" type="checkbox"/> Other (6") SONIC	TOPSOIL		0.0	3"
Casing length: 97.5 feet Material: SCH. 40 PVC Diameter: 2 inches	BR SAND & GRAVEL		3"	5.0
Screen length: 10 feet Material: SCH. 40 PVC Diameter: 2 inches	BR GRAVELLY SAND		5	15
Screen slot size: .10	BRICK			
Total depth of well: 48	BR GRAVELLY SAND		15	20
Depth of pump setting:	BRICK			
Type of pump: <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Other (specify): <input checked="" type="checkbox"/> Submersible <input type="checkbox"/> Deep-well jet	BRICK			
WELL CAPACITY TEST				
Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate: _____ gpm _____ hrs.	GR SAND & GRAVEL		20
Drawdown: _____ feet		BR SAND & GRAVEL		35
Static level: _____ feet (depth of water)		BRICK		
GRouting INFORMATION		BUFB 48		
Grout material: PRE GOLD	Depth of grout: From 33 to 1	Sealing material:	Depth filled: From & To	
Method of installation: TREME	Number of bags used: 5	Method of installation:	Number of bags used:	

(Additional space for well log on reverse side)

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.

Signature of owner or authorized representative

Jim N. [Signature]

Date

9-21-99



RECORD OF WATER WELL
State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4160

Fill in completely

MW-9-D

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side
TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

Name of well owner MACHINE TOOL SERVICE	Telephone number 812-232-5664
---	---

Address (number and street, city, state, ZIP code)
117 ELM ST. TERRE HAUTE, IN. 47807

Name of building contractor	Telephone number
-----------------------------	------------------

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236-8805
--	---

Address (number and street, city, state, ZIP code)
4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHREGENOST	License number 1236	Date of completion 7-15-99
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CONSTRUCTION DETAILS

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Irrigation	FORMATIONS: Type of material	From (feet)	To (feet)
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Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev. rotary <input type="checkbox"/> Bucket rig <input checked="" type="checkbox"/> Other (6") SONIC	TOPSOIL	0.0	3"
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Casing length 118.5 feet	Material SCH. 40 PVC	Diameter 2 inches	RED BRICK		
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Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	BR GRAVELLY SAND w/	5.0	15
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Screen slot size .10	Total depth of well 129	BRICK			
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Depth of pump setting	Water quality (clear, cloudy, odor, etc.)	BR GRAVELLY SAND w/	15	20	
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Type of pump: <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify):	CINDERS				
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WELL CAPACITY TEST		GR SAND + GRAVEL	20	35
Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Ar <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.	BR SAND + GRAVEL	35	128

Drawdown _____ feet	Static level (depth of water) _____ feet	WEATHERED GR SHALE	128	129
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GROUTING INFORMATION		WELL ABANDONMENT	
Grout material ACE GROUT	Depth of grout From 13 to 1	Sealing material PUFFS	Depth filled From _____ To 129
Method of installation TREMIE	Number of bags used 17	Method of installation	Number of bags used

I hereby swear or affirm, under the penalties for perjury that the information submitted hereon is to the best of my knowledge and belief, true, accurate and complete.

Signature of owner or authorized representative
Tom N. [Signature]

Date
9-21-99



RECORD OF WATER WELL
State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4180

MW-13-S

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.
TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER-CONTRACTOR

Name of well owner INDIANA STATE UNIVERSITY	Telephone number 812-237-7630
---	---

Address (number and street, city, state, ZIP code) 951 SYCAMORE ST. TERRE HAUTE, IN. 47806
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Name of building contractor	Telephone number
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Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236-8805
--	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHLEGENGOST	License number 1236	Date of completion 7-14-99
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CONSTRUCTION DETAILS

WELL LOG

Type of well: <input checked="" type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify): <input type="checkbox"/> Irrigation	FORMATIONS: Type of material TOP SOIL BR SAND w/ GRAVEL BR GRAVELLY SAND BOFB 530	From (feet) 0-0 1-0 19 53	To (feet) 1-0 19 53
Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev. rotary <input type="checkbox"/> Bucket rig <input checked="" type="checkbox"/> Other (6") SONIC			
Casing length: 42.5 feet Material: SCH. 40 PVC Diameter: 2 inches			
Screen length: 10 feet Material: SCH. 40 PVC Diameter: 2 inches			
Screen slot size: .10 Total depth of well: 53			
Depth of pump setting: Water quality (clear, cloudy, odor, etc.):			
Type of pump: <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify):			

WELL CAPACITY TEST

Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate: _____ gpm _____ hrs.
Drawdown: _____ feet	Static level: (depth of water) _____ feet

GROUTING INFORMATION

WELL ABANDONMENT

Grout material IE GOLS	Depth of grout From 38 to 1	Sealing material	Depth filled From _____ To _____
Method of installation TREME	Number of bags used 6	Method of installation	Number of bags used

(Additional space for well log on reverse side)

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.	Signature of owner or authorized representative Jim N. [Signature]	Date 9-21-99
---	--	------------------------



RECORD OF WATER WELL
State Form 35880 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W284
Indianapolis, IN 46204
(317) 232-4180

Fill in completely

MW-13-D

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.
TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELLFIELD.

OWNER/CONTRACTOR

Name of well owner INDIANA STATE UNIVERSITY	Telephone number 812-237-7630
---	---

Address (number and street, city, state, ZIP code)
951 SYCAMORE ST. TERRE HAUTE IN. 47806

Name of building contractor	Telephone number
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Address (number and street, city, state, ZIP code)

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (932) 236 8805
--	---

Address (number and street, city, state, ZIP code)
4518 TAYLORSVILLE RD DAYTON OH 45424

Name of equipment operator DAVE SCHMECENTOST	License number 1236	Date of completion 7-13-99
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CONSTRUCTION DETAILS

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify) <input type="checkbox"/> Irrigation	FORMATIONS: Type of material	From (feet)	To (feet)
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Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev. rotary <input type="checkbox"/> Bucket rig <input checked="" type="checkbox"/> Other (6") SONIC	TOPSOIL	0.0	1.0
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Casing length 125.5 feet	Material SCH. 40 PVC	Diameter 2 inches	BL SAND w/ GRAVEL	1.0	19.
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Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	BL GRAVELLY SAND	19	97
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Screen slot size .10	Total depth of well 136	SHALE & LIMESTONE	97	135
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Depth of pump setting	Water quality (clear, cloudy, odor, etc.)	135	136
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Type of pump: <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify)	
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WELL CAPACITY TEST

Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate BOFB 136
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Drawdown feet	Static level (depth of water) feet
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GROUTING INFORMATION **WELL ABANDONMENT**

Grout material PURE GLO	Depth of grout From 121 to 1	Sealing material	Depth filled From To
Method of installation TREMI	Number of bags used 14	Method of installation	Number of bags used

(Additional space for well log on reverse side)

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.

Signature of owner or authorized representative: **Jim N. [Signature]** Date: **9-21-99**



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4160

in completely

MW-7-S

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELLFIELD.

OWNER / CONTRACTOR

Name of well owner INDIANA STATE UNIVERSITY	Telephone number 812-237-7630
---	---

Address (number and street, city, state, ZIP code)
951 SYCAMORE ST. TERRE HAUTE, IN. 47806

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236-8805
--	---

Address (number and street, city, state, ZIP code)
4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENGOST	License number 1236	Date of completion 7-9-99
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CONSTRUCTION DETAILS

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Industry <input checked="" type="checkbox"/> Test <input type="checkbox"/> Irrigation <input type="checkbox"/> Public supply <input type="checkbox"/> Stock <input type="checkbox"/> Other (specify):	FORMATIONS: Type of material TOPSOIL From (feet) 0.0 To (feet) 1.0 BR SAND 1.0 17 BR GRAVELLY SAND 17 36 BR SAND & GRAVEL 36 38.5 w/ COBBLES (wet) BR GRAVELLY SAND 38.5 42
Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Jet <input type="checkbox"/> Bucket rig <input type="checkbox"/> Cable tool <input type="checkbox"/> Rev. rotary <input checked="" type="checkbox"/> Other (6") SONIC	
Casing length 31.5 feet Material SCH. 40 PVC Diameter 2 inches Screen length 10 feet Material SCH. 40 PVC Diameter 2 inches Screen slot size 10 Total depth of well 42 Depth of pump setting _____ Water quality (clear, cloudy, odor, etc.) _____	
Type of pump: <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Other (specify): <input type="checkbox"/> Deep-well jet	

WELL CAPACITY TEST	
Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs. BOFFS 42

Drawdown _____ feet	Static level _____ feet (depth of water)
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GROUTING INFORMATION		WELL ABANDONMENT	
Grout material PORTLAND CEMENT	Depth of grout From 26 to 1	Sealing material	Depth filled From _____ to _____
Method of installation TREMIE	Number of bags used 8-1/c-4	Method of installation	Number of bags used

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.

Signature of owner or authorized representative: **Jan Niedzycki (B)** Date: **9-21-99**

(Additional space for well log on reverse side)



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4160

Fill in completely

MW-7-D

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER INFORMATION

Name of well owner INDIANA STATE UNIVERSITY	Telephone number 812-237-7630
---	---

Address (number and street, city, state, ZIP code) 951 SYCAMORE ST. TERRE HAUTE, IN. 47806
--

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (932) 236-8805
--	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENGOST	License number 1236	Date of completion 7-8-99
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CONSTRUCTION DETAILS

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify): <input type="checkbox"/> Irrigation	FORMATIONS: Type of material	From (feet)	To (feet)
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Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev rotary <input type="checkbox"/> Bucket rig <input checked="" type="checkbox"/> Other (6" SONIC)	JOPSOIL	0.0	1.0
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Casing length 117.5 feet	Material SCH. 40 PVC	Diameter 2 inches	BR GRAVELLY SAND	17	36
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Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	BR SAND & GRAVEL	36	38.5
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Screen slot size .10	Total depth of well 128	w/ COBBLES (WET)
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Depth of pump setting	Water quality (clear, cloudy, odor, etc.) BR GRAVELLY SAND	38.5	116
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Type of pump: <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify)	FINE BR SAND w/ GRAVEL	116	118.5
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WELL CAPACITY TEST

Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs	FINE BR SAND	118.5	127
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Drawdown _____ feet	Static level (depth of water) _____ feet	WEATHERED GR. SHALE	127	130
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GROUTING INFORMATION

Grout material BENTONITE	Depth of grout From 113 to 1	Sealing material	Depth filled
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Method of installation TREMBLE	Number of bags used B-1/2K-15	Method of installation	Number of bags used
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I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.

Signature of owner or authorized representative: **Jim [Signature]** Date: **9-21-99**



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4160

in completely

MW-8-5

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side. TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.				

OWNER CONTRACTOR

Name of well owner GURMAN & SONS, INC.	Telephone number 812-232-3413
Address (number and street, city, state, ZIP code) 800 NORTH 3RD ST. TERRE HAUTE, IN. 47807	
Name of building contractor	Telephone number
Address (number and street, city, state, ZIP code)	
Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236-8805
Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424	
Name of equipment operator DAVE SCHRECKENGOST	License number 1236
	Date of completion 7-8-99

CONSTRUCTION DETAILS

WELL LOG

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Industry <input checked="" type="checkbox"/> Test <input type="checkbox"/> Irrigation <input type="checkbox"/> Public supply <input type="checkbox"/> Stock <input type="checkbox"/> Other (specify):	FORMATIONS: Type of material From (feet) To (feet)	
Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Jet <input type="checkbox"/> Bucket rig <input type="checkbox"/> Cable tool <input type="checkbox"/> Rev. rotary <input checked="" type="checkbox"/> Other (6") SONIC	TOPSOIL 0.0 1.0 BR SANDY SILT 1.0 5 FINE BR SAND 5 15 BR GRAVELLY SAND 15 42	
Casing length: 31.5 feet Material: SCH. 40 PVC Diameter: 2 inches		
Screen length: 10 feet Material: SCH. 40 PVC Diameter: 2 inches		
Screen slot size: .10 Total depth of well: 42		
Depth of pump setting: _____ Water quality (clear, cloudy, odor, etc.): BUFB 42		
Type of pump: <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Other (specify): <input type="checkbox"/> Deep-well jet		
WELL CAPACITY TEST		
Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate: _____ gpm _____ hrs.	
Drawdown: _____ feet Static level: _____ feet (depth of water)		
GROUTING INFORMATION		WELL ABANDONMENT
Grout material: UNTKEMENT Depth of grout: From 27 to 1	Sealing material: _____ Depth filled: From _____ To _____	
Method of installation: TREMF 3-1/c-3 Number of bags used: _____	Method of installation: _____ Number of bags used: _____	

(Additional space for well log on reverse side)

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.	Signature of owner or authorized representative Jim H. Stephens (PB)	Date 9-21-99
---	--	------------------------



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W284
Indianapolis, IN 46204
(317) 232-4180

Fill in completely

MW-8-D

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

Name of well owner GURMAN + SONS, INC.	Telephone number 812-232-3413
--	---

Address (number and street, city, state, ZIP code)
800 NORTH 3RD ST. TERRE HAUTE, IN. 47807

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236-8805
--	---

Address (number and street, city, state, ZIP code)
4578 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENGOST	License number 1236	Date of completion 7-7-99
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CONSTRUCTION DETAILS

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify): <input type="checkbox"/> Irrigation	FORMATIONS: Type of material	From (feet)	To (feet)		
Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev rotary <input type="checkbox"/> Bucket rig <input checked="" type="checkbox"/> Other (6" SONIC)	TOPSOIL	0-0	1-0		
Casing length 116.5 feet	Material SCH. 40 PVC	Diameter 2 inches	FINE DK. BR SAND	5	18.5
Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	BR GRAVELLY SAND	18.5	34
Screen slot size .10	Total depth of well 127	BR SAND + GRAVEL w/		34	90
Depth of pump setting	Water quality (clear, cloudy, odor, etc.) COBBLES (WET)	FINE GR SAND		90	127
Type of pump: <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Submersible <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify):	WEATHERED GR SHALE		127	131	

WELL CAPACITY TEST	
Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.
Drawdown _____ feet	Static level (depth of water) _____ feet BOFFS 131

GROUTING INFORMATION		WELL ABANDONMENT	
Grout material PORTLAND CEMENT	Depth of grout From 112 to 1	Sealing material	Depth filled From . To
Method of installation TREMIE	Number of legs used 8 1/2 6-15	Method of installation	Number of bags used

I hereby swear or affirm, under the penalties for perjury that the information submitted hereon is to the best of my knowledge and belief, true, accurate and complete.

Signature of owner or authorized representative
Tom H. [Signature] (PB)

Date
9-21-99



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4160

completely

MW-3-S

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER/CONTRACTOR

Name of well owner CITY OF TERRE HAUTE - PUBLIC WORKS	Telephone number 812-232-4767
---	---

Address (number and street, city, state, ZIP code) 17 HARDING AVE. TERRE HAUTE, IN. 47807

Name of building contractor	Telephone number
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Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (932) 236-8805
--	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENFUST	License number 1236	Date of completion 7-20-99
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CONSTRUCTION DETAILS

WELL LOG

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Industry <input checked="" type="checkbox"/> Test <input type="checkbox"/> Irrigation <input type="checkbox"/> Public supply <input type="checkbox"/> Stock <input type="checkbox"/> Other (specify):	FORMATIONS: Type of material ASPHALT From (feet) 0-0 To (feet) 3" BLK. GRAVEL 3" 2-0 BR SILTY SAND 2-0 17 BR SAND & GRAVEL 17 48
Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Jet <input type="checkbox"/> Bucket rig <input type="checkbox"/> Cable tool <input type="checkbox"/> Rev. rotary <input checked="" type="checkbox"/> Other (6") SONIC	
Casing length 37.5 feet Material SCH. 40 PVC Diameter 2 inches	
Screen length 10 feet Material SCH. 40 PVC Diameter 2 inches	
Screen slot size .10 Total depth of well 48	
Depth of pump setting	Water quality (clear, cloudy, odor, etc.) BOFB 48.0
Type of pump: <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Other (specify): <input checked="" type="checkbox"/> Submersible <input type="checkbox"/> Deep-well jet	

WELL CAPACITY TEST

Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate: _____ gpm _____ hrs.
Drawdown: _____ feet	Static level: _____ feet (depth of water)

GROUTING INFORMATION

WELL ABANDONMENT

Grout material CEMENT	Depth of grout From 33 to 1	Sealing material	Depth filled From _____ To _____
Method of installation TREMIE	Number of bags used 9	Method of installation	Number of bags used

(Additional space for well log on reverse side)

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.	Signature of owner or authorized representative Jim N. [Signature]	Date 9-21-99
---	--	------------------------



RECORD OF WATER WELL
State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4180

Fill in completely

MW-3-D

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origin). There is space for a map on reverse side

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER/CONTRACTOR

Name of well owner CITY OF TERRE HAUTE - PUBLIC WORKS	Telephone number 812-232-4767
---	---

Address (number and street, city, state, ZIP code)
17 HARDING AVE. TERRE HAUTE, IN. 47807

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236-8805
--	---

Address (number and street, city, state, ZIP code)
4516 TAYLORSVILLE RD DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENGOST	License number 1236	Date of completion 7-20-99
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CONSTRUCTION DETAILS

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify): <input type="checkbox"/> Irrigation	FORMATIONS: Type of material	From (feet)	To (feet)
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Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev rotary <input type="checkbox"/> Bucket rig <input checked="" type="checkbox"/> Other (6") SONIC	ASPHALT	0-2	3"
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Casing length 100.5 feet	Material SCH. 40 PVC	Diameter 2 inches	BR SILTY SAND	2.0	17
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Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	BR SAND & GRAVEL	17	97
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Screen slot size .10	Total depth of well 131	GR SAND & GRAVEL	97	130
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Depth of pump setting	Water quality (clear, cloudy, odor, etc.)	GR SHALE	130	131
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Type of pump <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify):				
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WELL CAPACITY TEST

Check one <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs	BOFB 131
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Drawdown _____ feet	Static level (depth of water) _____ feet
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GROUTING INFORMATION

WELL ABANDONMENT

Grout material ARC GOLS	Depth of grout From 116 to 1	Sealing material	Depth filled From _____ To _____
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Method of installation TREMIE	Number of bags used 14	Method of installation	Number of bags used
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(Additional space for well log on reverse side)

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.	Signature of owner or authorized representative Jim N. [Signature]	Date 9-21-99
---	--	------------------------



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4160

MW-5-S

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER/CONTRACTOR

Name of well owner CITY OF TERRE HAUTE - PUBLIC WORKS	Telephone number 812-232-4767
---	---

Address (number and street, city, state, ZIP code) 17 HARDING AVE. TERRE HAUTE, IN. 47807

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 286-8805
--	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENFOST	License number 1236	Date of completion 7-23-99
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CONSTRUCTION DETAILS

Type of well: <input type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Irrigation <input type="checkbox"/> Other (specify):	FORMATIONS: Type of material TOP SOIL	From (feet) 0.0	To (feet) .75
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Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev. rotary <input type="checkbox"/> Bucket rig <input checked="" type="checkbox"/> Other (6" SONIC)	BR SAND & GRAVEL	.75	35
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Casing length 36.5 feet	Material SCH. 40 PVC	Diameter 2 inches	BR SAND & GRAVEL	35	47
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Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	w/ COBBLES		
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Screen slot size .10	Total depth of well 47
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Depth of pump setting	Water quality (clear, cloudy, odor, etc.) BOFB 47.0
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Type of pump <input type="checkbox"/> Submersible	<input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify):
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WELL CAPACITY TEST

Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.
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Drawdown _____ feet	Static level _____ feet (depth of water)
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GROUTING INFORMATION

Grout material LE GOLS	Depth of grout From 32 to 1	Sealing material	Depth filled From _____ to _____
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Method of installation TREMIE	Number of bags used 5	Method of installation	Number of bags used
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(Additional space for well log on reverse side)

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.	Signature of owner or authorized representative Jim Niedziedzki (TS)	Date 9-21-99
---	--	------------------------



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W204
Indianapolis, IN 46204
(317) 232-4160

Fill in completely

MW-5-D

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER-CONTRACTOR

Name of well owner CITY OF TERRE HAUTE - PUBLIC WORKS	Telephone number 812-232-4767
---	---

Address (number and street, city, state, ZIP code) 17 HARDING AVE. TERRE HAUTE, IN. 47807

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236-8805
--	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD DAYTON, OH 45424
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Name of equipment operator DAVE SCHRECKENGOST	License number 1236	Date of completion 7-22-99
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CONSTRUCTION DETAILS

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Industry <input checked="" type="checkbox"/> Test <input type="checkbox"/> Irrigation <input type="checkbox"/> Public supply <input type="checkbox"/> Stock <input type="checkbox"/> Other (specify):	FORMATIONS: Type of material	From (feet)	To (feet)
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Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Jet <input type="checkbox"/> Bucketing <input type="checkbox"/> Cable tool <input type="checkbox"/> Rev. rotary <input checked="" type="checkbox"/> Other (6") SONIC	TOPSOIL	0.0	.75
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Casing length 118.5 feet	Material SCH. 40 PVC	Diameter 2 inches	BR SAND + GRAVEL	.75	35
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Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	w/ COBBLES		
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Screen slot size .10	Total depth of well 129	BR GRAVELLY SAND	50	100
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Depth of pump setting	Water quality (clear, cloudy, odor, etc.)	BR + GR SILTY SAND	100	127.5
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Type of pump: <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Other (specify) <input type="checkbox"/> Deep-well jet	GRAVEL			
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WELL CAPACITY TEST	WEATHERED GR SHALE	127.5	129
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Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.
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Drawdown _____ feet	Static level (depth of water) _____ feet	BUFB 129		
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Grouting Information	Well Abandonment
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Grout material PURE GOLS	Depth of grout From 114 to 1	Sealing material	Depth filled From _____ To _____
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Method of installation TREMIE	Number of bags used 12	Method of installation	Number of bags used
---	----------------------------------	------------------------	---------------------

I hereby swear or affirm, under the penalties for perjury that the information submitted hereon is to the best of my knowledge and belief, true, accurate and complete.	Signature of owner or authorized representative Jim Nitzph (TB)	Date 9-21-99
---	---	------------------------

(Additional space for well log on reverse side)



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4160

in completely

MW-2-S

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER-CONTRACTOR

Name of well owner FIRST RECOVERY, INC.	Telephone number 812-234-3598
---	---

Address (number and street, city, state, ZIP code) 118 ELM ST. TERRE HAUTE, IN. 47807

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236-8805
--	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENFEST	License number 1236	Date of completion 7-27-99
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CONSTRUCTION DETAILS

WELL LOG

Use of well: <input checked="" type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify): <input type="checkbox"/> Irrigation	FORMATIONS: Type of material	From (feet)	To (feet)
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Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev. rotary <input type="checkbox"/> Bucket rig <input checked="" type="checkbox"/> Other (6") SONIC	TOPSOIL	0-0	1-0
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Casing length 43.5 feet	Material SCH. 40 PVC	Diameter 2 inches		
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Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	BOFS 54.0	
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Screen slot size .10	Total depth of well 54			
--------------------------------	----------------------------------	--	--	--

Depth of pump setting	Water quality (clear, cloudy, odor, etc.)			
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Type of pump <input type="checkbox"/> Submersible	<input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify):			
--	--	--	--	--

WELL CAPACITY TEST

Check one <input type="checkbox"/> Bailing <input type="checkbox"/> Pumping	<input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.		
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Drawdown _____ feet	Static level (depth of water) _____ feet			
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GROUTING INFORMATION

WELL ABANDONMENT

Grout material RE GOLA	Depth of grout From 39 to 1	Sealing material	Depth filled From _____ To _____	
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Method of installation TREME	Number of bags used 6	Method of installation	Number of bags used	(Additional space for well log on reverse side)
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I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.	Signature of owner or authorized representative Jim N. [Signature]	Date 9-21-99
---	--	------------------------



RECORD OF WATER WELL
State Form 35880 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4100

Fill in completely

MW-2-D

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.
TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER INFORMATION

Name of well owner FIRST RECOVERY, INC.	Telephone number 812-234-3598
---	---

Address (number and street, city, state, ZIP code) 118 ELM ST. TERRE HAUTE, IN. 47807

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236-8805
--	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENFEST	License number 1236	Date of completion 7-27-99
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CONSTRUCTION DETAILS

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Public supply <input type="checkbox"/> Industry <input type="checkbox"/> Stock <input checked="" type="checkbox"/> Test <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Irrigation	FORMATIONS: Type of material	From (feet)	To (feet)
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Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Cable tool <input type="checkbox"/> Jet <input type="checkbox"/> Rev. rotary <input checked="" type="checkbox"/> Other (6" SONIC)	TOPSOIL	0-0	1-0
	BL SAND & GRAVEL	1-0	120

Casing length 123.5 feet	Material SCH. 40 PVC	Diameter 2 inches	GR GRAVELLY SAND	120	133
------------------------------------	--------------------------------	-----------------------------	------------------	-----	-----

Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	WEATHERED GR SHALE	133	134
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Screen slot size .10	Total depth of well 134
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Depth of pump setting	Water quality (clear, cloudy, odor, etc.)
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Type of pump: <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify):	BOFB 134
---	-----------------

WELL CAPACITY TEST

Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Ar <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.
---	-----------------------------------

Drawdown _____ feet	Static level (depth of water) _____ feet
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GROUTING INFORMATION **WELL ABANDONMENT**

Grout material PURE GOLA	Depth of grout From 119 to 1	Sealing material	Depth filled From _____ To _____
------------------------------------	---	------------------	-------------------------------------

Method of installation PREMIE	Number of bags used 14	Method of installation	Number of bags used
---	----------------------------------	------------------------	---------------------

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.

Signature of owner or authorized representative: **Jim Nedyman (TB)** Date: **9-21-99**



RECORD OF WATER WELL

State Form 35680 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 232-4160

Fill in completely

MW-1-S

WELL LOCATION

County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
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Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side.

TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.

OWNER/CONTRACTOR

Name of well owner FIRST RECOVERY, INC.	Telephone number 812-234-3598
---	---

Address (number and street, city, state, ZIP code) 118 ELM ST. TERRE HAUTE, IN. 47807

Name of building contractor	Telephone number
-----------------------------	------------------

Address (number and street, city, state, ZIP code)
--

Name of drilling contractor BOWSER-MORNER INC.	Telephone number (937) 236-8805
--	---

Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424

Name of equipment operator DAVE SCHRECKENHOST	License number 1236	Date of completion 7-29-99
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CONSTRUCTION DETAILS

Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Industry <input checked="" type="checkbox"/> Test <input type="checkbox"/> Irrigation <input type="checkbox"/> Public supply <input type="checkbox"/> Stock <input type="checkbox"/> Other (specify):	FORMATIONS: Type of material	From (feet)	To (feet)
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Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Jet <input type="checkbox"/> Bucket rig <input type="checkbox"/> Cable tool <input type="checkbox"/> Rev. rotary <input checked="" type="checkbox"/> Other (6") SONIC	TOPSOIL	0.0	.5
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Casing length 43.5 feet	Material SCH. 40 PVC	Diameter 2 inches
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Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches
---------------------------------	--------------------------------	-----------------------------

Screen slot size .10	Total depth of well 54.0	BOFD 54.0
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Depth of pump setting	Water quality (clear, cloudy, odor, etc.)
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Type of pump <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Deep-well jet <input type="checkbox"/> Other (specify):

WELL CAPACITY TEST

Check one: <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.
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Drawdown _____ feet	Static level _____ feet (depth of water)
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GROUTING INFORMATION

Grout material URE GOLA	Depth of grout From 39 to 1	Sealing material	Depth filled From _____ To _____
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Method of installation TREMIE	Number of bags used 6	Method of installation	Number of bags used
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(Additional space for well log on reverse side)

I hereby swear or affirm, under the penalties for perjury that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete.	Signature of owner or authorized representative Jim Wedgeman (JB)	Date 9-21-99
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RECORD OF WATER WELL
State Form 35880 (R4 / 4-92)

Mail complete record within 30 days to:
INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Room W284
Indianapolis, IN 46204
(317) 232-4100

Fill in completely

MW-1-D

WELL LOCATION				
County where drilled VIGO	Civil township HARRISON	Township	Range	Section N/A
Driving directions to the well location (include county road names, number, subdivision lot number with consideration to intersecting road and trip origination). There is space for a map on reverse side. TAKE I-70 TOWARDS TERRE-HAUTE, IN. GET OFF I-70 & GO NORTH ON ST. RT. 41. TURN LEFT ON LOCUST ST. (WEST) & TAKE THAT TO CORNER OF 1ST & LOCUST & ENTER THE WELL FIELD.				
Name of well owner FIRST RECOVERY, INC.		Telephone number 812-234-3598		
Address (number and street, city, state, ZIP code) 118 ELM ST. TERRE HAUTE, IN. 47807				
Name of building contractor		Telephone number		
Address (number and street, city, state, ZIP code)				
Name of drilling contractor BOWSER MORNEN INC.		Telephone number (937) 236-8805		
Address (number and street, city, state, ZIP code) 4518 TAYLORSVILLE RD. DAYTON, OH 45424				
Name of equipment operator DAVE SCHRECKENGOST		License number 1236	Date of completion 7-28-99	
CONSTRUCTION DETAILS				
Use of well: <input type="checkbox"/> Home <input type="checkbox"/> Industry <input checked="" type="checkbox"/> Test <input type="checkbox"/> Irrigation <input type="checkbox"/> Public supply <input type="checkbox"/> Stock <input type="checkbox"/> Other (specify):		FORMATIONS: Type of material		
Method of drilling: <input type="checkbox"/> Rotary <input type="checkbox"/> Jet <input type="checkbox"/> Bucket rig <input type="checkbox"/> Cable tool <input type="checkbox"/> Rev. rotary <input checked="" type="checkbox"/> Other SONIC (6")		From (feet) To (feet)		
Casing length 124.5 feet	Material SCH. 40 PVC	Diameter 2 inches	TOPSOIL 0.0 .5	
Screen length 10 feet	Material SCH. 40 PVC	Diameter 2 inches	BR SAND & GRAVEL .5 120	
Screen slot size .10	Total depth of well 135.0	(COBBLES 40-50)		
Depth of pump setting	Water quality (clear, cloudy, odor, etc.)	BR GRAVELLY FINE SAND 120 134		
Type of pump <input type="checkbox"/> Submersible <input type="checkbox"/> Shallow-well jet <input type="checkbox"/> Other (specify): <input type="checkbox"/> Deep-well jet	GR WEATHERED SHALE 134 135			
WELL CAPACITY TEST				
Check one <input type="checkbox"/> Bailing <input type="checkbox"/> Air <input type="checkbox"/> Pumping	Test rate _____ gpm _____ hrs.	BUFD 135.0		
Drawdown _____ feet	Static level (depth of water) _____ feet			
GROUTING INFORMATION		WELL ABANDONMENT		
Grout material AKE GOLA	Depth of grout From 120 to 1	Sealing material	Depth filled From _____ To _____	
Method of installation TRENCH	Number of bags used 14	Method of installation	Number of bags used	
(Additional space for well log on reverse side)				
I hereby swear or affirm, under the penalties for perjury that the information submitted herein is to the best of my knowledge and belief, true, accurate and complete.				Date 9-21-99
Signature of owner or authorized representative Jim Widjajanti (TS)				