SURFACE WATER AND GROUNDWATER MONITORING PROGRAM
FALL 2002 MONITORING REPORT

ARCH CHEMICALS
ROCHESTER PLANT SITE
ROCHESTER, NEW YORK

ARCH CHEMICALS, INC.
CHARLESTON, TENNESSEE

February 2003

SURFACE WATER AND GROUNDWATER MONITORING PROGRAM
FALL 2002 MONITORING REPORT

ARCH CHEMICALS
ROCHESTER PLANT SITE
ROCHESTER, NEW YORK

Prepared by

MACTEC Engineering & Consulting, Inc.
Portland, Maine

for

ARCH CHEMICALS, INC.
Charleston, Tennessee

February 2003

This document meets standards prescribed in project planning documents and has been properly reviewed by qualified professionals.

Nelson M. Breton, C.G.
Project Geologist

Jeffrey E. Brandow, P.E.
Quality Control Reviewer

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

This monitoring report presents the results of an on-going groundwater and surface water monitoring program being conducted by Arch Chemicals, Inc., at its Rochester, New York, manufacturing facility. Results in this report include surface and groundwater samples collected from November 18, 2002 through November 21, 2002.

During this monitoring event, samples from a total of 20 groundwater monitoring or pumping wells and three locations associated with the Dolomite Products Quarry seep and outfall were collected and analyzed by Severn Trent Laboratories in Amherst, New York. This included a sample from monitoring well MW-16, located on the former General Circuits facility.

As in prior reports, groundwater monitoring results were compared with previous average concentrations for the on-site and off-site monitoring wells. Several monitoring wells had contaminant concentrations exceeding their respective 5-year prior averages. Contaminant contour plots are generally consistent with past observations, except for a limited extent of off-site migration of volatile organic compounds that appears in shallow bedrock groundwater in this sampling event. This area is targeted for installation of an additional bedrock extraction well as part of the selected remedy for the site.

Samples from the quarry seep and outfall remained below historical averages. The sample collected from the Erie Barge Canal contained trace levels of 2-chloropyridine and acetone.

The on-site groundwater extraction system continues to function well. During the period from June 1 through November 29, 2002, approximately 6.4 million gallons of groundwater was pumped to the on-site treatment system, containing an estimated 530 pounds of chloropyridines and 200 pounds of target volatile organic compounds. Repair work is planned in the Spring of 2003 at pumping well BR-6A to replace a clogged discharge line. Reduced yield from pumping well PW10 will be evaluated in the first half of 2003. Rehabilitation efforts may be necessary at this well to improve pumping rates.

Arch Chemicals expects to sign a new Administrative Order on Consent in the near future that will establish additional remedial measures for the site. These measures will include the additional bedrock extraction well mentioned above, an overburden groundwater interceptor trench in the southeast corner of the plant, and other actions as described in the site's Record of Decision, issued on March 29, 2002.

1.0 INTRODUCTION

In accordance with the Order on Consent executed between Olin Corporation and the New York State Department of Environmental Conservation (NYSDEC), effective August 23, 1993 and transferred to Arch Chemicals, Inc. (Arch) on February 15, 1999, Arch has completed a Remedial Investigation and Feasibility Study at its facility on McKee Road in Rochester, New York. As part of this program, Arch conducts twice-yearly monitoring events consisting of sampling and chemical analysis of groundwater and surface water in the vicinity of the Rochester facility.

The Fall 2002 sampling event included the collection and analysis of a total of twenty-three groundwater, surface water, and seep samples from off-site and on-site locations. Samples were collected from November 18 through November 21, 2002, for analysis of selected chloropyridines and volatile organic compounds (VOCs).

This report presents the full results of the Fall 2002 monitoring event.

2.0 SAMPLE COLLECTION AND ANALYSIS

2.1 GROUNDWATER

Groundwater samples were collected from off-site wells, on-site wells and piezometers for analysis of selected chloropyridines (2-chloropyridine, 2,6-dichloropyridine, 3-chloropyridine, 4-chloropyridine, pyridine, and p-fluoroaniline) and target compound list (TCL) VOCs, except that the sample from monitoring well MW-16, located on the former General Circuits property, was analyzed for chloropyridines only. Samples were collected by Severn Trent Laboratories and transported to their laboratory in Amherst, New York for analysis. The off-site and on-site locations of these sampling points are shown in Figures 1 and 2, respectively. Table 1 lists the wells that were sampled and the requested analyses. Groundwater sampling data sheets are provided in Appendix A.

Groundwater was collected with the low flow/low stress purging technique from most of the wells using bladder or peristaltic pumps. Samples from pumping wells (BR-5A, BR-6A, BR-9, PW10, PW11, and PW12) were collected from the discharge lines.

Groundwater piezometric elevations were measured on November 18, 2002. Piezometric contour maps were constructed for each water-bearing zone (overburden, bedrock, and deep bedrock) and are presented in Figures 3, 4, and 5.

2.2 SURFACE WATER

Surface water and quarry samples were collected as part of the on-going monitoring program for the Arch Rochester site. The location of the quarry and its outfall in relation to the site is shown on Figure 6. Samples of the quarry seep, the quarry outfall, and the Barge Canal were collected by Severn Trent Laboratories on November 18, 2002. Samples were analyzed for selected chloropyridines and TCL VOCs. The three locations sampled during this event are listed below and are shown on Figure 7.

Canal Sample	Quarry Samples
QO-2S1 (100 ft south of QO-2)	QS-4 (Quarry Seep)
	QO-2 (Quarry Outfall)

2.3 ANALYTICAL PROCEDURES

The analytical procedures, data review findings, and validated data for the Fall 2002 groundwater monitoring event are discussed in the following paragraphs.

Samples were analyzed for the Arch suite of selected chloropyridines and TCL VOCs by USEPA SW-846 Methods 8270C and 8260B, respectively. The reporting limits for the chloropyridines and VOCs are 10 micrograms per liter (µg/L) and 5 to 25 µg/L, respectively, for undiluted samples.

2.4 QUALITY CONTROL

All laboratory analytical results were reviewed and qualified following USEPA Region II modifications to "Laboratory Data Validation Functional Guidelines for Validating Organic Analyses" (USEPA, 9/1994). Analytical results were evaluated for the following parameters:

- Collection and Preservation
- * Holding Times
- Surrogate Recoveries
- Blanks
- Duplicates
- * Laboratory Control Samples
- Matrix Spike/Matrix Spike Duplicates

* - all criteria were met for this parameter

With the exception of the following items discussed below, results are determined to be usable without qualifying statements as reported by the laboratory.

Collection and Preservation. Two of the sample coolers were received by the laboratory at temperatures above the 4°C (+/-2°) QC limit. All coolers were verified by the laboratory to contain ice. Since samples were collected and were received by the laboratory on the same day, it was not possible for the samples to cool to the required 4°C. There is no impact on the sample data and no qualifications were necessary.

Surrogates Recoveries. One SVOC surrogate standard (2-fluorobiphenyl) recovery was below the QC limits in sample PZ-101. Validation guidelines indicate corrective action should be taken by the laboratory only if two or more SVOC surrogates are outside QC limits, therefore, since all other surrogate recoveries for PZ-101 were within QC limits, no qualifications were necessary.

Blanks. No trip blank was received by the laboratory with the VOC samples delivered on November 20th although the chain of custody had one listed. No contamination was observed in the rinsate blank, method blanks, or other trip blanks; therefore, no qualifications were necessary.

Field Duplicate Pairs. No field duplicate samples were collected or submitted to the laboratory for the November 2002 sampling event.

Matrix Spike/Matrix Spike Duplicate. The relative percent difference (RPD) for p-fluoroaniline was outside the QC control limits for the MS/MSD analyses on PW-11; therefore, the p-fluoroaniline result in the original un-spiked sample was qualified as estimated (J).

3.0 ANALYTICAL RESULTS

3.1 GROUNDWATER

The validated results from the Fall 2002 groundwater monitoring event are provided in Tables 2 and 3. Table 4 provides a comparison of the Fall 2002 analytical results for selected chloropyridines and VOCs in representative wells to mean concentrations of the prior five years (Fall 1997 through Spring 2002). Long term trends for both selected chloropyridines and VOCs are also presented as time-series plots for representative wells in Appendix B. A summary of the analytical findings is presented below by parameter class.

3.1.1 Chloropyridines

On-Site. Chloropyridines were detected above sample quantitation limits in each of the eleven on-site monitoring wells sampled in the Fall 2002 event. Concentrations of chloropyridines ranged from 197 micrograms per liter (µg/L) to 43,000 µg/L (sum of all chloropyridine isomer concentrations). Pumping wells BR-5A and PW-12, along with monitoring wells PZ-107, E-1, and S-3 show selected chloropyridines concentrations above the mean from monitoring events over the previous five years.

Off-Site. Chloropyridines were detected above sample quantitation limits in each of the nine off-site wells that were sampled. Concentrations of total selected chloropyridines ranged from 360 µg/L (MW-16) to approximately 12,000 µg/L (MW-106). Two of the off-site wells (PZ-104 and MW-16) contained total chloropyridines concentrations in exceedance of their 5-year prior means.

Concentration Contours. Chloropyridine distribution in groundwater is shown as a set of concentration contours on Figure 8. The contours were developed using data from both overburden and bedrock monitoring wells. As shown on Figure 8, and consistent with previous sampling rounds, total chloropyridine concentrations exceeding 10,000 µg/L extend slightly west of the Site property boundary. In addition, based on the continued detection of chloropyridines in MW-16 due east of the site, Figure 8 shows a distribution pattern in which chloropyridines are interpreted to have migrated eastward in bedrock groundwater.

3.1.2 Selected VOCs.

On-Site. Concentrations of VOCs ranged from 3.1 to 30,000 µg/L for the sum of several site-related contaminants (carbon tetrachloride, chloroform, methylene chloride, tetrachloroethene, and trichloroethene). One of the eleven on-site wells sampled in the Fall 2002 event (PW-11) had VOC concentrations greater than its 5-year prior mean. In addition to the selected VOCs, other notable constituents detected in on-site wells include chlorobenzene (in 10 out of 11 wells), benzene (8 of 11), 1,2-DCE (8 of 11), vinyl chloride (8 of 11), toluene (7 of 11), and carbon disulfide (4 of 11).

Off-Site. Selected VOCs were detected in all eight off-site wells sampled for VOCs in the Fall 2002 event. Total concentrations of selected VOCs ranged from an estimated 1.6 ug/L to approximately 27,000 ug/L (PZ-103). Six of the eight off-site wells had selected VOC concentrations above their prior 5-year mean. In addition to the selected VOCs, other notable constituents detected in off-site wells include benzene (in 8 out of 8 wells), chlorobenzene (7 of 8), 1,2-DCE (4 of 8), toluene (4 of 8), and carbon disulfide (4 of 8).

Concentration Contours. Selected VOCs distribution in groundwater is shown as a set of concentration contours on Figure 9. These contours were developed using both overburden and bedrock groundwater data. In contrast to previous monitoring events, the VOC contours show a limited extent of off-site migration in shallow bedrock groundwater from the southwest portion of the plant. This area is targeted for installation of an additional bedrock extraction well as part of the selected remedial action for the site (see Section 5). The concentrations and distribution of VOCs over the remainder of the site resemble those from recent prior sampling events.

3.2 SURFACE WATER

Results from the Fall 2002 canal and quarry monitoring event are presented in Table 5.

3.2.1 Quarry

For samples collected from the Dolomite products quarry seep (QS-4) and discharge outfall (QO-2) the following chloropyridines and VOCs were detected:

LOCATION	QO-2	QS-4
PARAMETER[1]		
2,6-Dichloropyridine	1J	57
2-Chloropyridine	2 J	290
3-Chloropyridine	ND	ND
p-Fluoroanaline	ND	ND
Toluene	ND	ND

Notes:
J = The positive result reported for this analyte is a quantitative estimate (below sample quantitation limit, but above method detection limit).
[1] = Concentrations reported in micrograms per liter (µg/L)

The total reported chloropyridine concentrations are below historical averages.

3.2.2 Barge Canal

A trace level of 2-chloropyridine (0.5J µg/L) was detected in QO-2S1, the only sample collected from the Erie Barge Canal. A low-level detection of acetone, a common laboratory contaminant, was also reported in this sample.

4.0 EXTRACTION SYSTEM PERFORMANCE AND MAINTENANCE

Table 6 is a summary of the system flow measurements for the seven extraction wells from June 29 through December 27, 2002. The total volume pumped during the six-month period is approximately 6.1 million gallons. Maintenance activities during the period included pump repairs and/or replacements in wells PW-12 and BR-9, and meter repairs/replacements at wells BR-6A, PW-11, and PW-12. In addition, the discharge line from well BR-6A was found to be clogged with black precipitate in December. A temporary discharge line has been hooked up until the line can be permanently replaced. The yield of pumping well PW10 has declined steadily over its operating life. This mass removal well will be evaluated in the Spring of 2003 to determine if well rehabilitation efforts are needed to attempt to improve yield.

Substantial contaminant mass removal was observed during the period. Table 7 provides a calculation of mass removal rates since the previous groundwater monitoring event (i.e., from June through November 2002). Arch estimates that approximately 200 pounds of target VOCs and 530 pounds of chloropyridine compounds were removed by the groundwater extraction system and treated by the plant's activated carbon adsorption units over that time period.

5.0 OTHER ISSUES

Arch Chemicals expects to sign a new Administrative Order on Consent in the near future that will establish requirements for additional remedial measures at the site. These measures will include a new bedrock extraction well along the western plant property boundary and an overburden groundwater interceptor trench in the southeast corner of the plant that are expected to improve groundwater capture in those areas of the site. In addition, an off-site extraction well will be installed near the southeast corner of the Dolomite Products quarry to capture low levels of chloropyridines currently discharging from a seepage zone in the quarry wall. These and other new remedial measures are documented in the site Record of Decision, which was finalized on March 29, 2002.

Monitoring well MW-16 located on the former General Circuits facility east of the Arch plant continues to exhibit low levels of chloropyridines. Arch will continue monitoring this well on an annual basis.

6.0 NEXT MONITORING EVENT

The next monitoring event will occur in May 2003 and will include groundwater, surface water, and seep sampling.

Table 8 shows the current monitoring program for the Arch Rochester site.

P:\CAD\Data1\7311-52\7311f202.dwg Fri, 25 Jan 2002 - 10:23am RDCYR

LEGEND

ARCH PROPERTY

BR-121D BEDROCK WELL

I-390

ERIE BARGE CANAL

BUFFALO ROAD

HOWARD ROAD

LETTINGTON ROAD

McKEE ROAD

DOLOMITE PRODUCTS QUARRY

MAIN EXTENT OF WATER-BEARING FRACTURE IN QUARRY WALL

MOREY WELL

FIRTH RIXSON

ARCH

KODAK

AID TO HOSPITALS

AMERICAN RECYCLE

CUMBERLAND FARMS PETROLEUM TERMINAL

LEXINGTON

GENERAL RAIL SIGNAL CO.

PFAUDLER

MW-107/BR-107
MW-108/BR-108
PZ-102
PZ-103
MW-106/BR-106
MW-105/BR-105D
MW-104 /BR-104
MW-103/ BR-103
MW-114/ BR-114
BR-111/111D
BR-112/112D
BR-113/113D
BR-116D
BR-116
BR-117D
BR-117
BR-118
BR-118D
BR-120D
BR-119D
BR-122D
BR-123D
BR-124D
OW-102A
OW-103
OW-105
RW-1
NESS-W
NESS-E
12-6
8-6
7-6
11-6
10-6
9-8
13-4

Scale in Feet

0 500 1000

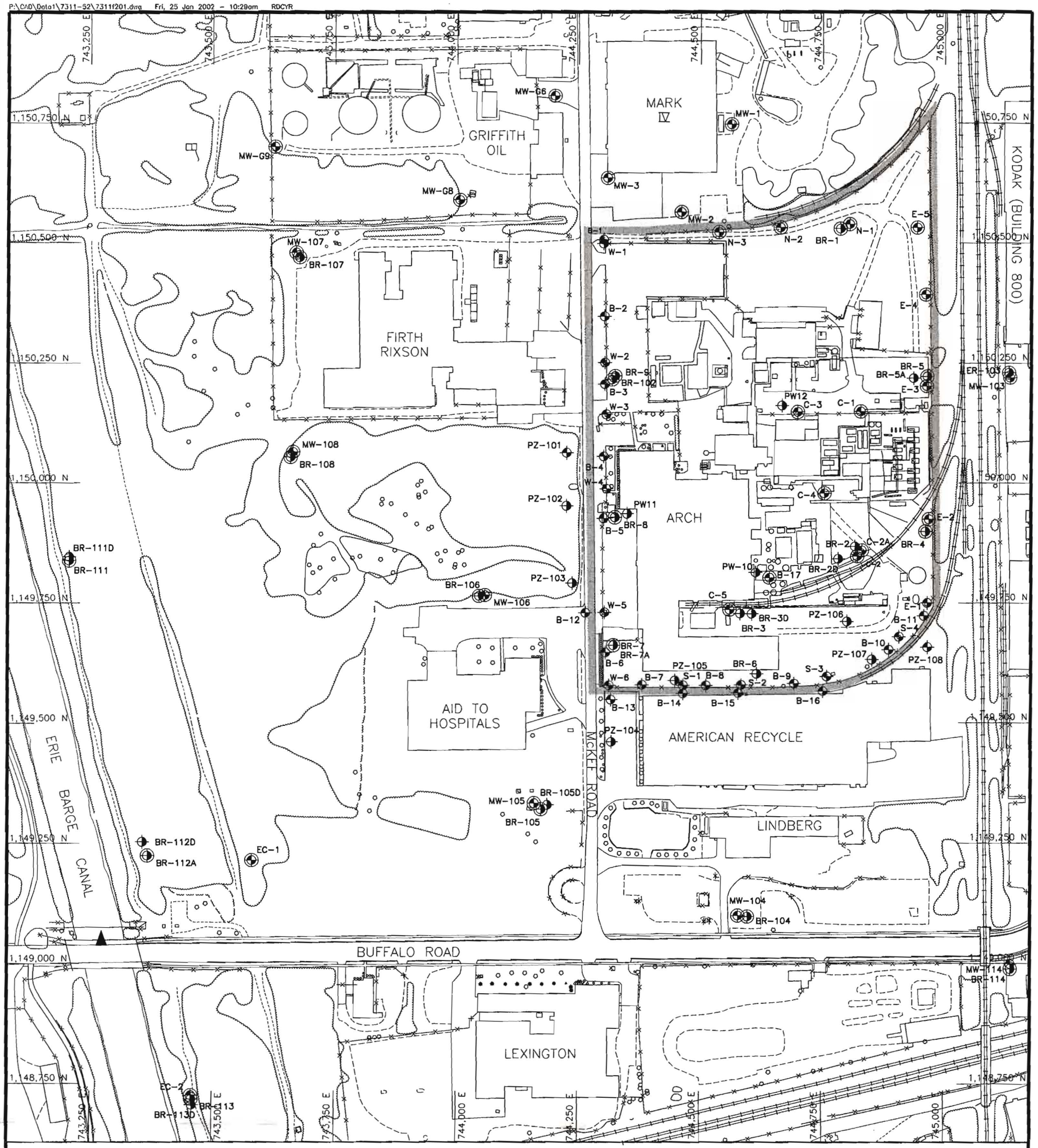
Source:
USGS Topographic Quadrangle 7.5-Minute Series;
Rochester West, N.Y., 1971 (Photorevised 1978).

FIGURE 1

OFF-SITE GROUNDWATER MONITORING WELL LOCATIONS

ARCH CHEMICALS
ROCHESTER, N.Y.

P:\CAD\Data1\7311-52\7311f201.dwg Fri, 25 Jan 2002 - 10:29am RDCYR



LEGEND

- OUTLINE OF ARCH PROPERTY BOUNDARY
- OVERBURDEN PIEZOMETER / PUMPING WELL
- BEDROCK PIEZOMETER / PUMPING WELL / DEEP BEDROCK MONITORING WELL
- OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- SURFACE WATER MEASUREMENT POINT

0 100 200 400 FEET

SCALE: 1"=200'

NOTE:

1. OFF-SITE WELL LOCATIONS ALSO INCLUDED ON FIGURE 1

FIGURE 2

ON-SITE MONITORING WELL LOCATIONS

ARCH CHEMICALS
ROCHESTER, N.Y.

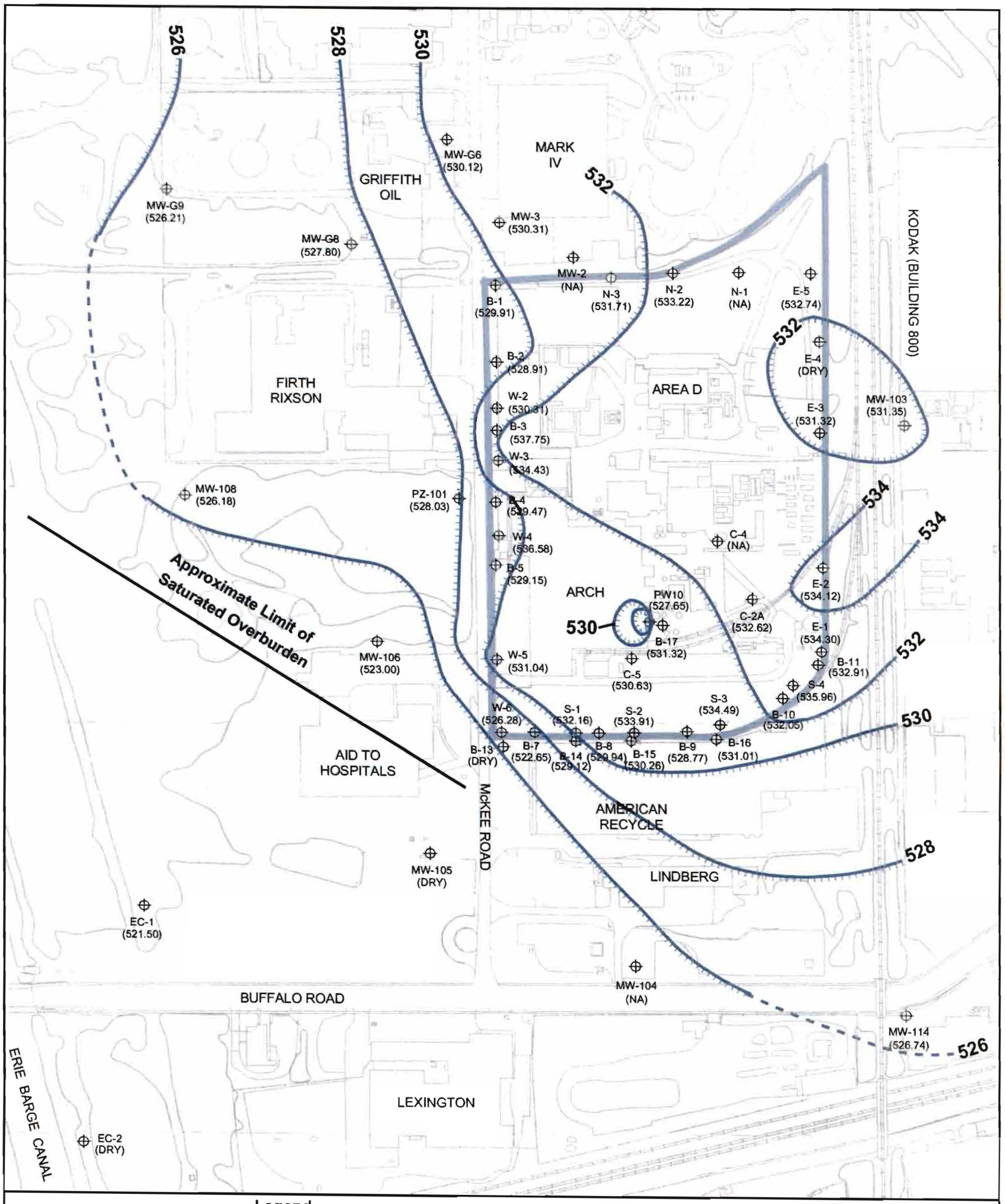


Figure 3
Fall 2002
Overburden Groundwater
Interpreted Piezometric Contours

Arch Chemicals
Rochester, NY
MACTEC, Inc.

P:\Projects\Arch\Rochester\GIS\MapDocuments\Arch_OvbGW_Fig3.mxd P:\Projects\Arch\Rochester\GIS\Figures\Monitoring_Fall2002\Figure3.pdf

Legend

502 — Deep Bedrock Elevation Contour (MSL)

Interpreted Groundwater Flow Direction

Outline of Arch Property Boundary

BR-116D — Bedrock Well ('D' Designates Deep Well)

(508.10) — Piezometric Elevation at Deep Bedrock Well

NOTES

1. Water Levels Measured on November 18, 2002
2. Dashed Contours Reflect Uncertainty

N

0 250 500 1,000 Feet

ERIE BARGE CANAL

I-390

BUFFALO ROAD

LETTINGTON DRIVE

KODAK

ARCH

BR-9

BR-103

BR-108

BR-111D (509.82)

BR-111

BR-2D (537.16)

BR-3D (469.46)

AID TO HOSPITALS

BR-106

AMERICAN RECYCLE

BR-105

BR-105D (509.71)

BR-112D (509.72)

BR-112

BR-104

BR-114

CUMBERLAND FARMS PETROLEUM TERMINAL

BR-113

BR-113D (509.73)

LEXINGTON

GENERAL RAIL SIGNAL CO.

DOLOMITE PRODUCTS QUARRY

BR-122D (506.54)

PFAULDER

BR-117D (497.81)

BR-117

BR-118

BR-118D (499.26)

BR-121D (497.48)

BR-120D (498.70)

BR-119D (500.31)

BR-116D (508.10)

BR-116

BR-123D (507.05)

BR-124D (505.40)

498 500 502 504 506 508

F
Deep Bedrock Grou
Interpreted Piezometric C

Arch Ch
Roche
MACT

P:\Projects\Arch\Rochester\GIS\MapDocuments\Arch_Monitoring_11x17LS.mxd P:\Projects\Arch\Rochester\GIS\Figures\Monitoring_Nov2002\Figure5.pdf

T:\7311-34\7311F501 C&P 10/24/00

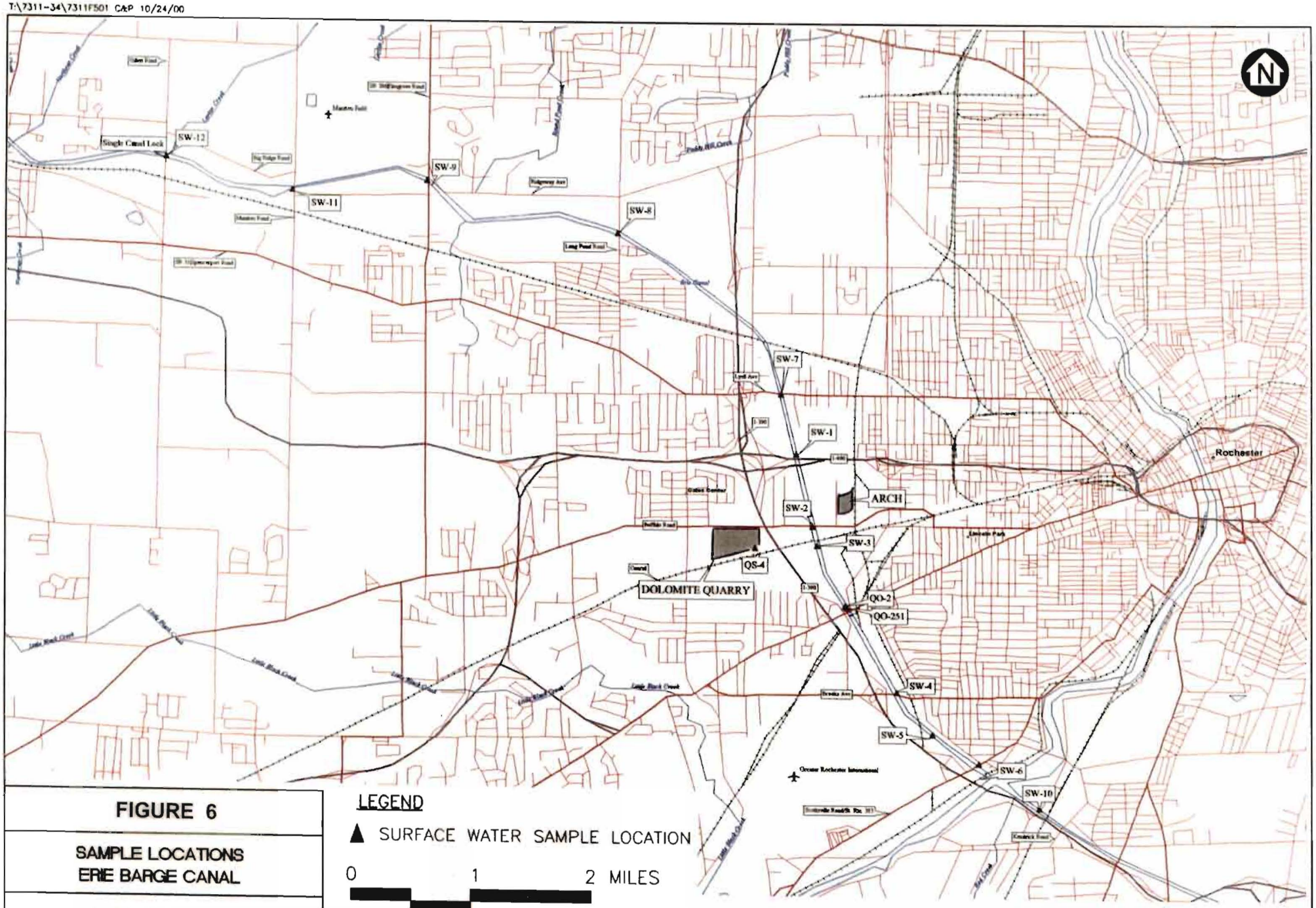


FIGURE 6

SAMPLE LOCATIONS
ERIE BARGE CANAL

ARCH CHEMICALS
ROCHESTER, N.Y.

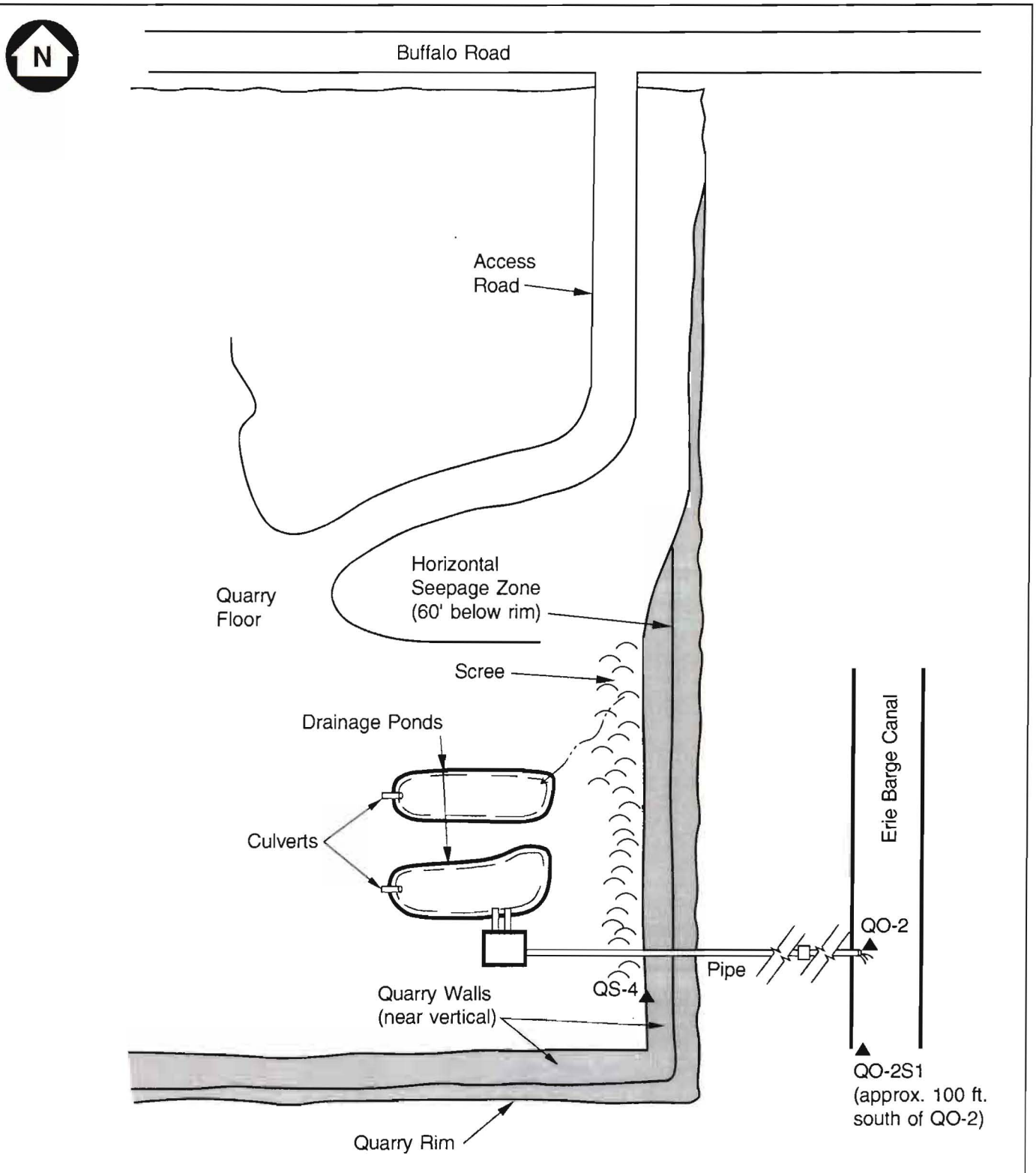
LEGEND

▲ SURFACE WATER SAMPLE LOCATION

0 1 2 MILES

APPROXIMATE SCALE

SOURCE: DeLorme Mapping 1995



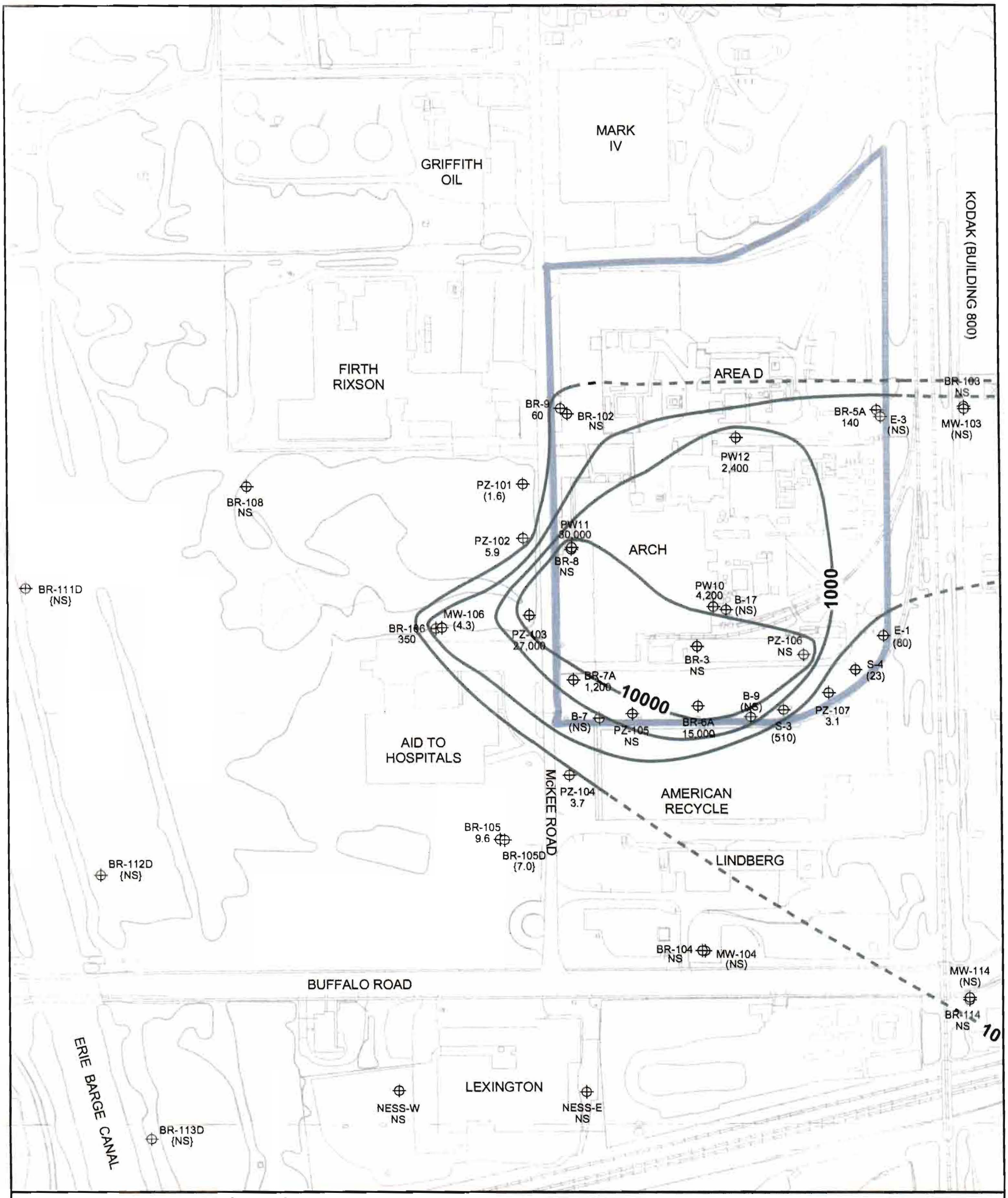
Not to Scale

FIGURE 7

SAMPLE LOCATIONS
DOLOMITE PRODUCTS
QUARRY

ARCH CHEMICALS
ROCHESTER, NEW YORK

W2002008.idw



Legend

- Outline of Arch Property Boundary
- 1000 — VOC Concentration Contour
- BR-112D {9.6} — Concentration at Sample Location (ug/L)
- {1000} — Deep Bedrock Well
- (1000) — Overburden Well
- 1000 — Bedrock Well

NOTES:

1. Samples Collected from November 18 thru December 21, 2002
2. Selected VOCs consist of Carbon tetrachloride, Methylene chloride Chloroform, TCE, and PCE.
3. Concentration contours represented for Bedrock Wells and selected Overburden and Deep Bedrock Wells.
4. Dashed concentration contours represent inferences from historical analytical results.

0 100 200 400 Feet

N

Figure 9
Fall 2002
Selected Volatile Organic Compound Concentration Contours

Arch Chemicals
Rochester, NY
MACTEC, Inc.

P:\Projects\Arch\Rochester\GIS\Figures\Monitoring_Fall2002\Figure9.pdf

Figures

Tables

TABLE 1
FALL 2002 GROUNDWATER SAMPLING AND ANALYTICAL PROGRAM

ARCH CHEMICALS, INC
ROCHESTER, NEW YORK

			ANALYSIS	PYRIDINES[1]	VOCs[2]
SITE / AREA	WELL / POINT	DATE	QC TYPE		
AID TO HOSPITALS	BR-106	11/21/02	Sample	X	X
	MW-106	11/21/02	Sample	X	X
	PZ-101	11/19/02	Sample	X	X
	PZ-102	11/19/02	Sample	X	X
	PZ-103	11/19/02	Sample	X	X
AMERICAN RECYCLE MANUF. (58 MCKEE ROAD)	PZ-104	11/20/02	Sample	X	X
ARCH ROCHESTER	BR-5A	11/20/02	Sample	X	X
	BR-6A	11/20/02	Sample	X	X
	BR-7A	11/20/02	Sample	X	X
	BR-9	11/20/02	Sample	X	X
	E-1	11/19/02	Sample	X	X
	PW10	11/20/02	Sample	X	X
	PW11	11/20/02	Sample	X	X
	PW12	11/20/02	Sample	X	X
	PZ-107	11/19/02	Sample	X	X
	S-3	11/19/02	Sample	X	X
	S-4	11/19/02	Sample	X	X
DOLOMITE PRODUCTS, INC.	QS-4	11/18/02	Sample	X	X
ERIE BARGE CANAL	QO-2	11/18/02	Sample	X	X
	QO-2S1	11/18/02	Sample	X	X
FORMER GENERAL CIRCUITS	MW-16	11/21/02	Sample	X	
RG & E RIGHT OF WAY	BR-105	11/21/02	Sample	X	X
	BR-105D	11/21/02	Sample	X	X

Notes:

1) Pyridines analysis by USEPA SW-846 Method 8270C.
2) VOCs analysis by USEPA SW-846 Method 8260B.

TABLE 2
FALL 2002 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-105		BR-105D		BR-106		BR-5A		BR-6A		BR-7A		BR-9		E-1		MW-106		MW-16	
SAMPLE DATE:	11/21/02		11/21/02		11/21/02		11/20/02		11/20/02		11/20/02		11/20/02		11/19/02		11/21/02		11/21/02	
QC TYPE:	N		N		N		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
2,6-Dichloropyridine	130		54	J	670		140		2400		1500		40		25000		2200		15	
2-Chloropyridine	1300		1600		4100		900		20000		6200		250		18000		9800		330	
3-Chloropyridine	100	U	100	U	500	U	12		2000	U	1000	U	1	J	460	J	500	U	10	U
4-Chloropyridine	100	U	100	U	500	U	10	U	1300	J	1000	U	10	U	2000	U	500	U	10	U
p-Fluoroaniline	100	U	48	J	230	J	53		2000	U	1000	U	9	J	2000	U	260	J	14	
Pyridine	250	U	250	U	1200	U	10	J	2200	J	2500	U	24	U	5000	U	1200	U	24	U

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

TABLE 2
FALL 2002 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	PW10		PW11		PW12		PZ-101		PZ-102		PZ-103		PZ-104		PZ-107		S-3		S-4	
SAMPLE DATE:	11/20/02		11/20/02		11/20/02		11/19/02		11/19/02		11/19/02		11/20/02		11/19/02		11/19/02		11/19/02	
QC TYPE:	N		N		N		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
2,6-Dichloropyridine	2000		130		2400		37	J	500		2600		460	J	490		1900		180	
2-Chloropyridine	16000		740		12000		630		3000		7400		6000		1500		5800		17	J
3-Chloropyridine	340	J	4	J	110		50	U	200	U	1000	U	500	U	94	J	500	U	100	U
4-Chloropyridine	500	U	50	U	100	U	50	U	200	U	1000	U	500	U	100	U	500	U	100	U
p-Fluoroaniline	500	U	32	J	94	J	32	J	120	J	1000	U	220	J	100	U	500	U	100	U
Pyridine	1800		120	U	340		120	U	500	U	2500	U	1200	U	250	U	1200	U	250	U

Notes:
U = Compound not detected; value represents sample quantitation limit.
J = Estimated value.

TABLE 3
FALL 2002 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-105	BR-105D	BR-106	BR-5A	BR-6A	BR-7A	BR-9	E-1	MW-106	PW10	PW11
SAMPLE DATE:	11/21/02	11/21/02	11/21/02	11/20/02	11/20/02	11/20/02	11/20/02	11/19/02	11/21/02	11/20/02	11/20/02
QC TYPE:	N	N	N	N	N	N	N	N	N	N	N
VOLATILE ORGANIC COMPOUNDS BY SW-846 Method 8260/5ML (µg/L)											
1,1,1-Trichloroethane	5 U	5 U	10 U	5 U	400 U	50 U	25 U	50 U	20 U	100 U	10 U
1,1,2,2-Tetrachloroethane	5 U	5 U	10 U	5 U	400 U	50 U	25 U	50 U	20 U	100 U	10 U
1,1,2-Trichloroethane	5 U	5 U	10 U	5 U	400 U	50 U	25 U	50 U	20 U	100 U	10 U
1,1-Dichloroethane	1.9 J	6.1	10 U	5 U	400 U	50 U	17 J	50 U	20 U	100 U	8.5 J
1,1-Dichloroethene	5 U	5 U	10 U	5 U	400 U	50 U	25 U	50 U	20 U	100 U	10 U
1,2-Dichloroethane	5 U	5 U	10 U	5 U	400 U	50 U	25 U	50 U	20 U	100 U	10 U
1,2-Dichloroethene (total)	48	7.9	10 U	18	400 U	50 U	570	22 J	4.5 J	74 J	100
1,2-Dichloropropane	5 U	5 U	10 U	5 U	400 U	50 U	25 U	50 U	20 U	100 U	10 U
2-Butanone	10 U	10 U	20 U	10 U	800 U	100 U	50 U	100 U	40 U	200 U	20 U
2-Hexanone	10 U	10 U	20 U	10 U	800 U	100 U	50 U	100 U	40 U	200 U	20 U
4-Methyl-2-pentanone	10 U	10 U	20 U	10 U	800 U	100 U	50 U	100 U	40 U	200 U	20 U
Acetone	25 U	25 U	50 U	25 U	2000 U	250 U	120 U	250 U	100 U	500 U	50 U
Benzene	2.6 J	8.4	25	18	400 U	35 J	120	50 U	81	22 J	28
Bromodichloromethane	5 U	5 U	10 U	5 U	400 U	50 U	25 U	50 U	20 U	100 U	3 J
Bromoform	5 U	5 U	10 U	5 U	320 J	50 U	25 U	50 U	20 U	100	10 U
Bromomethane	10 U	10 U	20 U	10 U	800 U	100 U	50 U	100 U	40 U	200 U	20 U
Carbon disulfide	5 U	2.8 J	10 U	5 U	1300	50 U	25 U	50 U	15 J	160	3.4 J
Carbon tetrachloride	5 U	5 U	10 U	5 U	5700	50 U	25 U	50 U	20 U	740	10 U
Chlorobenzene	4.4 J	5 U	160	29	93 J	350	18 J	27 J	640	120	160
Chloroethane	10 U	10 U	20 U	10 U	800 U	100 U	50 U	100 U	40 U	200 U	4 J
Chloroform	5 U	7	300	54	8200	1100	34	57	4.3 J	3000	30000
Chloromethane	10 U	29	20 U	10 U	800 U	100 U	50 U	100 U	40 U	200 U	20 U
cis-1,3-Dichloropropene	5 U	5 U	10 U	5 U	400 U	50 U	25 U	50 U	20 U	100 U	10 U
Dibromochloromethane	5 U	5 U	10 U	5 U	400 U	50 U	25 U	50 U	20 U	100 U	10 U
Ethylbenzene	5 U	5 U	10 U	1.1 J	400 U	50 U	17 J	50 U	20 U	100 U	3.5 J
Methylene chloride	5 U	5 U	51	42	700	120	21 J	13 J	20 U	250	310
Styrene	5 U	5 U	10 U	5 U	400 U	50 U	25 U	50 U	20 U	100 U	10 U
Tetrachloroethene	1.3 J	5 U	10 U	5 U	250 J	50 U	25 U	10 J	20 U	250	10 U
Toluene	5 U	5 U	3.5 J	19	160 J	28 J	25 U	50 U	13 J	46 J	6.2 J
Total Xylenes	15 U	1.7 J	30 U	5.2 J	1200 U	150 U	75 U	150 U	60 U	300 U	30 U
trans-1,3-Dichloropropene	5 U	5 U	10 U	5 U	400 U	50 U	25 U	50 U	20 U	100 U	10 U
Trichloroethene	1.3 J	5 U	10 U	43	400 U	50 U	5 J	50 U	20 U	100 U	3.8 J
Vinyl acetate	10 U	10 U	20 U	10 U	800 U	100 U	50 U	100 U	40 U	200 U	20 U
Vinyl chloride	25	5 U	10 U	12	400 U	50 U	390	13 J	20 U	37 J	130

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

TABLE 3
FALL 2002 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	PW12		PZ-101		PZ-102		PZ-103		PZ-104		PZ-107		S-3		S-4	
SAMPLE DATE:	11/20/02		11/19/02		11/19/02		11/19/02		11/20/02		11/19/02		11/19/02		11/19/02	
QC TYPE:	N		N		N		N		N		N		N		N	
VOLATILE ORGANIC COMPOUNDS																
BY SW-846 Method 8260/5ML (µg/L)																
1,1,1-Trichloroethane	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
1,1,2,2-Tetrachloroethane	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
1,1,2-Trichloroethane	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
1,1-Dichloroethane	10	J	5	U	10	U	50	U	5	U	5	U	25	U	100	U
1,1-Dichloroethene	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
1,2-Dichloroethane	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
1,2-Dichloroethene (total)	230		5	U	10	U	10	J	5	U	3.8	J	79		100	U
1,2-Dichloropropane	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
2-Butanone	100	U	10	U	20	U	100	U	10	U	10	U	50	U	200	U
2-Hexanone	100	U	10	U	20	U	100	U	10	U	10	U	50	U	200	U
4-Methyl-2-pentanone	100	U	10	U	20	U	100	U	10	U	10	U	50	U	200	U
Acetone	250	U	25	U	50	U	88	J	25	U	25	U	120	U	500	U
Benzene	58		11		41		69		4.5	J	2.3	J	14	J	100	U
Bromodichloromethane	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
Bromoform	28	J	5	U	10	U	50	U	5	U	5	U	25	U	100	U
Bromomethane	100	U	10	U	20	U	100	U	10	U	10	U	50	U	200	U
Carbon disulfide	130		5	U	2.1	J	19	J	5	U	5	U	25	U	100	U
Carbon tetrachloride	760		5	U	10	U	50	U	5	U	5	U	140		100	U
Chlorobenzene	200		77		350		1500		7.2		1.7	J	47		100	U
Chloroethane	100	U	10	U	20	U	100	U	10	U	10	U	50	U	200	U
Chloroform	1500		1.6	J	5.9	J	23000		3.7	J	1.5	J	360		23	J
Chloromethane	100	U	10	U	20	U	100	U	10	U	10	U	50	U	200	U
cis-1,3-Dichloropropene	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
Dibromochloromethane	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
Ethylbenzene	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
Methylene chloride	150		5	U	10	U	4100		5	U	5	U	25	U	100	U
Styrene	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
Tetrachloroethene	26	J	5	U	10	U	50	U	5	U	5	U	12	J	100	U
Toluene	34	J	2.6	J	10	U	110		5	U	5	U	8.6	J	100	U
Total Xylenes	150	U	15	U	30	U	150	U	15	U	15	U	75	U	300	U
trans-1,3-Dichloropropene	50	U	5	U	10	U	50	U	5	U	5	U	25	U	100	U
Trichloroethene	50	U	5	U	10	U	50	U	5	U	1.6	J	25	U	100	U
Vinyl acetate	100	U	10	U	20	U	100	U	10	U	10	U	50	U	200	U
Vinyl chloride	160		5	U	10	U	50	U	5	U	3.3	J	37		100	U

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

TABLE 4
COMPARISON OF FALL 2002
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)

ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - FALL 2002

WELL	SELECTED CHLOROPYRIDINES				SELECTED VOCs			
	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOV-2002 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOV-2002 RESULT
ON-SITE WELLS/LOCATIONS								
B-17	7	28,000,000	200,000	NS	7	345,000	77,000	NS
B-7	5	6,100	2,400	NS	5	91	69	NS
B-9	5	4,000	1,700	NS	5	30	320	NS
BR-3	6	6,500,000	160,000	NS	6	600,000	450,000	NS
BR-5A	9	1,700	160	**1,100**	9	9,400	56	**140**
BR-6A	9	93,000	33,000	26,000	9	26,000	8,300	**15,000**
BR-7A	9	510,000	23,000	7,700	9	3,000	500	**1,200**
BR-8	8	57,000	10,000	NS	8	6,900	0.5	NS
BR-9	7	720	510	300	7	160	86	60
E-1	6	25,000	12,000	**43,000**	6	5,300	670	80
E-3	8	600	39	NS	8	12,000	180	NS
PW10	6	160,000	89,000	20,000	6	120,000	54,000	4,200
PW11	4	27,000	8,400	910	4	1,300	390	**30,000**
PW12	8	11,000	2,800	**15,000**	8	120,000	7,300	2,400
PZ-105	6	190,000	35,000	NS	5	9,700	830	NS
PZ-106	7	120,000	28,000	NS	7	1,100,000	550,000	NS
PZ-107	8	11,000	2,000	**2,100**	8	12,000	830	3.1
S-3	5	9,500	6,400	**7,700**	5	2,500	800	510
S-4	5	3,200	1,400	200	5	870	180	23

TABLE 4
COMPARISON OF FALL 2002
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)

ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - FALL 2002

WELL	SELECTED CHLOROPYRIDINES				SELECTED VOCs			
	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOV-2002 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOV-2002 RESULT
OFF-SITE WELLS/LOCATIONS								
BR-103	7	400	29	NS	5	1	1	NS
BR-104	8	3,100	11	NS	5	9	ND	NS
BR-105	9	24,000	2,500	1,400	7	310	5.6	2.6
BR-105D	9	10,000	2,400	1,700	7	230	8.7	7
BR-106	9	21,000	11,000	5,000	7	6,300	2.1	**350**
BR-108	8	1,700	11	NS	4	ND	ND	NS
BR-112D	8	310	42	NS	3	4	0.43	NS
BR-113D	8	490	91	NS	0	3	NS	NS
BR-114	8	510	210	NS	6	5	3.9	NS
BR-116	6	12	ND	NS	1	84	6	NS
BR-116D	7	710	160	NS	2	120	ND	NS
BR-117D	6	80	27	NS	1	1.9	ND	NS
BR-118D	6	330	160	NS	1	6.6	3	NS
BR-122D	7	650	160	NS	3	ND	ND	NS
BR-123D	7	860	430	NS	3	4	1.3	NS
MW-103	6	82	18	NS	5	ND	150	NS
MW-104	6	180	15	NS	4	1	ND	NS
MW-106	7	130,000	17,000	12,000	7	89	0.5	**4.3**
MW-114	8	18	1.1	NS	6	19	11	NS
MW-16	1	180	180	**360**	0	NS	NS	NS
NESS-E	7	5,000	530	NS	5	700	ND	NS
NESS-W	7	2,100	260	NS	5	89	0.22	NS

TABLE 4
COMPARISON OF FALL 2002
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)

ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - FALL 2002

WELL	SELECTED CHLOROPYRIDINES				SELECTED VOCs			
	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOV-2002 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOV-2002 RESULT
OFF-SITE WELLS/LOCATIONS								
PZ-101	7	27,000	1,900	700	5	ND	ND	**1.6**
PZ-102	7	58,000	8,800	3,600	5	10,000	ND	**5.9**
PZ-103	7	73,000	32,000	10,000	5	4,900	ND	**27,000**
PZ-104	6	9,100	4,000	**6,700**	5	40	ND	**3.7**
QO-2	19	380	42	3	7	ND	ND	ND
QO-2S1	18	27	1.5	0.5	2	ND	ND	ND
QS-4	19	3,400	750	347	7	ND	ND	ND

Note:

1) Number of samples and mean reflect 5-year sampling period from August 1997 through May 2002.
   Historic maximum based on all available results from March 1990 through May 2002
2) Chloropyridines represented by: 2-Chloropyridine, 2,6-Dichloropyridine, and 3-Chloropyridine, 4-Chloropyridine, p-Fluoroaniline, and Pyridine.
3) Selected VOCs represented by Carbon Tetrachloride, Chloroform, Methylene Chloride, Tetrachloroethene, and Trichloroethene.
4) **Bold and shade** - November 2002 exceeds 5-year mean.
5) NA = Not analyzed or not applicable
   ND = Not detected

* = PW10 and PW11 were first sampled in January 1999 and May 2000, respectively.

TABLE 5
FALL 2002 CANAL/QUARRY MONITORING RESULTS

ARCH CHEMICAL, INC.
ROCHESTER, NEW YORK

WELL / POINT	QO-2		QO-2S1		QS-4	
DATE	11/18/2002		11/18/2002		11/18/2002	
VOLATILE ORGANIC COMPOUNDS BY SW-846 Method 8260/5ML (µg/L)	N	N	N	N	N	N
1,1,1-Trichloroethane	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U	5	U
1,1-Dichloroethane	5	U	5	U	5	U
1,1-Dichloroethene	5	U	5	U	5	U
1,2-Dichloroethane	5	U	5	U	5	U
1,2-Dichloroethene (total)	5	U	5	U	5	U
1,2-Dichloropropane	5	U	5	U	5	U
2-Butanone	10	U	10	U	10	U
2-Hexanone	10	U	10	U	10	U
4-Methyl-2-pentanone	10	U	10	U	10	U
Acetone	25	U	5	J	25	U
Benzene	5	U	5	U	5	U
Bromodichloromethane	5	U	5	U	5	U
Bromoform	5	U	5	U	5	U
Bromomethane	10	U	10	U	10	U
Carbon disulfide	5	U	5	U	5	U
Carbon tetrachloride	5	U	5	U	5	U
Chlorobenzene	5	U	5	U	5	U
Chloroethane	10	U	10	U	10	U
Chloroform	5	U	5	U	5	U
Chloromethane	10	U	10	U	10	U
cis-1,3-Dichloropropene	5	U	5	U	5	U
Dibromochloromethane	5	U	5	U	5	U
Ethylbenzene	5	U	5	U	5	U
Methylene chloride	5	U	5	U	5	U
Styrene	5	U	5	U	5	U
Tetrachloroethene	5	U	5	U	5	U
Toluene	5	U	5	U	5	U
Total Xylenes	15	U	15	U	15	U
trans-1,3-Dichloropropene	5	U	5	U	5	U
Trichloroethene	5	U	5	U	5	U
Vinyl acetate	10	U	10	U	10	U
Vinyl chloride	5	U	5	U	5	U
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)						
2,6-Dichloropyridine	1	J	10	U	57	
2-Chloropyridine	2	J	0.5	J	290	
3-Chloropyridine	10	U	10	U	38	U
4-Chloropyridine	10	U	10	U	38	U
p-Fluoroaniline	10	U	10	U	38	U
Pyridine	25	U	24	U	95	U

Notes:

U = Compound not detected; value represents sample quantitation limit.

J = Estimated value.

NA = Not analyzed

TABLE 6
EXTRACTION WELL WEEKLY FLOW MEASUREMENTS - JULY 2002 THROUGH DECEMBER 2002

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

Week Ending	BR-5A [Gal./Week]	BR-6A [Gal./Week]	BR-7A [Gal./Week]	BR-9 [Gal./Week]	PW-10 [Gal./Week]	PW-11 [Gal./Week]	PW-12 [Gal./Week]	Total [Gal.]
June								
06/07/02	67,101	28,113	76,893	46,089	49,048	23,218	6,380	296,842
06/14/02	57,567	21,965	71,452	17,829	42,337	23,656	3,340	238,146
06/21/02	73,031	10,876	78,397	74,725	32,733	25,812	6,130	301,704
06/28/02	70,607	23,623	91,773	29,293	9,095	25,698	6,100	256,189
							Total [Gal.]	1,092,881
July								
07/05/02	63,305	12,146	92,827	6,636	4,874	27,246	4,820	211,854
07/12/02	50,622	15,345	91,484	481	4,144	26,311	2,090	190,477
07/19/02	43,972	15,894	92,977	205	9,812	36,291	8,506	207,657
07/26/02	36,290	28,333	91,232	286	14,623	25,814	3,340	199,918
							Total [Gal.]	809,906
August								
08/02/02	25,220	34,348	93,752	1,954	13,697	26,079	3,720	198,770
08/09/02	38,824	31,889	85,430	273	19,079	24,718	5,750	205,963
08/16/02	37,635	25,169	84,744	275	18,198	25,819	5,420	197,260
08/23/02	38,203	23,467	83,130	820	16,847	26,148	5,250	193,865
08/30/02	34,556	16,779	75,281	980	19,236	24,482	4,830	176,144
							Total [Gal.]	972,002
September								
09/06/02	34,848	21,453	85,343	630	19,816	21,825	4,480	188,395
09/13/02	31,519	21,096	83,162	418	19,032	25,211	3,500	183,938
09/20/02	29,714	24,239	75,144	38,466	4,650	16,694	1,800	190,707
09/27/02	30,151	19,056	73,966	116,745	16,296	18,387	160	274,761
							Total [Gal.]	837,801
October								
10/04/02	58,332	17,731	62,610	148,527	15,192	9,822	310	312,524
10/11/02	43,471	15,303	63,220	127,275	11,560	13,637	10	274,476
10/18/02	32,085	12,506	74,533	77,769	25,546	29,304	1	251,744
10/25/02	43,825	20,986	69,524	64,215	7,425	98,581	1,990	306,545
							Total [Gal.]	1,145,289
November								
11/01/02	43,337	14,443	71,017	83,779	703	98,645	1,290	313,214
11/08/02	39,528	15,508	76,923	74,350	4,908	92,123	1,440	304,780
11/15/02	52,832	13,607	86,178	78,280	3,921	100,461	1,140	336,419
11/22/02	48,371	4,860	70,010	68,095	3,029	82,044	140	276,549
11/29/02	59,438	2,742	65,249	77,167	4,258	93,885	510	303,249
							Total [Gal.]	1,534,211
December								
12/06/02	60,226	5,145	71,879	60,016	15	67,550	720	265,551
12/13/02	41,217	15,765	48,690	50,341	47,586	68,620	608	272,827
12/20/02	34,957	0	41,685	51,251	23,233	79,442	1,264	231,832
12/27/02	43,280	0	36,601	49,374	2,453	76,187	1,178	209,073
							Total [Gal.]	979,283
Total 6 Mo. Removal	1,124,946	488,735	2,001,001	1,058,395	385,800	948,025	81,937	6,088,840

TABLE 7

MASS REMOVAL SUMMARY
PERIOD: 6/1/02 - 11/29/02

ARCH ROCHESTER
FALL 2002 GROUNDWATER MONITORING REPORT

Well	Total Vol. Pumped (gallons)	Avg. VOC Conc. (ppm)	Avg. PYR. Conc. (ppm)	VOCs Removed (pounds)	PYR. Removed (pounds)
BR-5A	1,184,000	0.11	0.65	1.1	6.4
BR-6A	491,000	11.2	33	46	135
BR-7A	2,066,000	0.63	18	11	310
BR-9	1,136,000	0.04	0.34	0.4	3.2
PW-10	82,000	3	54	2	37
PW-11	1,042,000	15	1.6	130.2	14
PW-12	390,000	2.7	8.7	9	28.3
Totals:	6,391,000			199.1	533.4

Note: VOC and pyridine concentrations used in this table are an average of the analytical results from the Spring 2002 and Fall 2002 sampling events for each well

TABLE 8
2003 SAMPLING SCHEDULE
ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

ARCH ROCHESTER						2003					
MONITORING PROGRAM						SPRING		FALL		TOTAL	
	Well	*zone*	*area*	*Frequency/Parameters*	*Purpose*	*Pyridines*	*VOCs*	*Pyridines*	*VOCs*	*Pyridines*	*VOCs*
OFF-SITE	MW-103	OB	KODAK EAST	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
MONITORING	BR-103	BR	KODAK EAST	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	MW-104	OB	BUFFALO RD	annual monitoring, PYR	trend monitoring	1				1	0
	BR-104	BR	BUFFALO RD	annual monitoring, PYR	trend monitoring	1				1	0
	BR-105	BR	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	BR-105D	BR deep	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	MW-106	OB	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	BR-106	BR	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	BR-108	BR	AID-HOSP	annual monitoring, PYR	trend monitoring	1				1	0
	BR-112D	BR deep	NYSDOT	annual monitoring, PYR	trend monitoring	1				1	0
	BR-113D	BR deep	NYSDOT	annual monitoring, PYR	trend monitoring	1				1	0
	MW-114	OB	JACKSON	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-114	BR	JACKSON	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-116	BR	PFAUDLER	annual monitoring, PYR	trend monitoring	1				1	0
	BR-116D	BR deep	PFAUDLER	annual monitoring, PYR	trend monitoring	1				1	0
	BR-117D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	BR-118D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	BR-122D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	BR-123D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	NESS-E	BR deep	NESS	annual monitoring, PYR	trend monitoring	1				1	0
	NESS-W	BR deep	NESS	annual monitoring, PYR	trend monitoring	1				1	0
	PZ-101	BR	McKee Rd	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PZ-102	BR	McKee Rd	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PZ-103	BR	McKee Rd	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PZ-104	BR	ALH	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	MW-16	BR	Gen'l Circuits	annual monitoring, PYR	trend monitoring			1		1	0
ON-SITE	PZ-107	BR	ON-SITE	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
MONITORING	PZ-106	BR	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	PZ-105	BR	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-3	BR	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-8	BR	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-9	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	BR-5A	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	BR-6A	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	BR-7A	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	B-17	OB	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	B-7	OB	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	B-9	OB	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	S-3	OB	ON-SITE	semi-annual monitoring, VOCs & PYR	continue until replaced by trench	1	1	1	1	2	2
	S-4	OB	ON-SITE	semi-annual monitoring, VOCs & PYR	continue until replaced by trench	1	1	1	1	2	2
	E-1	OB	ON-SITE	semi-annual monitoring, VOCs & PYR	continue until replaced by trench	1	1	1	1	2	2
	E-3	OB	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	PW10	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	PW11	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	PW12	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
QUARRY/CANAL	QS-4	quarry seep	QUARRY	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
MONITORING	QO-2	quarry outfall	CANAL	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	QO-2S1	canal at outfall	CANAL	semi-annual monitoring, VOCs & PYR	surface water monitoring	1	1	1	1	2	2
TOTAL SAMPLES						47	34	23	22	70	56

Appendix A

Groundwater Field Sampling Data Sheets

Sampling Summary Table
HARDING LAWSON ASSOCIATES
NOVEMBER 2002
RI SAMPLING/ROCHESTER NY FACILITY

Sample Point	—Water Level— Date	Time	Water Level (ft)*	Water Elevation (ft)**	Bottom Of Well (ft)*	Field Measurements Date	Time	pH (STD) (Units)	Spec. Cond. (umhos)	Temp (°C)	Turb. (NTU)	Other Field Measurements	
BR-105	11/21/2002	1143	25.02	N/A	44.60	11/21/2002	1210	7.06	1813	12.8	3.47	EH(mv)= -152	DO(ppm)= .87
	Comments: CLEAR												
BR-105D	11/21/2002	1052	26.20	N/A	79.50	11/21/2002	1125	7.04	14960	12.0	1.10	EH(mv)= -295	DO(ppm)= .47
	Comments: CLEAR												
BR-106	11/21/2002	1256	26.13	N/A	43.22	11/21/2002	1330	6.83	2653	11.7	12.34	EH(mv)= -245	DO(ppm)= .47
	Comments: CLEAR												
BR-5A	11/20/2002	1250	12.30	N/A	N/A	11/20/2002	1255	7.29	1768	14.5	7.72	EH(mv)= -81	
	Comments: CLEAR												
BR-6A	11/20/2002	1200	30.65	N/A	N/A	11/20/2002	1205	8.61	4436	16.3	61.30	EH(mv)= -95	
	Comments: AMBER CLEAR												
BR-7A	11/20/2002	1220	28.38	N/A	N/A	11/20/2002	1225	7.41	2732	16.4	163.50	EH(mv)= -150	
	Comments: SL.TURBID												
BR-9	11/20/2002	1315	34.15	N/A	N/A	11/20/2002	1320	7.33	2193	15.9	161.20	EH(mv)= -33	
	Comments: TURBID GREY												
E-1	11/19/2002	1020	0.53	N/A	9.75	11/19/2002	1045	8.11	14550	8.7	24.92	EH(mv)= -208	DO(ppm)= .90
	Comments: SL.TURBID BLACK												
MW-106	11/21/2002	1227	11.90	N/A	19.35	11/20/2002	1255	7.22	3423	13.5	8.84	EH(mv)= -215	DO(ppm)= .40
	Comments: CLEAR BLACK TINT												
MW-16	11/21/2002	958	11.99	N/A	34.44	11/21/2002	1035	6.88	4189	17.8	2.53	EH(mv)= -163	DO(ppm)= .84
	Comments: CLEAR												
PW-10	11/20/2002	1235	15.40	N/A	N/A	11/20/2002	1240	9.75	3308	19.9	40.30	EH(mv)= -125	
	Comments: AMBER/CLEAR												
PW-11	11/20/2002	1340	10.57	N/A	N/A	11/20/2002	1345	7.08	2976	15.0	7.87	EH(mv)= -19	
	Comments: CLEAR												
PW-12(BR-101)	11/20/2002	1305	10.70	N/A	N/A	11/20/2002	1310	8.65	2740	16.8	109.70	EH(mv)= -31	
	Comments: SL.TURBID(PW-12)												
PZ-101	11/19/2002	1248	14.95	N/A	21.69	11/19/2002	1310	7.15	6026	9.2	4.83	EH(mv)= 5	DO(ppm)= .87
	Comments: CLEAR												
PZ-102	11/19/2002	1320	15.25	N/A	32.00	11/19/2002	1340	7.24	4860	9.9	1.08	EH(mv)= -173	DO(ppm)= .90
	Comments: CLEAR												
PZ-103	11/19/2002	1352	12.46	N/A	32.52	11/19/2002	1415	7.20	4675	11.8	1.03	EH(mv)= -231	DO(ppm)= .95
	Comments: CLEAR												

SG - Specific Gravity
EH - Redox
DO - Dissolved Oxygen

* From Top of Riser
** Elevation Above Sea Level

Sampling Summary Table
HARDING LAWSON ASSOCIATES
NOVEMBER 2002
RI SAMPLING/ROCHESTER NY FACILITY

Sample Point	Water Level Date	Water Level Time	Water Level (ft)*	Water Elevation (ft)**	Bottom Of Well (ft)*	Field Measurements Date	Field Measurements Time	pH (STD) (Units)	Spec. Cond. (umhos)	Temp (°C)	Turb. (NTU)	Other Field Measurements
PZ-104	11/20/2002	1037	14.99	N/A	23.93	11/20/2002	1100	6.83	1887	15.7	1.26	EH(mv)= -125 DO(ppm)= .94
	Comments: CLEAR											
PZ-107	11/19/2002	1135	6.74	N/A	27.90	11/19/2002	1200	7.17	3290	10.4	2.99	EH(mv)= -100 DO(ppm)= .47
	Comments: CLEAR											
QO-2	11/18/2002	850	0.00	N/A	N/A	11/18/2002	852	7.13	1848	8.0	N/A	EH(mv)= 121
	Comments: CLEAR											
QO-2S1	11/18/2002	900	0.00	N/A	N/A	11/18/2002	905	7.24	695	8.1	N/A	EH(mv)= 94
	Comments: CLEAR											
QS-4	11/18/2002	1015	0.00	N/A	N/A	11/18/2002	1020	6.95	1606	8.8	N/A	EH(mv)= -16
	Comments: CLEAR											
S-3	11/19/2002	1210	2.75	N/A	13.38	11/19/2002	1235	7.41	2372	11.2	3.97	EH(mv)= -43 DO(ppm)= .93
	Comments: CLEAR											
S-4	11/19/2002	1056	0.70	N/A	13.05	11/19/2002	1120	7.40	346	9.0	15.06	EH(mv)= -38 DO(ppm)= .93
	Comments: CLEAR											

SG - Specific Gravity
EH - Redox
DO - Dissolved Oxygen

* From Top of Riser
** Elevation Above Sea Level

Groundwater E ation Report
HARDING LAWSON ASSOC.
NOVEMBER 2002
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
B-1	11/18/2002	1019	0.00	7.84	N/A	
B-10	11/18/2002	907	0.00	6.75	N/A	
B-11	11/18/2002	905	0.00	3.09	N/A	
B-13	11/18/2002	1129	0.00	N/A	N/A	DRY
B-14	11/18/2002	1135	0.00	8.83	N/A	
B-15	11/18/2002	1140	0.00	5.03	N/A	
B-16	11/18/2002	1138	0.00	5.20	N/A	
B-17	11/18/2002	850	0.00	7.42	N/A	
B-2	11/18/2002	1014	0.00	10.11	N/A	
B-3	11/18/2002	1004	0.00	4.06	N/A	
B-4	11/18/2002	1120	0.00	13.40	N/A	
B-5	11/18/2002	1128	0.00	11.06	N/A	
B-7	11/18/2002	940	0.00	18.46	N/A	
B-8	11/18/2002	936	0.00	8.94	N/A	
B-9	11/18/2002	932	0.00	6.78	N/A	
BR-1	11/18/2002	822	0.00	7.22	N/A	
BR-102	11/18/2002	1006	0.00	22.10	N/A	
BR-103	11/18/2002	803	0.00	3.08	N/A	
BR-104	11/18/2002	747	0.00	9.45	N/A	
BR-105	11/18/2002	1111	0.00	24.60	N/A	
BR-105D	11/18/2002	1112	0.00	26.78	N/A	
BR-106	11/18/2002	1116	0.00	24.93	N/A	
BR-107	11/18/2002	0	0.00	N/A	N/A	DESTROYED
BR-108	11/18/2002	1042	0.00	28.93	N/A	
BR-111	11/18/2002	1043	0.00	30.55	N/A	
BR-111D	11/18/2002	1045	0.00	30.52	N/A	
BR-112A	11/18/2002	1038	0.00	34.83	N/A	
BR-112D	11/18/2002	1041	0.00	38.19	N/A	
BR-113	11/18/2002	1032	0.00	33.28	N/A	
BR-113D	11/18/2002	1034	0.00	33.20	N/A	
BR-114	11/18/2002	756	0.00	14.63	N/A	
BR-116	11/18/2002	822	0.00	30.64	N/A	
BR-116D	11/18/2002	820	0.00	37.12	N/A	
BR-117	11/18/2002	945	0.00	27.20	N/A	

Date: 12/06 02
Time: 09:17.11

Groundwater [illegible]ation Report
HARDING LA[illegible]ON ASSOC.
NOVEMBER 2002
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
BR-117D	11/18/2002	947	0.00	49.35	N/A	
BR-118	11/18/2002	954	0.00	29.62	N/A	
BR-118D	11/18/2002	955	0.00	48.67	N/A	
BR-119D	11/18/2002	1000	0.00	66.75	N/A	
BR-120D	11/18/2002	935	0.00	58.73	N/A	
BR-121D	11/18/2002	940	0.00	57.31	N/A	
BR-122D	11/18/2002	838	0.00	45.80	N/A	
BR-123D	11/18/2002	835	0.00	46.57	N/A	
BR-124D	11/18/2002	830	0.00	32.05	N/A	
BR-2	11/18/2002	840	0.00	N/A	N/A	DRY
BR-2A	11/18/2002	837	0.00	8.41	N/A	
BR-2D	11/18/2002	841	0.00	0.10	N/A	
BR-3	11/18/2002	916	0.00	10.94	N/A	
BR-3D	11/18/2002	917	0.00	68.21	N/A	
BR-4	11/18/2002	846	0.00	6.40	N/A	
BR-5	11/18/2002	816	0.00	5.21	N/A	
BR-5A	11/18/2002	815	0.00	5.08	N/A	0.00GPM = FLOW RATE
BR-6	11/18/2002	935	0.00	12.08	N/A	
BR-6A	11/18/2002	927	0.00	10.74	N/A	0.00GPM = FLOW RATE
BR-7	11/18/2002	1101	0.00	20.85	N/A	
BR-7A	11/18/2002	1103	0.00	28.33	N/A	FLOW RATE METER BROKEN
BR-8	11/18/2002	1127	0.00	10.67	N/A	
BR-9	11/18/2002	1006	0.00	28.02	N/A	7.62 GPM FLOW RATE
C-1	11/18/2002	830	0.00	0.93	N/A	
C-2A	11/18/2002	838	0.00	7.04	N/A	
C-3	11/18/2002	833	0.00	N/A	N/A	BROKE AT GROUND SURFACE AND BURIED UNDER PALLETS
C-4	11/18/2002	835	0.00	N/A	N/A	BUILDING IN THIS AREA/WELL NO LONGER EXISTS
C-5	11/18/2002	915	0.00	9.00	N/A	
E-1	11/18/2002	850	0.00	0.71	N/A	FLOODED
E-2	11/18/2002	845	0.00	4.20	N/A	
E-3	11/18/2002	817	0.00	5.27	N/A	
E-4	11/18/2002	812	0.00	N/A	N/A	DRY
E-5	11/18/2002	810	0.00	6.57	N/A	
EC-1	11/18/2002	1050	0.00	18.49	N/A	

Groundwater ation Report
HARDING LAWSON ASSOC.
NOVEMBER 2002
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
EC-2	11/18/2002	1030	0.00	N/A	N/A	DRY AT 12.75
ERIE CANAL	11/18/2002	1048	0.00	34.85	N/A	
MW-103	11/18/2002	800	0.00	1.90	N/A	
MW-104	11/18/2002	745	0.00	N/A	N/A	FLOODED
MW-105	11/18/2002	1110	0.00	N/A	N/A	DRY AT 19.01
MW-106	11/18/2002	1115	0.00	12.44	N/A	
MW-107	11/18/2002	0	0.00	N/A	N/A	DESTROYED
MW-108	11/18/2002	1041	0.00	14.51	N/A	
MW-114	11/18/2002	755	0.00	12.95	N/A	
MW-16	11/18/2002	810	0.00	12.23	N/A	
MW-2	11/18/2002	1022	0.00	N/A	N/A	BURIED
MW-3	11/18/2002	1020	0.00	5.58	N/A	
MW-G6	11/18/2002	1118	0.00	4.53	N/A	
MW-G7	11/18/2002	1120	0.00	4.20	N/A	
MW-G8	11/18/2002	1121	0.00	6.45	N/A	
MW-G9	11/18/2002	1124	0.00	10.39	N/A	
N-1	11/18/2002	823	0.00	N/A	N/A	DAMAGED CASING/BAILER STUCK IN WELL
N-2	11/18/2002	802	0.00	4.11	N/A	
N-3	11/18/2002	800	0.00	5.67	N/A	
NESS-E	11/18/2002	1059	0.00	40.10	N/A	
NESS-W	11/18/2002	1105	0.00	33.90	N/A	
PW-10	11/18/2002	852	0.00	11.11	N/A	
PW-11	11/18/2002	1125	0.00	10.27	N/A	
PW-12(BR-101)	11/18/2002	820	0.00	10.70	N/A	1.93 GPM
PZ-101	11/18/2002	1052	0.00	14.92	N/A	
PZ-102	11/18/2002	1055	0.00	14.86	N/A	
PZ-103	11/18/2002	1056	0.00	12.49	N/A	
PZ-104	11/18/2002	1131	0.00	15.28	N/A	
PZ-105	11/18/2002	930	0.00	12.24	N/A	
PZ-106	11/18/2002	909	0.00	9.03	N/A	
PZ-107	11/18/2002	907	0.00	6.75	N/A	
PZ-108	11/18/2002	0	0.00	N/A	N/A	DESTROYED
S-1	11/18/2002	939	0.00	5.33	N/A	
S-2	11/18/2002	926	0.00	3.24	N/A	

Date: 12/06/02
Time: 09:17:11

Groundwater Evaluation Report
HARDING LAWSON ASSOC.
NOVEMBER 2002
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
S-3	11/18/2002	920	0.00	2.70	N/A	
S-4	11/18/2002	851	0.00	0.82	N/A	
W-1	11/18/2002	1015	0.00	N/A	N/A	UNABLE TO OBTAIN MEASUREMENT/OBSTRUCTION
W-2	11/18/2002	1007	0.00	10.01	N/A	
W-3	11/18/2002	1030	0.00	8.21	N/A	
W-4	11/18/2002	1122	0.00	4.52	N/A	
W-5	11/18/2002	1100	0.00	7.49	N/A	
W-6	11/18/2002	1107	0.00	12.71	N/A	

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-105

Field Personnel: R. Scott, P. Little

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-21-02 / 1143 ~~1145~~

Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: —

Cond of prot. Casing/riser: ( ) Unlocked ( ) Good ( ) Loose (X) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-21-02 1145

Date / Time Completed: 11-21-02 1210

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 25.02

Elevation. G/W MSL: ____

Well Total Depth, Feet: 44.60

Method of Well Purge: Bladder pump

One (1) Riser Volume, Gal: ____

Dedicated: Y / (N)

Total Volume Purged, Gal: 2.5

Purged To Dryness Y / (N)

Purge Observations: ____

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1150	200	25.02		12.9 ~~12.9~~	7.08	1887	8.51	-171	1.79
1155	↓	↓		12.7	7.03	1814	5.76	-151	1.32
1200				12.7	7.05	1813	3.63	-151	1.06
1205	↓	↓		12.7	7.06	1813	3.51	-151	.95
1210	↓	↓		12.8	7.06	1813	3.47	-152	.87

SAMPLED AT 1210/HTZ 11-21-02

RL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 1 Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 _____NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

pH Serial #: ecc 25c 4.0 std.=_____ 7.0 std.=_____ 10.0 std. =_____

Solutions: 4-2166, 7-2140, 10-2150

Conductivity Serial #: 6cc25c 146.9 umhos/cm=_____ 1412 umhos/cm=_____

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11 1 02 By: _____ Company: STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-105D

Field Personnel: R. Scott, P. Little Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-21-02 1052 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked ( ) Good ( ) Loose (X) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-21-02 1100 Date / Time Completed: 11-21-02 1125

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 26.20 Elevation. G/W MSL:

Well Total Depth, Feet: 79.50 Method of Well Purge: Bladder Pump

One (1) Riser Volume, Gal: Dedicated: Y / (N)

Total Volume Purged, Gal: 2.0 Purged To Dryness Y / (N)

Purge Observations: Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other
1105	150	28.10		12.5	6.89	14,390	1.74	-278	.97
1110	↓	28.10		12.2	7.03	14,790	1.39	-291	.63
1115	↓	↓		12.1	7.01	14,930	1.21	-295	.57
1120	↓	↓		12.0	7.08	14,950	1.16	-296	.51
1125	↓	↓		12.0	7.04	14,960	1.10	-295	.47

SAMPLED AT 1125 / 11-21-02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 1 Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

pH Serial #: [illegible] 4.0 std.=_____ 7.0 std.=_____ 10.0 std. =_____

Solutions: 4-2166, 7-2140, 10-2150

Conductivity Serial #: [illegible] 146.9 umhos/cm=_____ 1412 umhos/cm=_____

Solutions: 146.9 - 26.1, 1412 - 26.2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11 / 102 By: _____ Company: STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-106

Field Personnel: R. Scott, P. Little

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-21-02 1256

Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: —

Cond of prot. Casing/riser: ( ) Unlocked ( ) Good ( ) Loose (X) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / —

% LEL: — / —

Vol. Organic Meter (Calibration/Reading):

Volatiles (ppm) — / —

PURGE INFORMATION:

Date / Time Initiated: 11-21-02 1310

Date / Time Completed: 11-21-02 1330

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 26.13

Elevation. G/W MSL:

Well Total Depth, Feet: 43.22

Method of Well Purge: BLADDER PUMP

One (1) Riser Volume, Gal:

Dedicated: Y / (N)

Total Volume Purged, Gal: 2.0

Purged To Dryness Y / (N)

Purge Observations:

Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1315	200 / 26.15 H		11.7	6.84	2680	12.84	-234	.57
1320	↓ / ↓		11.6	6.83	2645	11.34	-241	.53
1325	↓ / ↓		11.6	6.82	2650	12.27	-241	.50
1330	↓ / ↓		11.7	6.83	2653	12.34	-245	.47
	↓							

SAMPLED AT 1330 / 11-21-02

PL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 1 Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

pH Serial #: ECC 25C 4.0 std.=_____ 7.0 std.=_____ 10.0 std. =_____

Solutions: 4-2166, 7-2140, 10-2150

Conductivity Serial #: 60025C 146.9 umhos/cm=_____ 1412 umhos/cm=_____

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/1/02 By: _____ Company: STC

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-5A

Field Personnel: FL, TB Sample Matrix: GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-20-02 1250 Water Level @ Sampling, Feet: 12.30

Method of Sampling: In Situ Pump Dedicated: (Y) N 640799 0.00

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1255	14.5	7.29	1768	7.72	-81	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = 5.0 NTU ____ NTU std. = ____ NTU

Solutions: ____

pH Serial #: 600750 4.0 std.= ____ 7.0 std.= ____ 10.0 std. = ____

Solutions: 4-2188, 7-2140, 10-2150

Conductivity Serial #: 600750 146.9 umhos/cm= ____ 1412 umhos/cm= ____

Solutions: 146.9-26-1, 1412-26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUN 50°

Sample Characteristics: Clear No ODR

COMMENTS AND OBSERVATIONS: ____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/20/2002 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL **Sample Point ID:** BR-6A

Field Personnel: PL, TB **Sample Matrix:** GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-20-02 1200 **Water Level @ Sampling, Feet:** 30.65

Method of Sampling: IN-SITU PUMP **Dedicated:** (Y)/N 68660Y.4 0.00

Multi-phased/ layered: ( ) Yes (X) No **If YES:** ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1205	16.3	8.61	4436	61.3	-95	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 **NTU std. =** 5.0 **NTU** ____ **NTU std. =** ____ **NTU**

Solutions: ____

pH Serial #: 600750 **4.0 std.=** ____ **7.0 std.=** ____ **10.0 std. =** ____

Solutions: 4-2188, 7-2140, 10-2150

Conductivity Serial #: 600750 146.9 **umhos/cm=** ____ 1412 **umhos/cm=** ____

Solutions: 146.9-26-1, 1412-26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: 50° SUN

Sample Characteristics: AMBER clear

COMMENTS AND OBSERVATIONS: ____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/20/2002 **By:** [signature] **Company:** STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL **Sample Point ID:** BR-7A

Field Personnel: PL, TD **Sample Matrix:** GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-20-02 / 1220 **Water Level @ Sampling, Feet:** 28.38

Method of Sampling: In situ pump **Dedicated:** (Y) / N

Multi-phased/ layered: ( ) Yes (X) No **If YES:** ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1225	16.4	7.41	2732	163.5	-150	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 **NTU std. =** 5.0 **NTU** ____ **NTU std. =** ____ **NTU**

Solutions: ____

pH Serial #: 600750 **4.0 std.=** ____ **7.0 std.=** ____ **10.0 std. =** ____

Solutions: 4-2188, 7-2140, 10-2150

Conductivity Serial #: 600750 146.9 **umhos/cm=** ____ 1412 **umhos/cm=** ____

Solutions: 146.9-26-1, 1412-26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sun

Sample Characteristics: SL Turbid Grey

COMMENTS AND OBSERVATIONS: Flow Meter Broken off could not obtain Flow Rate

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11 120 2002 **By:** [signature] **Company:** STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-9

Field Personnel: PL, TB Sample Matrix: GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-20-02 / 1315 Water Level @ Sampling, Feet: 34.15

Method of Sampling: IN-SITU PUMP Dedicated: (Y) / N 7.62 4/29/28

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1320	15.9	7.33	2193	161.2	-33	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = 5.0 NTU ____ NTU std. = ____ NTU

Solutions: ____

pH Serial #: 600750 4.0 std.= ____ 7.0 std.= ____ 10.0 std. = ____

Solutions: 4-2188, 7-2140, 10-2150

Conductivity Serial #: 600750 146.9 umhos/cm= ____ 1412 umhos/cm= ____

Solutions: 146.9-26-1, 1412-26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUN 55°

Sample Characteristics: SLIGHTLY TURBID GREY

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/20/2002 By: [signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: E-1

Field Personnel: R. Scott, P. Little

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-19-02 / 1020

Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: —

Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged ____

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-19-02 / 1025

Date / Time Completed: 11-19-02 / 1045

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: ~53

Elevation. G/W MSL: ____

Well Total Depth, Feet: 9.75

Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: ____

Dedicated: (Y) / N

Total Volume Purged, Gal: 1.0

Purged To Dryness Y / (N)

Purge Observations: ____

Start TURBID / BLUE Finish SL TURBID BLACK

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other DO	Other ORP
1020	100 ml/m	WL .53		9.8	7.43	14,450	>200	.97	-197
1035	↓	↓		8.9	7.87	14,500	7200	.95	-200
1040				8.6	8.00	14,550	2780	.92	-210
1045	↓	↓		8.7	8.11	14,550	24.92	.90	-208

SAMPLED AT 1045/11-19-02

R Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 1 Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = ____ NTU 5.0 NTU std. = 5.0 NTU

Solutions: 130R-10

pH Serial #: 6cc75c 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = 10.0

Solutions: 4-2188, 7-2140, 10-2150

Conductivity Serial #: 6cc75c 146.9 umhos/cm= K146.9 1412 umhos/cm= 1412

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/19/02 By: [signature] Company: STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: MW-106

Field Personnel: R. Scott, P. Little

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-21-02 1227

Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: —

Cond of prot. Casing/riser: ( ) Unlocked ( ) Good ( ) Loose (X) Flush Mount ( ) Damaged ____

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) — / —

PURGE INFORMATION:

Date / Time Initiated: 11-21-02 1230

Date / Time Completed: 11-21-02 1255

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 11.90

Elevation. G/W MSL: ____

Well Total Depth, Feet: 19.35

Method of Well Purge: BLADDER PUMP

One (1) Riser Volume, Gal: ____

Dedicated: Y / (N)

Total Volume Purged, Gal: 2.0

Purged To Dryness Y (N)

Purge Observations: ____

Start CLEAR BLACK ORANGE Finish CLEAR BLACK

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1235	ML/MIN 200	13.05		13.8	7.20	3372	13.20	-204	.75
1240				13.8	7.22	3380	11.75	-206	.69
1245				13.1	7.24	3417	9.76	-215	.54
1250				13.2	7.22	3420	10.20	-215	.46
1255	↓	↓		13.5	7.22	3423	8.84	-205	.40

SAMPLED AT 1255 / 11-21-02

RL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 / Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

pH Serial #: 6cc75c 4.0 std.=_____ 7.0 std.=_____ 10.0 std. =_____

Solutions: 4-2166, 7-2140, 10-2150

Conductivity Serial #: 6cc75c 146.9 umhos/cm=_____ 1412 umhos/cm=_____

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/1/02 By: _____ Company: STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: MW-16

Field Personnel: R. Scott, P. Little

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11 - 21 -02 1 0958

Cond of seal: (X) Good ( ) Cracked ____ %
( ) None ( ) Buried

Prot. Casing/riser height: —

Cond of prot. Casing/riser: ( ) Unlocked ( ) Good
( ) Loose (X) Flush Mount
( ) Damaged ____

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) — / —

PURGE INFORMATION:

Date / Time Initiated: 11-21-02 1010

Date / Time Completed: 11-21-02 1035

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 11.99

Elevation. G/W MSL: ____

Well Total Depth, Feet: 34.44

Method of Well Purge: BLADDER Pump

One (1) Riser Volume, Gal: ____

Dedicated: Y / (N)

Total Volume Purged, Gal: 2.0

Purged To Dryness Y (N)

Purge Observations: ____

Start clear Finish clear

PURGE DATA: (if applicable)

ORP

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ~~ORP~~	Other DO
1015	200	11.99		17.8	6.88	4138	4.14	-157	1.16
1020	100			17.8	6.88	4235	2.82	-161	1.03
1025				17.8	6.87	4188	2.74	-163	.90
1030				17.8	6.88	4187	2.56	-163	.87
1035	↓	↓		17.8	6.88	4189	2.53	-163	.84

SAMPLED AT 1035 / 11-21-02

PAGE 1 OF 2

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 1 Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = ____ NTU 5.0 NTU std. = 5.0 NTU

Solutions: 13PR-10

pH Serial #: 66075 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = 10.0

Solutions: 4-2166, 7-2140, 10-2150

Conductivity Serial #: 60075 146.9 umhos/cm= 146.9 1412 umhos/cm= 1412

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11 12 11 02 By: _____ Company: STC

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: PW-10

Field Personnel: A.T.B Sample Matrix: GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-20-02 1235 Water Level @ Sampling, Feet: 15.46

0006000

Method of Sampling: IN-SITU PUMP Dedicated: (Y) / N

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1240	19.9	9.75	3368	40.3	-125	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = 5.0 NTU ____ NTU std. = ____ NTU

Solutions: ____

pH Serial #: 600750 4.0 std.= ____ 7.0 std.= ____ 10.0 std. = ____

Solutions: 4-2188, 7-2140, 10-2150

Conductivity Serial #: 600750 146.9 umhos/cm= ____ 1412 umhos/cm= ____

Solutions: 146.9-26-1, 1412-26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: 55° SUN

Sample Characteristics: AMBER SLIGHT ODOR

COMMENTS AND OBSERVATIONS: ____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11 12012002 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: B-PW-11

Field Personnel: PL, TB Sample Matrix: GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-20-02 1340 Water Level @ Sampling, Feet: 10.57

Method of Sampling: Peristaltic Pump Dedicated: (Y) N

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1345	15.0	7.08	2976	7.87	-19	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = 5.0 NTU ____ NTU std. = ____ NTU

Solutions: ____

pH Serial #: 600750 4.0 std.= ____ 7.0 std.= ____ 10.0 std. = ____

Solutions: 4-2188, 7-2140, 10-2150

Conductivity Serial #: 600750 146.9 umhos/cm= ____ 1412 umhos/cm= ____

Solutions: 146.9-26-1, 1412-26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: 55° SUN

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS: ____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/20/2002 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: PW-12 (BK-101)

Field Personnel: PL, TB Sample Matrix: GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-20-02 / 1305 Water Level @ Sampling, Feet: 10.70

Method of Sampling: IN-SITU PUMP Dedicated: (Y) / N 1.93

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy 583055

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1310	16.8	8.65	2740	109.7	-31	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = 5.0 NTU ____ NTU std. = ____ NTU

Solutions: ____

pH Serial #: 600750 4.0 std.= ____ 7.0 std.= ____ 10.0 std. = ____

Solutions: 4-2188, 7-2140, 10-2150

Conductivity Serial #: 600750 146.9 umhos/cm= ____ 1412 umhos/cm= ____

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUN 55°

Sample Characteristics: SL TURBID

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/20/2002 By: [signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: P2-101

Field Personnel: R. Sant, P. Little Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-19-02 1248 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-19-02 1250 Date / Time Completed: 11-19-02 1310

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 14.95 Elevation. G/W MSL:

Well Total Depth, Feet: 21.69 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: Dedicated: (Y) / N

Total Volume Purged, Gal: 1.5 Purged To Dryness Y / (N)

Purge Observations: Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO.
1255	150	15.75		8.0	6.78	5878	6.31	6	1.00
1300	↓	↓		8.9	6.89	6023	5.12	6	.93
1305	↓	↓		8.9	7.15	6027	4.90	6	.90
1310	↓	↓		9.2	7.15	6026	4.83	5	.87

SAMPLED AT 1310 / 11-14-02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 / _____ Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 _____NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

pH Serial #: 6cc75c 4.0 std.=_____ 7.0 std.=_____ 10.0 std. =_____

Solutions: 4-21EE, 7-2140, 10-2150

Conductivity Serial #: 6cc75c 146.9 umhos/cm=_____ 1412 umhos/cm=_____

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11 / 1 02 By: _____ Company: STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: P2-102

Field Personnel: R. Scott, P. Little Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-19-02 1320 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-19-02 1321 Date / Time Completed: 11-19-02 1340

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 15.25 Elevation. G/W MSL:

Well Total Depth, Feet: 32.60 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: Dedicated: (Y) / N

Total Volume Purged, Gal: 1.5 Purged To Dryness Y / (N)

Purge Observations: Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other H2O
1325	100	15.25		9.3	7.12	4854	1.87	-150	.99
1330	↓	↓		9.9	7.24	4854	1.36	-168	.95
1335				9.9	7.23	4855	1.13	-171	.93
1340	↓	↓		9.9	7.24	4860	1.08	-173	.90

SAMPLED AT 1340 / 11-19-02

R. Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 / Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 _____NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

pH Serial #: 6cc25c 4.0 std.=_____ 7.0 std.=_____ 10.0 std. =_____

Solutions: 4-21EE, 7-2140, 10-2150

Conductivity Serial #: 6cc25c 146.9 umhos/cm=_____ 1412 umhos/cm=_____

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/1/02 By: _____ Company: STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: P2-103

Field Personnel: R. Scott, P. Little Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-19-02 / 1352 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-19-02 / 1355 Date / Time Completed: 11-19-02 / 1415

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 12.46 Elevation. G/W MSL:

Well Total Depth, Feet: ~~32.50~~ 32.52 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: Dedicated: (Y) / N

Total Volume Purged, Gal: 1.5 Purged To Dryness Y / (N)

Purge Observations: Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1400	100	13.25		10.9	7.19	4706	1.23	-225	1.56
1405	↓	↓		11.1	7.20	4678	1.16	-230	1.01
1410	↓	↓		11.5	7.20	4675	1.10	-230	.97
1415	↓	↓		11.8	7.20	4675	1.03	-231	.95

SAMPLED AT 1415 / 11-19-02

R. Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 / Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = ____NTU ____NTU std. = ____NTU

Solutions: _____

pH Serial #: 6cc75c 4.0 std.=_____ 7.0 std.=_____ 10.0 std. =_____

Solutions: 4-2166, 7-2140, 10-2150

Conductivity Serial #: 6cc75c 146.9 umhos/cm=_____ 1412 umhos/cm=_____

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11 / 02 By: _____ Company: STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: P2-104

Field Personnel: R. Scott, P. Little Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-20-02 1037 Cond of seal: (X) Good ( ) Cracked ____ % ( ) None ( ) Buried

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked ( ) Good ( ) Loose (X) Flush Mount ( ) Damaged ____

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-20-02 1040 Date / Time Completed: 11-20-02 1100

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 14.99 Elevation. G/W MSL: ____

Well Total Depth, Feet: 23.93 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: ____ Dedicated: (Y) / N

Total Volume Purged, Gal: 2.0 Purged To Dryness Y / (N)

Purge Observations: ____ Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1045	200 15.05		16.1	6.82	1906	14.62	-97	1.51
1050	↓ ↓		15.9	6.86	1888	7.85	-124	1.01
1055			15.9	6.84	1885	2.90	-126	.98
1100	↓ ↓		15.7	6.83	1887	1.26	-125	.94

SAMPLED AT 1100 / 11-20-02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 / Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = ____NTU ____NTU std. = ____NTU

Solutions: _____

pH Serial #: 600256 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = 10.0

Solutions: 4-2166, 7-2140, 10-2150

Conductivity Serial #: 600256 146.9 umhos/cm= 146.9 1412 umhos/cm= 1412

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/102 By: _____ Company: STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: P2-107

Field Personnel: R. Scott, P. Little Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-19-02 1135 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-19-02 1139 Date / Time Completed: 11-19-02 1200

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 6.74 Elevation. G/W MSL:

Well Total Depth, Feet: 27.90 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: Dedicated: (Y) / N

Total Volume Purged, Gal: 1.0 Purged To Dryness Y / (N)

Purge Observations: Start Clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1145	ml/min 100	6.90		9.9	7.01	3260	4.85	-47	.63
1150	↓	↓		10.0	7.10	3290	2.30	-100	.57
1155	↓	↓		10.3	7.13	3289	2.14	-100	.49
1200	↓	↓		10.4	7.17	3290	2.94	-100	.47

SAMPLED AT 1200/11-19-02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 1 Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

pH Serial #: ECC 25C 4.0 std.=_____ 7.0 std.=_____ 10.0 std. =_____

Solutions: 4 - 2166, 7 - 2140, 10 - 2150

Conductivity Serial #: ECC 25C 146.9 umhos/cm=_____ 1412 umhos/cm=_____

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11 1 02 By: _____ Company: STC

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: QO-2

Field Personnel: RS/PL Sample Matrix: S/W

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-18-02 1 0850 Water Level @ Sampling, Feet: N/A

Method of Sampling: MANUAL GRAB Dedicated: (Y) / N

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
0852	8.0	7.13	1848		121	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = 5.0 NTU ____NTU std. = ____NTU

Solutions: _____

pH Serial #: 600750 4.0 std.=_____ 7.0 std.=_____ 10.0 std. =_____

Solutions: 4-2188, 7-2140, 10-2150

Conductivity Serial #: 600750 146.9 umhos/cm=_____ 1412 umhos/cm=_____

Solutions: 146.9-26-1, 1412-26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: SNOW, 32°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: QUARRY DISCHARGE

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/18/2002 By: _____ Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: QO-251

Field Personnel: RS/PL Sample Matrix: S/W

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-18-02 1 0900 Water Level @ Sampling, Feet: N/A

Method of Sampling: S/S BAILER Dedicated: Y (N)

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
0905	8.1	7.24	695		94	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = 5.0 NTU ____ NTU std. = ____ NTU

Solutions: ____

pH Serial #: 600750 4.0 std.= ____ 7.0 std.= ____ 10.0 std. = ____

Solutions: 4-2188, 7-2140, 10-2150

Conductivity Serial #: 600750 146.9 umhos/cm= ____ 1412 umhos/cm= ____

Solutions: 146.9-26-1, 1412-26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: SNOW, 32°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: CANAL

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/18/2002 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: QS-4

Field Personnel: RS/PC Sample Matrix: S/W

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-18-02 1015 Water Level @ Sampling, Feet: N/A

Method of Sampling: S/S PAIL Dedicated: Y (N)

Multi-phased/ layered: ( ) Yes (X) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1020	8.8	6.95	1606		-16	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = 5.0 NTU ____NTU std. = ____NTU

Solutions: _____

pH Serial #: 600750 4.0 std.=____ 7.0 std.=____ 10.0 std. =____

Solutions: 4-2188, 7-2140, 10-2150

Conductivity Serial #: 600750 146.9 umhos/cm=____ 1412 umhos/cm=____

Solutions: 146.9-26-1, 1412-26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: SNOW, 32°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/18/2002 By: [signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: S-3

Field Personnel: R. Scott, P. Little Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-19-02 1210 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-19-02 1215 Date / Time Completed: 11-19-02 1235

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 2.75 Elevation. G/W MSL:

Well Total Depth, Feet: 13.35 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: Dedicated: (Y) / N

Total Volume Purged, Gal: 1.0 Purged To Dryness Y (N)

Purge Observations: Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1220	100	2.75		11.2	7.29	2334	6.20	-42	1.97
1225	↓	↓		11.3	7.37	2347	5.40	-43	1.09
1230				11.2	7.40	2359	4.75	-43	.96
1235	↓	↓		11.2	7.41	2372	3.97	-43	.93

SAMPLED AT 1235/11-19-02

PL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11-__-02 1 Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 NTU std. = ____NTU ____NTU std. = ____NTU

Solutions: _____

pH Serial #: 6cc25c 4.0 std.=_____ 7.0 std.=_____ 10.0 std. =_____

Solutions: 4-21EE, 7-2140, 10-2150

Conductivity Serial #: 6cc25c 146.9 umhos/cm=_____ 1412 umhos/cm=_____

Solutions: 146.9 - 26-1, 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/1/02 By: _____ Company: STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: S-4

Field Personnel: R. Scott, P. Little Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-19-02 1056 Cond of seal: (X) Good ( ) Cracked ____ % ( ) None ( ) Buried

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged ____

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: — / — % LEL: — / —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-19-02 1100 Date / Time Completed: 11-19-02 1120

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2.0

Initial Water Level, Feet: .70 Elevation. G/W MSL: ____

Well Total Depth, Feet: 13.05 Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: ____ Dedicated: (Y) / N

Total Volume Purged, Gal: 1.0 Purged To Dryness Y (N)

Purge Observations: ____ Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other DO	Other ORP
1105	100	.70		9.1	7.17	347	30.6	1.05	-43
1110				9.0	7.37	347	25.4	.97	-44
1115				9.0	7.40	346	15.03	.93	-40
1120				9.0	7.40	346	15.06	.93	-38

SAMPLED AT 1120 / 11-19-02

RL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time 11- -02 / _____ Water Level @ Sampling, Feet: _____

Method of Sampling: _____ Dedicated: Y / N

Multi-phased/ layered: ( ) Yes ( ) No If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3794 _____NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

pH Serial #: 66075 4.0 std.=_____ 7.0 std.=_____ 10.0 std. =_____

Solutions: 4-2166, 7-2140, 10-2150

Conductivity Serial #: 60756 146.9 umhos/cm=_____ 1412 umhos/cm=_____

Solutions: 146.9 - 26-1 1412 - 26-2

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

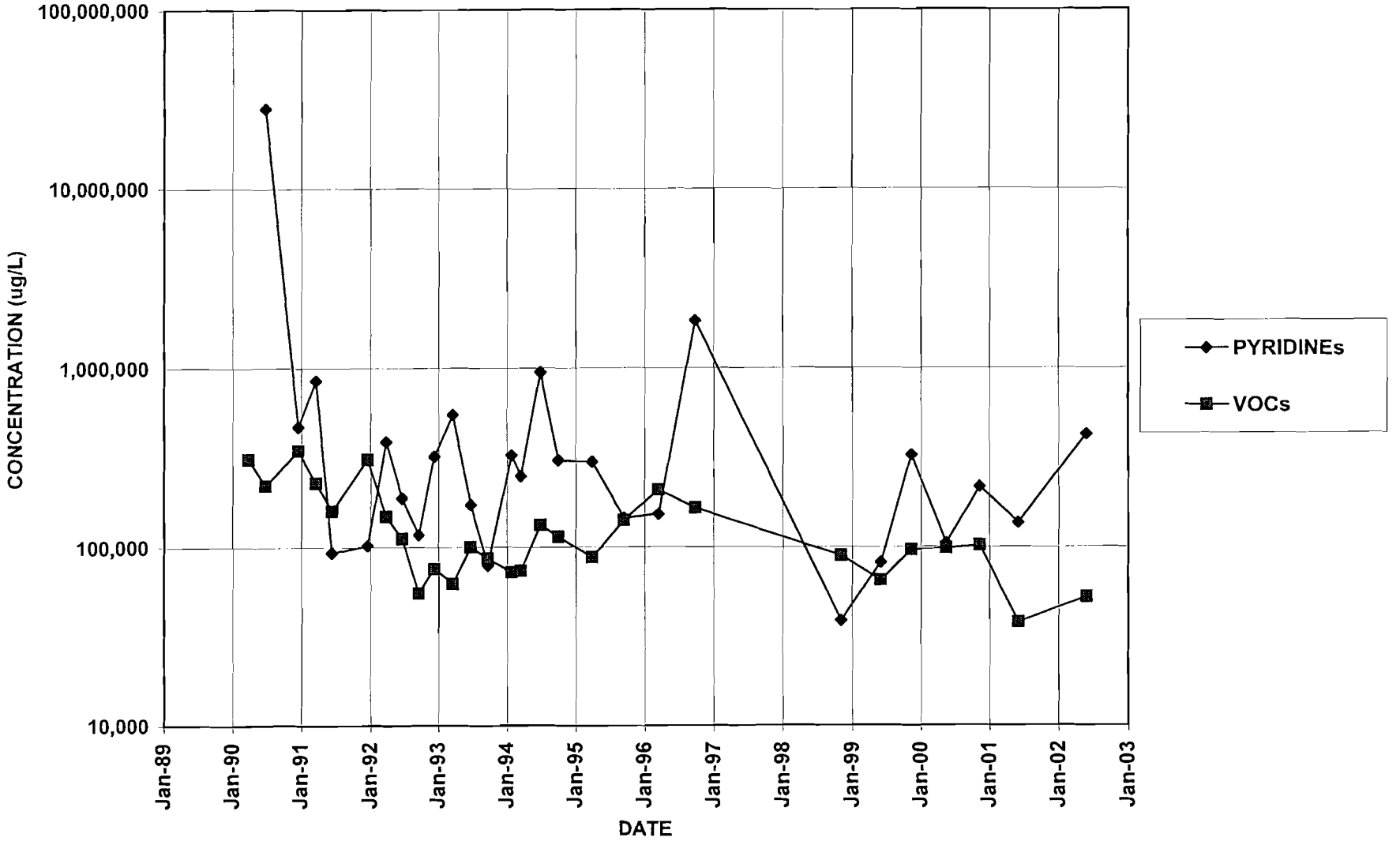
I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/102 By: _____ Company: STC

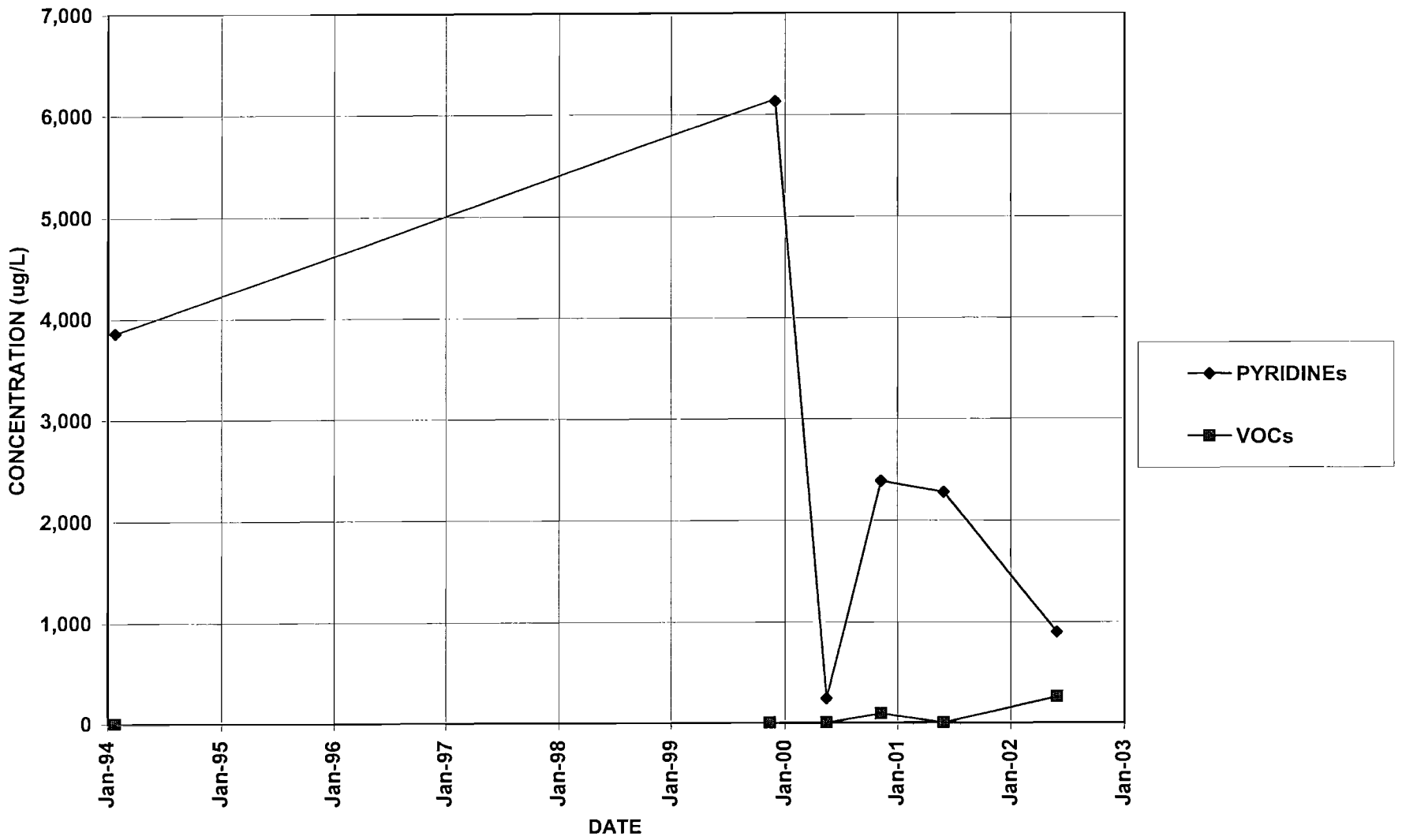
Appendix B

Well Trend Data

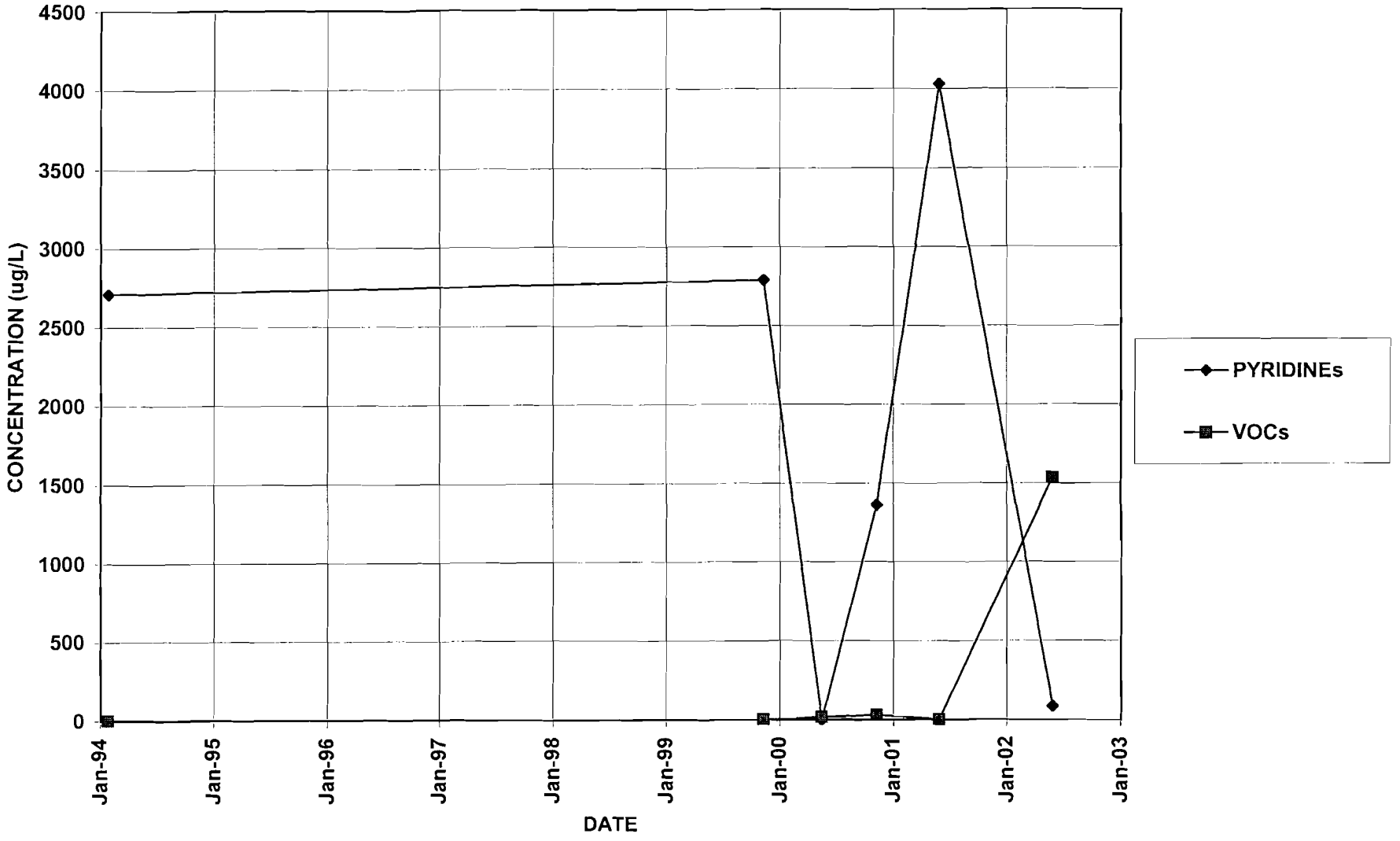
B-17


100,000,000
10,000,000
1,000,000
100,000
10,000
CONCENTRATION (ug/L)
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

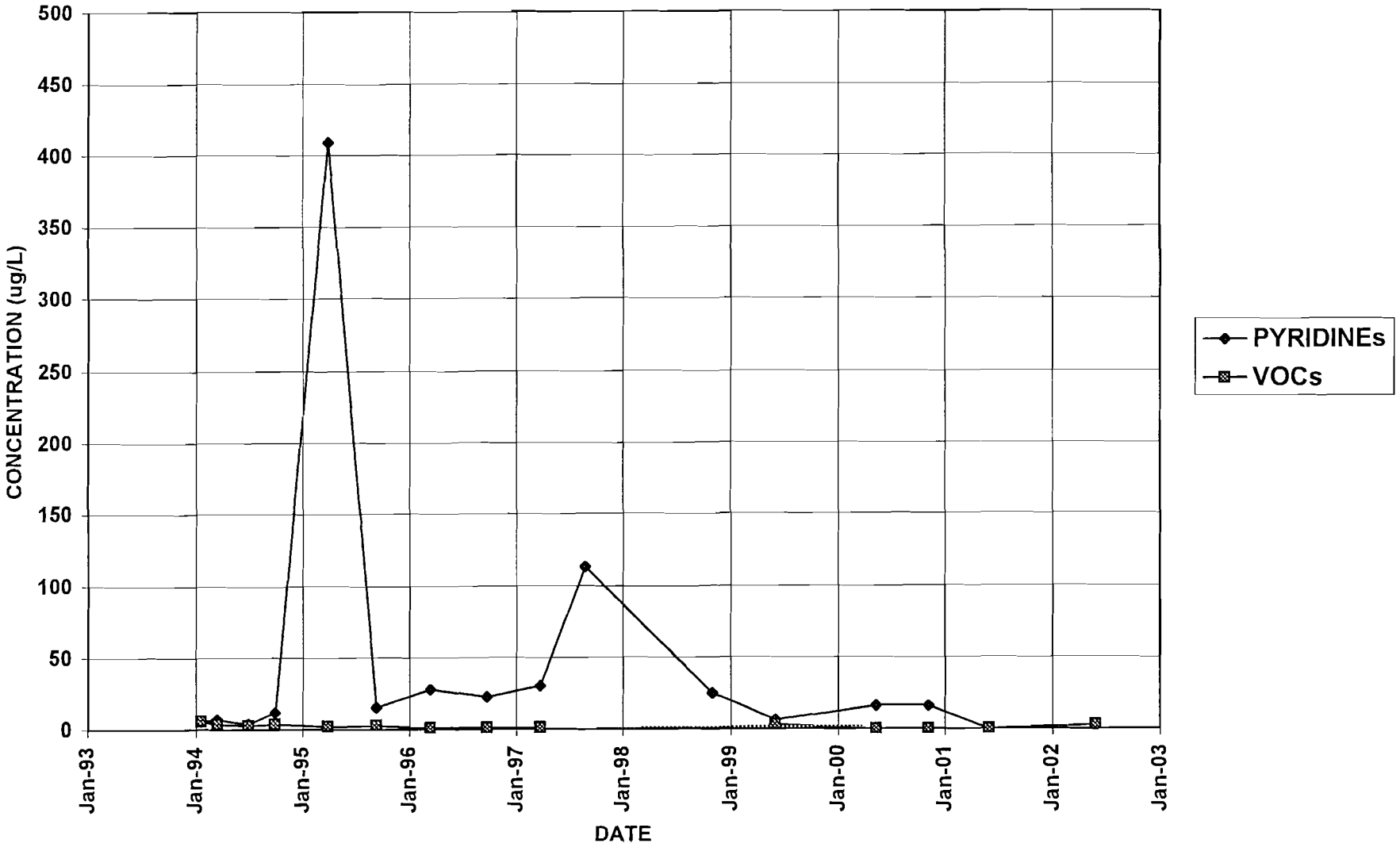
B-7


7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

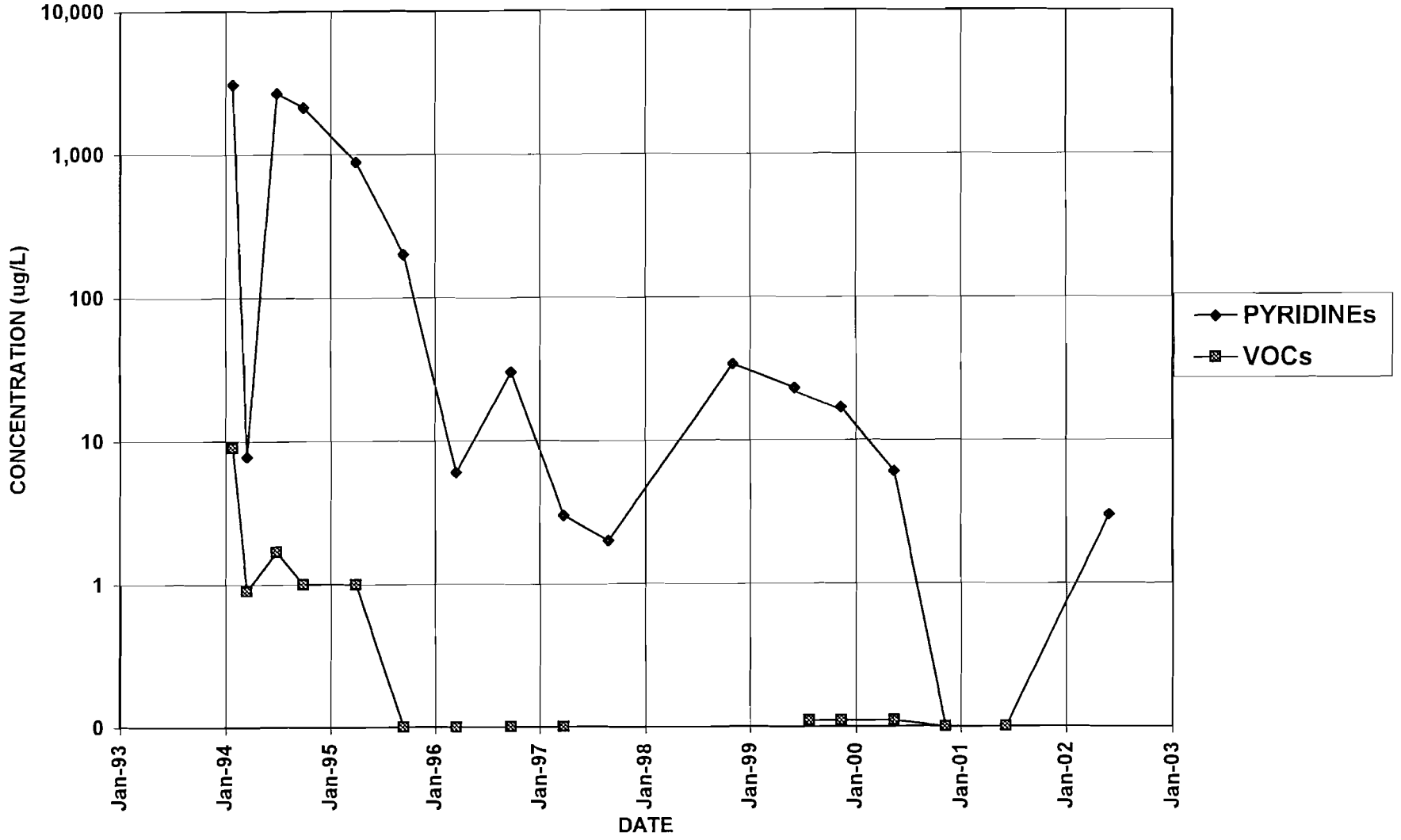
B-9

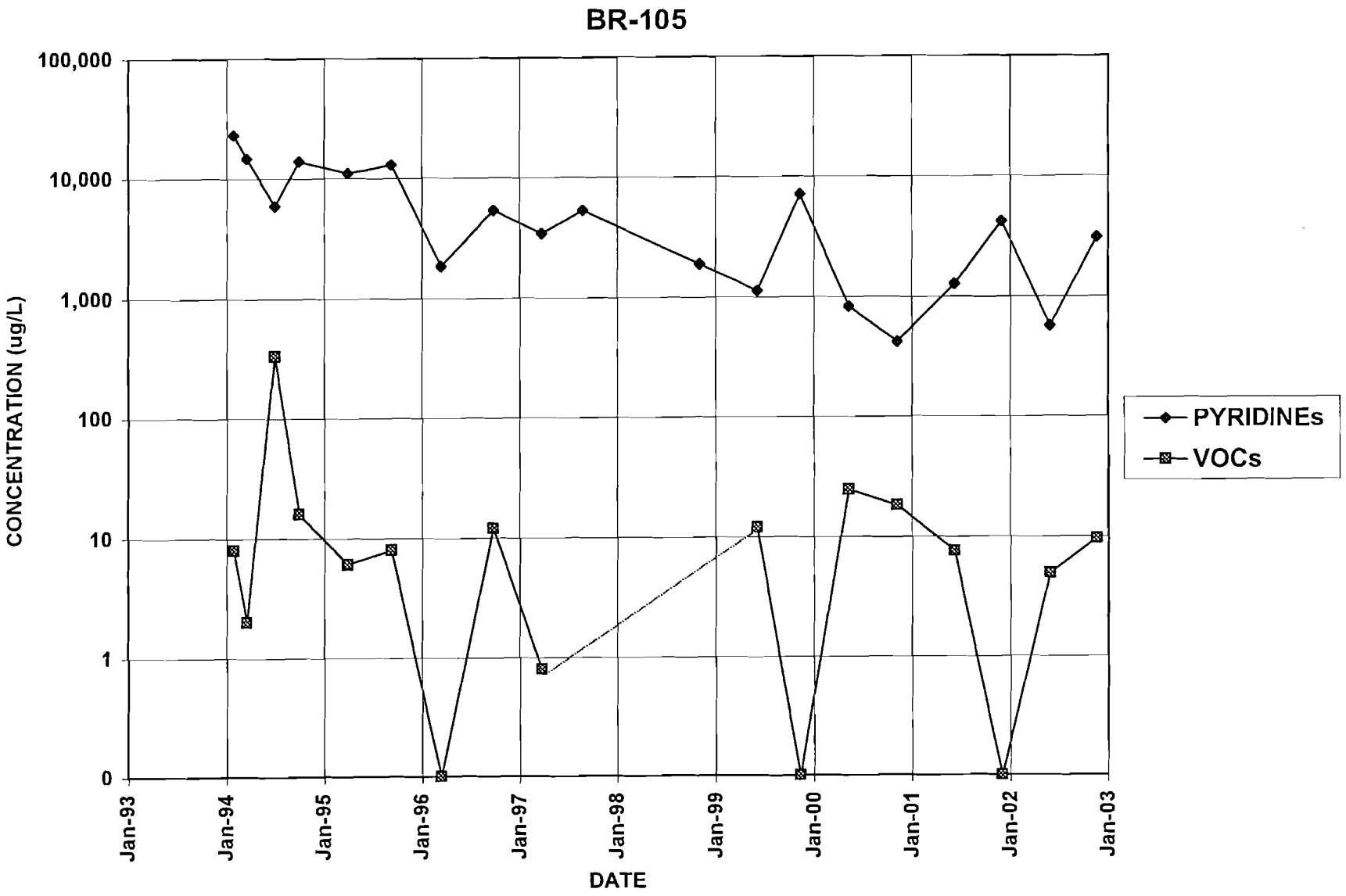

4500
4000
3500
3000
2500
2000
1500
1000
500
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

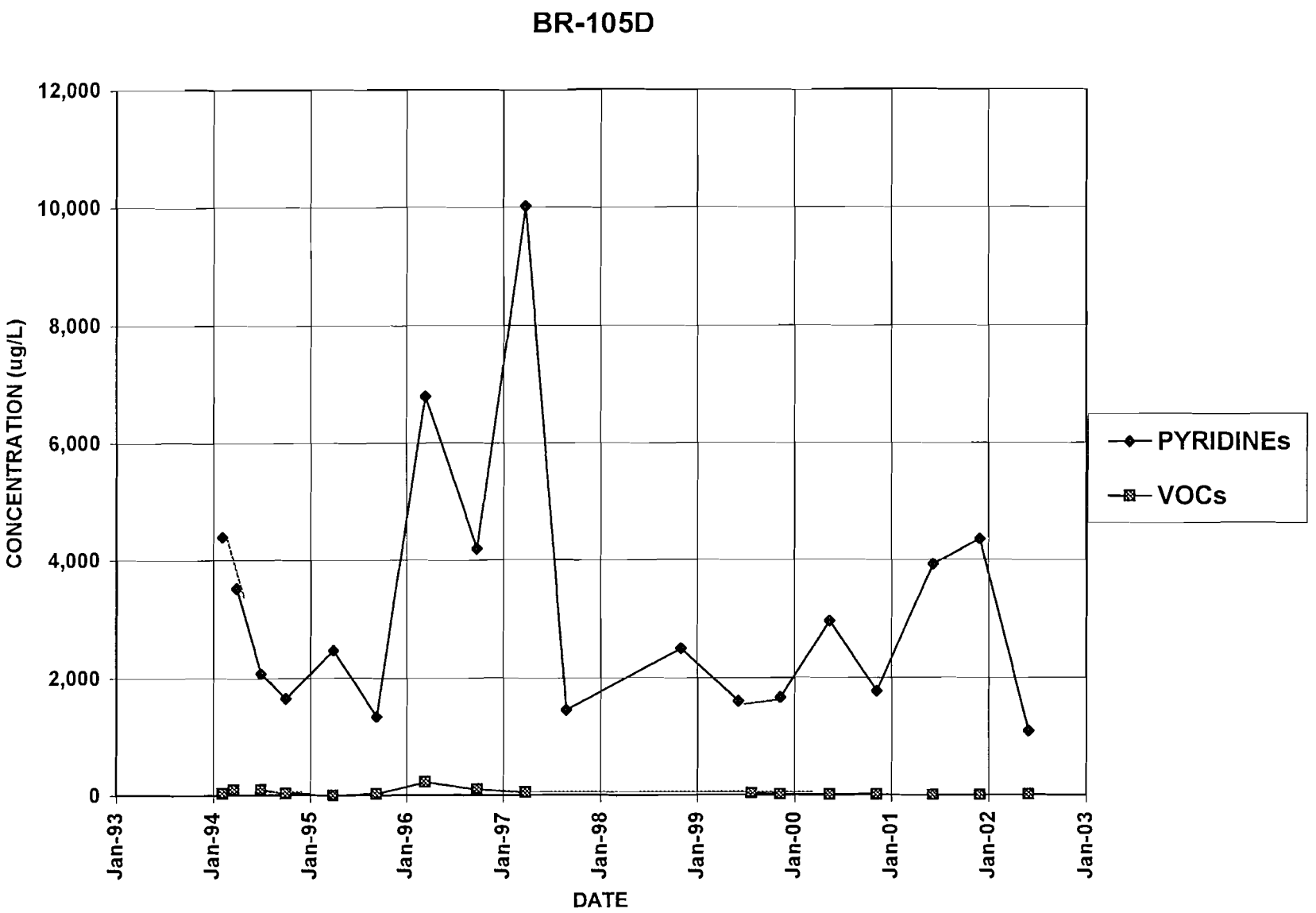
BR-103


500
450
400
350
300
250
200
150
100
50
0
CONCENTRATION (ug/L)
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

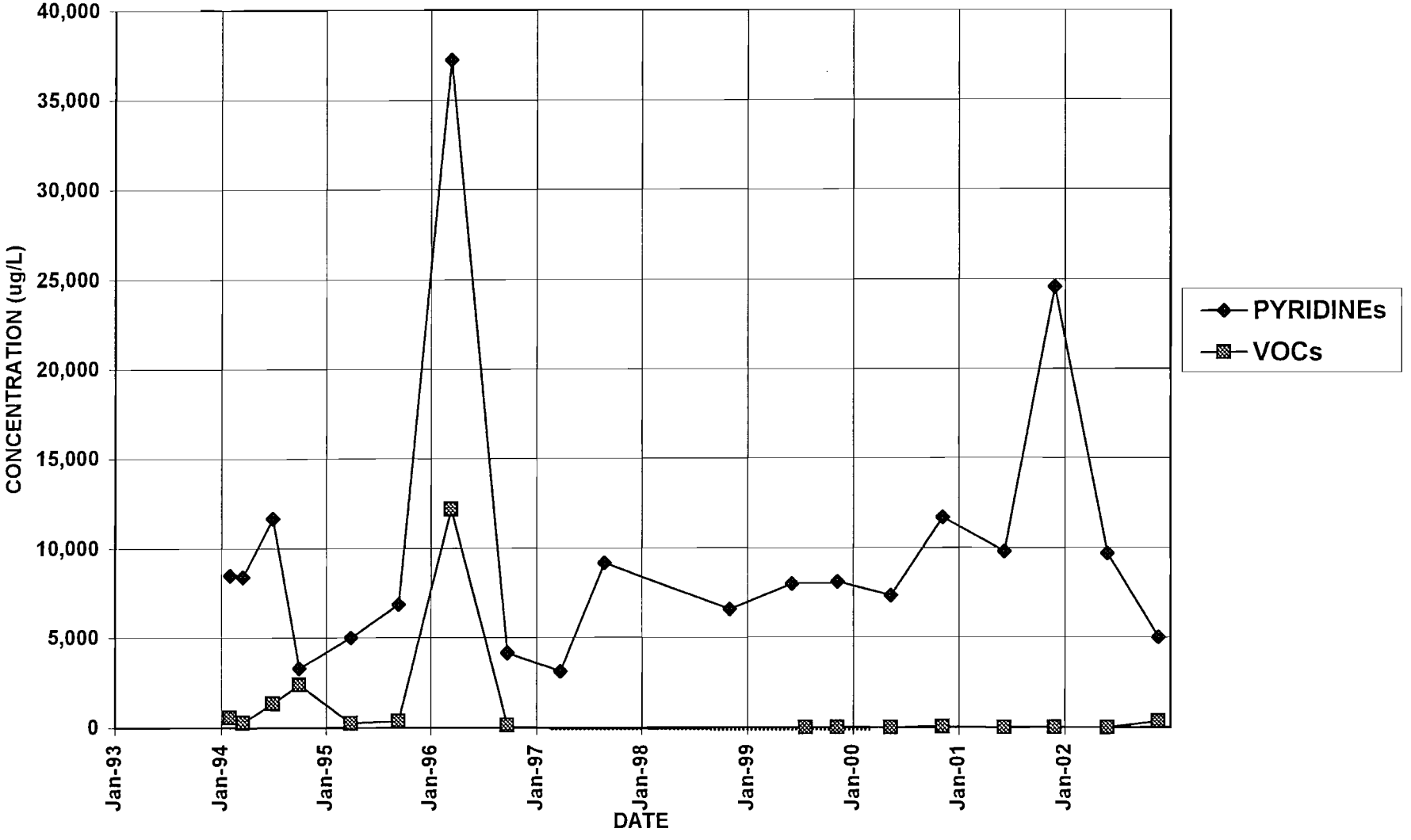
BR-104


10,000
1,000
100
10
1
0
CONCENTRATION (ug/L)
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

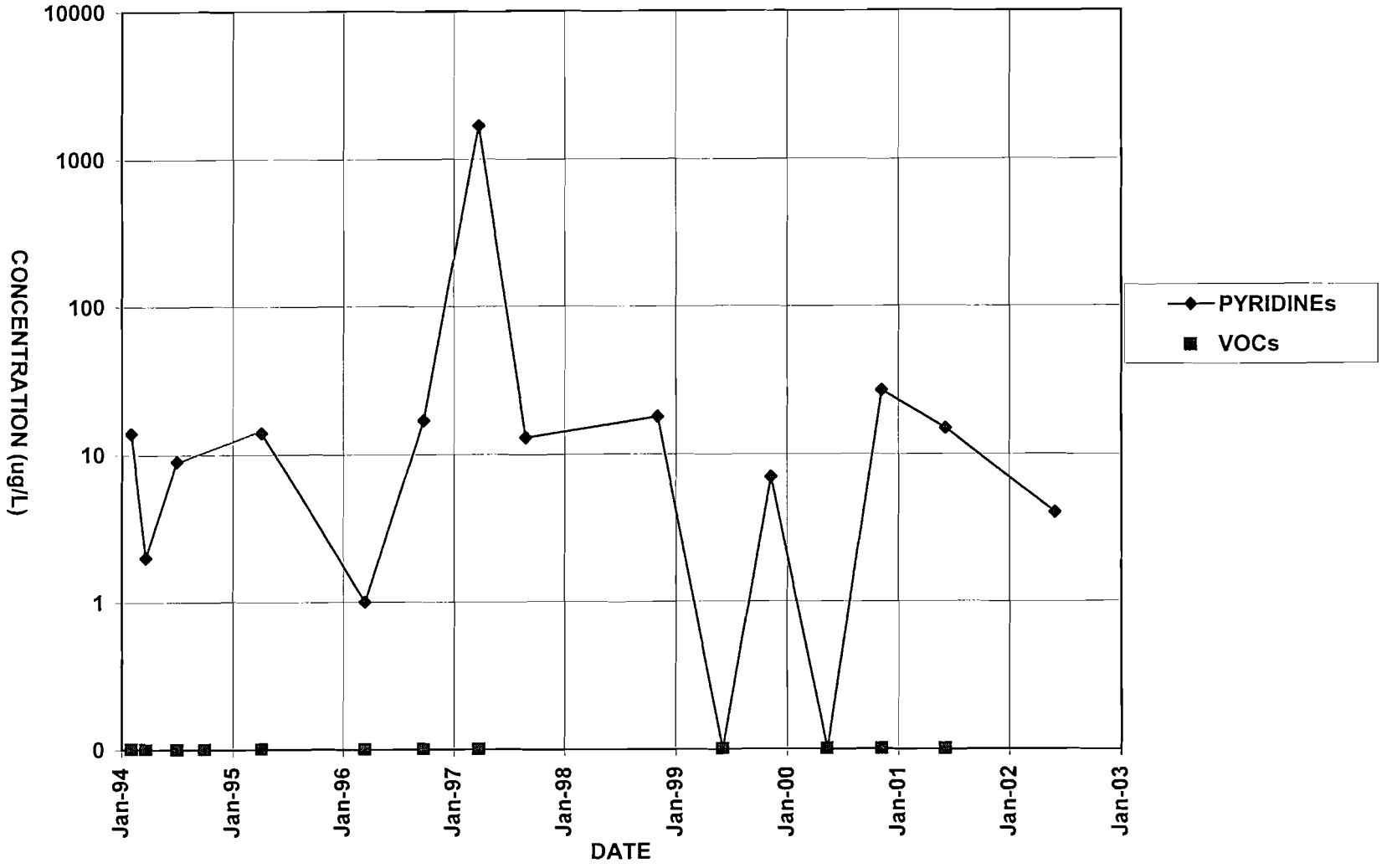

BR-105
100,000
10,000
1,000
100
10
1
0
CONCENTRATION (ug/L)
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

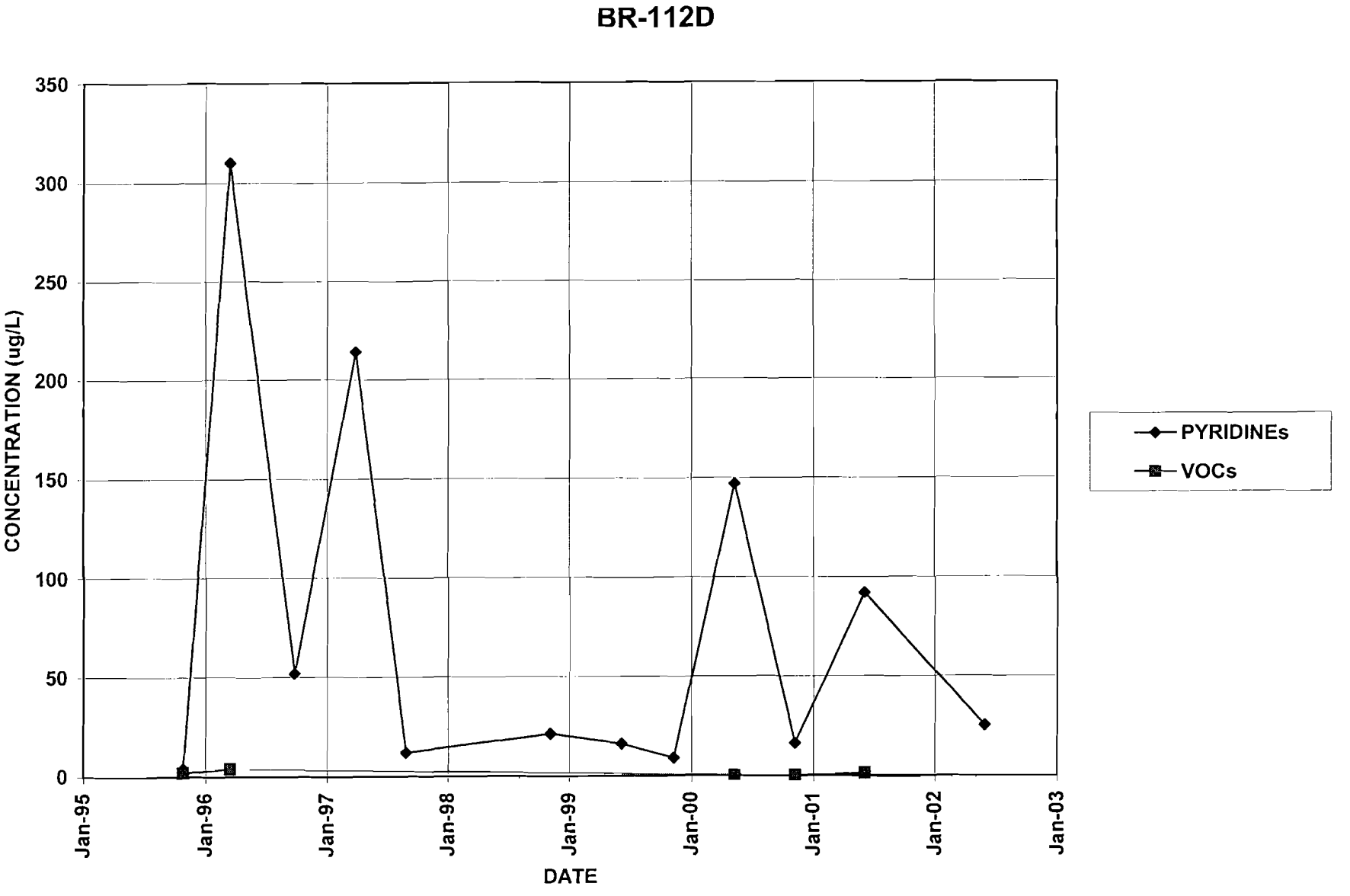

BR-105D
12,000
10,000
8,000
6,000
4,000
2,000
0
CONCENTRATION (ug/L)
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

BR-106

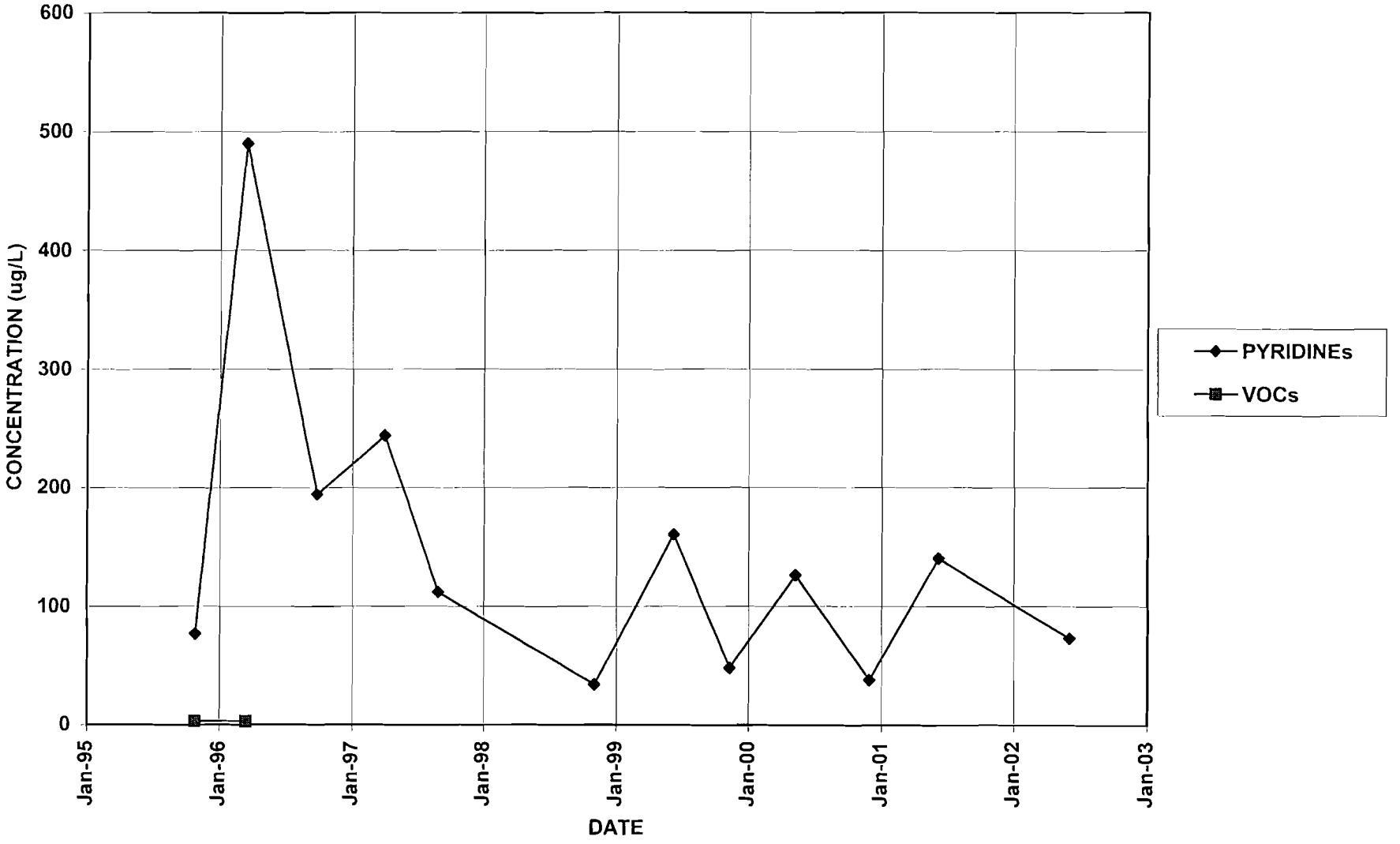

40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
CONCENTRATION (ug/L)
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
DATE
PYRIDINEs
VOCs

BR-108

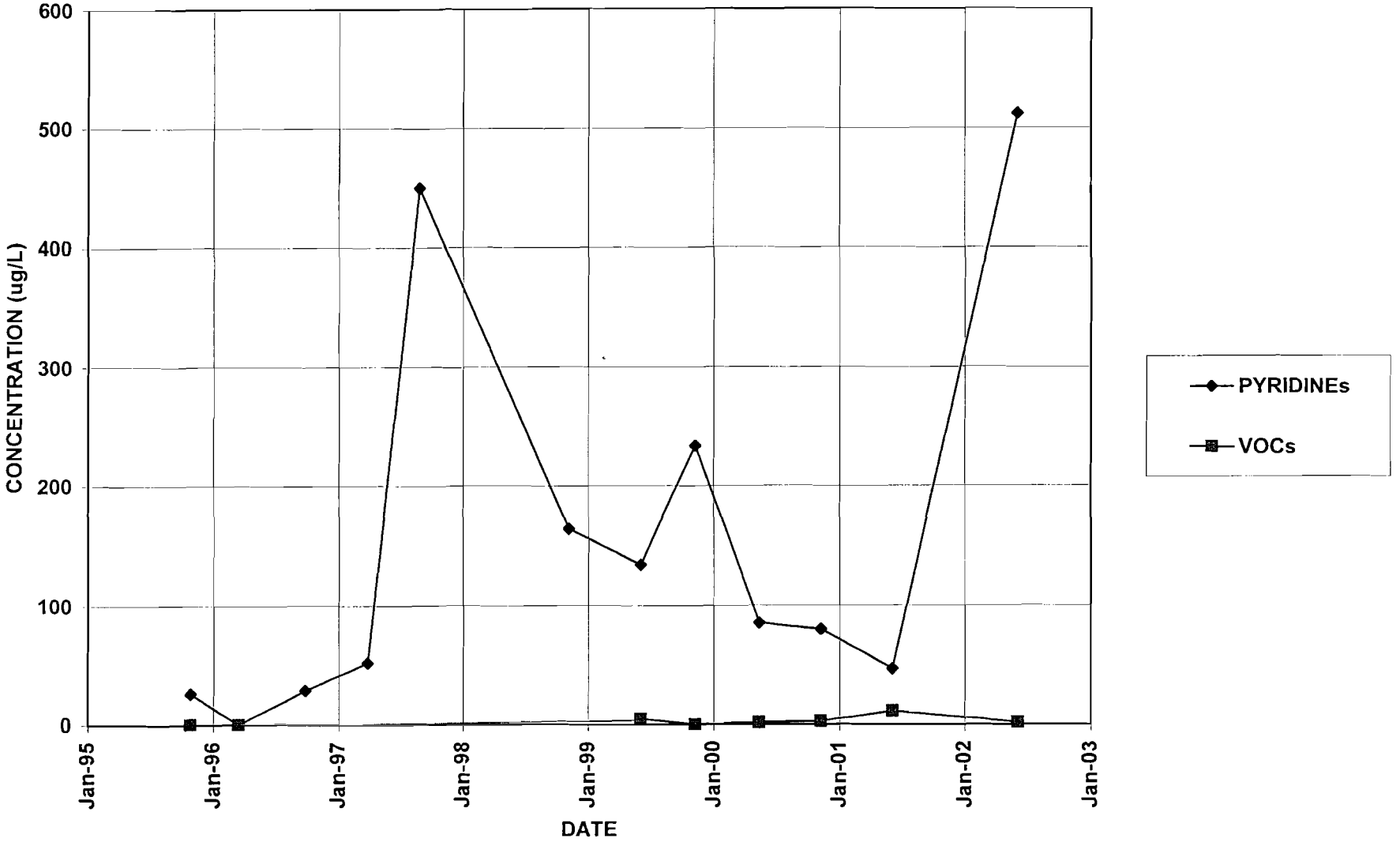

10000
1000
100
10
1
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

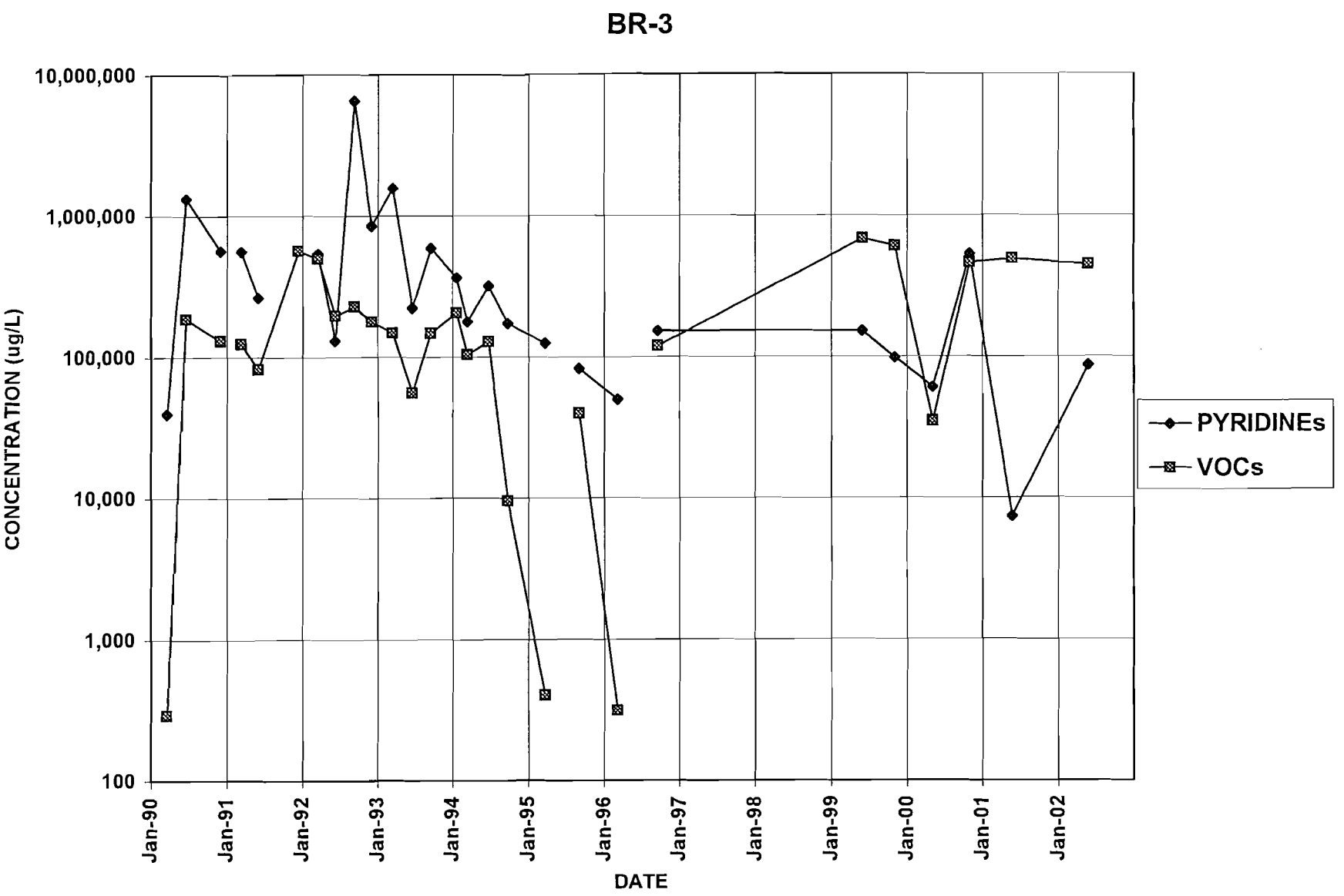

BR-112D
350
300
250
200
150
100
50
0
CONCENTRATION (ug/L)
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

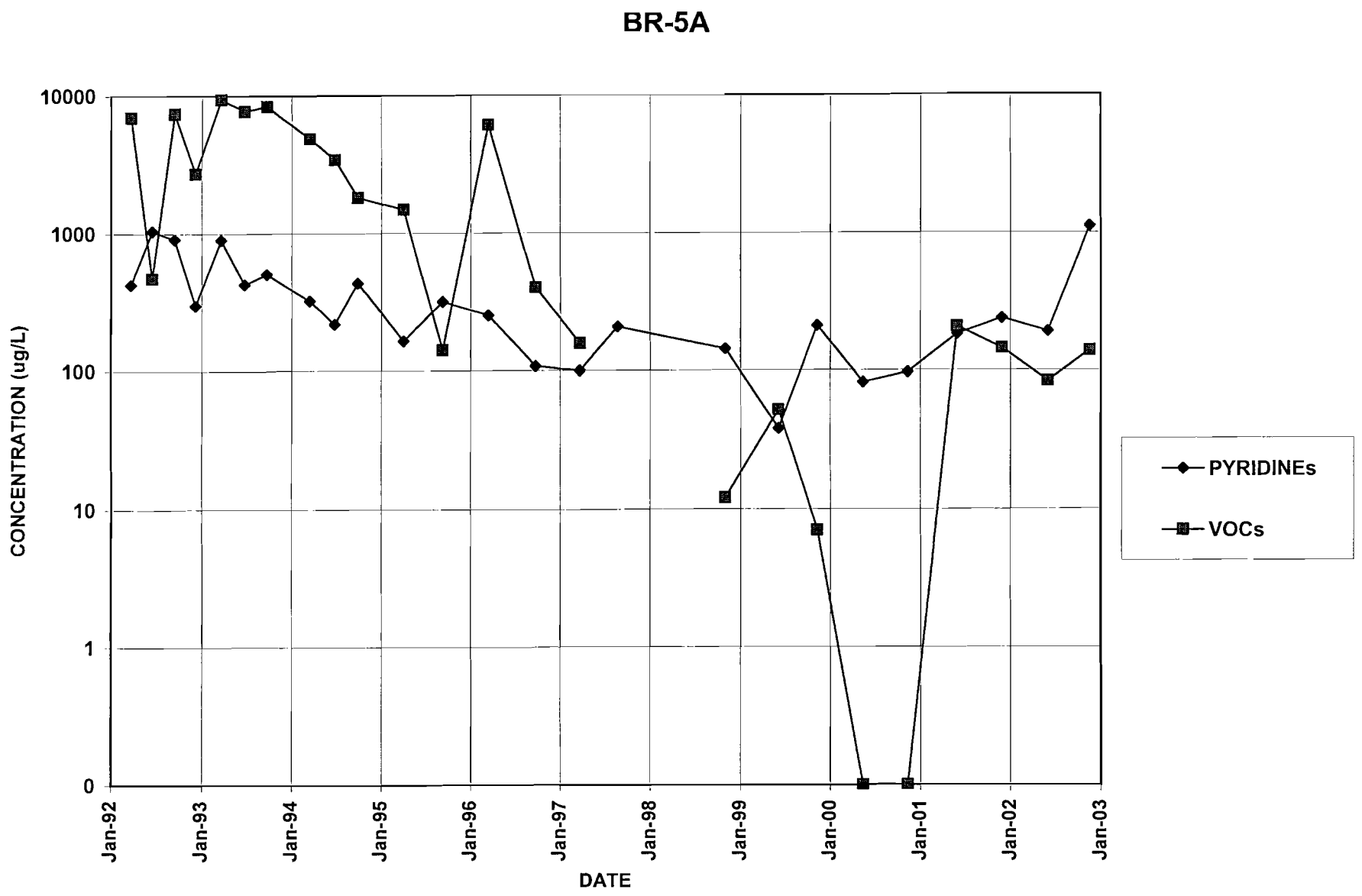
BR-113D

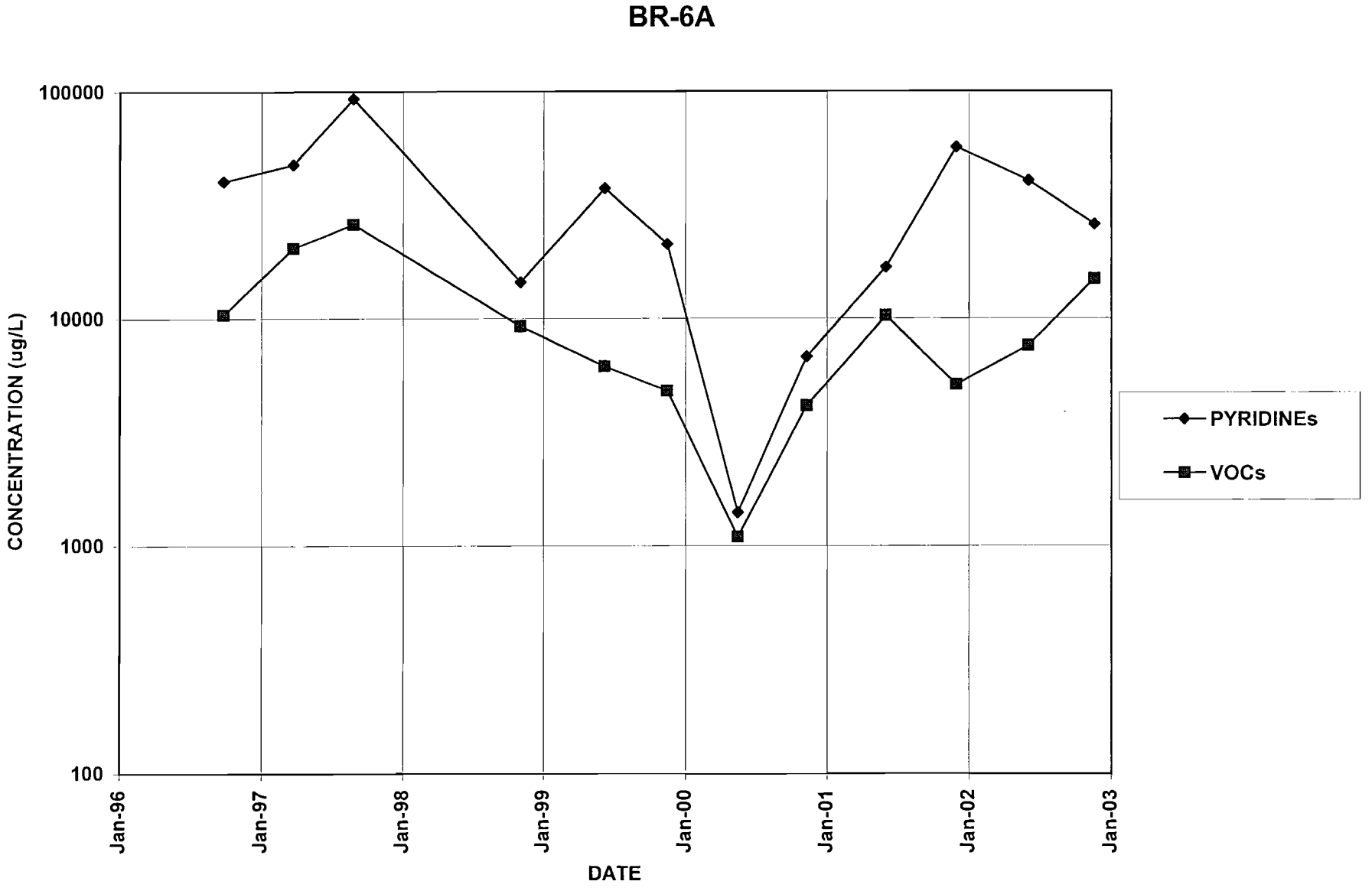

600
500
400
300
200
100
0
CONCENTRATION (ug/L)
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

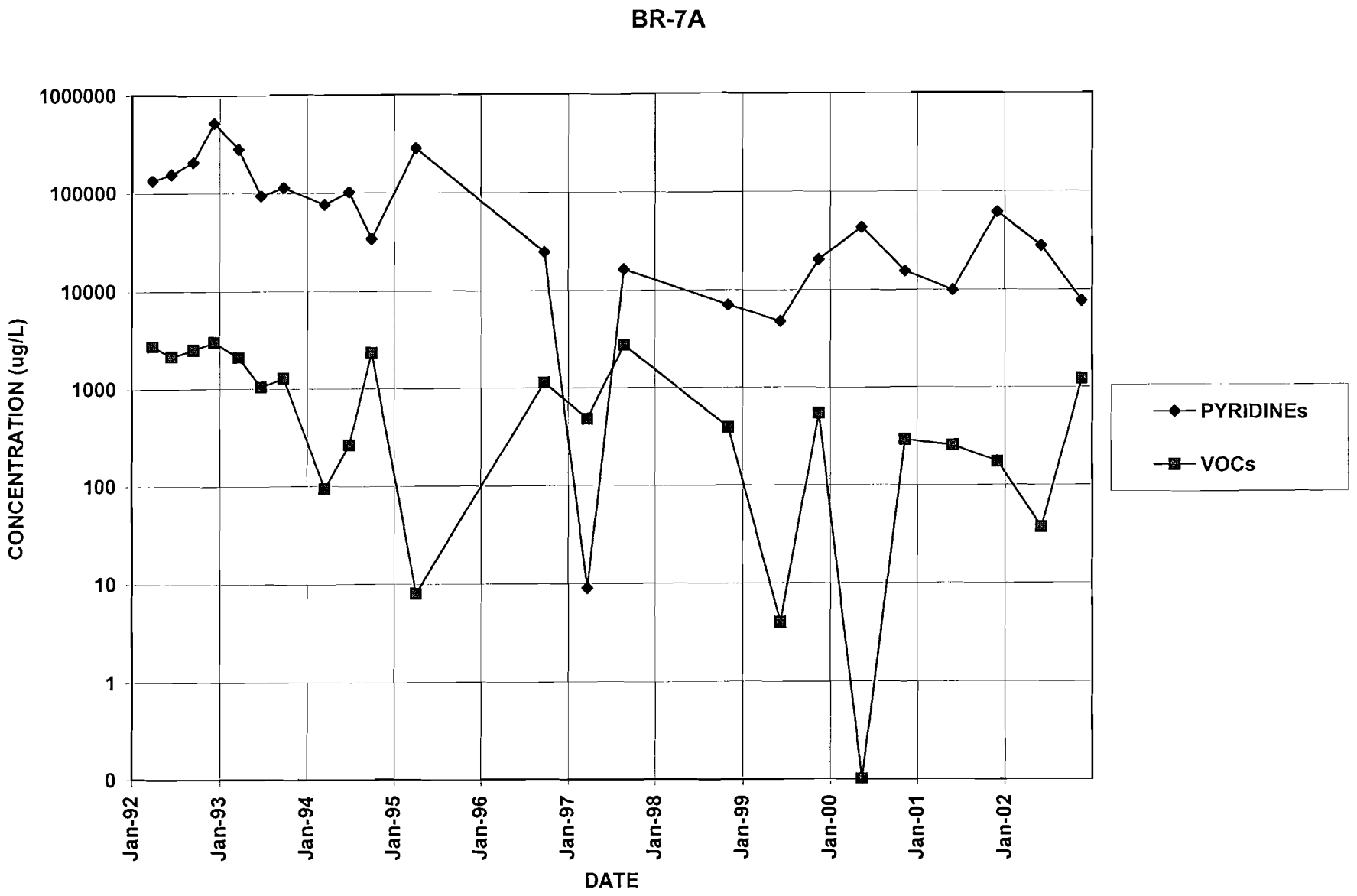
BR-114


600
500
400
300
200
100
0
CONCENTRATION (ug/L)
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

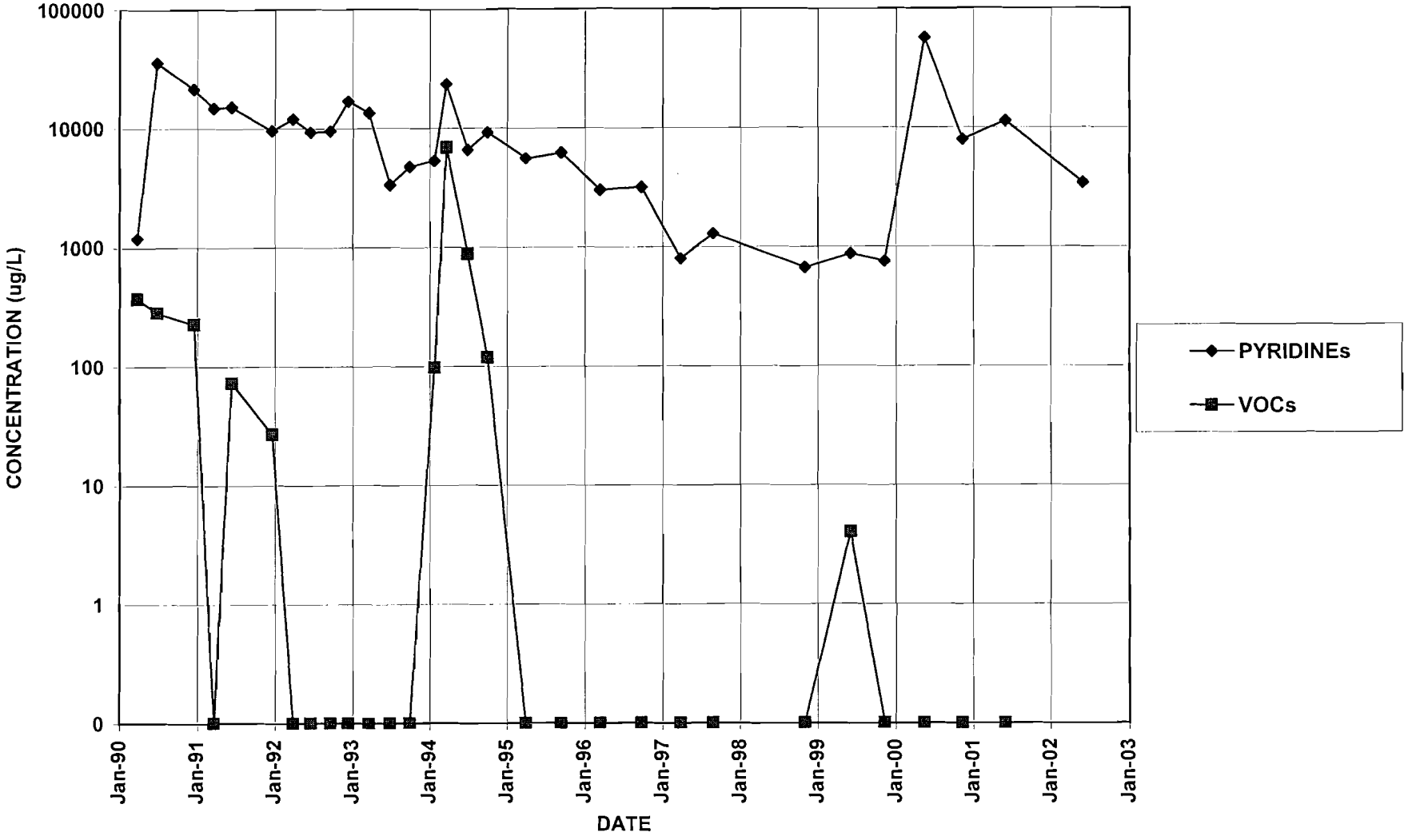

BR-3
10,000,000
1,000,000
100,000
10,000
1,000
100
CONCENTRATION (ug/L)
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
DATE
PYRIDINEs
VOCs

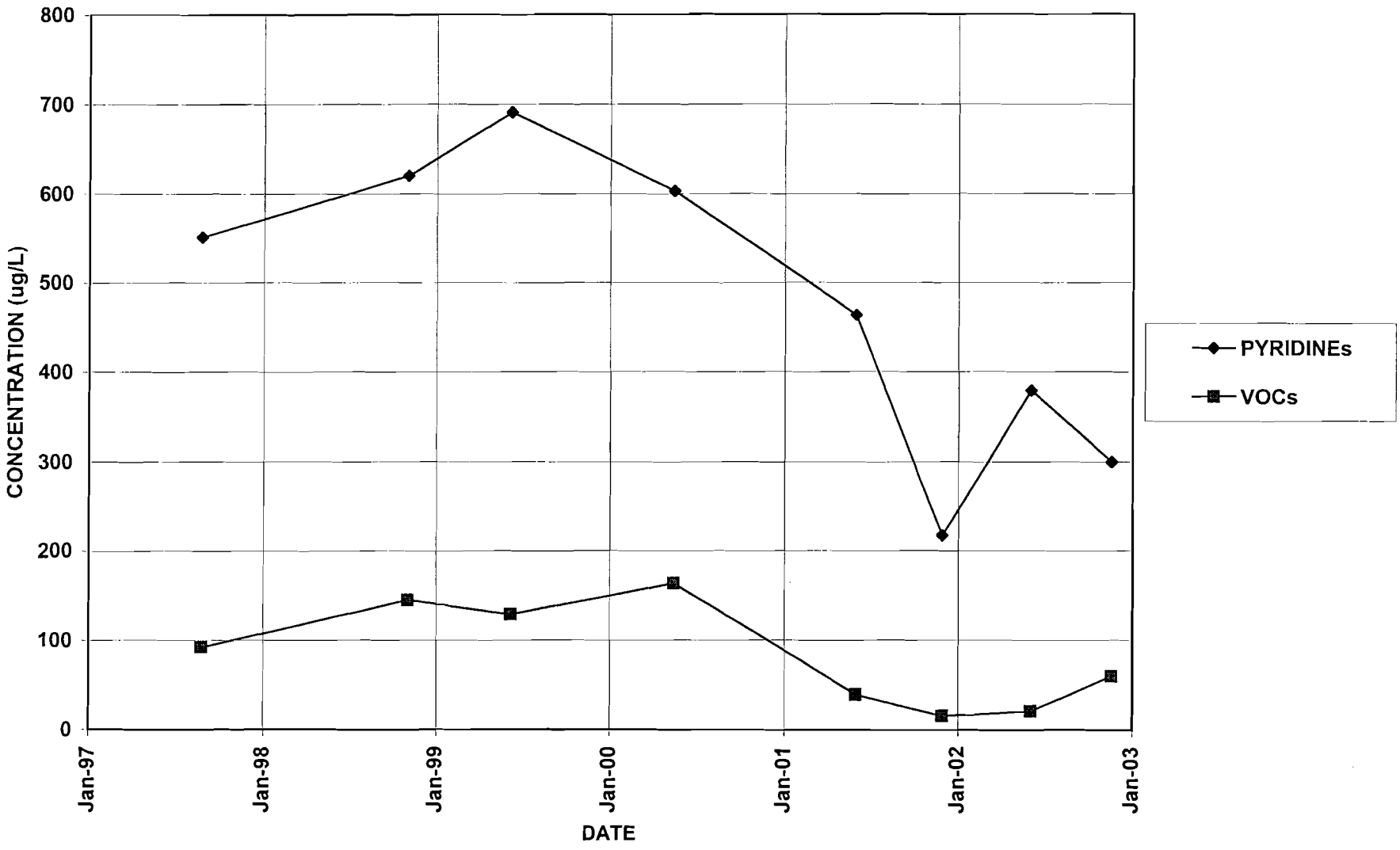

BR-5A
10000
1000
100
10
1
0
CONCENTRATION (ug/L)
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs


BR-6A
100000
10000
1000
100
CONCENTRATION (ug/L)
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

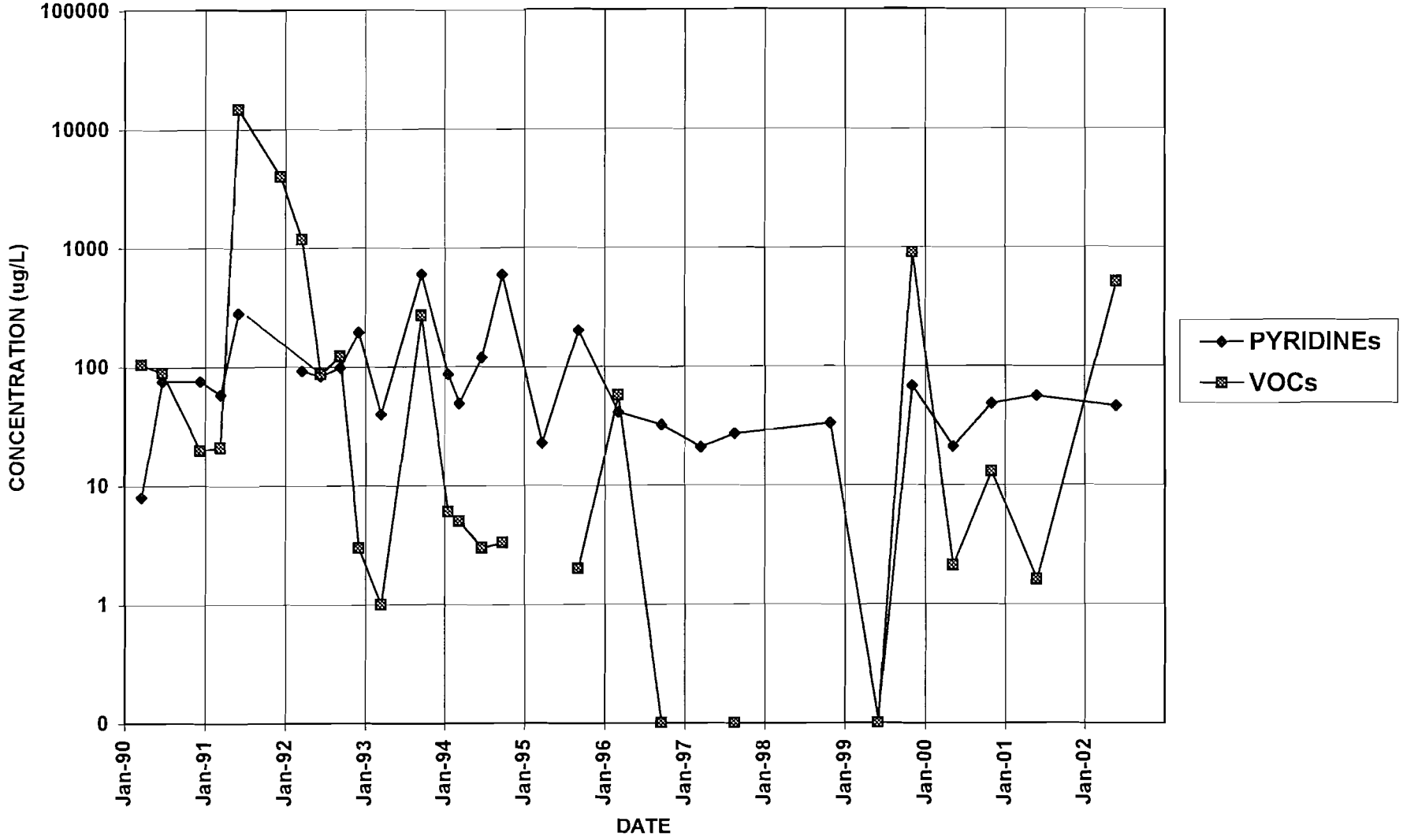

BR-7A
1000000
100000
10000
1000
100
10
1
0
CONCENTRATION (ug/L)
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
DATE
PYRIDINEs
VOCs

BR-8

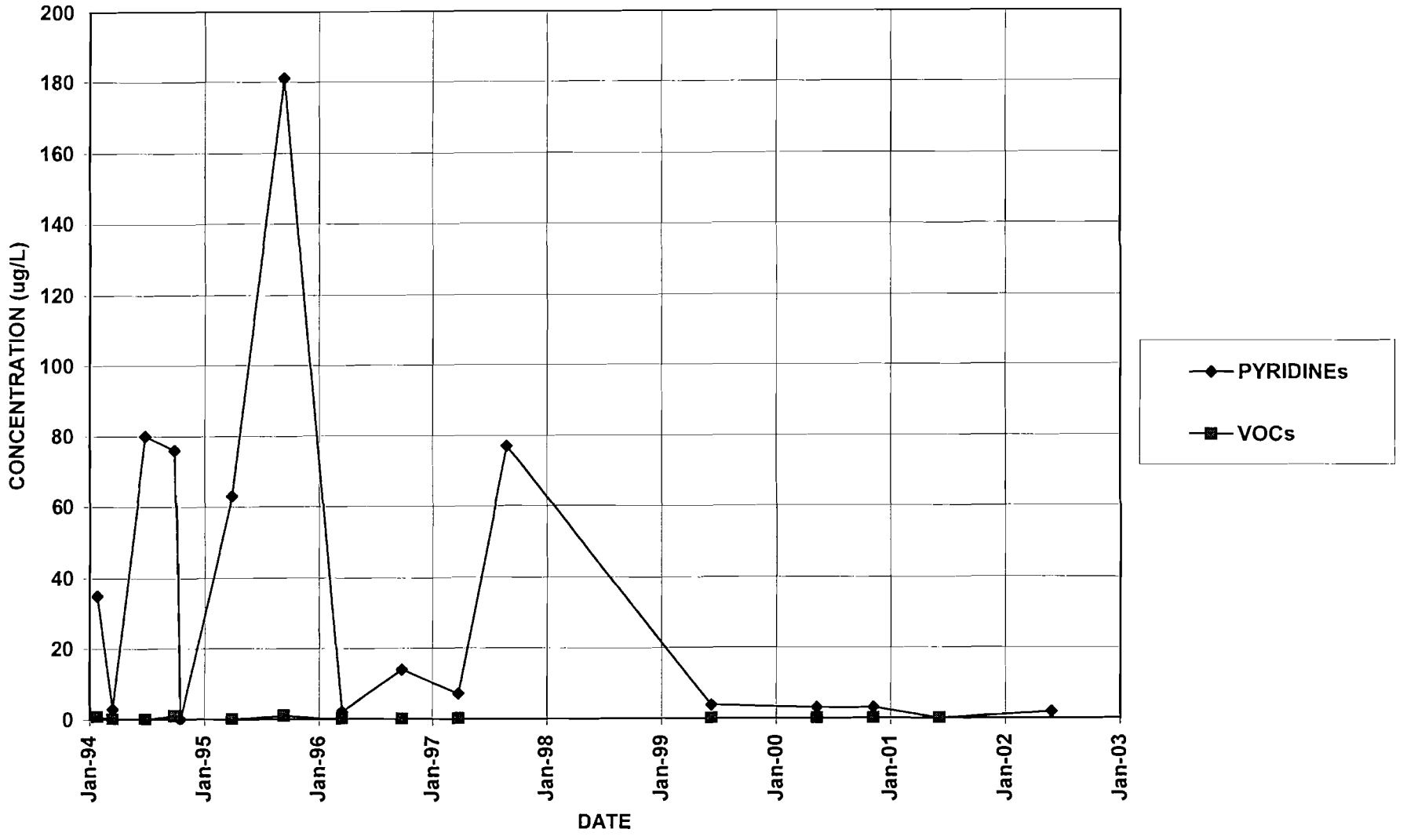

100000
10000
1000
100
10
1
0
CONCENTRATION (ug/L)
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

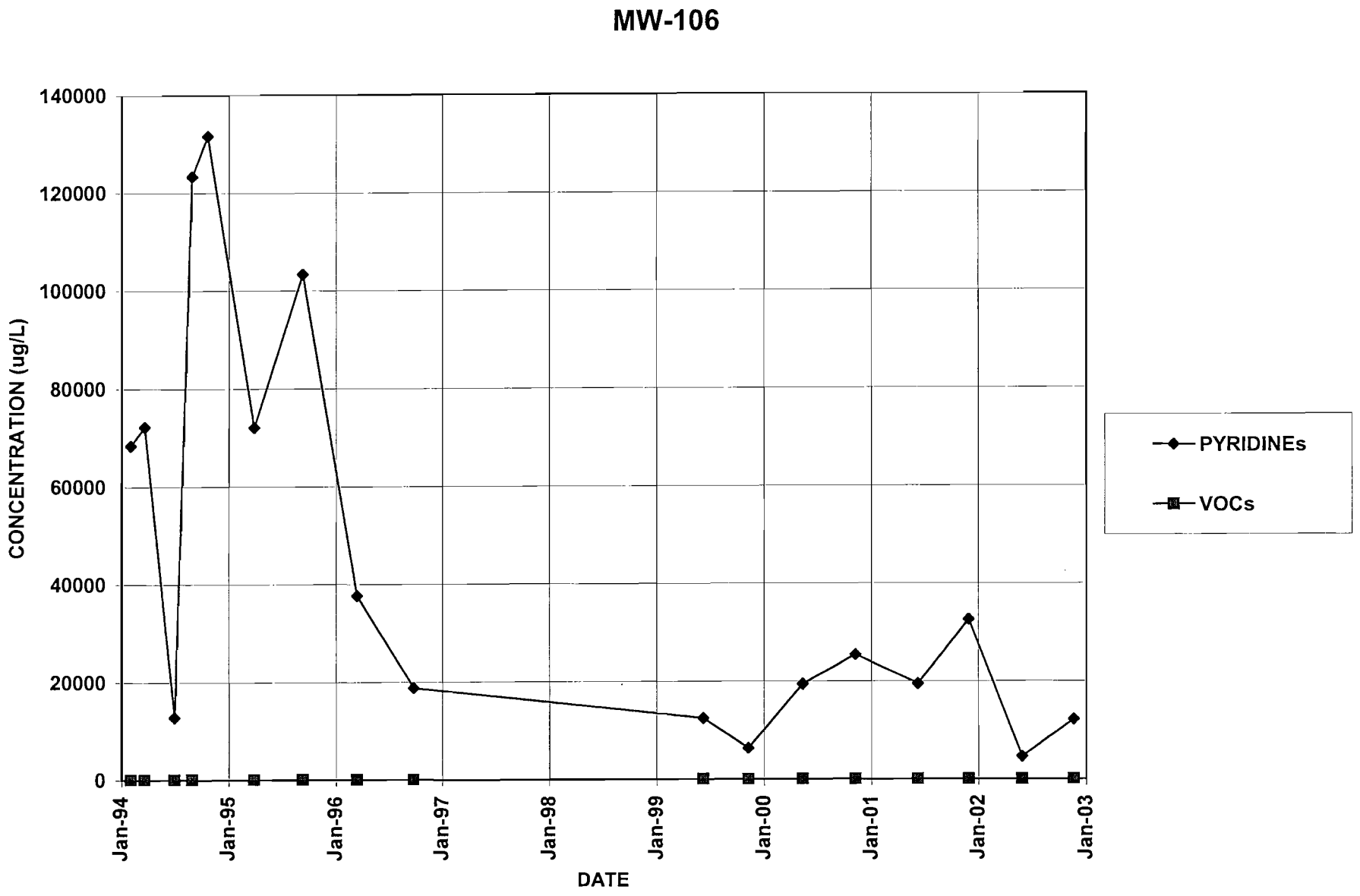

BR-9
800
700
600
500
400
300
200
100
0
CONCENTRATION (ug/L)
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

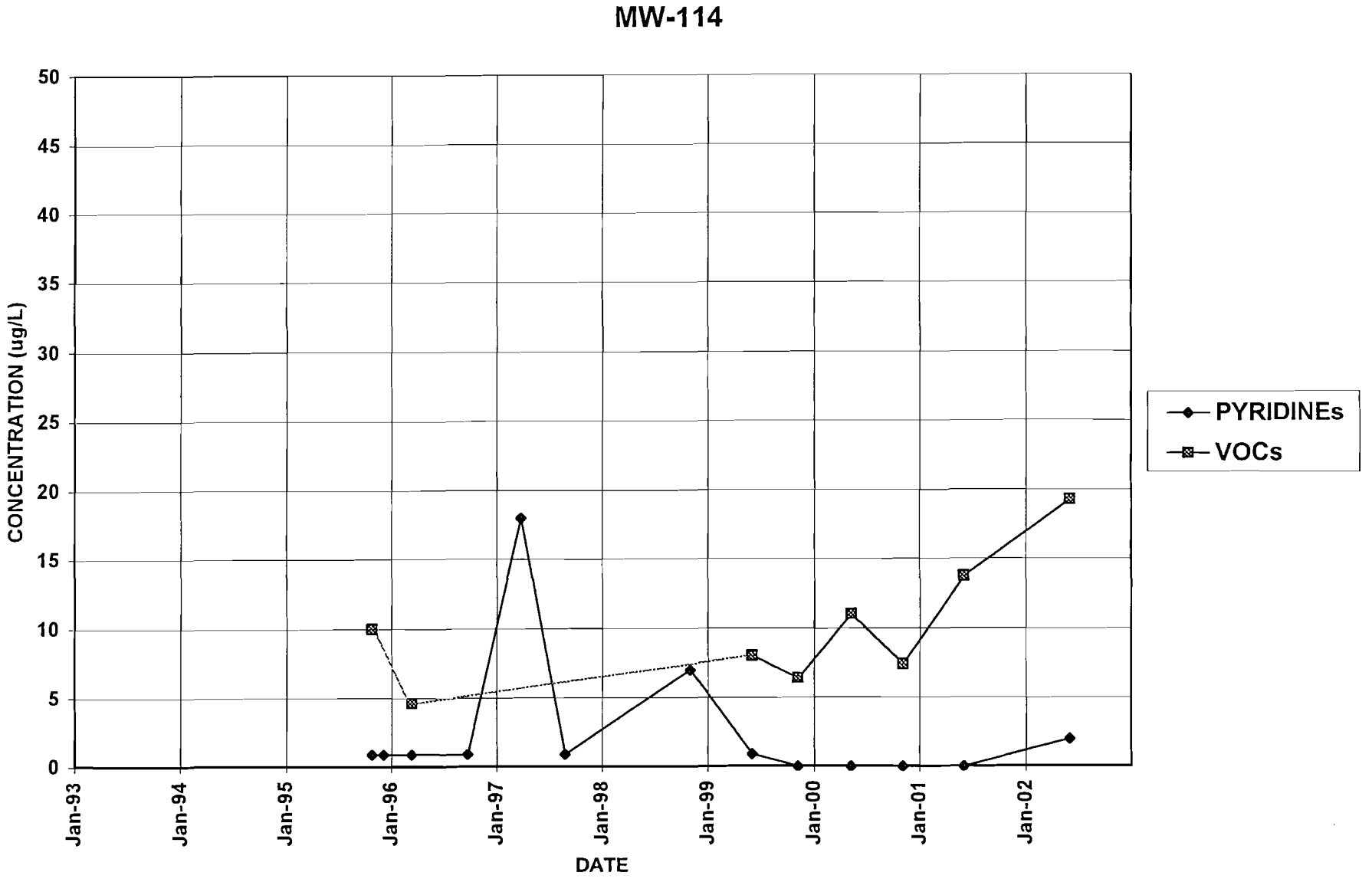
E-3

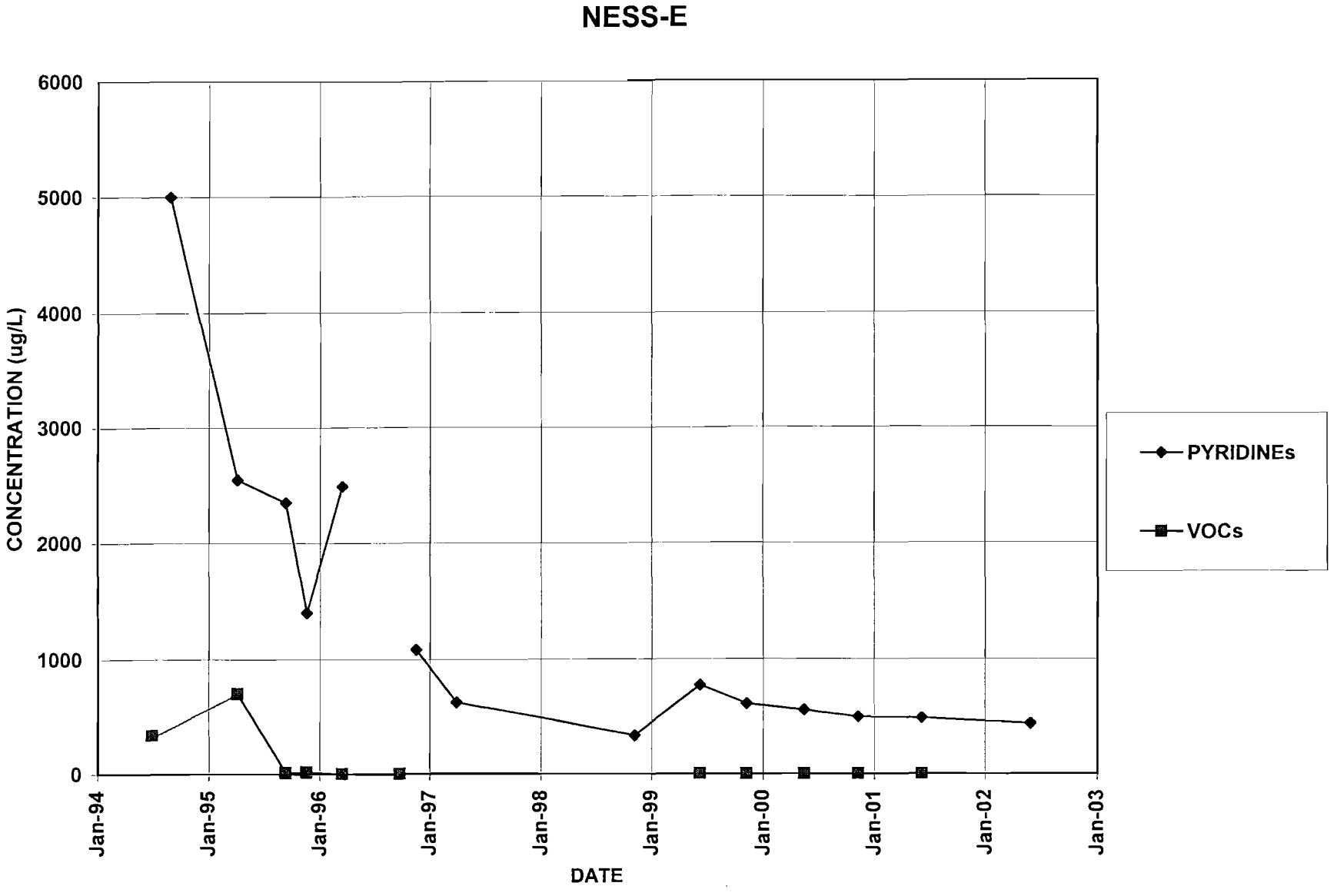

100000
10000
1000
100
10
1
0
CONCENTRATION (ug/L)
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
DATE
PYRIDINEs
VOCs

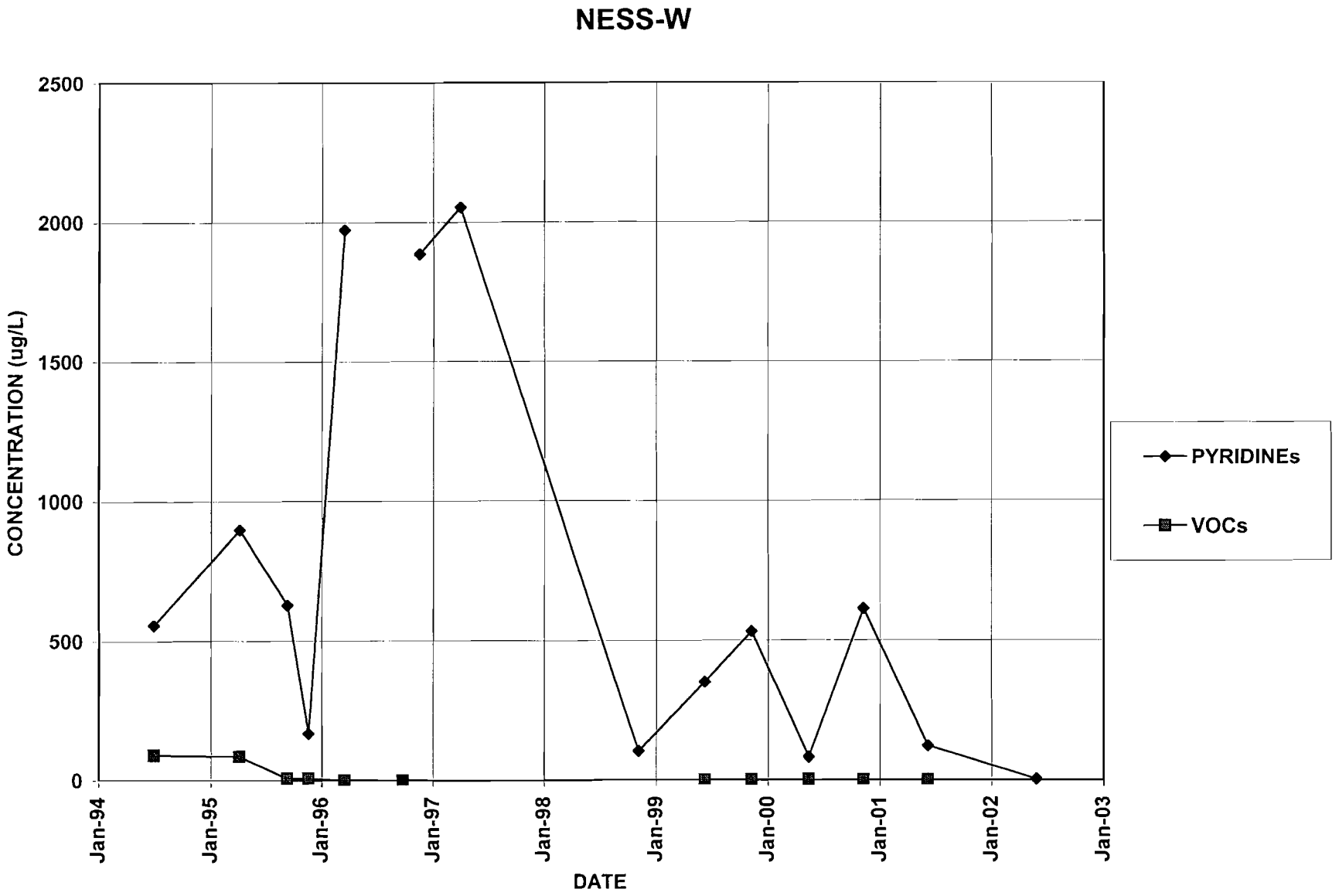
MW-104

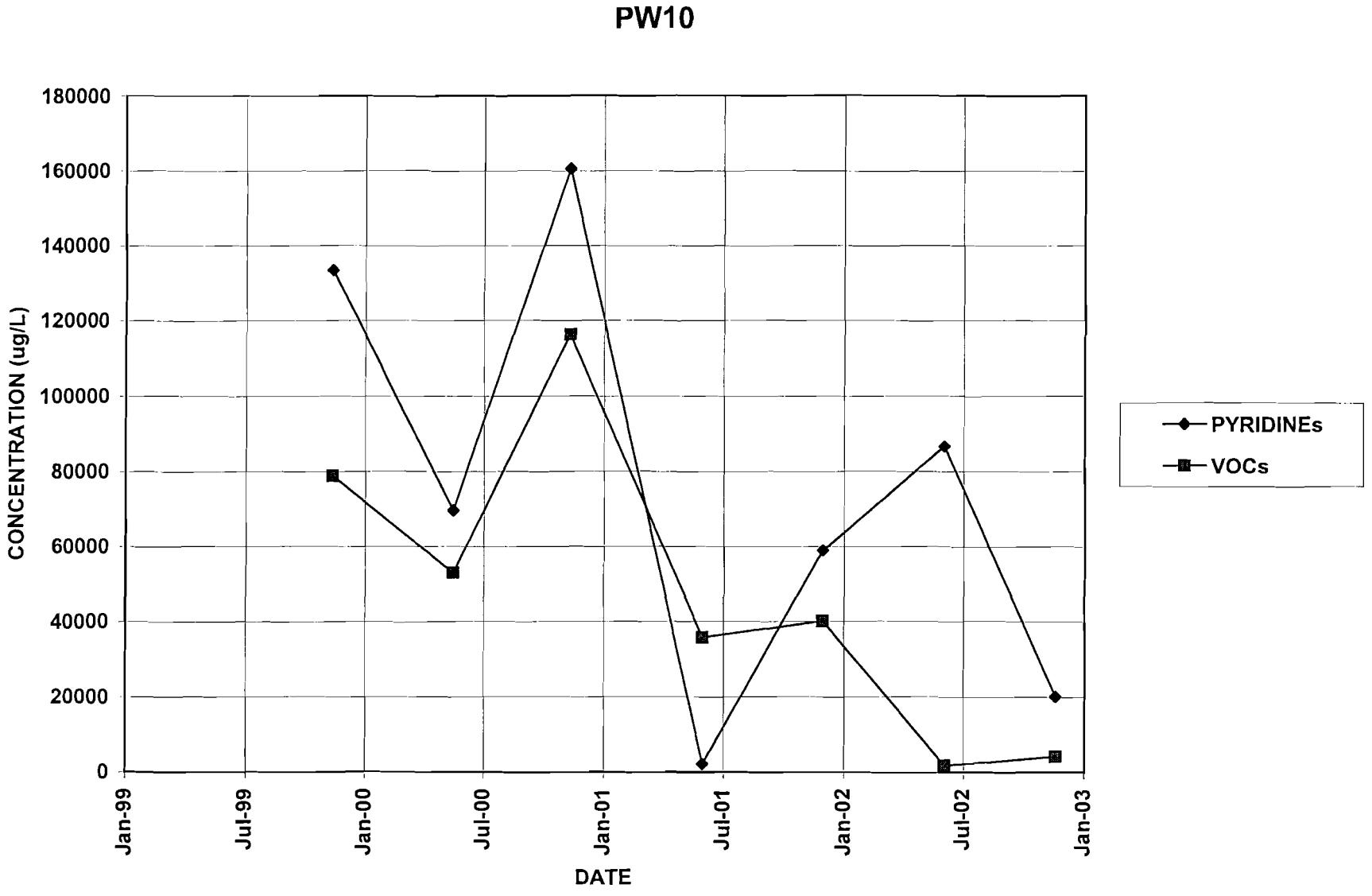

200
180
160
140
120
100
80
60
40
20
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

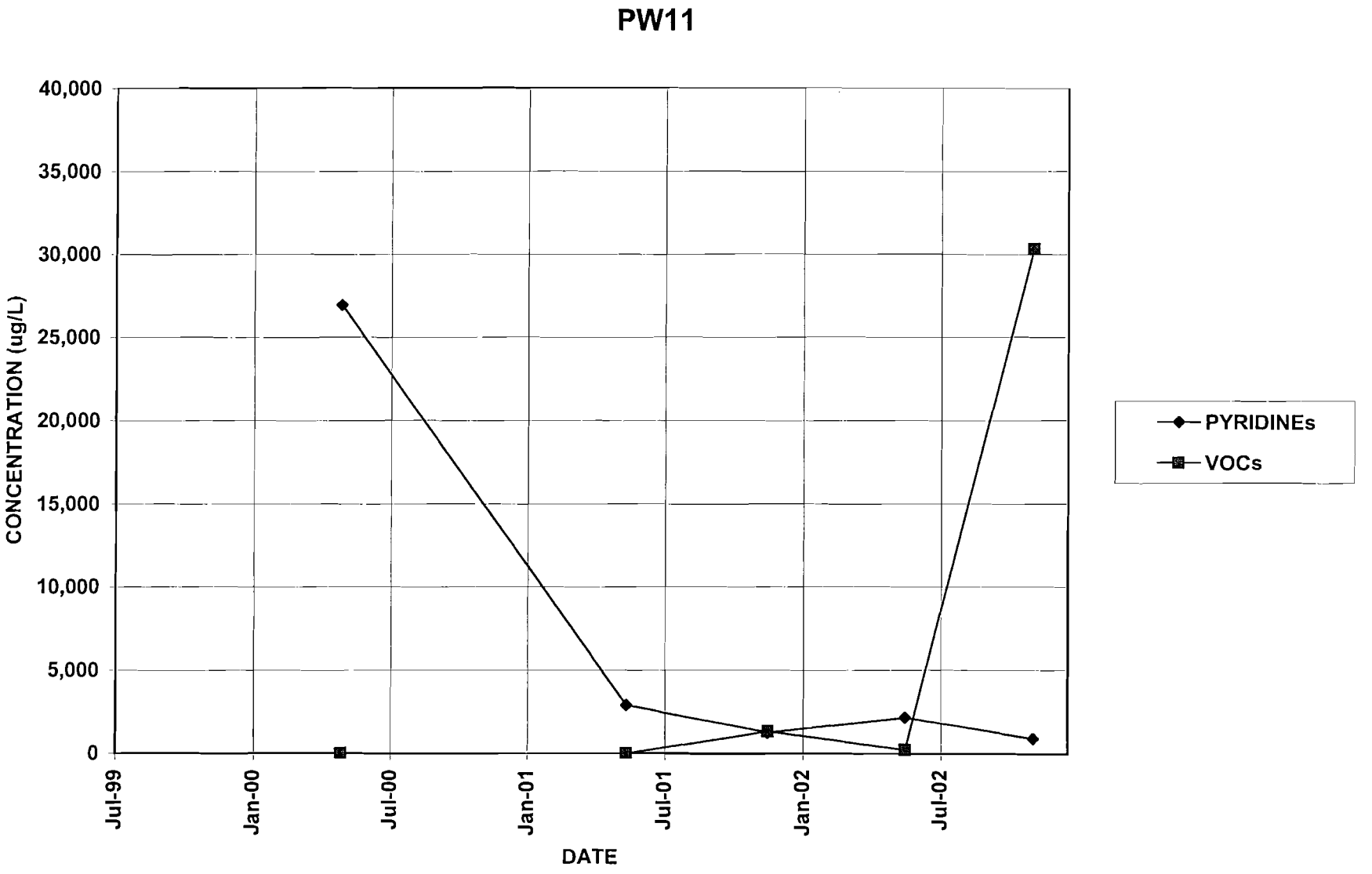

MW-106
140000
120000
100000
80000
60000
40000
20000
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

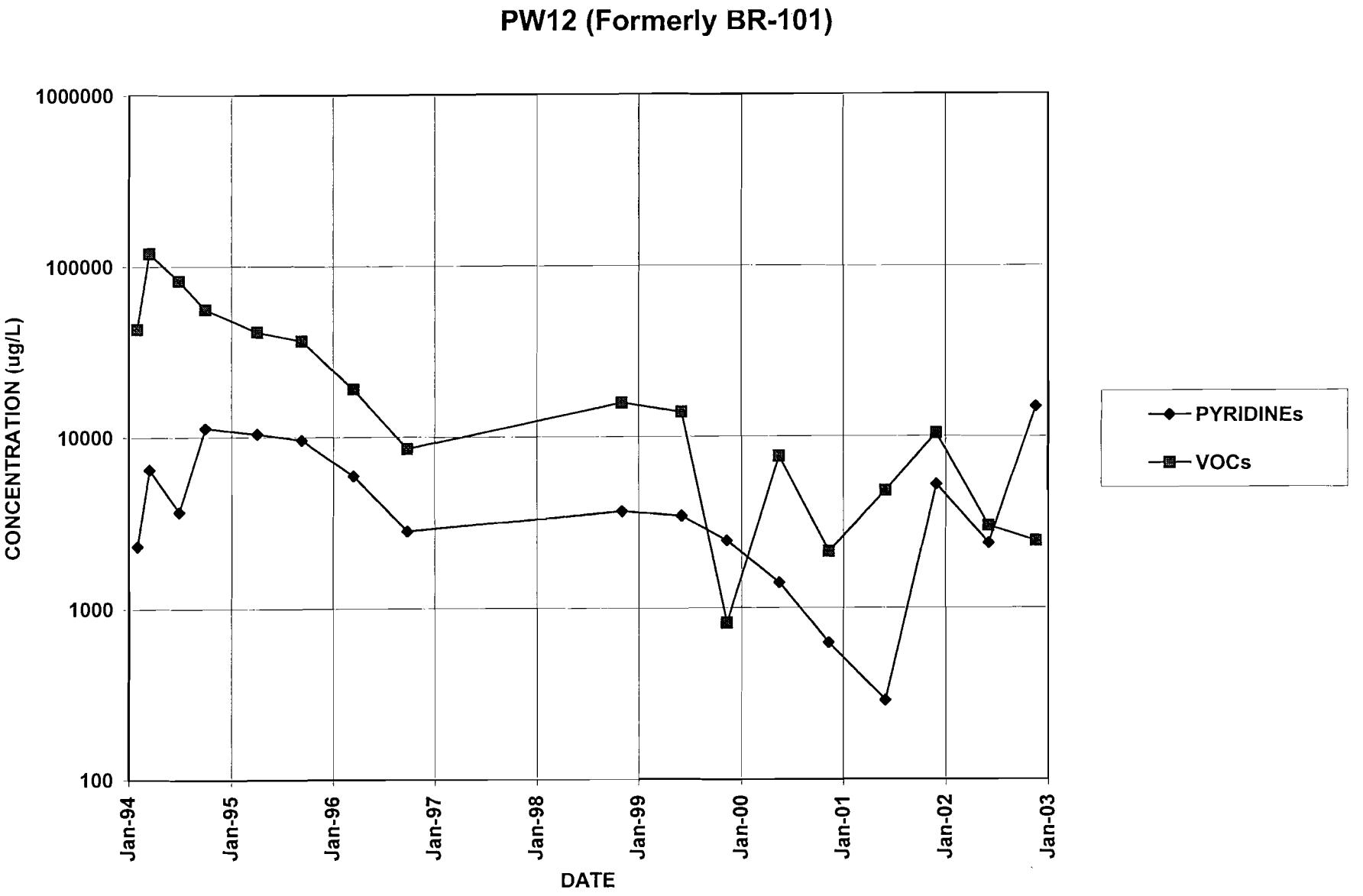

MW-114
CONCENTRATION (ug/L)
50
45
40
35
30
25
20
15
10
5
0
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
DATE
PYRIDINEs
VOCs

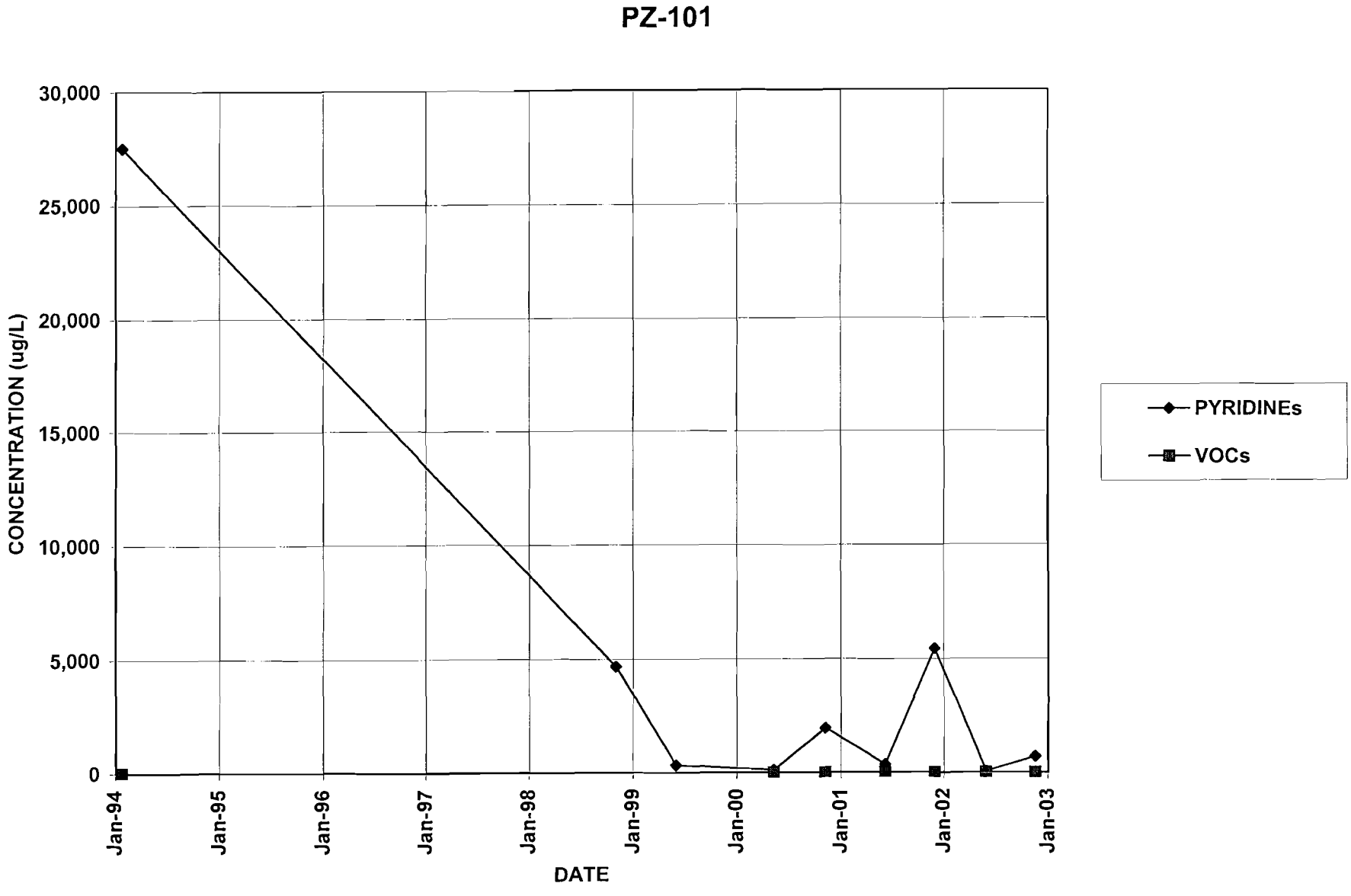

NESS-E
6000
5000
4000
3000
2000
1000
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs


NESS-W
2500
2000
1500
1000
500
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

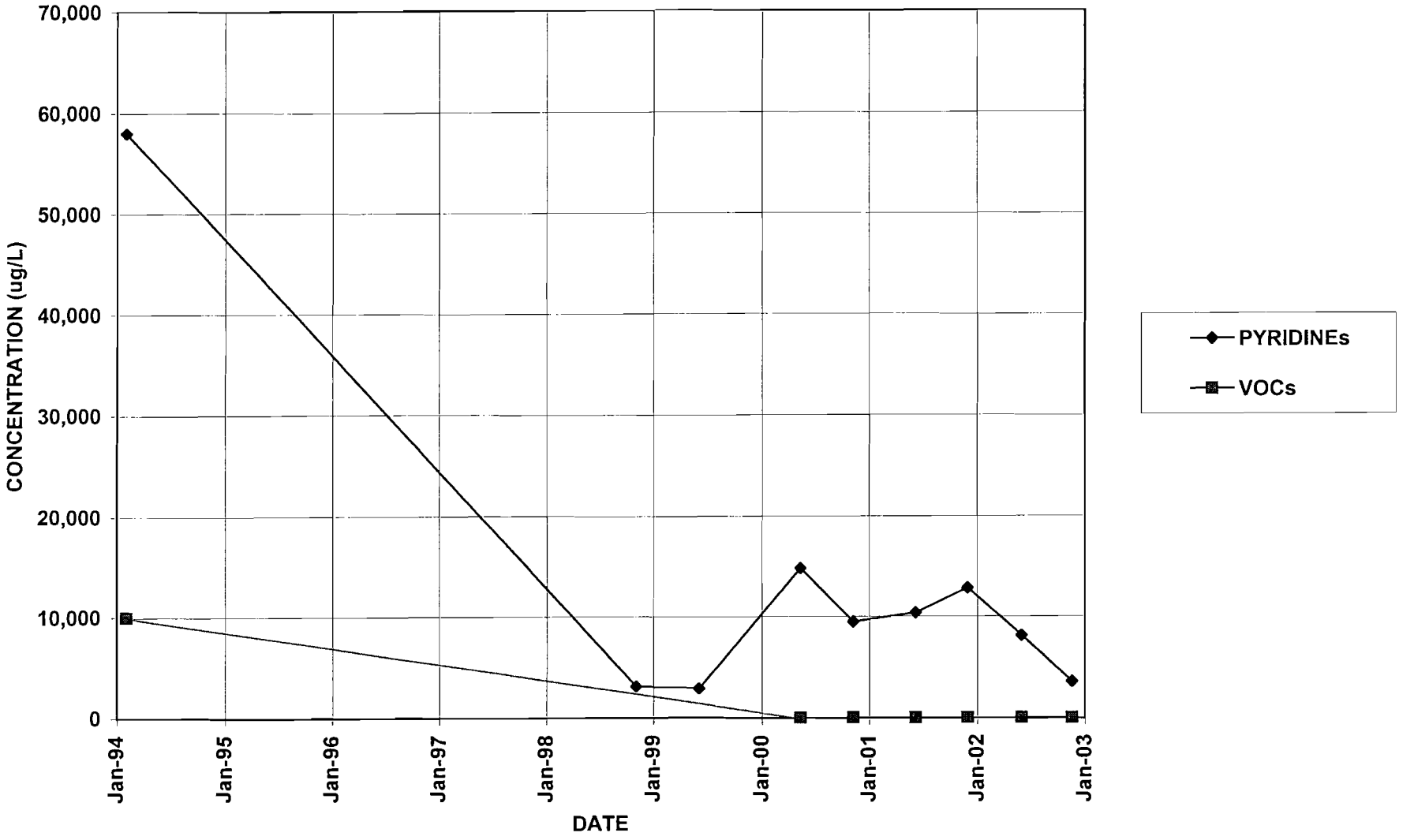

PW10
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
CONCENTRATION (ug/L)
Jan-99
Jul-99
Jan-00
Jul-00
Jan-01
Jul-01
Jan-02
Jul-02
Jan-03
DATE
PYRIDINEs
VOCs

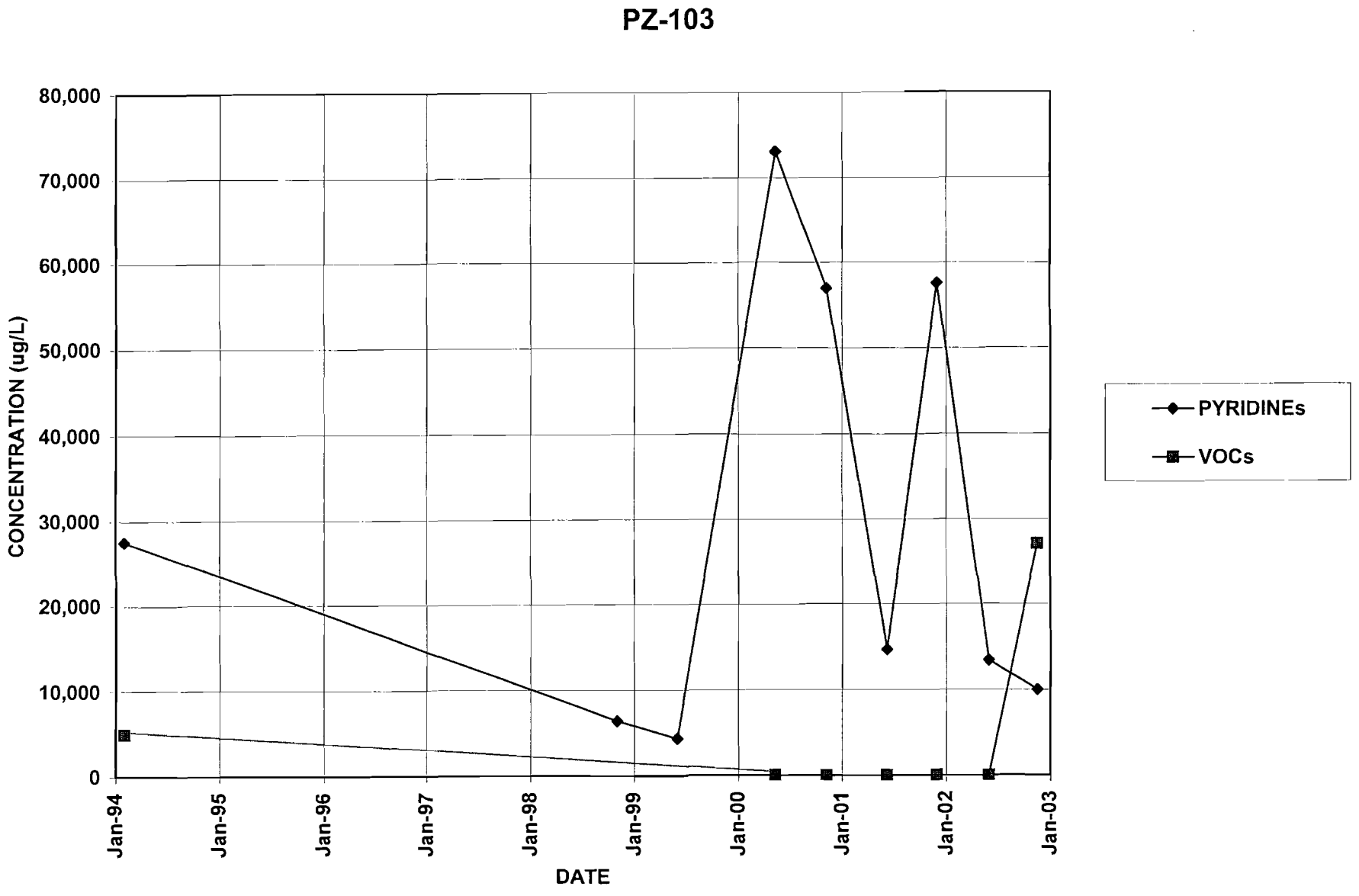

PW11
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
CONCENTRATION (ug/L)
Jul-99
Jan-00
Jul-00
Jan-01
Jul-01
Jan-02
Jul-02
DATE
PYRIDINEs
VOCs


PW12 (Formerly BR-101)
1000000
100000
10000
1000
100
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

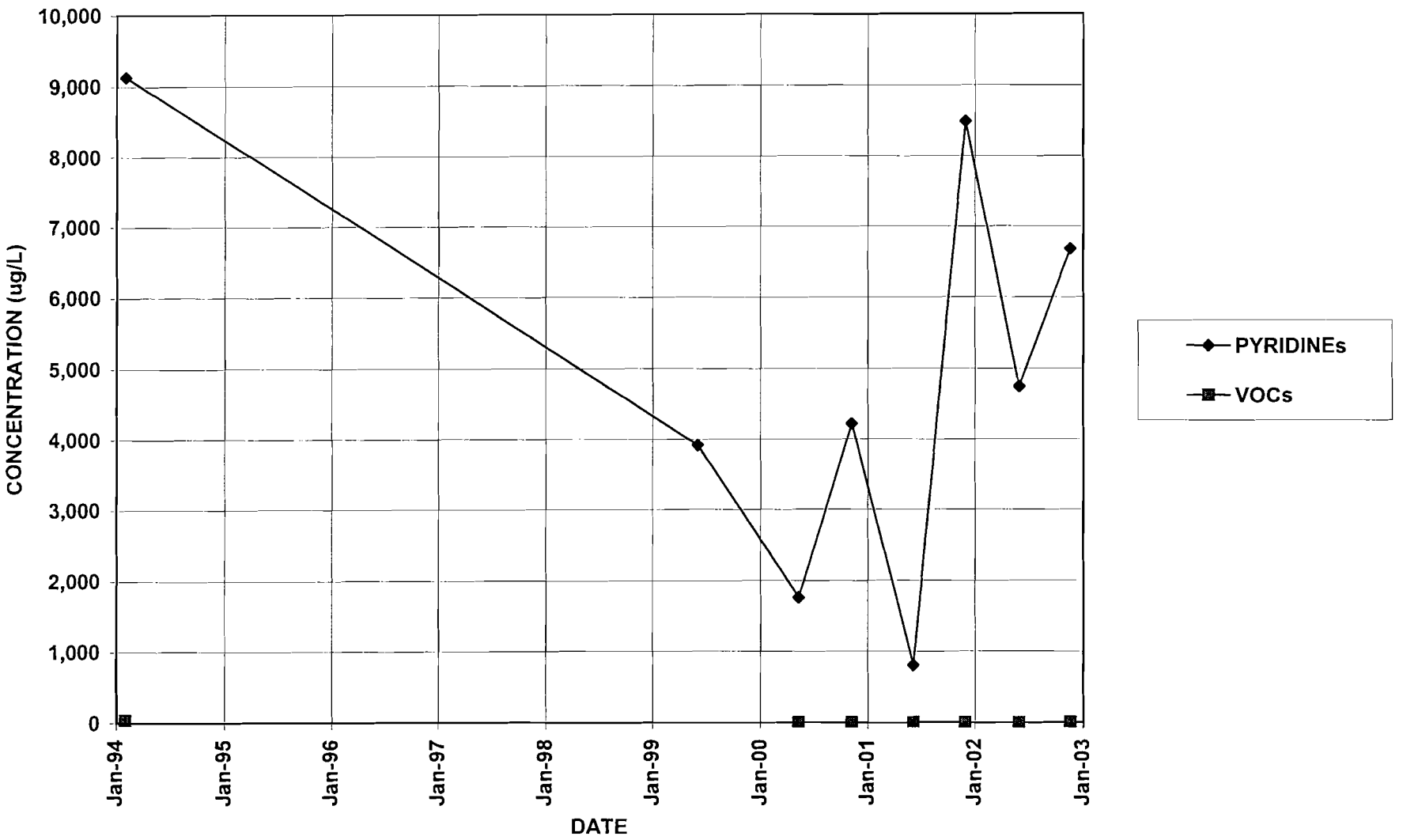

PZ-101
30,000
25,000
20,000
15,000
10,000
5,000
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

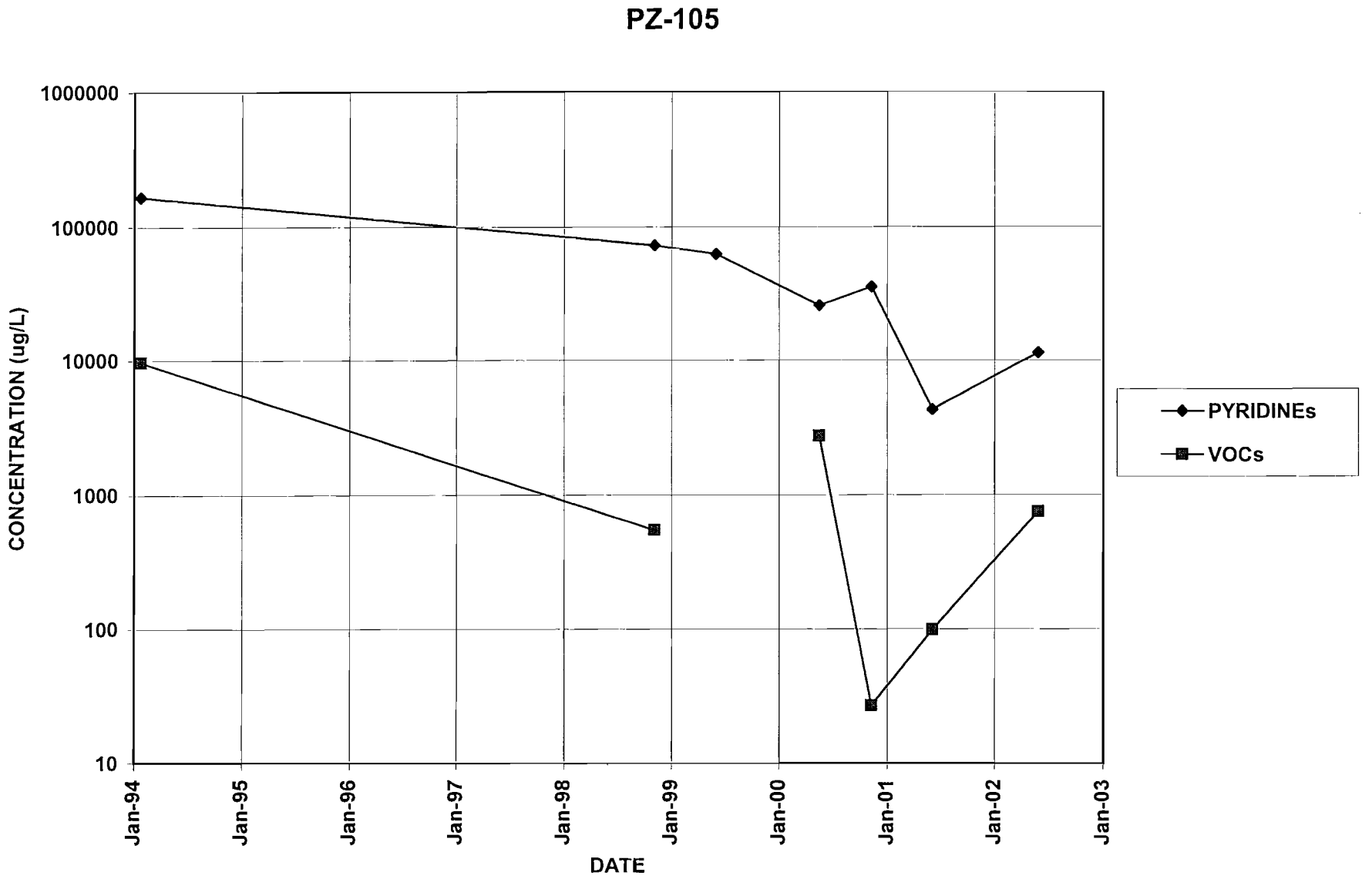
PZ-102

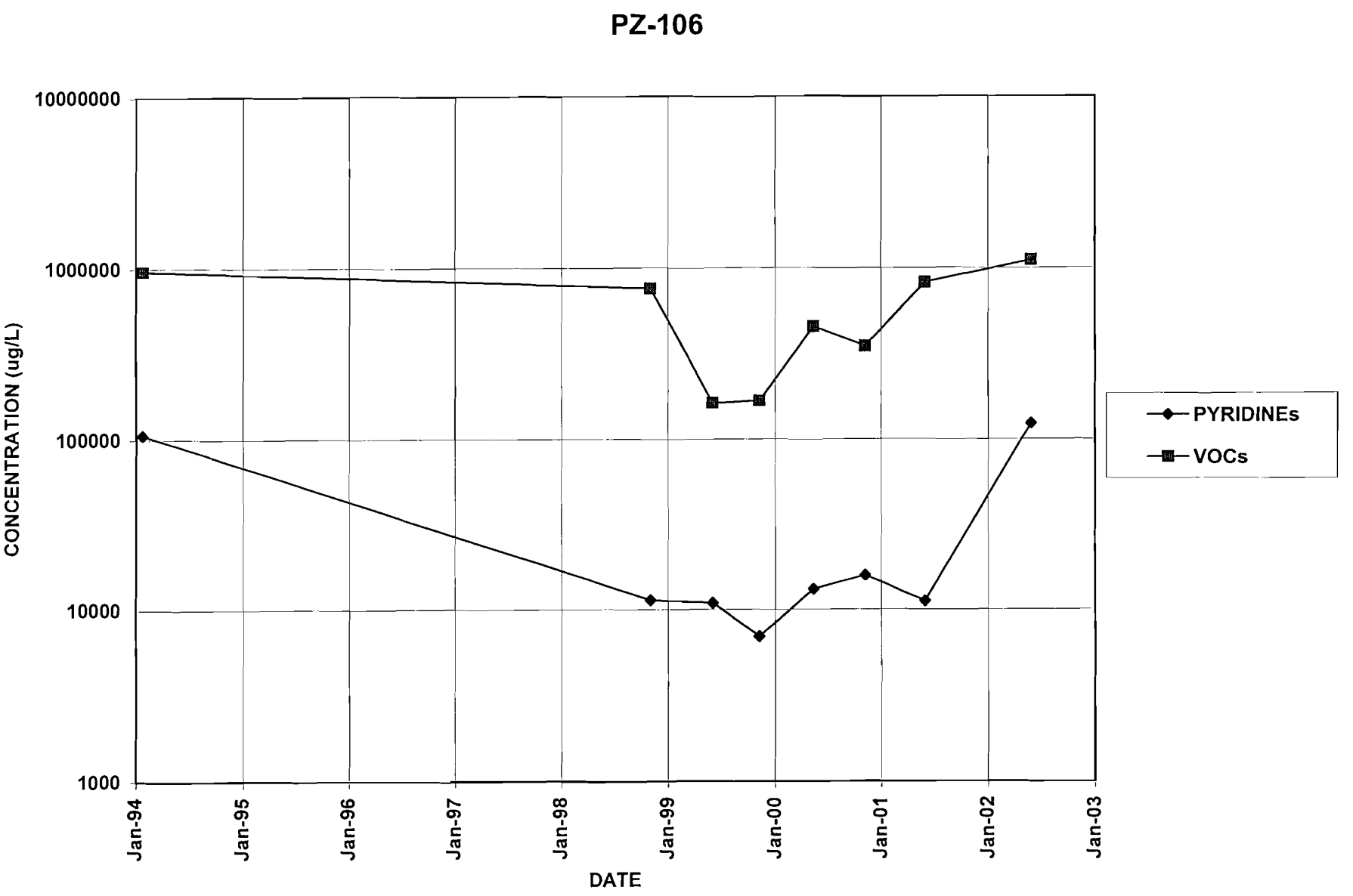

70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs


PZ-103
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

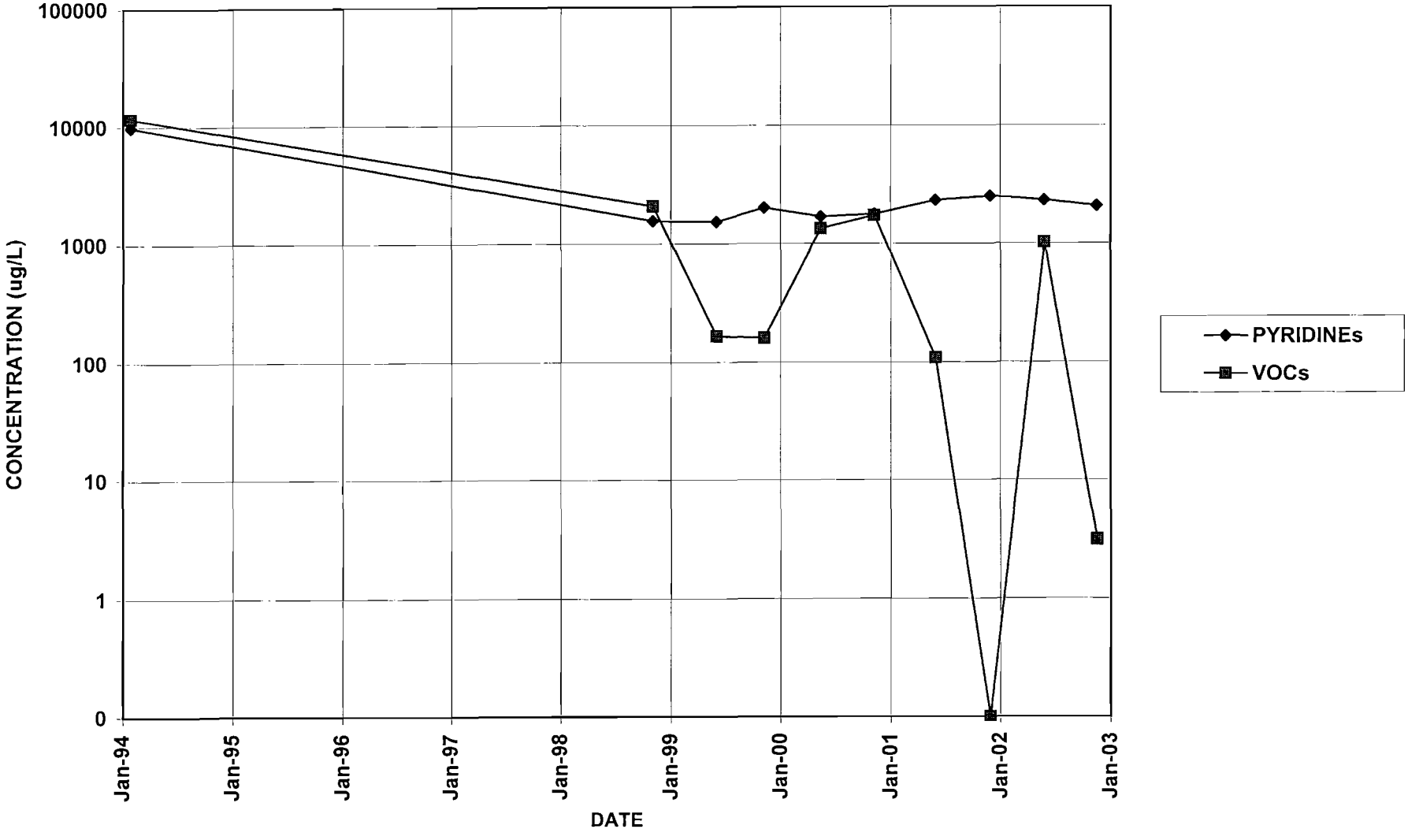
PZ-104


10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

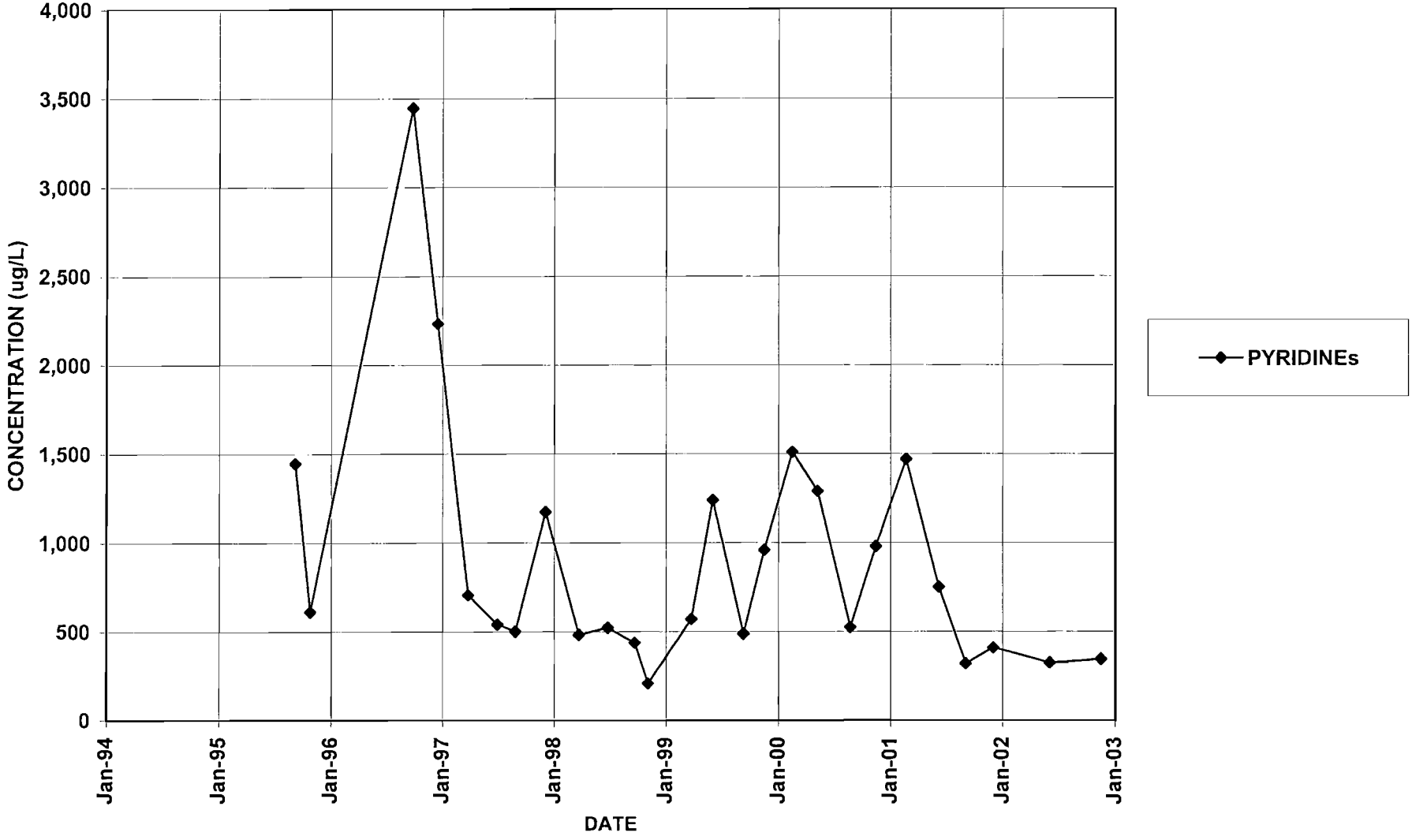

PZ-105
1000000
100000
10000
1000
100
10
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs


PZ-106
10000000
1000000
100000
10000
1000
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

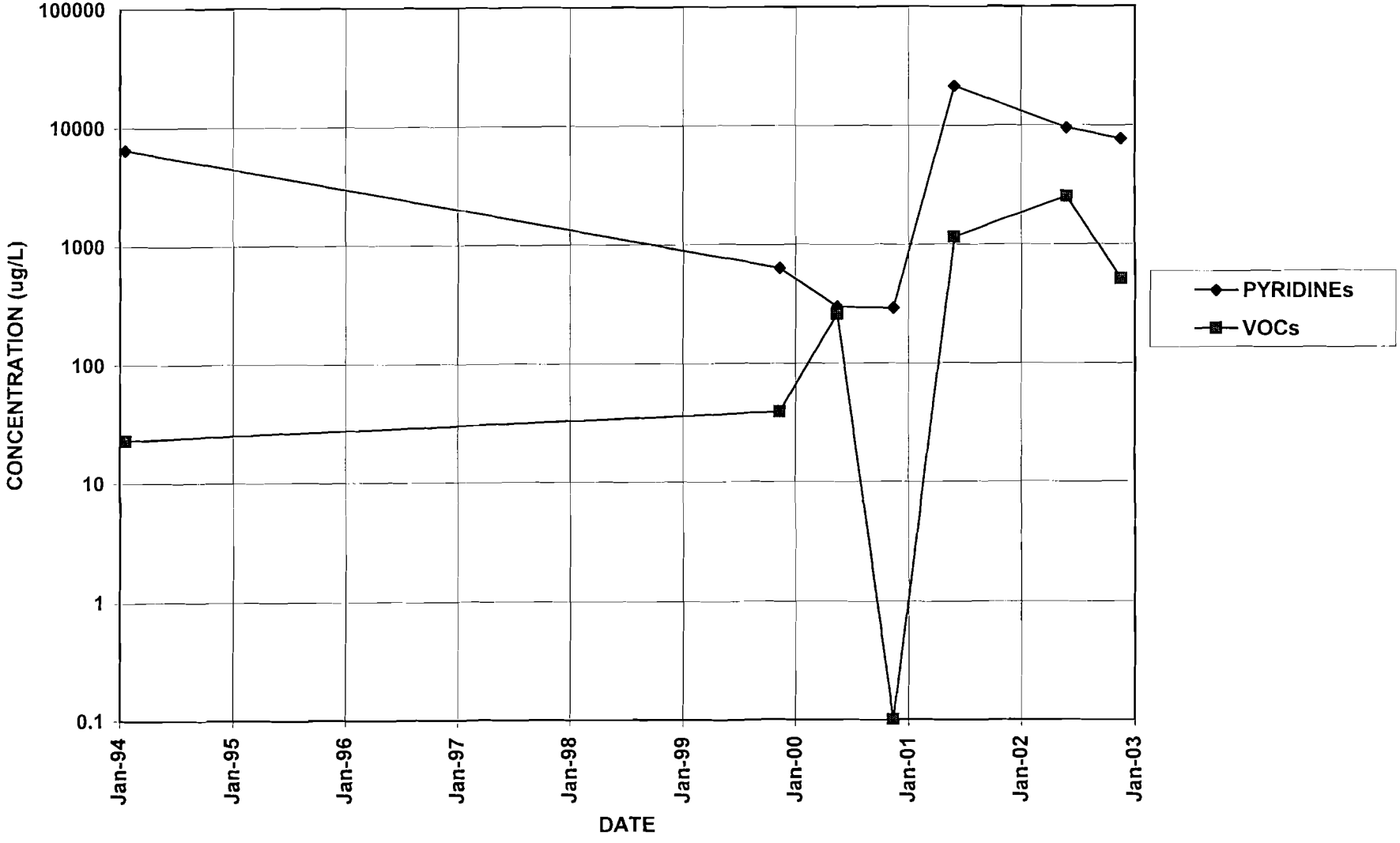
PZ-107


100000
10000
1000
100
10
1
0
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs

QS-4 (QUARRY SEEP)



S-3


100000
10000
1000
100
10
1
0.1
CONCENTRATION (ug/L)
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
DATE
PYRIDINEs
VOCs