SURFACE WATER AND GROUNDWATER MONITORING PROGRAM
SPRING 2003 MONITORING REPORT

ARCH CHEMICALS
ROCHESTER PLANT SITE
ROCHESTER, NEW YORK

ARCH CHEMICALS, INC.
CHARLESTON, TENNESSEE

AUGUST 2003

SURFACE WATER AND GROUNDWATER MONITORING PROGRAM
SPRING 2003 MONITORING REPORT

ARCH CHEMICALS
ROCHESTER PLANT SITE
ROCHESTER, NEW YORK

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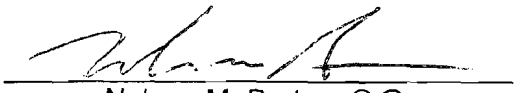
August 2003

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



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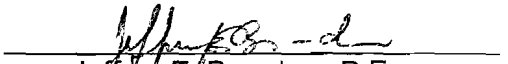

Jeffrey E. Brandow, P.E.
Quality Control Reviewer

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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 May 27, 2003 through June 4, 2003.

During this monitoring event, samples from a total of 43 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.

As in prior reports, groundwater monitoring results were compared with previous average concentrations for the on-site and off-site monitoring wells. Out of the 46 total monitoring locations sampled for chloropyridines, 10 had contaminant concentrations exceeding their respective 5-year prior averages. For the 33 monitoring locations sampled for volatile organic compounds, 13 had concentrations exceeding their 5-year prior averages. Contaminant contour plots are generally consistent with past observations.

Samples from the quarry seep and outfall remained below historical averages. No chloropyridines or volatile organic compounds were detected in the sample collected from the Erie Barge Canal.

During the period November 30, 2002 through May 31, 2003, the on-site groundwater extraction system pumped approximately 5.8 million gallons of groundwater to the on-site treatment system, containing an estimated 414 pounds of chloropyridines and 162 pounds of target volatile organic compounds. The system experienced a number of operational problems during the period, including reduced yields from wells BR-6A and PW-10, malfunctioning meters at PW-11 and PW-12, heavy precipitate build-up in well BR-6A that caused clogging in the discharge line, and frozen discharge lines during February and March 2003. Pump replacements were required in wells PW-12 and BR-9.

Well rehabilitation is scheduled during the summer of 2003 for all on-site pumping wells.

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 two additional bedrock extraction wells, 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 Spring 2003 sampling event included the collection and analysis of a total of forty-six groundwater, surface water, and seep samples from off-site and on-site locations. Samples were collected from May 27 through June 4, 2003, for analysis of selected chloropyridines and volatile organic compounds (VOCs).

This report presents the full results of the Spring 2003 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). In addition, certain well samples were analyzed for target compound list (TCL) VOCs in accordance with the approved monitoring schedule. 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 May 27, 2003. Piezometric contour maps were constructed for each water-bearing zone (overburden, bedrock, and deep bedrock) and are presented in Figures 3, 4, and 5.

One overburden monitoring well scheduled for sampling, B-9 (located along the southern boundary of the plant approximately 80 feet east of pumping well BR-6A), has been destroyed. There are two other overburden monitoring wells within 70 feet of former well B-9, so the loss of this well is not considered critical.

2.2 SURFACE WATER

Surface water and quarry seep 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 May 28, 2003. 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 this 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, September 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 items discussed below, results are determined to be usable without qualifying statements as reported by the laboratory.

Surrogates Recoveries. One SVOC surrogate standard (2-fluorobiphenyl) recovery was below the QC limits in sample PZ-106 and (p-Terphenyl-d14) in sample BR-116D. 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 and BR-116D were within QC limits, no qualifications were necessary.

Matrix Spike/Matrix Spike Duplicates. The matrix spike duplicate (MSD) percent recoveries and relative percent differences (RPD) for 2-chloropyridine and 2,6-dichloropyridine exceeds the control limits in sample BR-7A. The results for 2-

chloropyridine and 2,6-dichloropyridine in the original unspiked sample were qualified estimated (J). The matrix spike (MS) percent recovery for 2-chloropyridine in sample B-7 was less than ten percent. The RPDs for 2-chloropyridine and 2,6-dichloropyridine in sample B-7 exceed the control limits. The results for 2-chloropyridine and 2,6-dichloropyridine in the original unspiked sample were qualified estimated (J).

3.0 ANALYTICAL RESULTS

3.1 GROUNDWATER

The validated results from the Spring 2003 groundwater monitoring event are provided in Tables 2 and 3. Table 4 provides a comparison of the Spring 2003 analytical results for selected chloropyridines and VOCs in representative wells to mean concentrations of the prior five years (Spring 1998 through Fall 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 eighteen on-site wells sampled in the Spring 2003 event. Concentrations of chloropyridines ranged from 133 micrograms per liter (µg/L) to 170,000 µg/L (sum of all chloropyridine isomer concentrations). Pumping wells BR-5A and BR-6A, along with monitoring wells B-7, E-1, E-3 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 eighteen of the twenty-five off-site wells that were sampled. Concentrations of total selected chloropyridines ranged from non-detect to approximately 10,000 µg/L. Four of the off-site wells (BR-114, BR-117D, BR-118D, and NESS-W) contained total chloropyridines concentrations in exceedence 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 1,000 µg/L extend both east and west of the Site property boundary.

3.1.2 Selected VOCs.

On-Site. Concentrations of VOCs ranged from non-detect to 1,360,000 µg/L for the sum of several site-related contaminants (carbon tetrachloride, chloroform, methylene chloride, tetrachloroethene, and trichloroethene). Eight of the eighteen on-site wells sampled in the Spring 2003 event (BR-3, BR-5A, BR-7A, BR-8, PW-12, PZ-105, PZ-106, and PZ-107) had VOC concentrations greater than their 5-year prior mean. In addition to the selected VOCs, other notable constituents detected in on-site wells include chlorobenzene (in 15

out of 18 wells), benzene (10 of 18), toluene (9 of 18), carbon disulfide (8 of 18), bromoform (5 of 18) and vinyl chloride (4 of 18).

Off-Site. Selected VOCs were detected in ten of the twelve off-site wells sampled for VOCs in the Spring 2003 event. Total concentrations of selected VOCs ranged from non-detect to approximately 7,600 ug/L. Five of the twelve 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 12 wells), chlorobenzene (7 of 12), and toluene (3 of 12).

Concentration Contours. The distribution of selected VOCs in groundwater is shown as a set of concentration contours on Figure 9. These contours were developed using both overburden and bedrock groundwater data. As noted in the Fall 2002 monitoring event, the VOC contours show a limited extent of off-site migration in shallow bedrock groundwater from the southwest portion of the plant. In the Fall 2002 event, a significant increase in VOC concentrations was observed in this area in wells PZ-103 and PW-11. In February 2003, Arch re-sampled those wells (and well BR-106, which is immediately downgradient of PZ-103) for VOCs only. The re-sampling confirmed the elevated concentrations (see Appendix C). The Spring 2003 data from each of these three wells now shows VOC levels declining rapidly toward their previous levels. These observations support the decision to install an additional bedrock extraction well in this portion of the site as part of the selected remedial action. 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 Spring 2003 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 chloropyridine analyses yielded the following results:

LOCATION	QO-2	QS-4
PARAMETER[1]		
pyridine	ND	ND
2,6-Dichloropyridine	ND	ND
2-Chloropyridine	6 J	260
3-Chloropyridine	ND	ND
p-Fluoroanaline	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)

These chloropyridine concentrations are below historical averages.

No VOCs were detected in either of the quarry samples.

3.2.2 Barge Canal

No chloropyridines or VOCs were detected in QO-2S1, the only sample collected from the Erie Barge Canal.

4.0 EXTRACTION SYSTEM PERFORMANCE AND MAINTENANCE

Table 6 is a summary of the system flow measurements for the seven extraction wells from December 2002 through May 2003. The total volume pumped during the six-month period is approximately 5.8 million gallons. The system experienced a number of operational problems during the period, including reduced yields from wells BR-6A and PW-10, malfunctioning meters at PW-11 and PW-12, heavy precipitate build-up in well BR-6A that caused clogging in the discharge line, and frozen discharge lines during February and March 2003. Pump replacements were required in wells PW-12 and BR-9.

Well rehabilitation is scheduled during the summer of 2003 for all on-site pumping wells.

Table 7 provides a calculation of mass removal rates since the previous groundwater monitoring event (i.e., from December 2002 through May 2003). Arch estimates that approximately 162 pounds of target VOCs and 414 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

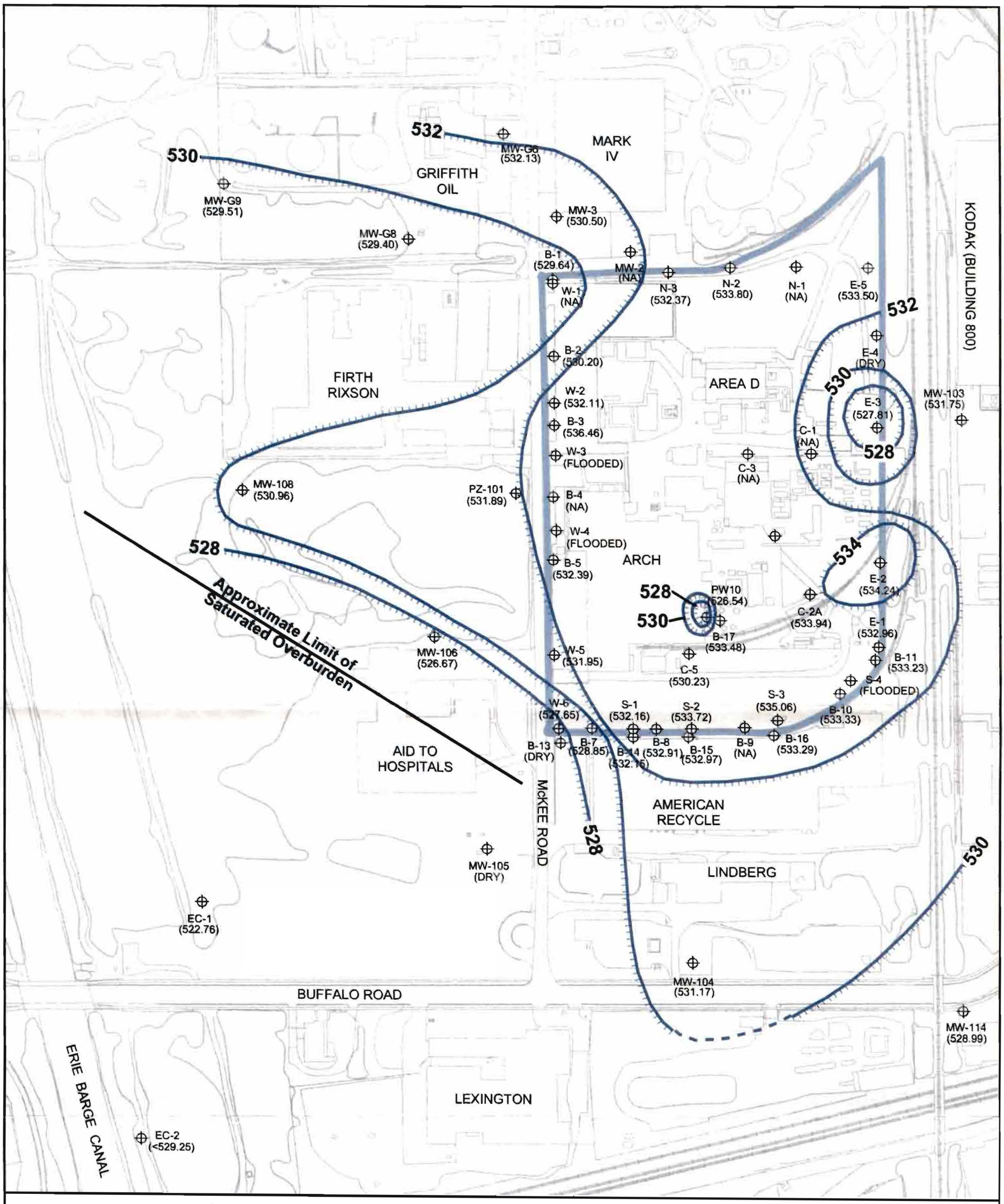
Arch Chemicals expects to sign a new Administrative Order on Consent in the near future that will establish requirements for additional remedial measures at the site. These measures will include a new bedrock extraction well along the western plant property boundary and an overburden groundwater interceptor 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.

6.0 NEXT MONITORING EVENT

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

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

Figures



Legend

- Outline of Arch Property Boundary
- Interpreted Groundwater Flow Direction
- 526 — Overburden Piezometric Elevation Contour (MSL)
- MW-114 (526.74) — Piezometric Elevation at Well or Piezometer

NOTES:

1. Water Levels Measured on May 27, 2003
2. NA = Not Available
3. Dashed Contours Reflect Uncertainty

0 100 200 400 Feet

N

Prepared by BRP | Checked by NMB

Figure 3
Spring 2003
Overburden Groundwater
Interpreted Piezometric Contours

Arch Chemicals
Rochester, NY
MACTEC, Inc.

Legend

502 — Deep Bedrock Elevation Contour (MSL)

Interpreted Groundwater Flow Direction

Bedrock Well ('D' Designates Deep Well)

Outline of Arch Property Boundary

BR-116D (508.10) Piezometric Elevation at Deep Bedrock Well

NOTES

1. Water Levels Measured on May 27, 2003
2. Dashed Contours Reflect Uncertainty

0 250 500 1,000 Feet

N

Prepared by BRP | Checked by NMB

ERIE BARGE CANAL

I-390

KODAK

ARCH

BR-9

BR-103

BR-111D (511.35)

BR-111

BR-108

BR-106

AID TO HOSPITALS

BR-2D (537.21)

BR-3D (470.21)

AMERICAN RECYCLE

BR-112D (511.59)

BR-112

BR-105

BR-105D (511.55)

BR-104

BR-114

BUFFALO ROAD

CUMBERLAND FARMS PETROLEUM TERMINAL

BR-113

BR-113D (511.59)

LEXINGTON

GENERAL RAIL SIGNAL CO.

DOLOMITE PRODUCTS QUARRY

HOWARD ROAD

BR-122D (508.11)

PFAULDER

BR-117D (498.26)

BR-117

BR-118

BR-118D (499.96)

BR-121D (501.44)

BR-120D (500.95)

BR-119D (500.39)

BR-116D (509.80)

BR-116

BR-123D (508.70)

BR-124D (507.00)

LETTINGTON DRIVE

500 502 504 506 508 510

Figure 5
Spring 2003
Deep Bedrock Groundwater
Interpreted Piezometric Contours

Arch Chemicals
Rochester, NY
MACTEC, Inc.

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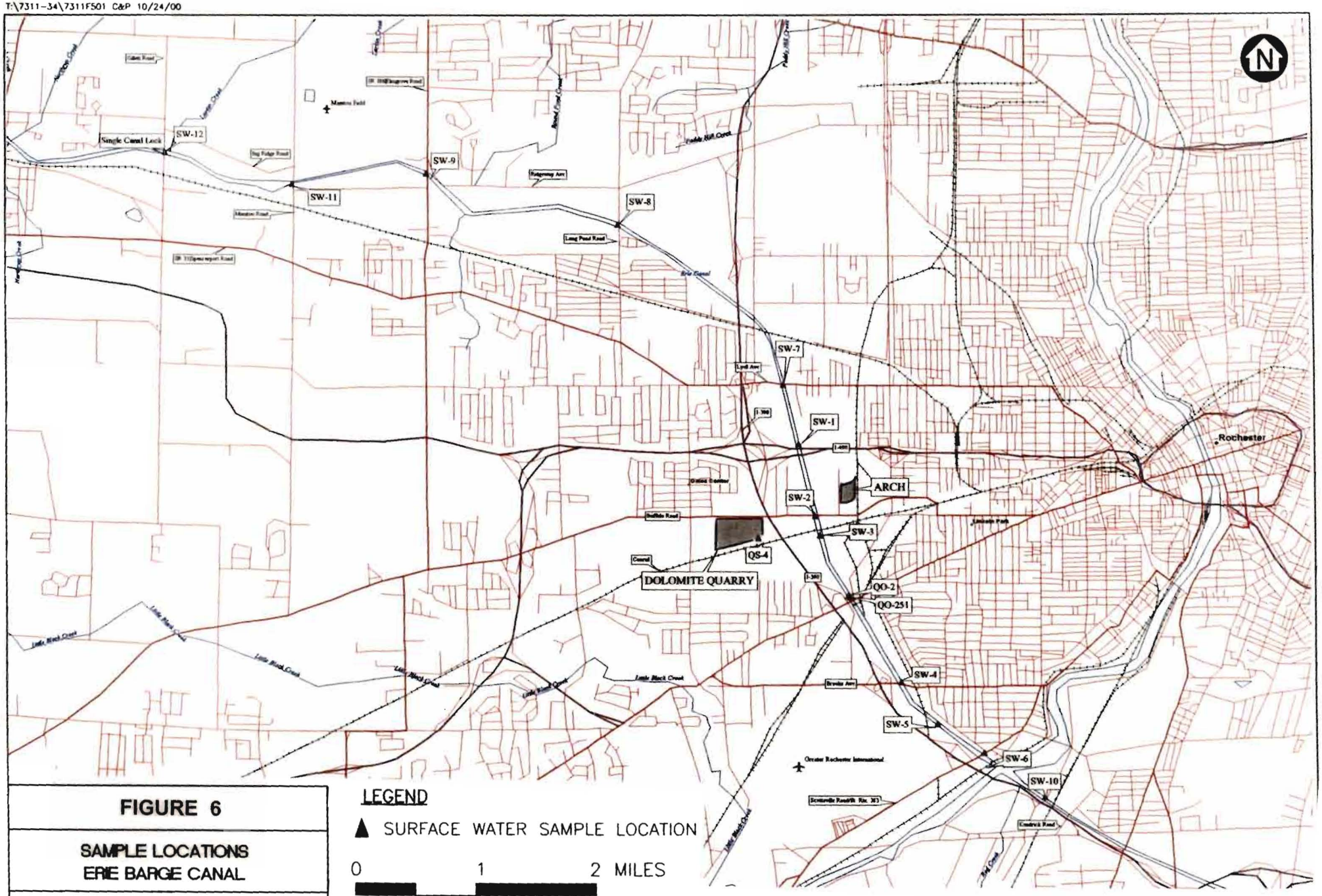


FIGURE 6

SAMPLE LOCATIONS
ERIE BARGE CANAL

ARCH CHEMICALS
ROCHESTER, N.Y.

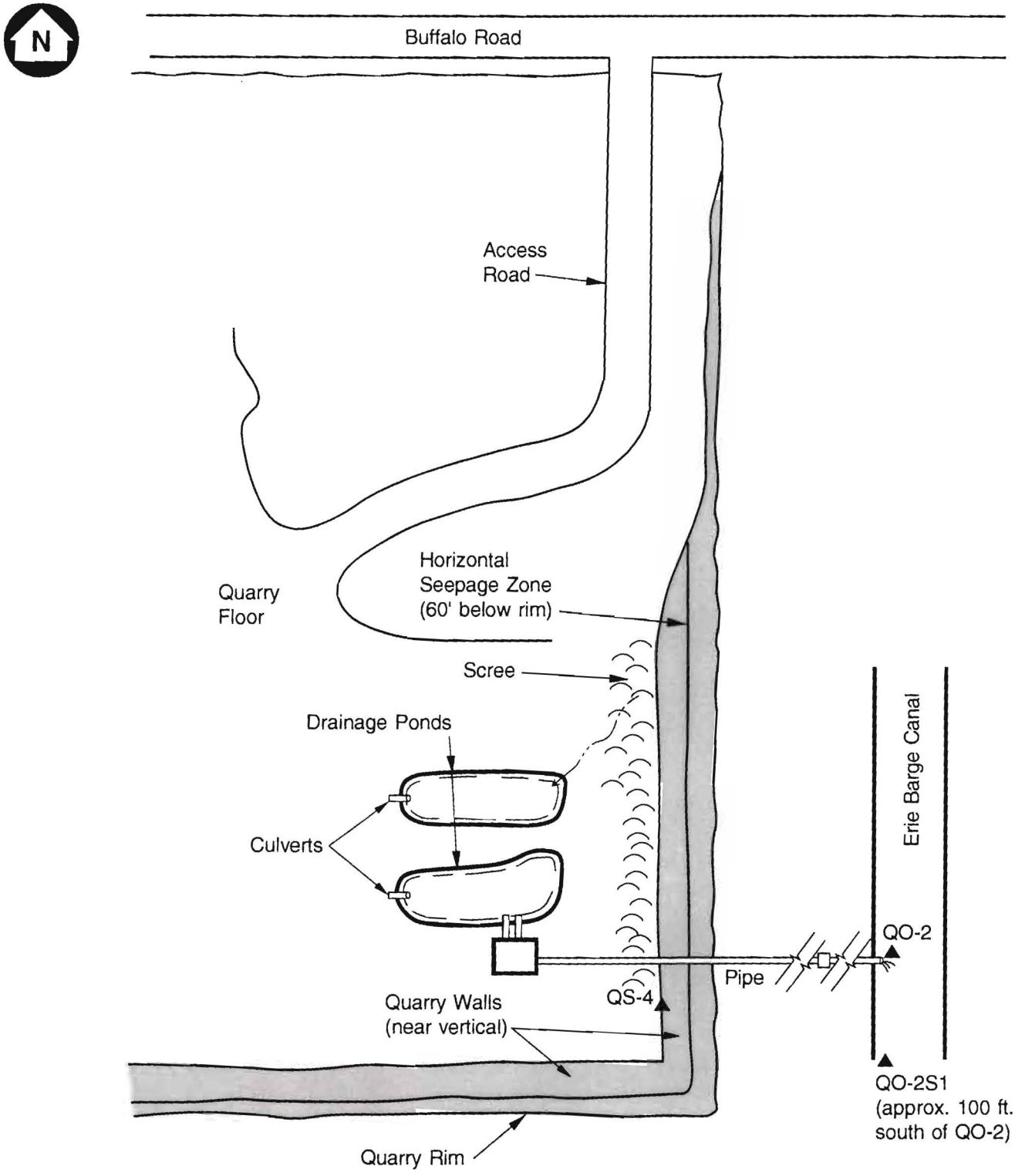
LEGEND

▲ 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

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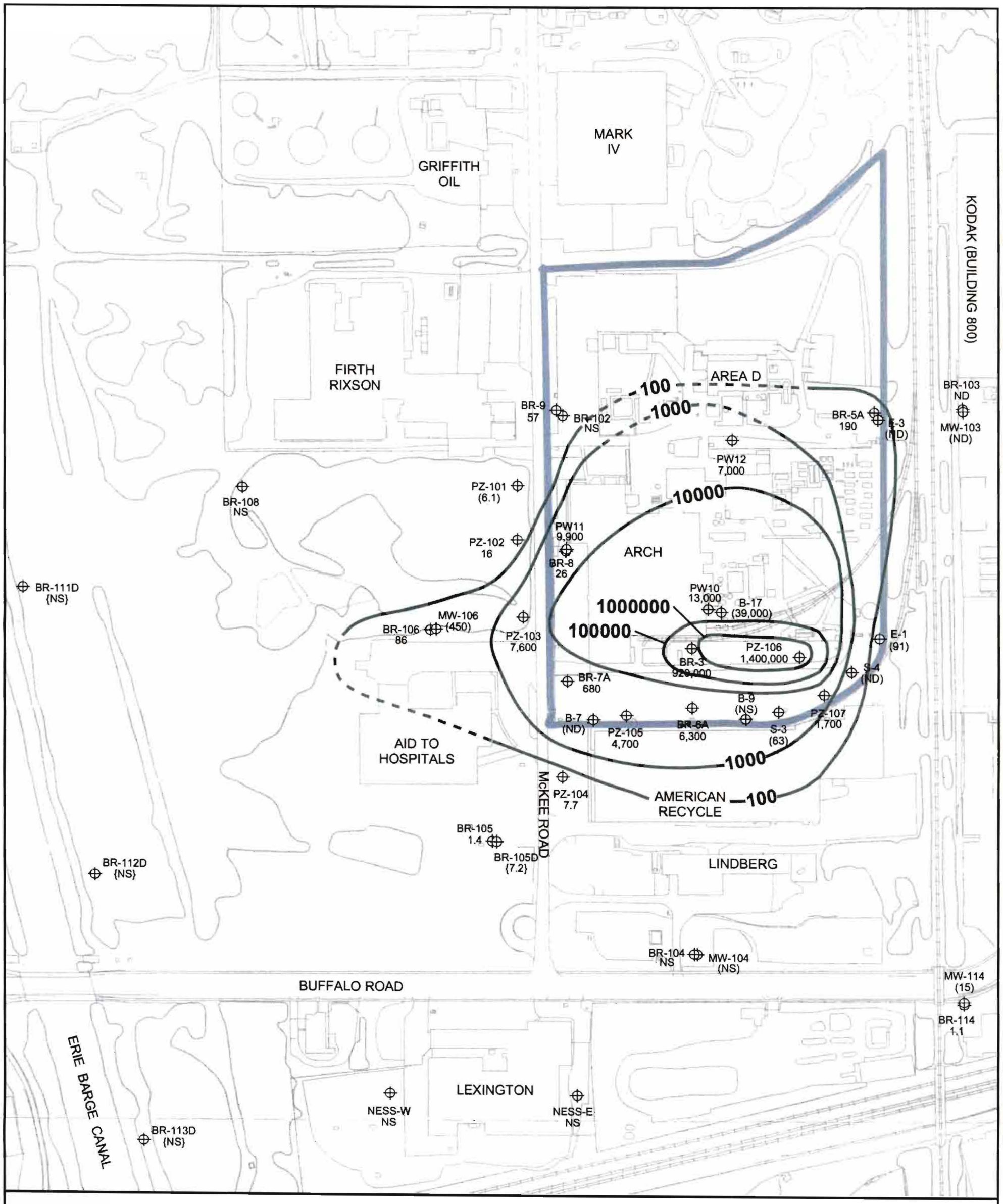

Legend

- Outline of Arch Property Boundary
- —100— VOC Concentration Contour
- BR-112D {9.6} Concentration at Sample Location (ug/L)
- {1000} Deep Bedrock Well
- (1000) Overburden Well
- 1000 Bedrock Well
- NS Not Sampled
- ND Not Detected

NOTES:

1. Samples Collected from May 27 thru June 4, 2003
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 Feet

N

Prepared by BRP | Checked by NMB

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Figure 9
Spring 2003
Selected Volatile Organic Compound Concentration Contours

Arch Chemicals
Rochester, NY
MACTEC, Inc.

Tables

TABLE 1
SPRING 2003 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	6/2/2003	Sample	X	X
	BR-108	6/3/2003	Sample	X	
	MW-106	6/2/2003	Sample	X	X
	PZ-101	5/29/2003	Sample	X	X
	PZ-102	5/29/2003	Sample	X	X
	PZ-103	5/29/2003	Sample	X	X
AMERICAN RECYCLE MANUF. (58 MCKEE ROAD)	PZ-104	5/29/2003	Sample	X	X
ARCH ROCHESTER	B-17	5/28/2003	Sample	X	X
	B-7	6/4/2003	Sample	X	X
	BR-3	5/28/2003	Sample	X	X
	BR-5A	6/3/2003	Sample	X	X
	BR-6A	6/4/2003	Sample	X	X
	BR-7A	6/3/2003	Sample	X	X
	BR-8	6/4/2003	Duplicate	X	X
	BR-8	6/4/2003	Sample	X	X
	BR-9	6/3/2003	Sample	X	X
	E-1	5/30/2003	Sample	X	X
	E-3	5/30/2003	Sample	X	X
	PW10	6/4/2003	Sample	X	X
	PW11	6/3/2003	Sample	X	X
	PW12	6/3/2003	Sample	X	X
	PZ-105	5/28/2003	Sample	X	X
	PZ-106	5/28/2003	Sample	X	X
	PZ-107	5/28/2003	Sample	X	X
	S-3	5/30/2003	Sample	X	X
	S-4	5/30/2003	Sample	X	X
DOLOMITE PRODUCTS, INC.	BR-117D	5/27/2003	Sample	X	
	BR-118D	5/27/2003	Sample	X	
	QS-4	5/28/2003	Sample	X	X
EASTMAN KODAK (FORMERLY GERBER PROPERTY)	BR-103	5/30/2003	Sample	X	X
	MW-103	5/30/2003	Sample	X	X
ERIE BARGE CANAL	BR-112D	6/4/2003	Sample	X	
	BR-113D	6/4/2003	Sample	X	
	BR-122D	5/28/2003	Sample	X	
	BR-123D	5/28/2003	Sample	X	
	QO-2	5/28/2003	Sample	X	X
	QO-2S1	5/28/2003	Sample	X	X
JACKSON WELDING	BR-114	6/4/2003	Sample	X	X
	MW-114	6/4/2003	Sample	X	X
LEXINGTON MACHINING	NESS-E	5/29/2003	Sample	X	
	NESS-W	5/29/2003	Sample	X	
PFAUDLER, INC.	BR-116	5/28/2003	Sample	X	
	BR-116D	5/28/2003	Sample	X	
RG & E RIGHT OF WAY	BR-104	5/30/2003	Sample	X	
	BR-105	6/2/2003	Sample	X	X
	BR-105D	6/2/2003	Sample	X	X
	MW-104	5/30/2003	Sample	X	

Notes:

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

TABLE 2
SPRING 2003 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	B-17		B-7		BR-103		BR-104		BR-105		BR-105D		BR-106		BR-108		BR-112D		BR-113D	
SAMPLE DATE:	05/28/03		06/04/03		05/30/03		05/30/03		06/02/03		06/02/03		06/02/03		06/03/03		06/04/03		06/04/03	
QC TYPE:	N		N		N		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
2,6-Dichloropyridine	40000	U	1300	J	9	U	9	U	500	U	400	U	2500	U	10	U	9	U	9	U
2-Chloropyridine	76000		7800	J	9	U	3	J	950		1400		6900		10	U	20		54	
3-Chloropyridine	40000	U	200	U	9	U	9	U	500	U	400	U	2500	U	10	U	9	U	9	U
4-Chloropyridine	40000	U	200	U	9	U	9	U	500	U	400	U	2500	U	10	U	9	U	9	U
p-Fluoroaniline	40000	U	200	U	9	U	9	U	500	U	400	U	2500	U	10	U	9	U	9	U
Pyridine	100000	U	500	U	23	U	24	U	1200	U	1000	U	6200	U	24	U	24	U	24	U

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

QC TYPE: N = Field sample;
D = Field duplicate.

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Prepared by: NMB Checked by: JEB

TABLE 2
SPRING 2003 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-114		BR-116		BR-116D		BR-117D		BR-118D		BR-122D		BR-123D		BR-3		BR-5A		BR-6A	
SAMPLE DATE:	06/04/03		05/28/03		05/28/03		05/27/03		05/27/03		05/28/03		05/28/03		05/28/03		06/03/03		06/04/03	
QC TYPE:	N		N		N		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
2,6-Dichloropyridine	71		10	U	47	U	9	U	9	U	47	U	48	U	25000	U	100		9000	
2-Chloropyridine	450		10	U	64		22		140		160		90		110000		710		120000	
3-Chloropyridine	42	U	10	U	47	U	9	U	9	U	47	U	48	U	25000	U	49	U	4000	
4-Chloropyridine	42	U	10	U	47	U	9	U	9	U	47	U	48	U	25000	U	49	U	4000	
p-Fluoroaniline	42	U	10	U	47	U	9	U	9	U	47	U	48	U	25000	U	59		4000	U
Pyridine	100	U	24	U	120	U	24	U	24	U	120	U	120	U	62000	U	120	U	7500	J

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

QC TYPE: N = Field sample;
D = Field duplicate.

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Prepared by: NMB Checked by: JEB

TABLE 2
SPRING 2003 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-7A		BR-8		BR-8		BR-9		E-1		E-3		MW-103		MW-104		MW-106		MW-114	
SAMPLE DATE:	06/03/03		06/04/03		06/04/03		06/03/03		05/30/03		05/30/03		05/30/03		05/30/03		06/02/03		06/04/03	
QC TYPE:	N		Duplicate		N		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
2,6-Dichloropyridine	5000	UJ	500	U	500	U	54		59000		24		9	U	9	U	2500	U	10	U
2-Chloropyridine	11000	J	350	J	330	J	320		110000		150		9	U	9	U	10000		10	U
3-Chloropyridine	5000	U	500	U	500	U	48	U	440		9	U	9	U	9	U	2500	U	10	U
4-Chloropyridine	5000	U	500	U	500	U	48	U	440		9	U	9	U	9	U	2500	U	10	U
p-Fluoroaniline	5000	U	500	U	500	U	48	U	400	U	9	U	9	U	9	U	2500	U	10	U
Pyridine	12000	U	1200	U	1200	U	120	U	1800		23	U	23	U	23	U	6200	U	26	U

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

QC TYPE: N = Field sample;
D = Field duplicate.

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Prepared by: NMB Checked by: JEB

TABLE 2
SPRING 2003 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	NESS-E		NESS-W		PW10		PW11		PW12		PZ-101		PZ-102		PZ-103		PZ-104		PZ-105	
SAMPLE DATE:	05/29/03		05/29/03		06/04/03		06/03/03		06/03/03		05/29/03		05/29/03		05/29/03		05/29/03		05/28/03	
QC TYPE:	N		N		N		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
2,6-Dichloropyridine	47	U	48	U	4900		550		340		50	U	1400		5000	U	500	U	6200	U
2-Chloropyridine	310		540		36000		3700		830		23	J	5400		3800	J	2700		23000	
3-Chloropyridine	47	U	48	U	2500	U	250	U	200	U	50	U	1000	U	5000	U	500	U	6200	U
4-Chloropyridine	47	U	48	U	2500	U	250	U	200	U	50	U	1000	U	5000	U	500	U	6200	U
p-Fluoroaniline	47	U	48	U	2500	U	250	U	200	U	50	U	1000	U	5000	U	500	U	6200	U
Pyridine	120	U	88	J	4800	J	620	U	500	U	120	U	2500	U	12000	U	1200	U	16000	U

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

QC TYPE: N = Field sample;
D = Field duplicate.

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Prepared by: NMB Checked by: JEB

TABLE 2
SPRING 2003 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	PZ-106		PZ-107		S-3		S-4	
SAMPLE DATE:	05/28/03		05/28/03		05/30/03		05/30/03	
QC TYPE:	N		N		N		N	
BY SW-846 Method 8270C (µg/L)								
2,6-Dichloropyridine	5500		1000	U	4000		110	
2-Chloropyridine	21000		1800		14000		23	J
3-Chloropyridine	2000	U	1000	U	120		50	U
4-Chloropyridine	2000	U	1000	U	120		50	U
p-Fluoroaniline	2000	U	1000	U	100	U	50	U
Pyridine	5000	U	2500	U	250	U	120	U

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

QC TYPE: N = Field sample;
D = Field duplicate.

TABLE 3
SPRING 2003 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	B-17	B-7	BR-103	BR-105	BR-105D	BR-106	BR-114	BR-3	BR-5A	BR-6A	BR-7A
SAMPLE DATE:	05/28/03	06/04/03	05/30/03	06/02/03	06/02/03	06/02/03	06/04/03	05/28/03	06/03/03	06/04/03	06/03/03
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	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
1,1,2,2-Tetrachloroethane	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
1,1,2-Trichloroethane	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
1,1-Dichloroethane	500 U	5 U	5 U	1.3 J	5.7 J	50 U	5 U	25000 U	5 U	120 U	25 U
1,1-Dichloroethene	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
1,2-Dichloroethane	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
1,2-Dichloroethene (total)	1000 U	10 U	7.7 J	77	50 U	100 U	10 U	50000 U	13	250 U	50 U
1,2-Dichloropropane	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
2-Butanone	2500 U	25 U	25 U	25 U	120 U	250 U	25 U	120000 U	25 U	620 U	120 U
2-Hexanone	2500 U	25 U	25 U	25 U	120 U	250 U	25 U	120000 U	25 U	620 U	120 U
4-Methyl-2-pentanone	2500 U	25 U	25 U	25 U	120 U	250 U	25 U	120000 U	25 U	620 U	120 U
Acetone	2500 U	25 U	25 U	25 U	120 U	250 U	25 U	120000 U	25 U	620 U	120 U
Benzene	500 U	2.6 J	5 U	2.9 J	7.8 J	32 J	6.8	25000 U	11	120 U	47
Bromodichloromethane	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
Bromoform	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	40 J	25 U
Bromomethane	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
Carbon disulfide	600	5 U	5 U	5 U	25 U	50 U	5 U	14000 J	5 U	120 U	8.4 J
Carbon tetrachloride	3400	5 U	5 U	5 U	25 U	50 U	5 U	80000	5 U	1600	25 U
Chlorobenzene	270 J	27	5 U	4.9 J	25 U	220	5 U	6700 J	17	66 J	720
Chloroethane	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
Chloroform	32000	5 U	5 U	5 U	7.2 J	86	1.1 J	740000	72	4100	420
Chloromethane	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
cis-1,3-Dichloropropene	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
Dibromochloromethane	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
Ethylbenzene	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
Methylene chloride	2200	5 U	5 U	5 U	25 U	50 U	5 U	55000	88	300	260
Styrene	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
Tetrachloroethene	1800	5 U	5 U	5 U	25 U	50 U	5 U	45000	5 U	290	25 U
Toluene	750	5 U	5 U	5 U	25 U	11 J	5 U	18000 J	13	150	77
Total Xylenes	1500 U	15 U	15 U	15 U	75 U	150 U	1.9 J	75000 U	15 U	380 U	75 U
trans-1,3-Dichloropropene	500 U	5 U	5 U	5 U	25 U	50 U	5 U	25000 U	5 U	120 U	25 U
Trichloroethene	500 U	5 U	5 U	1.4 J	25 U	50 U	5 U	25000 U	34	32 J	25 U
Vinyl acetate	2500 U	25 U	25 U	25 U	120 U	250 U	25 U	120000 U	25 U	620 U	120 U
Vinyl chloride	500 U	5 U	4.3 J	23	25 U	50 U	5 U	25000 U	3.8 J	120 U	25 U

Notes:

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

J = Estimated value.

QC TYPE: N = Field sample; D = Field duplicate.

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Prepared by: NMB Checked by: JEB

TABLE 3
SPRING 2003 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-8	BR-8	BR-9	E-1	E-3	MW-103	MW-106	MW-114	PW10	PW11	PW12
SAMPLE DATE:	06/04/03	06/04/03	06/03/03	05/30/03	05/30/03	05/30/03	06/02/03	06/04/03	06/04/03	06/03/03	06/03/03
QC TYPE:	Duplicate	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	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
1,1,2,2-Tetrachloroethane	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
1,1,2-Trichloroethane	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
1,1-Dichloroethane	5 U	5 U	14 J	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
1,1-Dichloroethene	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
1,2-Dichloroethane	16	16	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
1,2-Dichloroethene (total)	10 U	10 U	500	50 U	10 U	10 U	50 U	10 U	500 U	500 U	250 U
1,2-Dichloropropane	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
2-Butanone	25 U	25 U	100 U	120 U	25 U	25 U	120 U	25 U	1200 U	1200 U	620 U
2-Hexanone	25 U	25 U	100 U	120 U	25 U	25 U	120 U	25 U	1200 U	1200 U	620 U
4-Methyl-2-pentanone	25 U	25 U	100 U	120 U	25 U	25 U	120 U	25 U	1200 U	1200 U	620 U
Acetone	25 U	25 U	100 U	1000	25 U	25 U	120 U	25 U	1200 U	1200 U	620 U
Benzene	3.4 J	3.3 J	76	25 U	5 U	5 U	44	5 U	250 U	250 U	99 J
Bromodichloromethane	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
Bromoform	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	380	250 U	120 U
Bromomethane	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
Carbon disulfide	5 U	5 U	20 U	21 J	5 U	5 U	25 U	5 U	1100	250 U	510
Carbon tetrachloride	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	3600	250 U	1900
Chlorobenzene	120	120	34	54	5 U	5 U	390	5 U	460	330	560
Chloroethane	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
Chloroform	26	26	19 J	65	5 U	5 U	400	4.4 J	7300	9300	4200
Chloromethane	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
cis-1,3-Dichloropropene	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
Dibromochloromethane	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
Ethylbenzene	5 U	5 U	8.7 J	25 U	5 U	5 U	25 U	5 U	250 U	250 U	43 J
Methylene chloride	5 U	5 U	34	26	5 U	5 U	53	5 U	1600	630	750
Styrene	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
Tetrachloroethene	5 U	5 U	20 U	25 U	5 U	5 U	25 U	3.5 J	660	250 U	160
Toluene	5 U	5 U	7.9 J	25 U	5 U	5 U	33	5 U	220 J	250 U	870
Total Xylenes	15 U	15 U	60 U	75 U	15 U	15 U	75 U	15 U	750 U	750 U	200 J
trans-1,3-Dichloropropene	5 U	5 U	20 U	25 U	5 U	5 U	25 U	5 U	250 U	250 U	120 U
Trichloroethene	5 U	5 U	4.4 J	25 U	5 U	5 U	25 U	6.9	250 U	250 U	120 U
Vinyl acetate	25 U	25 U	100 U	120 U	25 U	25 U	120 U	25 U	1200 U	1200 U	620 U
Vinyl chloride	5 U	5 U	180	25 U	5 U	5 U	25 U	5 U	98 J	250 U	120 U

Notes:

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

J = Estimated value.

QC TYPE: N = Field sample; D = Field duplicate.

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Prepared by: NMB Checked by: JEB

TABLE 3
SPRING 2003 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	PZ-101	PZ-102	PZ-103	PZ-104	PZ-105	PZ-106	PZ-107	S-3	S-4
SAMPLE DATE:	05/29/03	05/29/03	05/29/03	05/29/03	05/28/03	05/28/03	05/28/03	05/30/03	05/30/03
QC TYPE:	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	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
1,1,2,2-Tetrachloroethane	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
1,1,2-Trichloroethane	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
1,1-Dichloroethane	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	3.8 J	25 U
1,1-Dichloroethene	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
1,2-Dichloroethane	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
1,2-Dichloroethene (total)	10 U	50 U	100 U	10 U	50 U	50000 U	10 U	15	50 U
1,2-Dichloropropane	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
2-Butanone	25 U	120 U	250 U	25 U	120 U	120000 U	25 U	25 U	120 U
2-Hexanone	25 U	120 U	250 U	25 U	120 U	120000 U	25 U	25 U	120 U
4-Methyl-2-pentanone	25 U	120 U	250 U	25 U	120 U	120000 U	25 U	25 U	120 U
Acetone	25 U	120 U	250 U	25 U	120 U	120000 U	25 U	25 U	120 U
Benzene	5 U	28	45 J	2.9 J	34	25000 U	3.8 J	14	25 U
Bromodichloromethane	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
Bromoform	5 U	25 U	50 U	4.5 J	160	15000 J	62	5 U	25 U
Bromomethane	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
Carbon disulfide	5 U	25 U	50 U	5 U	490	140000	140	5 U	25 U
Carbon tetrachloride	5 U	25 U	50 U	6.6	950	130000	680	5 U	25 U
Chlorobenzene	6.2	600	1000	3.7 J	280	25000 U	4.1 J	110	25 U
Chloroethane	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
Chloroform	6.1	16 J	6300	1.1 J	3500	1200000	930	55	25 U
Chloromethane	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
cis-1,3-Dichloropropene	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
Dibromochloromethane	5 U	25 U	50 U	5 U	13 J	25000 U	4.9 J	5 U	25 U
Ethylbenzene	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	1.4 J	25 U
Methylene chloride	5 U	25 U	1300	5 U	190	29000	26	5 U	25 U
Styrene	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
Tetrachloroethene	5 U	25 U	50 U	5 U	19 J	25000 U	14	6.3	25 U
Toluene	5 U	25 U	92	5 U	65	25000 U	27	8.3	25 U
Total Xylenes	15 U	75 U	150 U	15 U	75 U	75000 U	15 U	15 U	75 U
trans-1,3-Dichloropropene	5 U	25 U	50 U	5 U	25 U	25000 U	5 U	5 U	25 U
Trichloroethene	5 U	25 U	50 U	5 U	25 U	25000 U	2.9 J	1.2 J	25 U
Vinyl acetate	25 U	120 U	250 U	25 U	120 U	120000 U	25 U	25 U	120 U
Vinyl chloride	5 U	25 U	50 U	5 U	25 U	25000 U	5.7	17	25 U

Notes:

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

J = Estimated value.

QC TYPE: N = Field sample; D = Field duplicate.

TABLE 4
COMPARISON OF SPRING 2003
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)

ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - SPRING 2003

WELL	SELECTED CHLOROPYRIDINES				SELECTED VOCs			
	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	MAY-2003 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	MAY-2003 RESULT
ON-SITE WELLS/LOCATIONS								
B-17	7	28,000,000	200,000	76,000	7	345,000	77,000	39,000
B-7	5	6,100	2,400	**9,100**	5	91	69	ND
B-9	5	4,000	1,700	NA	5	1500	320	NA
BR-3	6	6,500,000	160,000	110,000	6	600,000	450,000	**920,000**
BR-5A	9	1,700	270	**870**	9	9,400	72	**190**
BR-6A	9	93,000	26,000	**140,000**	9	26,000	7,000	6,300
BR-7A	9	510,000	22,000	11,000	9	3,000	320	**680**
BR-8	7	57,000	12,000	330	7	6,900	0.57	**26**
BR-9	7	720	480	370	7	160	82	57
E-1	6	43,000	19,000	**170,000**	6	5,300	680	91
E-3	7	600	41	**170**	7	12,000	200	ND
PW10	7	160,000	79,000	46,000	7	120,000	47,000	13,000
PW11	5	27,000	6,900	4,300	6	30,000	10000	9,900
PW12	9	15,000	4,200	1,200	9	120,000	6,800	**7,000**
PZ-105	6	190,000	35,000	23,000	5	9,700	830	**4,700**
PZ-106	7	120,000	28,000	26,500	7	1,100,000	550,000	**1,400,000**
PZ-107	9	11,000	2,000	1,800	9	12,000	730	**1,700**
S-3	6	9,500	6,600	**18,000**	6	2,500	750	63
S-4	6	3,200	1,200	130	6	870	150	ND

TABLE 4
COMPARISON OF SPRING 2003
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)

ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - SPRING 2003

WELL	SELECTED CHLOROPYRIDINES				SELECTED VOCs			
	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	MAY-2003 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	MAY-2003 RESULT
OFF-SITE WELLS/LOCATIONS								
BR-103	6	400	15	ND	5	1	1	ND
BR-104	7	3,100	12	3	5	9	ND	NA
BR-105	9	24,000	2,100	950	8	310	5.2	1.4
BR-105D	9	10,000	2,400	1,400	8	230	8.5	7.2
BR-106	9	21,000	10,000	6,900	9	6,300	390	86
BR-108	7	1,700	10	ND	4	ND	ND	NA
BR-112D	7	310	47	20	3	4	0.43	NA
BR-113D	7	490	89	54	NS	3	NA	NA
BR-114	7	510	180	**520**	6	5	3.9	1.1
BR-116	5	12	ND	ND	NS	84	NA	NA
BR-116D	6	710	160	64	1	120	ND	NA
BR-117D	5	80	18	**22**	NS	1.9	NA	NA
BR-118D	5	330	130	**140**	NS	6.6	NA	NA
BR-122D	7	650	160	160	3	ND	ND	NA
BR-123D	7	860	430	90	3	4	1.3	NA
MW-103	5	82	5.2	ND	5	ND	150	ND
MW-104	5	180	2.3	ND	4	1	ND	NA
MW-106	8	130,000	17,000	10,000	8	89	0.98	**450**
MW-114	7	18	1.3	ND	6	19	11	**15**
MW-16	2	360	270	NA	NS	ND	NA	NA
NESS-E	7	5,000	530	310	5	700	ND	NA
NESS-W	7	2,100	260	**630**	5	89	0.22	NA

TABLE 4
COMPARISON OF SPRING 2003
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)

ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - SPRING 2003

WELL	SELECTED CHLOROPYRIDINES				SELECTED VOCs			
	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	MAY-2003 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	MAY-2003 RESULT
OFF-SITE WELLS/LOCATIONS								
PZ-101	8	27,000	1,700	23	6	2	0.27	**6.1**
PZ-102	8	58,000	8,200	6,800	6	10,000	0.98	**16**
PZ-103	8	73,000	30,000	3,800	7	27,000	10,000	7,600
PZ-104	7	9,100	4,400	2,700	6	40	0.62	**7.7**
QO-2	19	380	41	6	8	ND	ND	ND
QO-2S1	18	27	1.5	ND	3	ND	ND	ND
QS-4	19	3,400	740	260	8	ND	ND	ND

Note:

1) Number of samples and mean reflect 5-year sampling period from December 1997 through February 2003.
   Historic maximum based on all available results from March 1990 through February 2003
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** - May 2003 exceeds 5-year mean.
5) NA = Not analyzed or not applicable
   ND = Not detected
   NS = Not sampled

TABLE 5
SPRING 2003 CANAL/QUARRY MONITORING RESULTS

ARCH CHEMICAL, INC.
ROCHESTER, NEW YORK

WELL / POINT	QO-2		QO-2S1		QS-4	
DATE	5/28/2003		5/28/2003		5/28/2003	
VOLATILE ORGANIC COMPOUNDS BY SW-846 Method 8260/5ML (µg/L)						
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)	10	U	10	U	10	U
1,2-Dichloropropane	5	U	5	U	5	U
2-Butanone	25	U	25	U	25	U
2-Hexanone	25	U	25	U	25	U
4-Methyl-2-pentanone	25	U	25	U	25	U
Acetone	25	U	25	U	25	U
Benzene	5	U	5	U	5	U
Bromodichloromethane	5	U	5	U	5	U
Bromoform	5	U	5	U	5	U
Bromomethane	5	U	5	U	5	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	5	U	5	U	5	U
Chloroform	5	U	5	U	5	U
Chloromethane	5	U	5	U	5	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	25	U	25	U	25	U
Vinyl chloride	5	U	5	U	5	U
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)						
2,6-Dichloropyridine	10	U	9	U	96	U
2-Chloropyridine	6	J	9	U	260	
3-Chloropyridine	10	U	9	U	96	U
4-Chloropyridine	10	U	9	U	96	U
p-Fluoroaniline	10	U	9	U	96	U
Pyridine	24	U	23	U	240	U

Notes:

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

J = Estimated value.

NA = Not analyzed

P:\Projects\Arch\Rochester\archroch\DataDelv\2003\May\Table_5_Swquarry

Prepared by: NMB Checked by: JEB

TABLE 6
EXTRACTION WELL WEEKLY FLOW MEASUREMENTS - DECEMBER 2002 THROUGH MAY 2003

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.]
Dec. '02								
12/06/02	60,226	5,145	71,879	60,016	15	17,847	20,160	235,288
12/13/02	41,217	15,765	48,690	50,341	47,586	18,129	20,160	241,888
12/20/02	34,957	0	41,685	51,251	23,233	20,989	20,160	192,275
12/27/02	43,280	0	36,601	49,374	2,453	20,129	20,160	171,997
							Total [Gal.]	841,448
Jan. '03								
01/04/03	37,519	0	51,957	31,350	2,613	12,043	20,160	155,642
01/11/03	56,009	9,525	97,162	58,652	12,220	22,314	20,160	276,042
01/18/03	59,047	20,315	100,301	59,401	360	21,640	20,160	281,224
01/25/03	57,089	20,120	86,702	48,792	13,007	22,174	20,160	268,044
							Total [Gal.]	980,953
Feb. '03								
02/01/03	51,308	18,745	99,941	40	920	26,857	20,160	217,970
02/08/03	48,564	13,847	79,685	26,705	710	21,412	20,160	211,083
02/15/03	25,406	11,455	45,446	50,550	844	17,027	20,160	170,888
02/22/03	23,216	2,042	19,379	19,498	15,258	5,163	20,160	104,716
							Total [Gal.]	704,657
Mar. '03								
03/01/03	51,127	15,324	63,325	4,770	1,372	20,055	20,160	176,133
03/08/03	68,768	21,601	82,917	2,841	2,300	28,578	20,160	227,165
03/15/03	61,707	9,755	32,009	17,152	20,058	14,439	20,160	175,280
03/22/03	66,307	174	80,931	45,519	2,390	23,643	20,160	239,124
03/29/03	54,154	6,632	113,038	59,108	1,400	20,476	20,160	274,968
							Total [Gal.]	1,092,670
Apr. '03								
04/05/03	32,467	1,202	115,830	32,608	51	20,476	20,160	222,794
04/12/03	53,582	2,775	82,738	41,124	1	20,476	20,160	220,856
04/19/03	43,194	5,763	61,090	40,292	1,075	11,389	20,160	182,963
04/26/03	67,950	4,324	95,079	26,392	4,425	22,658	20,160	240,988
							Total [Gal.]	867,600
May '03								
05/03/03	61,139	9,892	103,420	44,268	3,960	22,812	20,160	265,651
05/10/03	63,312	7,805	122,626	66,908	5,040	20,155	20,160	306,006
05/17/03	68,533	10,585	70,396	46,684	3,720	30,903	20,160	250,981
05/24/03	72,420	10,581	47,165	51,387	4,410	31,990	20,160	238,113
05/31/03	77,170	201	66,098	60,817	4,670	32,137	20,160	261,253
							Total [Gal.]	1,322,003
Total 6 Mo. Removal (Gal.)	1,379,668	223,573	1,916,090	1,045,839	174,091	545,908	524,160	5,809,330

Notes:

* Pumped volumes for PW-11 are estimated due to error in meter setting

** Due to numerous failures of meter, pumped volumes for PW-12 are assumed to be 2 gpm

Prepared by: NMB Checked by: JEB

TABLE 7

MASS REMOVAL SUMMARY
PERIOD: 11/30/02 - 5/31/03

ARCH ROCHESTER
SPRING 2003 GROUNDWATER MONITORING REPORT

Well	Total Vol. Pumped (gallons)	Avg. VOC Conc. (ppm)	Avg. PYR. Conc. (ppm)	VOCs Removed (pounds)	PYR. Removed (pounds)
BR-5A	1,380,000	0.15	0.99	1.7	11.4
BR-6A	224,000	11	83	21	155
BR-7A	1,916,000	0.94	9.4	15	150
BR-9	1,046,000	0.06	0.34	0.5	3.0
PW-10	174,000	8.6	33	12	48
PW-11	546,000	20	2.6	91.0	12
PW-12	524,000	4.7	8.1	21	35.4
Totals:	5,810,000			161.7	414.3

Note: VOC and pyridine concentrations used in this table are an average of the analytical results from the Fall 2002 and Spring 2003 sampling events for each well

Prepared by: NMB Checked by: JEB

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

ARCH ROCHESTER MONITORING PROGRAM						2003 SPRING		2003 FALL		2003 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
	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						46	33	23	22	69	55

Revised: 07/17/03 (deleted well B-9 -destroyed)

Appendix A

Groundwater Field Sampling Data Sheets

SEVERN TRENT STL

FIELD REPORT

REMEDIAL INVESTIGATION SAMPLING
ARCH CHEMICAL
ROCHESTER, NEW YORK

Spring 2003 Event

Prepared For:

Harding Lawson Associates
511 Congress Street
Portland, Maine 04112-7050

Attention: Mr. Nelson Breton

Prepared By:

SEVERN TRENT LABORATORIES, INC.
Audubon Business Center
10 Hazelwood Drive
Amherst, New York 14228-2298

NY5A5762

Written By: Roger Senf

Reviewed By: _____

Date: 6-17-03

1.0 INTRODUCTION

This report describes the sampling of the following points:

- Fourty-three (43) monitoring wells (Well B-9 destroyed)
- One (1) barge canal sample
- One (1) quarry outfall sample
- One (1) quarry seep sample

These activities were in support of the Phase II Remediation Investigation being conducted at the Arch Chemical facility in Rochester, New York. The samples were collected from May 27 through June 4, 2003 by Severn Trent Laboratories, Inc. (STL) personnel.

2.0 METHODOLOGIES

2.1 Water Level Measurements

Static water levels in all groundwater wells were measured from the top of the well casing/riser with an electronic water level indicator. All well bottoms were sounded with the weighted steel measuring tape. All measurements were recorded to the nearest hundredth of a foot (0.01 feet). The length of the measuring device which contacted the water was cleaned between wells with a deionized water rinse and paper towel wipe. These data are presented on Sampling Summary Table and Field Observation forms.

2.2 Well Purging

Monitoring wells were evacuated prior to sampling employing one of the following methods:

1) Purging three (3) times the standing water volume using precleaned or dedicated 1.25" X 5' stainless steel bailers, 2" X 5' polyvinyl chloride bailers, peristaltic pump or QED Low-Flow Bladder pumps.
2) Evacuated with the low flow/low stress puring technique using either QED Low-Flow Bladder pumps or a variable rate peristaltic pump.

   Wells that were purged of three (3) standing volumes were mainly wells located on or very near the Erie Canal and historically purged with this method prior to sampling. The remaining wells were evacuated with a low flow/low stress purging technique. This technique involves the use of a variable flow rate bladder or peristaltic pump. The pumps were employed to purge the monitoring wells at a flow rate such that drawdown of the water column from static conditions is minimal. Field measurements of pH, specific

conductance, temperature, ORP, dissolved oxygen and turbidity are monitored every 3-5 minutes until stabilization of parameters is realized. Once stabilization has occurred, sampling can be conducted. All purged water was collected into 55-gallon drums for disposal at the on-site wastewater treatment facility. Data pertaining to each evacuation are presented on the Sampling Summary Table and field Observation Forms.

2.3 Surface Water Samples

Surface water samples were collected from one (1) location on the Erie Barge Canal, one (1) outfall sample and one (1) Quarry Seep Sample. Samples were taken from the following locations:

- QO-2 Quarry outfall collected at discharge point to Erie Barge Canal approximately 600' north of Chili Avenue
- QO-2SI Collected from canal, 100' South of QO-2.
- QS-4 Collected from Quarry Seep

3.0 SAMPLING

3.1 Monitoring Wells

All groundwater wells were sampled using precleaned or dedicated 1.25" X 1.25" X 5' stainless steel bailers, perisaltic pumps or bladder (SamplePro) pumps when low flow purging techniques were used. Each bailer was constructed with teflon, bottom-filling check valve and was assembled without glues or welds. New ¼" poly rope was attached to each bailer. The bailer was slowly lowered into the water column, minimizing agitation and devolatilization. Low density polyethylene (LDPE) tubing was used with both the bladder (QED) and the peristaltic pumps. The bladder pumps were decontaminated between sample locations in accordance with the work plan. Personnel exercised care in all aspects of the sampling to ensure the collection of a representative sample An additional sample container was collected from each well in order to facilitate the measurement of field analytical parameters. Data pertaining to sampling are presented on the Sampling Summary Table and the Field Observation Forms.

3.2 Canal Sampling

When possible, samples were collected directly from the canal into appropriate sample containers. Otherwise, samples were collected with the use of a unique, laboratory-cleaned stainless steel bailer. The bailers were immersed just below the surface and removed. Sample was poured directly into the appropriate container. An additional container was

collected to facilitate the measurement of field parameters. Additional data pertaining to these samples is presented in the Sampling Summary Table and Field Observation Forms.

3.3 Seep Sampling

A groundwater sample was collected from a seep at the quarry (QS-4) located on Buffalo Road. The sample was collected with the use of a laboratory cleaned stainless steel bucket and was then poured directly into the appropriate containers. An additional container was collected to facilitate the measurement of field parameters. Data pertaining to this sampling is presented in the Sampling Summary Table and Field Observation Forms.

4.0 SAMPLE CONTAINERS

Monitoring wells and surface water samples requiring analysis for volatile organics were collected into 40 ml glass vials with teflon septa. Samples for semi-volatile and Pyridine analysis were collected into one (1) liter amber glass bottles with teflon-lined caps. All bottles were purchased new and cleaned (Protocol A, 300 series) from Environmental Supply Services. Each container was labeled with the following information:

- Sample Identification (Well/Point I.D.)
- Date
- Project Number
- Sampler's Initials

5.0 FIELD MEASUREMENTS

On-site field measurements were made of each sample's pH, specific conductance and temperature. All measurements were made in accordance with protocols outlined in Methods for Chemical Analysis of Water and Wastes (EPA – 600/4-79-9020). These data were presented on the Sampling Summary Table and Field Observation Forms.

6.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

6.1 Trip Blanks

Trip blanks were collected with each sample shipment requiring volatile organic analysis. Each trip blank consisted of two 920 40 ml glass vials with teflon septa which were filled with deionized water at the STL laboratory. These blanks were transported to the site, stored with field collected samples and submitted to the STL facility for analysis.

6.2 Equipment Rinse Blank

Equipment rinse blanks were collected as required by the work plan.

7.0 CHAIN OF CUSTODY

Chain of custody was initiated at the time of sample collection and maintained through delivery to the STL facility in Amherst, New York. Copies of these documents are included in the analytical report package.

Sampling ary Table
HARDING L ASSOCIATES
SPRING 2003
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	
B-17	05/28/2003	1116	5.19	N/A	16.23	05/28/2003	1140	9.70	12440	13.4	1.12	EH(mv)= -99	DO(ppm)= 1.33
	Comments: CLEAR/AMBER												
B-7	06/04/2003	1222	12.20	N/A	20.90	06/04/2003	1245	7.28	1624	15.0	33.30	EH(mv)= -40	DO(ppm)= .93
	Comments: SL.TURBID												
B-9	06/04/2003	0	0.00	N/A	N/A	06/04/2003	0	N/A	N/A	N/A	N/A		
	Comments: WELL IS BURIED UNDER STONE												
BR-103	05/30/2003	1055	5.45	N/A	43.45	05/30/2003	1120	7.59	1473	12.4	7.20	EH(mv)= 226	DO(ppm)= .83
	Comments: CLEAR												
BR-104	05/30/2003	1236	7.04	N/A	19.20	05/30/2003	1300	8.73	259	14.6	38.40	EH(mv)= 300	DO(ppm)= 1.12
	Comments: CLEAR												
BR-105	06/02/2003	1315	22.28	N/A	44.60	06/02/2003	1350	7.26	2160	12.4	5.00	EH(mv)= -21	DO(ppm)= .85
	Comments: CLEAR												
BR-105D	06/02/2003	1220	24.22	N/A	79.50	06/02/2003	1255	7.18	15290	13.9	1.52	EH(mv)= -288	DO(ppm)= .70
	Comments: CLEAR												
BR-106	06/02/2003	1020	22.48	N/A	43.22	06/02/2003	1100	7.42	2951	11.8	94.60	EH(mv)= -116	DO(ppm)= .81
	Comments: SL.TURBID												
BR-108	06/02/2003	1405	27.25	N/A	29.75	06/03/2003	1030	7.43	848	15.7	85.40	EH(mv)= 24	
	Comments: TURBID												
BR-112D	06/04/2003	1335	36.27	N/A	72.26	06/04/2003	1410	7.33	1500	10.8	2.25	EH(mv)= -263	DO(ppm)= .13
	Comments: CLEAR												
BR-113D	06/04/2003	1235	31.28	N/A	79.25	06/04/2003	1310	7.35	2610	11.7	2.63	EH(mv)= -283	DO(ppm)= .14
	Comments: BLACK TINT												
BR-114	06/04/2003	1125	12.80	N/A	36.93	06/04/2003	1155	7.35	2020	14.1	5.15	EH(mv)= 129	DO(ppm)= .17
	Comments: CLEAR												
BR-116	05/28/2003	1415	27.05	N/A	62.20	05/28/2003	1450	7.25	2280	14.5	18.57	EH(mv)= -203	DO(ppm)= .32
	Comments: CLEAR												
BR-116D	05/28/2003	1330	35.40	N/A	98.10	05/28/2003	1405	7.67	1850	15.3	35.20	EH(mv)= -225	DO(ppm)= .49
	Comments: SL.BLACK TINT												
BR-117D	05/27/2003	1240	48.90	N/A	82.24	05/27/2003	1320	7.79	2020	10.6	22.80	EH(mv)= -162	DO(ppm)= .80
	Comments: BLACK TINT												
BR-118D	05/27/2003	1150	47.97	N/A	87.27	05/27/2003	1215	7.43	2110	12.3	8.23	EH(mv)= -217	DO(ppm)= .42
	Comments: CLEAR												

SG - Specific Gravity
EH - Redox
DO - Dissolved Oxygen

* From Top of Riser
** Elevation Above Sea Level

Sampling mary Table
HARDING L .N ASSOCIATES
SPRING 2003
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-122D	05/28/2003	1045	44.24	N/A	82.57	05/28/2003	1130	7.30	2320	11.5	1.12	EH(mv)= -255	DO(ppm)= .37
	Comments: CLEAR												
BR-123D	05/28/2003	1150	44.95	N/A	97.56	05/28/2003	1230	8.93	1660	10.8	26.80	EH(mv)= -283	DO(ppm)= .17
	Comments: CLEAR												
BR-3	05/28/2003	1244	8.99	N/A	23.25	05/28/2003	1305	6.99	20840	12.8	2.74	EH(mv)= -72	DO(ppm)= .56
	Comments: CLEAR												
BR-5A	06/03/2003	900	25.53	N/A	N/A	06/03/2003	905	7.63	1966	14.9	5.12	EH(mv)= -68	
	Comments: CLEAR												
BR-6A	06/04/2003	1435	8.09	N/A	N/A	06/04/2003	1440	8.96	5630	17.2	31.50	EH(mv)= -118	
	Comments: BROWN TINT/SL.TURBID												
BR-7A	06/03/2003	1000	27.36	N/A	N/A	06/03/2003	1005	7.49	3364	17.5	37.90	EH(mv)= -170	
	Comments: SL.TURBID												
BR-8	06/04/2003	1125	7.44	N/A	31.74	06/04/2003	1150	7.98	2660	14.6	26.60	EH(mv)= -175	DO(ppm)= .97
	Comments: CLEAR/FIELD DUPLICATE												
BR-9	06/03/2003	840	30.50	N/A	N/A	06/03/2003	840	7.04	3024	14.7	3.38	EH(mv)= -34	
	Comments: CLEAR												
E-1	05/30/2003	1300	2.23	N/A	9.75	05/30/2003	1340	9.75	26820	16.2	41.60	EH(mv)= -196	DO(ppm)= 0.96
	Comments: SL. TRUBID BLACK TINT												
E-3	05/28/2003	1041	8.74	N/A	12.05	05/30/2003	1055	6.86	1552	12.7	11.71	EH(mv)= 79	DO(ppm)= 0.97
	Comments: CLEAR												
MW-103	05/30/2003	1010	1.65	N/A	8.05	05/30/2003	1040	7.85	537	18.6	1.37	EH(mv)= 280	DO(ppm)= 1.19
	Comments: CLEAR												
MW-104	05/30/2003	1140	5.74	N/A	18.10	05/30/2003	1210	7.69	504	14.8	126.70	EH(mv)= 250	DO(ppm)= .60
	Comments: SL.TURBID												
MW-106	06/02/2003	1120	8.94	N/A	19.35	06/02/2003	1155	7.32	2672	13.1	25.50	EH(mv)= -155	DO(ppm)= .80
	Comments: SL.TURBID												
MW-114	06/04/2003	1040	10.73	N/A	15.76	06/04/2003	1110	7.33	2130	14.7	10.99	EH(mv)= 185	DO(ppm)= .42
	Comments: CLEAR												
NESS-E	05/29/2003	1138	30.94	N/A	74.52	05/29/2003	1205	7.13	3570	13.4	74.90	EH(mv)= 250	DO(ppm)= 1.86
	Comments: CLEAR												
NESS-W	05/29/2003	1020	31.29	N/A	77.23	05/29/2003	1110	9.20	4000	13.1	187.00	EH(mv)= 279	DO(ppm)= 2.5
	Comments: BLACK SL.TURBID												

SG - Specific Gravity
EH - Redox
DO - Dissolved Oxygen

* From Top of Riser
** Elevation Above Sea Level

Sampling mary Table
HARDING L ASSOCIATES
SPRING 2003
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	
PW-10	06/04/2003	1055	11.67	N/A	N/A	06/04/2003	1100	9.17	4832	19.0	37.90	EH(mv)= -115	
	Comments: BROWN STRONG ODER												
PW-11	06/03/2003	755	17.86	N/A	N/A	06/03/2003	800	6.91	3770	13.9	16.49	EH(mv)= -97	
	Comments: CLEAR												
PW-12(BR-101)	06/03/2003	930	7.06	N/A	N/A	06/03/2003	935	7.32	6458	17.5	2.37	EH(mv)= -77	
	Comments: CLEAR												
PZ-101	05/29/2003	1250	11.19	N/A	21.69	05/29/2003	1315	7.18	1136	13.3	1.72	EH(mv)= 87	DO(ppm)= .97
	Comments: CLEAR												
PZ-102	05/29/2003	1210	10.86	N/A	32.60	05/29/2003	1235	7.43	3601	14.4	0.95	EH(mv)= -122	DO(ppm)= .85
	Comments: CLEAR												
PZ-103	05/29/2003	1135	9.78	N/A	32.52	05/29/2003	1200	7.49	3251	13.3	3.78	EH(mv)= -159	DO(ppm)= 1.09
	Comments: CLEAR												
PZ-104	05/29/2003	1050	12.39	N/A	23.93	05/29/2003	1115	7.38	1849	13.3	3.36	EH(mv)= -97	DO(ppm)= .93
	Comments: CLEAR												
PZ-105	05/28/2003	1327	8.90	N/A	32.86	05/28/2003	1350	7.49	3010	14.1	69.70	EH(mv)= 10	DO(ppm)= .98
	Comments: BLACK TINT/SL.TURBID												
PZ-106	05/28/2003	1155	8.81	N/A	27.90	05/28/2003	1220	6.29	17130	14.5	26.70	EH(mv)= 110	DO(ppm)= .87
	Comments: SL.TURBID												
PZ-107	05/28/2003	1415	4.88	N/A	27.90	05/28/2003	1440	7.74	2890	12.5	1.56	EH(mv)= -100	DO(ppm)= .90
	Comments: CLEAR												
QO-2	05/28/2003	1300	0.00	N/A	N/A	05/28/2003	1305	7.72	2071	15.6	7.82	EH(mv)= 94	
	Comments: CLEAR												
QO-2S1	05/28/2003	1315	0.00	N/A	N/A	05/28/2003	1320	N/A	723	18.4	5.87	EH(mv)= 78	
	Comments: CLEAR												
QS-4	05/28/2003	1530	0.00	N/A	N/A	05/28/2003	1535	7.43	1801	13.4	3.22	EH(mv)= 74	
	Comments: CLEAR												
S-3	05/30/2003	1135	2.21	N/A	N/A	05/30/2003	1200	8.15	2928	15.2	16.30	EH(mv)= -185	DO(ppm)= .89
	Comments: CLEAR												
S-4	05/30/2003	1100	0.76	N/A	13.05	05/30/2003	1125	8.69	649	13.5	19.98	EH(mv)= -151	DO(ppm)= 0.91
	Comments: CLEAR												

SG - Specific Gravity
EH - Redox
DO - Dissolved Oxygen

* From Top of Riser
** Elevation Above Sea Level

Date: 06/1 003
Time: 09:35:04

Groundwater vation Report
HARDING LAWSON ASSOC.
MAY 2003
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
B-1	05/27/2003	1232	0.00	8.11	N/A	
B-10	05/27/2003	1150	0.00	5.47	N/A	
B-11	05/27/2003	1147	0.00	2.77	N/A	
B-13	05/27/2003	1301	0.00	11.54	N/A	DRY
B-14	05/27/2003	1305	0.00	5.80	N/A	
B-15	05/27/2003	1306	0.00	2.32	N/A	
B-16	05/27/2003	1307	0.00	2.92	N/A	
B-17	05/27/2003	1134	0.00	5.26	N/A	
B-2	05/27/2003	1231	0.00	8.82	N/A	
B-3	05/27/2003	1224	0.00	5.35	N/A	
B-4	05/27/2003	1242	0.00	3.75	N/A	
B-5	05/27/2003	1247	0.00	7.82	N/A	
B-7	05/27/2003	1256	0.00	12.26	N/A	
B-8	05/27/2003	1206	0.00	5.97	N/A	
B-9	05/27/2003	1201	0.00	N/A	N/A	DESTROYED
BR-1	05/27/2003	1114	0.00	7.05	N/A	
BR-102	05/27/2003	1222	0.00	22.51	N/A	
BR-103	05/27/2003	1401	0.00	5.55	N/A	
BR-104	05/27/2003	1324	0.00	7.17	N/A	
BR-105	05/27/2003	1327	0.00	22.07	N/A	
BR-105D	05/27/2003	1328	0.00	24.94	N/A	
BR-106	05/27/2003	1332	0.00	20.85	N/A	
BR-107	05/27/2003	0	0.00	N/A	N/A	DESTROYED
BR-108	05/27/2003	1057	0.00	24.07	N/A	
BR-111	05/27/2003	1408	0.00	28.73	N/A	
BR-111D	05/27/2003	1410	0.00	28.99	N/A	
BR-112A	05/27/2003	1412	0.00	27.22	N/A	
BR-112D	05/27/2003	1414	0.00	36.32	N/A	
BR-113	05/27/2003	1407	0.00	31.28	N/A	
BR-113D	05/27/2003	1403	0.00	31.34	N/A	
BR-114	05/27/2003	1358	0.00	12.73	N/A	
BR-116	05/27/2003	1355	0.00	27.09	N/A	
BR-116D	05/27/2003	1357	0.00	35.42	N/A	
BR-117	05/27/2003	1238	0.00	35.20	N/A	

Date: 06/[illegible]2003
Time: 09:3[illegible].04

Groundwater[illegible]evation Report
HARDING L[illegible]SON ASSOC.
MAY 2003
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
BR-117D	05/27/2003	1240	0.00	48.90	N/A	
BR-118	05/27/2003	1146	0.00	27.02	N/A	
BR-118D	05/27/2003	1145	0.00	47.97	N/A	
BR-119D	05/27/2003	1135	0.00	66.67	N/A	
BR-120D	05/27/2003	1120	0.00	56.48	N/A	
BR-121D	05/27/2003	1130	0.00	53.35	N/A	
BR-122D	05/27/2003	1350	0.00	44.23	N/A	
BR-123D	05/27/2003	1345	0.00	44.92	N/A	
BR-124D	05/27/2003	1340	0.00	30.45	N/A	
BR-2	05/27/2003	1130	0.00	N/A	N/A	DRY
BR-2A	05/27/2003	1128	0.00	6.71	N/A	
BR-2D	05/27/2003	1131	0.00	0.05	N/A	
BR-3	05/27/2003	1157	0.00	9.03	N/A	
BR-3D	05/27/2003	1155	0.00	67.46	N/A	
BR-4	05/27/2003	1144	0.00	5.23	N/A	
BR-5	05/27/2003	1117	0.00	15.64	N/A	
BR-5A	05/27/2003	1118	0.00	16.75	N/A	8.24 G.P.M.
BR-6	05/27/2003	1203	0.00	12.04	N/A	
BR-6A	05/27/2003	1204	0.00	8.26	N/A	0.00GPM = FLOW RATE
BR-7	05/27/2003	1252	0.00	N/A	N/A	DRY
BR-7A	05/27/2003	1253	0.00	28.10	N/A	6.52 G.P.M
BR-8	05/27/2003	1246	0.00	7.57	N/A	
BR-9	05/27/2003	1225	0.00	27.10	N/A	6.79 G.P.M.
C-1	05/27/2003	0	0.00	N/A	N/A	DESTROYED
C-2A	05/27/2003	1129	0.00	5.72	N/A	
C-3	05/27/2003	1122	0.00	5.00	N/A	BROKE AT GROUND SURFACE
C-4	05/27/2003	0	0.00	N/A	N/A	BUILDING IN THIS AREA/WELL NO LONGER EXISTS
C-5	05/27/2003	1159	0.00	9.40	N/A	
E-1	05/27/2003	1141	0.00	2.05	N/A	FLOODED
E-2	05/27/2003	1145	0.00	4.08	N/A	
E-3	05/27/2003	1116	0.00	8.78	N/A	
E-4	05/27/2003	1110	0.00	N/A	N/A	DRY
E-5	05/27/2003	1109	0.00	5.81	N/A	
EC-1	05/27/2003	1420	0.00	17.23	N/A	

Date: 06/1 003
Time: 09:35:04

Groundwater vation Report
HARDING LAWSON ASSOC.
MAY 2003
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
EC-2	05/27/2003	1405	0.00	N/A	N/A	DRY AT 12.75
ERIE CANAL	05/27/2003	1417	0.00	34.20	N/A	
MW-103	05/27/2003	1400	0.00	1.50	N/A	
MW-104	05/27/2003	1323	0.00	6.37	N/A	FLOODED
MW-105	05/27/2003	1329	0.00	N/A	N/A	DRY AT 19.01
MW-106	05/27/2003	1333	0.00	8.77	N/A	
MW-107	05/27/2003	0	0.00	N/A	N/A	DESTROYED
MW-108	05/27/2003	1055	0.00	9.73	N/A	
MW-114	05/27/2003	1357	0.00	10.70	N/A	
MW-16	05/27/2003	1430	0.00	10.87	N/A	
MW-2	05/27/2003	0	0.00	N/A	N/A	BURIED
MW-3	05/27/2003	1343	0.00	5.39	N/A	
MW-G6	05/27/2003	1349	0.00	2.52	N/A	
MW-G7	05/27/2003	1350	0.00	2.63	N/A	
MW-G8	05/27/2003	1351	0.00	4.85	N/A	
MW-G9	05/27/2003	1353	0.00	7.09	N/A	
N-1	05/27/2003	1113	0.00	N/A	N/A	DAMAGED CASING/BAILER STUCK IN WELL
N-2	05/27/2003	1107	0.00	3.53	N/A	
N-3	05/27/2003	1105	0.00	5.01	N/A	
NESS-E	05/27/2003	1425	0.00	30.96	N/A	
NESS-W	05/27/2003	1430	0.00	31.27	N/A	
PW-10	05/27/2003	1136	0.00	12.22	N/A	
PW-11	05/27/2003	1245	0.00	17.90	N/A	
PW-12(BR-101)	05/27/2003	1100	0.00	7.16	N/A	0.00 G.P.M.
PZ-101	05/27/2003	1340	0.00	11.06	N/A	
PZ-102	05/27/2003	1338	0.00	10.91	N/A	
PZ-103	05/27/2003	1336	0.00	9.82	N/A	
PZ-104	05/27/2003	1302	0.00	12.46	N/A	
PZ-105	05/27/2003	1215	0.00	8.90	N/A	
PZ-106	05/27/2003	1152	0.00	8.91	N/A	
PZ-107	05/27/2003	1151	0.00	4.88	N/A	
PZ-108	05/27/2003	0	0.00	N/A	N/A	DESTROYED
S-1	05/27/2003	1208	0.00	5.33	N/A	
S-2	05/27/2003	1202	0.00	3.43	N/A	

Date: 06/[illegible]'003
Time: 09:3[illegible].04

Groundwater[illegible]vation Report
HARDING L[illegible]SON ASSOC.
MAY 2003
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
S-3	05/27/2003	1200	0.00	2.13	N/A	
S-4	05/27/2003	1148	0.00	0.67	N/A	
W-1	05/27/2003	1236	0.00	N/A	N/A	UNABLE TO OBTAIN MEASUREMENT/OBSTRUCTION
W-2	05/27/2003	1230	0.00	8.21	N/A	
W-3	05/27/2003	1240	0.00	4.35	N/A	
W-4	05/27/2003	1243	0.00	3.75	N/A	
W-5	05/27/2003	1250	0.00	6.58	N/A	
W-6	05/27/2003	1255	0.00	11.34	N/A	

FIELD OBSERVATIONS

cility: ARCO CHEMICAL

Sample Point ID: B-17

Field Personnel: R. Shaw / D. Cimwi P. Little

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5-28-03 / 1116

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: 5-28-03 / 1126

Date / Time Completed: 5-28-03 / 1140

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 5.19

Elevation. G/W MSL: ____

Well Total Depth, Feet: 16.23

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 Amber Finish: clear Amber

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
1125	WL 5.21		13.8	9.63	12,310	2.12	1.57	-97
1130	5.21		13.8	9.67	12,360	1.95	1.48	-98
1135	5.21		13.1	9.68	12,450	1.21	1.40	-97
1140	5.21		13.4	9.70	12,440	1.12	1.33	-99

Sampled At 1140/5-28-03

P. Little

Field Form
Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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. =** 5.0 **NTU** 5.0 **NTU std. =** 5.0 **NTU**

Solutions: 130R-11

pH Serial #: 600750 **4.0 std.=** 4.01 **7.0 std.=** 7.00 **10.0 std. =** 10.00

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

Conductivity Serial #: 600750 146.9 **umhos/cm=** 147 _____ **umhos/cm=** _____

Solutions: 146.9 -26-1

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: / / **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: B-7

Field Personnel: R. Senf, P. Hill, TB, QC Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 6-4-03 / 1222 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: 6-4-03 / 1225 Date / Time Completed: 6-4-03 / 1245

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

Initial Water Level, Feet: 12.20 Elevation. G/W MSL: ____

Well Total Depth, Feet: 20.90 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 SC TURBINE CHANGE PARTS Finish SC TURBINE

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
1230	13.61		15.7	7.16	1578	151.5	-38	1.76
1235	13.65		14.8	7.30	1600	71.9	-40	1.19
1240	13.68		14.8	7.28	1620	55.6	-40	1.07
1245	13.70	1.0	15.0	7.28	1624	33.3	-40	.83

Sampled AT 1245 / 6-4-03
RL Law

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

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: _____ / _____ / _____ **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: B-9

Field Personnel: R. SENF, P. HILL, T.B. OC Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 6-4-03 / Cond of seal: ( ) Good ( ) Cracked ____ %
( ) None ( ) Buried

Prot. Casing/riser height: ____ Cond of prot. Casing/riser: ( ) Unlocked ( ) 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: / Date / Time Completed: /

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

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

Well Total Depth, Feet: ____ Method of Well Purge: ____

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

Total Volume Purged, Gal: ____ Purged To Dryness Y / N

Purge Observations: ____ Start ____ Finish ____

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: WELL IS DESTROYED OR BURIED UNDER ROCK PILE

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

Date: / / **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL **Sample Point ID:** BA-103

Field Personnel: R. Senf, P. Hill, T. Bl, QC **Sample Matrix:** GW

MONITORTING WELL INSPECTION:

Date/Time 5-30-03 / 1055 **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: 5-30-03 1100 **Date / Time Completed:** 5-30-03 / 1120

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser **Riser Diameter, Inches:** 4.0

Initial Water Level, Feet: 5.45 **Elevation. G/W MSL:** ____

Well Total Depth, Feet: 43.45 **Method of Well Purge:** Bladder 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
1105	5.65		12.7	7.64	1448	20.5	246	2.02
1110	↓		12.5	7.65	1468	12.70	227	1.47
1115	↓		12.5	7.60	1471	10.30	226	.98
1120	↓		12.4	7.59	1473	7.20	226	.83

SAMPLED AT 1120/5-30-03

RL Lott

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time _____ / _____ 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 #: _____NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____umhos/cm=_____ _____umhos/cm=_____

Solutions: _____

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: / / By: _____ Company: _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-104

Field Personnel: R. Senf, P. Hill, T. B. QC Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 5-30-03 / 1236 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: 5-30-03 / 1240 Date / Time Completed: 5-30-03 / 1300

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 7.04 Elevation. G/W MSL: ____

Well Total Depth, Feet: 19.20 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 Clock Finish Clock

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
1245	0.32		13.8	8.35	263	50.2	300	3.25
1250	0.32		14.1	8.57	259	49.3	301	2.11
1255	↓		14.6	8.71	259	40.7	300	1.97
1300	↓		14.6	8.73	259	38.4	300	1.12

SAMPLED AT 1300/5-30-03
QA Lite

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

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: _____ / _____ / _____ **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-105

Field Personnel: R. Senf, P. Hill, T. B. QC Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 6/2/03 1 1315 Cond of seal: (Y) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked (Y) Good ( ) Loose (Y) 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: 6/2/03 / TB 1320 Date / Time Completed: 6/2/03 / 1350

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 4.0"

Initial Water Level, Feet: 22.28 Elevation. G/W MSL:

Well Total Depth, Feet: 44.60 Method of Well Purge: Bladder pump

One (1) Riser Volume, Gal: 3.64 Dedicated: (Y) N

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

Purge Observations: Start Clear Finish Clear

Black Flakes

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)
1325	WL 22.26		13.7	7.22	2149	23.7	-62	1.19
1330	22.26		12.9	7.25	2150	19.5	-42	1.05
1335	22.26		12.6	7.26	2167	12.05	-33	.97
1340	22.26		12.7	7.26	2156	9.12	-23	.95
1345	22.26		12.4	7.25	2165	4.90	IB 22	.90
1350	22.26		12.4	7.26	2160	5.00	-21	.85

Sampld @ 1350
T. Behrendt 6/2/03

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

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: ___ / ___ / ___ **By:** _____ **Company:** _____

FIELD OBSERVATIONS

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

Field Personnel: R. Senf, P. Hill, TB, QC | Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 6/2/03 1220 | Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: — | Cond of prot. Casing/riser: ( ) Unlocked (X) 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: 6/2/03 1225 | Date / Time Completed: 6/2/03 1255

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

Initial Water Level, Feet: ~~24.21~~ TB ~~24.22~~ 24.32 | Elevation. G/W MSL: ____

Well Total Depth, Feet: 79.50 | Method of Well Purge: Bladder pump

One (1) Riser Volume, Gal: ~~8.85~~ TB 9.62 | 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)
1230	150	WL 25.50	14.7	7.21	14720	8.10	-279	2.12
1235	150	26.25	14.4	7.17	15170	4.50	-281	1.75
1240	150	26.60	13.8	7.15	15300	1.85	-284	1.00
1245	150	26.10	13.9	7.16	15300	1.84	-287	.97
1250	150	26.65	14.0	7.20	15300	1.63	-286	.81
1255	150	26.70	13.9	7.18	15290	1.52	-286	.70

Sampled @ 1255
T. Behrendt 6/2/03

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

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: _____ / _____ / _____ **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-106

Field Personnel: R. Senf, P. Hill, T. Oc

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 6/2/03 1020

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

Prot. Casing/riser height: —

Cond of prot. Casing/riser: ( ) Unlocked ( ) Good ( ) Loose (Y) 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: 6/2/03 1035

Date / Time Completed: 6/2/03 1100

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

Riser Diameter, Inches: 4.0"

Initial Water Level, Feet: 22.48

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 SL. Turbid Finish SL Turbid

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)
1040	WL 22.48		12.3	7.10	2950	116.7	-120	1.97
1045	22.48	.5	11.8	7.11	2956	98.4	-113	1.10
1050	22.48	1.0	11.7	7.18	2963	107.5	-115	.98
1055	22.48	1.5	11.9	7.42	2953	91.7	-117	.90
1100	22.48	2.0	11.8	7.42	2951	94.6	-116	.81

Sampled @ 1100
T. Behrendt 6/2/03

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: 3093 **NTU std. =** 5.0 **NTU** 5.0 **NTU std. =** 5.0 **NTU**

Solutions: 130R-11

pH Serial #: 1201 (Hoxell) **4.0 std.=** 4.00 **7.0 std.=** 7.00 **10.0 std. =** 10.00

Solutions: 4-2188 7-2140 10-2150

Conductivity Serial #: 1201 1409 **umhos/cm=** 140.9 _____ **umhos/cm=** _____

Solutions: 140.9 26-1

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: 1 1 **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-108

Field Personnel: R. SENF, P. HILL, T. B. OC Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 6/2/03 / 1405 Cond of seal: (✓) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked (✓) 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: 6/2/03 / 1415 Date / Time Completed: 6/2/03 / 1430

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 4.0"

Initial Water Level, Feet: 27.25 Elevation. G/W MSL:

Well Total Depth, Feet: 29.75 Method of Well Purge: S/S Bailer

One (1) Riser Volume, Gal: 1.6 Dedicated: (Y) / N

Total Volume Purged, Gal: 1.6 Purged To Dryness (Y) / (N) TB

Purge Observations: Start Turbid Finish Turbid

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** BR-108

Date/Time 6-3-03 BR-108 1025 **Water Level @ Sampling, Feet:** 27.76

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 (DO)
1030	15.7	7.43	648	85.4	24	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: rainy ~~clear~~ calm 60°F

Sample Characteristics: Turbid no odor

COMMENTS AND OBSERVATIONS: _____

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

Date: 6/3/03 **By:** Thomas A Pe **Company:** STL

FIELD OBSERVATIONS

cility: ARCH CHEMICAL Sample Point ID: BR-112D

Field Personnel: R.SHAW / D.CIMINI Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-04-03 / 1335 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: 6-04-03 / 1340 Date / Time Completed: 6-04-03 / 1410

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

Initial Water Level, Feet: 36.27 Elevation. G/W MSL:

Well Total Depth, Feet: 72.26 Method of Well Purge: BLADDER 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
1355	ml/m 200	36.50		10.9	7.26	1470	3.01	-260	0.18
1400	|	36.55		10.8	7.27	1475	2.51	-264	0.15
1405	|	36.55		10.8	7.30	1489	2.35	-261	0.13
1410	↓	36.55	1.5	10.8	7.33	1500	2.25	-263	0.13

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** BR-112 D

Date/Time 6-04-03 1 1415 **Water Level @ Sampling, Feet:** 36.55

Method of Sampling: Bladder 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 ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: Cloudy, 65°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: 6/04/03 **By:** _____ **Company:** STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-113 D

Field Personnel: R. SHAW / D. CIMINI Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-04-03 / 1235 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: 6-04-03 / 1240 Date / Time Completed: 6-04-03 / 1310

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

Initial Water Level, Feet: 31.28 Elevation. G/W MSL:

Well Total Depth, Feet: 79.25 Method of Well Purge: BLADDER PUMP

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

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

Purge Observations: Start BLACK TINT Finish BLACK TINT

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
1250	ml/min 200	WL 31.35		11.6	7.48	2450	2.77	-271	0.21
1300	↓	31.35		11.6	7.43	2460	2.31	-277	0.17
1305	↓	31.35		11.6	7.39	2590	2.45	-280	0.15
1310	↓	31.35		11.7	7.35	2610	2.63	-283	0.14

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-113 D

Date/Time 6-04-03 1315 Water Level @ Sampling, Feet: 31.35

Method of Sampling: BLADDER 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 ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 65°F

Sample Characteristics: BLACK TINT

COMMENTS AND OBSERVATIONS:

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

Date: 6/04/03 By: [signature] Company: STC

FIELD OBSERVATIONS

cility: ARCO CHEMICAL Sample Point ID: BR-114

Field Personnel: R. SHAW / D. CHIWI Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-04-03 1125 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: 6-04-03 1130 Date / Time Completed: 6-04-03 1155

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 12.80 Elevation. G/W MSL:

Well Total Depth, Feet: 36.93 Method of Well Purge: BLADDER 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
1140	ml/min 200	WL 12.85		14.1	7.38	2030	16.80	135	0.29
1145	↓	12.85		14.2	7.29	2030	7.88	133	0.19
1150	↓	—		14.3	7.32	2030	5.75	132	0.17
1155	↓	12.85		14.1	7.35	2020	5.15	129	0.17

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** BR-114

Date/Time 6-04-03 1200 **Water Level @ Sampling, Feet:** 12.85

Method of Sampling: BLADDER 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 ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 65°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: 6/04/03 **By:** _____ **Company:** STC

FIELD OBSERVATIONS

acility: ARCO CHEMICAL Sample Point ID: BR-116

Field Personnel: R. STARK / D. CHIWI Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5-28-03 1415 Cond of seal: ( ) Good (X) 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: 5-28-03 / 1420 Date / Time Completed: 5-28-03 / 1450

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 27.05 Elevation. G/W MSL:

Well Total Depth, Feet: 62.20 Method of Well Purge: BLADDER 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
1435	250	27.15		14.4	7.32	2290	29.8	-210	0.35
1440	↓	27.25		14.4	7.31	2280	21.1	-209	0.33
1445		27.25		14.5	7.28	2280	19.25	-208	0.31
1450	↓	27.25		14.5	7.25	2280	18.57	-203	0.32

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** BR-116

Date/Time 5-28-03 1450 **Water Level @ Sampling, Feet:** _____

Method of Sampling: BLADDER 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 ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: RAIN, 65°F

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: THUNDERSTORM, HEAVY RAIN

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

Date: 5/28/03 **By:** _____ **Company:** STL

FIELD OBSERVATIONS

ility: ARCO CHEMICAL Sample Point ID: BR-116D

Field Personnel: R. SENK / D. CIMINI Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5-28-03 / 1330 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: 5-28-03 / 1335 Date / Time Completed: 5-28-03 / 1405

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 35.40 Elevation. G/W MSL:

Well Total Depth, Feet: 98.10 Method of Well Purge: BLADDER PUMP

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

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

Purge Observations: Start BLACK TINT Finish SL. TINT

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
	ml/min	WL							
1350	250	35.55		15.3	7.61	1830	32.5	-218	0.83
1355		35.60		15.3	7.63	1840	33.2	-221	0.59
1400		35.60		15.3	7.64	1840	34.4	-223	0.53
1405	↓	35.60		15.3	7.67	1850	35.2	-225	0.49

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** BR-116 D

Date/Time 5-28-03 1410 **Water Level @ Sampling, Feet:** 35.60

Method of Sampling: BLADDER 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 ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: RAIN + THUNDER, 65°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: 5/28/03 **By:** _____ **Company:** STC

FIELD OBSERVATIONS

Facility: ARCH

Sample Point ID: BR -117 D

Field Personnel: R. STANT / D. CIMINI

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5-27-03 1 1240

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

Prot. Casing/riser height: 2.10

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

If prot.casing; depth to riser below: 0.30

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

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

PURGE INFORMATION:

Date / Time Initiated: 5-27-03 1 1245

Date / Time Completed: 5-27-03 1 1320

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 48.90

Elevation. G/W MSL: ____

Well Total Depth, Feet: 82.24

Method of Well Purge: BLADDER 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 BLACK TINT

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	200	48.97		10.6	8.55	1983	20.9	-253	0.91
1300		49.00		10.6	8.49	1999	21.2	-247	0.83
1305		49.00		10.6	7.85	1999	20.5	-251	0.79
1310		49.00		10.6	7.79	2010	21.0	-187	0.82
1315		49.00		10.6	7.75	2018	21.7	-165	0.81
1320	↓	49.00		10.6	7.79	2020	22.8	-162	0.80

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** BR-117 D

Date/Time 5-27-03 1325 **Water Level @ Sampling, Feet:** 49.00

Method of Sampling: BLADDER 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 ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 75°F

Sample Characteristics: BLACK TINT

COMMENTS AND OBSERVATIONS:

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

Date: 5/27/03 **By:** [signature] **Company:** STC

FIELD OBSERVATIONS

acility: ARCH CHEMICAL Sample Point ID: BR-118D

Field Personnel: R. SRNF / D. CIMINI Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 5-27-03 / 1150 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: 2.10 Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: 0.27

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

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

PURGE INFORMATION:

Date / Time Initiated: 5-27-03 / 1155 Date / Time Completed: 5-27-03 / 1220

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 47.97 Elevation. G/W MSL:

Well Total Depth, Feet: 87.27 Method of Well Purge: BLADDER 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
1200	ml/m 250 / WL 48.07		12.2	7.36	2120	8.45	-185	0.95
1205	48.10		12.2	7.38	2110	8.30	-199	0.47
1210	48.10		12.2	7.41	2110	8.20	-215	0.45
1215	48.10		12.3	7.43	2110	8.23	-217	0.42

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-118 D

Date/Time 5-27-03 1 1226 Water Level @ Sampling, Feet: 48.10

Method of Sampling: BLADDER 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 ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3093 NTU std. = 5.0 NTU 5.0 NTU std. = 5.0 NTU

Solutions: 130R-11

pH Serial #: 1201 4.0 std.= 4.00 7.0 std.= 7.00 10.0 std. = 10.00

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

Conductivity Serial #: 1201 146.9 umhos/cm= 146.9 _____ umhos/cm= _____

Solutions: 146.9 -26-1

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 70°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: 5 127103 By: [signature] Company: STC

FIELD OBSERVATIONS

cility: ARCH CHEMICAL | Sample Point ID: BR-122 D

Field Personnel: R.SENK / D. CIMINI | Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5-28-03 1 1045 | Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: 2.70 | Cond of prot. Casing/riser: ( ) Unlocked ( ) Good ( ) Loose ( ) Flush Mount (X) Damaged CAP BROKEN

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: 5-28-03 / 1050 | Date / Time Completed: 5-28-03 / 1130

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser | Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 44.24 | Elevation. G/W MSL: ____

Well Total Depth, Feet: 82.57 | Method of Well Purge: BLADDAR PUMP

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

Total Volume Purged, Gal: 1-5 | Purged To Dryness Y / (N)

Purge Observations: ____ | Start BLACK TINT 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
1115	250	44.30		11.5	7.42	2330	1.15	-247	0.70
1120	↓	44.30		11.5	7.31	2320	1.19	-250	0.45
1125	↓	44.30		11.5	7.30	2320	1.15	-253	0.39
1130	↓	44.30		11.5	7.30	2320	1.12	-255	0.37

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** BR-122D

Date/Time 5-28-03 1135 **Water Level @ Sampling, Feet:** 14.30

Method of Sampling: BLADDER 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 (DO)

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3093 **NTU std. =** 5.0 **NTU** 5.0 **NTU std. =** 5.0 **NTU**

Solutions: 130K-11

pH Serial #: Flow Cell 1201 **4.0 std.=** 4.00 **7.0 std.=** 7.00 **10.0 std. =** 10.00

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

Conductivity Serial #: Flow Cell 1201 146.9 **umhos/cm=** 146.9 _____ **umhos/cm=** _____

Solutions: 146.9 - 26-1

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 65°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: 5/28/03 **By:** BJ **Company:** STC

FIELD OBSERVATIONS

cility: ARCH CHEMICAL | Sample Point ID: BR-123 D

Field Personnel: R. SENK / D. CIMINI | Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5-28-03 1150 | Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: 2.56 | 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: 5-28-03 1200 | Date / Time Completed: 5-28-03 1230

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser | Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 44.95 | Elevation. G/W MSL: ____

Well Total Depth, Feet: 97.56 | Method of Well Purge: BLADDER 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
1215	250	45.05		10.7	8.90	1660	24.9	-275	0.19
1220		45.05		10.7	8.91	1660	25.3	-278	0.17
1225		45.05		10.7	8.93	1660	25.9	-281	0.20
1230	↓	45.05		10.8	8.93	1660	26.8	-283	0.17

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** BR-123D

Date/Time 5-28-03 1235 **Water Level @ Sampling, Feet:** 45.05

Method of Sampling: BLADDER 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 ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: THUNDERSTORM, 70°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: 5/28/03 **By:** _____ **Company:** STL

FIELD OBSERVATIONS

cility: ARCO CHEMICAL Sample Point ID: BR-3

Field Personnel: R.Stuck / D. C[illegible] Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5-28-03 / 1244

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: 5-28-03 / 1245 Date / Time Completed: 5-28-03 / 1305

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 8.99 Elevation. G/W MSL: ____

Well Total Depth, Feet: 23.25 Method of Well Purge: PARRISTALTIC 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
1250	WL 9.52		13.6	6.92	19,410	77.6	1.12	-65
1255	10.19		12.6	6.95	20,580	13.06	1.01	-76
1300	10.63		12.9	7.01	20,680	3.84	.68	-73
1305	11.11	1.0	12.8	6.99	20,840	2.74	.56	-72

SAMPLED AT 1305/5-28-03

[signature]

Field Form
Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

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: ___ / ___ / _____ **By:** _____ **Company:** _____

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: Arch Chemical

Sample Point ID: 3R-5A

Field Personnel: TB/DC

Sample Matrix: Ground Water

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6/3/02 , 900

Water Level @ Sampling, Feet: 25.53

Method of Sampling: Sample Port

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 (DO)
905	14.9	7.63	1966	5.12	-68	

INSTRUMENT CHECK DATA:

Turbidity Serial #: ________ **NTU std. =** ____ **NTU** ____ **NTU std. =** ____ **NTU**

Solutions: ________

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

Solutions: ________

Conductivity Serial #: ________ ____ **umhos/cm=** ____ ____ **umhos/cm=** ____

Solutions: ________

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sunny Calm 60°F

Sample Characteristics: Clear No Odor

COMMENTS AND OBSERVATIONS:

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

Date: 6/3/02 **By:** Thomas [signature] **Company:** STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: BA-GP

Field Personnel: AL, DC Sample Matrix: GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-4-03 1435 Water Level @ Sampling, Feet: 8.09

Method of Sampling: SS 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 ( )
1440	17.2	8.96	5630	31.5	-118	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: Cloudy 60°

Sample Characteristics: Brown SL TURBID

COMMENTS AND OBSERVATIONS:

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

Date: 6/4/03 By: AL Zito Company: STR

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: Arch Chemical **Sample Point ID:** BR-7A

Field Personnel: TB/DC **Sample Matrix:** Groundwater

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6/3/03 1000 **Water Level @ Sampling, Feet:** 27.36

Method of Sampling: Sample port **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 (DO)
1005	17.5	7.49	3364	37.9	-170	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sunny clam 60°F

Sample Characteristics: Slight odor, SL. Turbid

COMMENTS AND OBSERVATIONS: _____

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

Date: 6/3/03 **By:** Thomas J Rea **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-8

Field Personnel: R. Senf, P. Hill, T. Oc Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 6-4-03 / 1125 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: 6-4-03 / 1130 Date / Time Completed: 6-4-03 / 1150

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 7.44 Elevation. G/W MSL:

Well Total Depth, Feet: 31.74 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 Clock Finish Clock

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
1135	WL 7.50		14.9	7.78	2637	34.1	-158	1.32
1140	7.52		14.6	7.90	2640	39.9	-175	1.12
1145	7.55		14.6	7.91	2656	34.8	-175	1.00
1150	7.55	1.5	14.6	7.98	2660	26.6	-175	.97

SAMPLED AT 1150 / 6-4-03 Field Dup

RL Lutz

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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. =** 5.0 **NTU** 5.0 **NTU std. =** 5.0 **NTU**

Solutions: 130R-11

pH Serial #: 600750 **4.0 std.=** 4.0 **7.0 std.=** 7.00 **10.0 std. =** 10.00

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

Conductivity Serial #: 600750 1469 **umhos/cm=** 1469 _____ **umhos/cm=** _____

Solutions: 1413-9 -2C-1

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: / / **By:** _____ **Company:** _____

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: Arch Chemical Sample Point ID: BR-9

Field Personnel: TB/DC Sample Matrix: TD ~~30.50~~ GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6/3/~~02~~ TD 03 1840 Water Level @ Sampling, Feet: 30.50

Method of Sampling: Sample port 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 (DO)
840	14.7	7.04	3024	3.38	-34	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: sunny calm 60°F

Sample Characteristics: clear no odor

COMMENTS AND OBSERVATIONS:

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

Date: 6/3/03 By: Thomas A Bell Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL **Sample Point ID:** E-1

Field Personnel: R. Senf, P. Little, TB, OC **Sample Matrix:** GW

MONITORTING WELL INSPECTION:

Date/Time 5/30/03 / 1300 **Cond of seal:** (X) Good ( ) Cracked ___ % ( ) None ( ) Buried

Prot. Casing/riser height: — **Cond of prot. Casing/riser:** ( ) Unlocked ( ) 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: 5/30/03 / 1320 **Date / Time Completed:** 5/30/03 / 1340

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

Initial Water Level, Feet: 2.23 **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: ≈ 1.00 **Purged To Dryness** Y /(N)

Purge Observations: **Start** Very Turbid (Black sl. sheen) **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	Other
1325		.25	16.6	9.22	26,350	59.9	1.15	-165
1330		.50	16.2	9.61	26720	49.4	1.01	-195
1335		.75	16.1	9.68	26810	45.3	.98	-194
1340		1.00	16.2	9.75	26820	41.6	.96	-196

Sampled AT 1340/5-30-03

Thomas A P[illegible]

Field Form
Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

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: ___/___/___ **By:** _____ **Company:** _____

FIELD OBSERVATIONS

cility: ARCH CHEMICAL Sample Point ID: E-3

Field Personnel: R. SHAW / D. CHIWI Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5-28-03 / 1041 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: 5-28-03 / 1045 Date / Time Completed: 5-28-03 / 1053

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

Initial Water Level, Feet: 8.74 Elevation. G/W MSL:

Well Total Depth, Feet: 12.05 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
1050		1.0	12.6	6.75	1527	11.79	1.03	97
1055	8.68		12.7	6.86	1552	11.71		79

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** E-3

Date/Time 5/30/03 1055 **Water Level @ Sampling, Feet:** ____

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 (DO)	Other (ORP)
1055	12.7	6.86	1552	11.71	.97	79

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3093 **NTU std. =** 5.0 **NTU** 5.0 **NTU std. =** 5.0 **NTU**

Solutions: 130R-11

pH Serial #: 600750 **4.0 std.=** 4.00 **7.0 std.=** 7.00 **10.0 std. =** 10.00

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

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

Solutions: 146.9 -26-1

GENERAL INFORMATION:

Weather conditions @ time of sampling: ____

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

Sampled @ 1055

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

Date: 5/30/03 **By:** [signature] **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL **Sample Point ID:** MW-103

Field Personnel: R. Senf, P. Hill, T. Bl, QC **Sample Matrix:** GW

MONITORTING WELL INSPECTION:

Date/Time 5-30-03 / 1010 **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: 5-30-03 / 1020 **Date / Time Completed:** 5-30-03 / 1040

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

Initial Water Level, Feet: 1.65 **Elevation. G/W MSL:** ____

Well Total Depth, Feet: 6.05 **Method of Well Purge:** Bladder 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
1025	1.85		18.8	7.76	576	5.20	2.19	263
1030	↓		18.6	7.79	546	3.65	1.51	280
1035	↓		18.7	7.80	540	2.60	1.37	280
1040	↓	1.0	18.6	7.85	537	1.37	1.19	280

SAMPLE AT 1040 / 5-30-03

RL Lentz

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: 3793 **NTU std. =** 5.0 **NTU** 5.0 **NTU std. =** 5.0 **NTU**

Solutions: 130A-11

pH Serial #: Flowcell 1201 **4.0 std.=** 4.00 **7.0 std.=** 7.00 **10.0 std. =** 10.00

Solutions: 4-2160, 7-2140, 10-2150

Conductivity Serial #: 1201 1469 **umhos/cm=** 146.9 _____ **umhos/cm=** _____

Solutions: 146.9-26-1

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: 1 1 **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL | Sample Point ID: MW-104

Field Personnel: R. Senf, P. Hill, T. B. Oc | Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 5-30-03 / 1140 | 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: 5-30-03 / 1145 | Date / Time Completed: 5-30-03 / 1210

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

Initial Water Level, Feet: 5.74 | Elevation. G/W MSL:

Well Total Depth, Feet: 18.10 | Method of Well Purge: BLADDER PUMP

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

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

Purge Observations: | Start SL. TUBING Finish SC TUBING

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	7.59		14.8	8.03	502	195.5	216	2.69
1155	8.01		14.5	7.82	500	190.2	245	1.16
1200	8.10		14.6	7.73	498	161.3	250	.85
1205			14.9	7.74	500	141.5	251	.69
1210	8.30	1.0	14.8	7.69	504	126.7	250	.60

SAMPLED AT 1210 / 5-30-03
for Jets

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

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: ___/___/___ **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: MW 106

Field Personnel: R. Senf, P. Hill, TB, QC Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 6/2/03 1120 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked (X) 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: 6/2/03 1125 Date / Time Completed: 6/2/031 1155

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

Initial Water Level, Feet: 8.94 Elevation. G/W MSL:

Well Total Depth, Feet: 19.35 Method of Well Purge: Bladder pump

One (1) Riser Volume, Gal: 1.70 Dedicated: (Y) N

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

Purge Observations: Start Turbid Finish SL Turbid

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	WL	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1130	110	9.82		13.1	7.23	2066	76.3	-79	2.15
1135		9.53		12.4	7.27	2354	56.8	-112	1.90
1140		9.58		12.5	7.33	2545	37.2	-132	1.16
1145		9.60		12.0	7.32	2615	31.2	-157	1.01
1150		9.60		12.0	7.34	2644	30.7	-156	.97
1155		9.60		13.1	7.32	2672	25.5	-155	.80

Sampled @ 1155
T Schmidt 6/2/03

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time _____ / _____ 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 #: _____NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____umhos/cm=_____ _____umhos/cm=_____

Solutions: _____

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: ___/___/_____ By: _____ Company: _____

FIELD OBSERVATIONS

Facility: ARCO CHEMICAL Sample Point ID: MW-114

Field Personnel: R. SENK / D. CIMINI Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-04-03 / 1040 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: 6-04-03 / 1045 Date / Time Completed: 6-04-03 / 1110

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

Initial Water Level, Feet: 10.73 Elevation. G/W MSL: ____

Well Total Depth, Feet: 15.76 Method of Well Purge: BLADDER PUMP

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

Total Volume Purged, Gal: / 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
1055	ml/min 150	WL 11.43	14.3	7.31	2110	30.6	201	0.73
1100	|	11.65	14.5	7.29	2120	12.20	190	0.49
1105	|	11.75	14.6	7.30	2120	11.43	188	0.45
1110	↓	11.78	14.7	7.33	2130	10.99	185	0.42

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** MW-114

Date/Time 6-04-03 1115 **Water Level @ Sampling, Feet:** 11.78

Method of Sampling: BLADDER 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 ( )	Other ( )

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3093 **NTU std. =** 5.0 **NTU** 5.0 **NTU std. =** 5.0 **NTU**

Solutions: 130R-11

pH Serial #: 1201 **4.0 std.=** 4.00 **7.0 std.=** 7.00 **10.0 std. =** 10.00

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

Conductivity Serial #: 1201 146.9 **umhos/cm=** 146.9 _____ **umhos/cm=** _____

Solutions: 146.9 -2C-1

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 65°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: 6/04/03 **By:** [signature] **Company:** STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL **Sample Point ID:** NFSS - E

Field Personnel: R. Senf, P. Hill, T. B. QC **Sample Matrix:** GW

MONITORTING WELL INSPECTION:

Date/Time 5-29-03 / 1138 **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: 5-29-03 / 1145 **Date / Time Completed:** 5-29-03 / 1205

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser **Riser Diameter, Inches:** 4.0

Initial Water Level, Feet: 30.94 **Elevation. G/W MSL:** ____

Well Total Depth, Feet: 74.52 **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
1150	31.10		13.4	7.08	3570	76.2	244	2.00
1155	31.26		13.5	7.07	3570	74.7	247	1.98
1200	31.35		13.4	7.15	~~3570~~ 3576	75.1	250	1.90
1205	31.50	2.0	13.4	7.13	3570	74.9	250	1.86

SAMPLED AT 1205 / 5-29-03
RL Senf

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

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: _____ / _____ / _____ **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL **Sample Point ID:** NESS-W

Field Personnel: R. SENF, P. HILL, T. B. QC **Sample Matrix:** GW

MONITORTING WELL INSPECTION:

Date/Time 5-29-03 / 1020 **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: 5-29-03 / 1045 **Date / Time Completed:** 5-29-03 / 1100

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser **Riser Diameter, Inches:** 4.0

Initial Water Level, Feet: 31.29 **Elevation. G/W MSL:** ____

Well Total Depth, Feet: 77.23 **Method of Well Purge:** BLADDER PUMP

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

Total Volume Purged, Gal: 3.0 **Purged To Dryness** Y / (N)

Purge Observations: ____ **Start** BLACK TINT SEDIMENT **Finish** BLACK SEDIMENT

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
1050	31.30		13.1	9.38	4/330	7200	283	3.40
1055	↓		13.1	9.34	4180	7200	280	3.02
1100	↓		13.1	9.25	4000	7197	279	3.00
1105	↓		13.1	9.20	4001	190	279	2.57
1110	↓	3.0	13.1	9.20	4000	187	279	2.50

SAMPLED AT 1110 / 5-29-03

R. Senf

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID NESS W

Date/Time 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. = 5.0 NTU 5.0 NTU std. = 5.0 NTU

Solutions: 130R-11

pH Serial #: 1201 (Acid Flow cell) 4.0 std.= 4.00 7.0 std.= 7.00 10.0 std. = 10.00

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

Conductivity Serial #: 1210 146.9 umhos/cm= 146.9 _____ umhos/cm=_____

Solutions: 146.9- 26-1

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: 1 1 By: _____ Company: _____

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH

Sample Point ID: ~~BA-10~~ PW-10 PL

Field Personnel: PL DC

Sample Matrix: GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-4-03 1055

Water Level @ Sampling, Feet: TD 11.67

Method of Sampling: INSITU 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 ( )
1100	19.0	9.17	4832	37.9	-115	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: Cloudy 60°

Sample Characteristics: Brown Strong Odor

COMMENTS AND OBSERVATIONS:

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

Date: 6/4/03 By: [signature] Company: STC

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: Arch Chemical **Sample Point ID:** PW-11

eld Personnel: TB/DC **Sample Matrix:** GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6/3/02 1755 **Water Level @ Sampling, Feet:** 17.86

Method of Sampling: Sample 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 (DO)
800	13.9	6.91	3770	16.49	-97	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3093 **NTU std. =** 5.0 **NTU** 5.0 **NTU std. =** 5.0 **NTU**

Solutions: 130R-11

pH Serial #: 600750 **4.0 std.=** 4.00 **7.0 std.=** 7.00 **10.0 std. =** 10.00

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

Conductivity Serial #: 600750 1413 **umhos/cm=** 1413 _____ **umhos/cm=** _____

Solutions: 1413 -26-1

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sunny/ Calm 60°F

Sample Characteristics: clear no odor

COMMENTS AND OBSERVATIONS:

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

ate: 6/3/03 **By:** Thomas L Rea **Company:** STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: Tech Chemical **Sample Point ID:** PW 12

Field Personnel: TB/PC **Sample Matrix:** Ground water

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6/3/03 1 930 **Water Level @ Sampling, Feet:** 7.06

Method of Sampling: Sample Port **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 (DO)
935	17.5	7.32	6458	2.37	-77	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sunny 60°F Calm

Sample Characteristics: SL odor, clear

COMMENTS AND OBSERVATIONS: _____

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

Date: 6/3/03 **By:** [signature] **Company:** STL

FIELD OBSERVATIONS

cility: ARCO CHEMICAL | Sample Point ID: PZ 101

Field Personnel: R. SHAW / D. CHIWI | Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5/29/03 1250 | 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: 5/29/03 1255 | Date / Time Completed: 5/29/03 1315

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser | Riser Diameter, Inches: 2"

Initial Water Level, Feet: 11.19 | Elevation. G/W MSL: ____

Well Total Depth, Feet: 21.69 | Method of Well Purge: Low flow (Geopump)

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
1360	11.63		13.9	7.16	1137	4.50	1.17	74
1305	11.79		13.8	7.26	1134	4.30	1.09	84
~~1310~~ 1310	11.80		13.5	7.21	1128	2.02	1.02	86
1315	11.80		13.3	7.18	1136	1.72	.97	87

SAMPLED AT 1315 / 5-29-03

Thomas A

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time _____ / _____ 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 #: _____NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____umhos/cm=_____ _____umhos/cm=_____

Solutions: _____

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: / / By: _____ Company: _____

FIELD OBSERVATIONS

cility: ARCO CHEMICAL Sample Point ID: PZ102

Field Personnel: R. SENK / D. CIMINI Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5/29/03 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: 5/29/03 1215 Date / Time Completed: 5/29/03 1235

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser Riser Diameter, Inches: 2"

Initial Water Level, Feet: 10.86 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: 1.0 Purged To Dryness Y / (N)

Purge Observations: Start clear (w/Black Flakes) 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)
1220	in L 4.25		15.8	7.40	3445	1.23	1.03	-90
1225	11.31		15.5	7.39	3567	.80	.97	-120
1230	11.36		14.7	7.39	3588	.90	.90	-121
1235	11.41		14.4	7.43	3601	.95	.85	-122

Sampled AT 1235/5-29-03 Thomas AR

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

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: ___/___/___ **By:** _____ **Company:** _____

FIELD OBSERVATIONS

cility: ARCO CHEMICAL Sample Point ID: PZ103

Field Personnel: R. SENK / D. CIMINI Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5/29/03 1135 Cond of seal: (Y) Good ( ) Cracked ____ %
( ) None ( ) Buried

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

If prot.casing; depth to riser below: ____

Gas Meter (Calibration/ Reading): % Gas: - 1 - % LEL: - 1 -

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) - 1 -

PURGE INFORMATION:

Date / Time Initiated: 5/29/03 1140 Date / Time Completed: 5/29/03 1200

Surf. Meas. Pt: ( ) Prot. Casing (Y) Riser Riser Diameter, Inches: 2"

Initial Water Level, Feet: 9.78 Elevation. G/W MSL: ____

Well Total Depth, Feet: 32.52 Method of Well Purge: Low flow (Geopump)

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 (DO)	Other (ORP)
1140	inc 11.05		13.1	7.32	3347	7.22	2.17	-152
1145	11.38		13.3	7.43	3263	3.10	1.85	-137
1150	11.62		13.8	7.42	3258	3.38	1.32	-157
1155	11.62		13.2	7.50	3247	3.79	1.20	-162
1206	11.62		13.3	7.49	3251	3.78	1.09	-159

SAMPLED AT 1200 5-29-03

Thomas

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

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: _____ / _____ / _____ **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCO CHEMICAL **Sample Point ID:** PZ 104

Field Personnel: R.Shur/D.Cimini **Sample Matrix:** G/W

MONITORTING WELL INSPECTION:

Date/Time 5/29/03 / 1050 **Cond of seal:** (X) Good ( ) Cracked ___ % ( ) None ( ) Buried

Prot. Casing/riser height: — **Cond of prot. Casing/riser:** ( ) Unlocked (X) 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: 5/29/03 / 1052 **Date / Time Completed:** 5/29/03 / 1115

Surf. Meas. Pt: ( ) Prot. Casing (X) Riser **Riser Diameter, Inches:** 2"

Initial Water Level, Feet: 12.39 **Elevation. G/W MSL:**

Well Total Depth, Feet: 23.93 **Method of Well Purge:** Low flow (geo 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
1055	WL 12.50		14.3	7.24	1848	13.02	1.19	-60
1100	12.50		13.5	7.31	1832	9.46	1.07	-116
1105	12.50		13.1	7.42	1842	5.92	1.00	-99
1110	12.50		13.4	7.48	1846	3.10	.97	-98
1115	12.50		13.3	7.38	1849	3.36	.93	-97

Sampled at 1115/5-29-03

Thomas A [signature]

Field Form
Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time _____ / _____ 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 #: _____NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____umhos/cm=_____ _____umhos/cm=_____

Solutions: _____

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: / / By: _____ Company: _____

FIELD OBSERVATIONS

ility: ARCO CHEMICAL Sample Point ID: P2-105

Field Personnel: R. STARK / D. CIMINI Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5-28-03 1327 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: 5-28-03 1330 Date / Time Completed: 5-28-03 / 1350

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

Initial Water Level, Feet: 8.90 Elevation. G/W MSL: ____

Well Total Depth, Feet: 32.86 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 BLACK TINT SL TURBID Finish BLACK TINT SL TURBID

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
1335	11.80		15.6	7.92	3627	70.20	1.10	10
1340			14.7	7.69	2994	70.6	1.03	10
1345	12.90		14.1	7.49	3001	75.9	1.00	10
1350	13.05	1.0	14.1	7.49	3010	69.7	.98	10

SAMPLED AT 1350/5-28-03
R Lee

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

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: _____ / _____ / _____ **By:** _____ **Company:** _____

FIELD OBSERVATIONS

cility: ARCO CHEMICAL | Sample Point ID: PZ-106

Field Personnel: R. Shank / D. Cimini | Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5-28-03 / 1155 | 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: 5-28-03 / 1200 | Date / Time Completed: 5-28-03 / 1220

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

Initial Water Level, Feet: 8.81 | 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 SEE FORM | Finish SEE FORM

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
1205	10.17		15.3	6.19	17,000	25.2	.97	67
1210	11.65		14.5	6.57	17,060	26.9	.90	106
1215	12.22		14.3	6.34	17,130	25.9	.90	111
1220	92.45	1.0	14.5	6.29	17,130	26.7	.87	110

SAMPLED AT 1220/5-28-03

R. Lee

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID _____

Date/Time _____/_____ 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 #: _____NTU std. = _____NTU _____NTU std. = _____NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____umhos/cm=_____ _____umhos/cm=_____

Solutions: _____

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: / / By: _____ Company: _____

FIELD OBSERVATIONS

Facility: ARCO CHEMICAL | Sample Point ID: PZ-107

Field Personnel: R. Sauk / D. Cimwi (R. Litte) | Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 5-28-03 / 1415

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: 5-28-03 / 1420 | Date / Time Completed: 5-28-03 / 1440

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

Initial Water Level, Feet: 4.88 | 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 DO	Other ORP
1425	5.28		12.6	7.64	2792	4.17	1.19	-101
1430	5.28		12.2	7.70	2886	3.11	1.00	-100
1435	↓		12.0	7.70	2889	2.15	.97	-101
1440	↓		12.5	7.74	2890	1.56	.90	-100

SAMPLED AT 1440/5-28-03

R. Litte

Field Form
Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

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: _____ / _____ / _____ **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCH CANAL **Sample Point ID:** QO-2

Field Personnel: R. SAUF / D. CIMINI **Sample Matrix:** S/W

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 5-28-03 / 1300 **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 ( )
1305	15.6	7.72	2071	7.82	94	

INSTRUMENT CHECK DATA:

Turbidity Serial #: ____ NTU std. = ____ NTU ____ NTU std. = ____ NTU
Solutions: ____

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

Conductivity Serial #: ____ ____ umhos/cm= ____ ____ umhos/cm= ____
Solutions: ____

GENERAL INFORMATION:

Weather conditions @ time of sampling: LT. RAIN, 65°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: 5/28/03 **By:** [signature] **Company:** STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ACCU CANAL **Sample Point ID:** GO-251

Field Personnel: R. SENZ / D. CIMINI **Sample Matrix:** S/W

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 5-28-03 1315 **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 ( )
1320	18.4	7.84	723	5.87	78	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 60°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: 5/28/03 **By:** _____ **Company:** SE

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH **Sample Point ID:** QS-A (SEEP)

Field Personnel: R. SAVE / D. CIMINI **Sample Matrix:** S/W

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 5-28-03 1530 **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 ( )
1535	13.4	7.43	1801	3.22	74	

INSTRUMENT CHECK DATA:

Turbidity Serial #: _____ **NTU std. =** _____ **NTU** _____ **NTU std. =** _____ **NTU**

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ **umhos/cm=** _____ _____ **umhos/cm=** _____

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 65°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: 5/28/03 **By:** _____ **Company:** STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: S-3

Field Personnel: R. Senf, P. Hill, T. Q.C Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 5/30/03 1135 Cond of seal (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked ( ) 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: 5/30/03 1140 Date / Time Completed: 5/30/03 1200

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

Initial Water Level, Feet: 2.21 (Flooded) Elevation. G/W MSL:

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

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

Total Volume Purged, Gal: ≈ 2.00 Purged To Dryness Y / (N)

Purge Observations: Start 32 Turbid (Organic Flakes) 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)
1145	WL 2.21	.50	14.8	7.93	2898	78.0	1.11	-183
1150	↓	1.00	15.1	8.07	2914	16.09	1.00	-182
1155	↓	1.50	14.9	8.11	2922	16.20	.93	-180
1200	↓	2.00	15.2	8.15	2928	16.30	.89	-185

SAMPLED AT 1200/5-30-03

Thomas A Fr

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: _____ NTU std. = _____ NTU _____ NTU std. = _____ NTU

Solutions: _____

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

Solutions: _____

Conductivity Serial #: _____ _____ umhos/cm= _____ _____ umhos/cm= _____

Solutions: _____

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: / / **By:** _____ **Company:** _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: S-4

Field Personnel: R. Senf, P. Hill, T. Q. OC

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 5/30/03 1100

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

Prot. Casing/riser height: —

Cond of prot. Casing/riser: ( ) Unlocked ( ) 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: 5/30/03 1105

Date / Time Completed: 5/30/03 1125

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: Flooded -.76

Elevation. G/W MSL:

Well Total Depth, Feet: 13.05

Method of Well Purge:

One (1) Riser Volume, Gal:

Dedicated: (Y) N

Total Volume Purged, Gal: ≈ 2.00

Purged To Dryness Y / (N)

Purge Observations:

Start SL Turbid 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)
1110	WL -.76	0.5	13.9	8.10	661	80.5	1.79	-152
1115		1.00	13.6	8.38	662	65.3	1.36	-150
1120		1.50	13.0	8.68	659	41.3	1.03	-153
1125		2.00	13.5	8.69	649	19.28	0.91	-151

Sampled AT 1125/5-30-03

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Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** _____

Date/Time _____ / _____ **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 #: 3093 **NTU std. =** 5.0 **NTU** 5.0 **NTU std. =** 5.20 **NTU**

Solutions: 130R-11

pH Serial #: 600250 **4.0 std.=** 4.00 **7.0 std.=** 7.00 **10.0 std. =** 10.00

Solutions: 4-2148, 7-2140, 10-2150

Conductivity Serial #: 600250 1416.9 **umhos/cm=** 1416.9 _____ **umhos/cm=** _____

Solutions: 1416.9-26-1

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

_____

_____

_____

_____

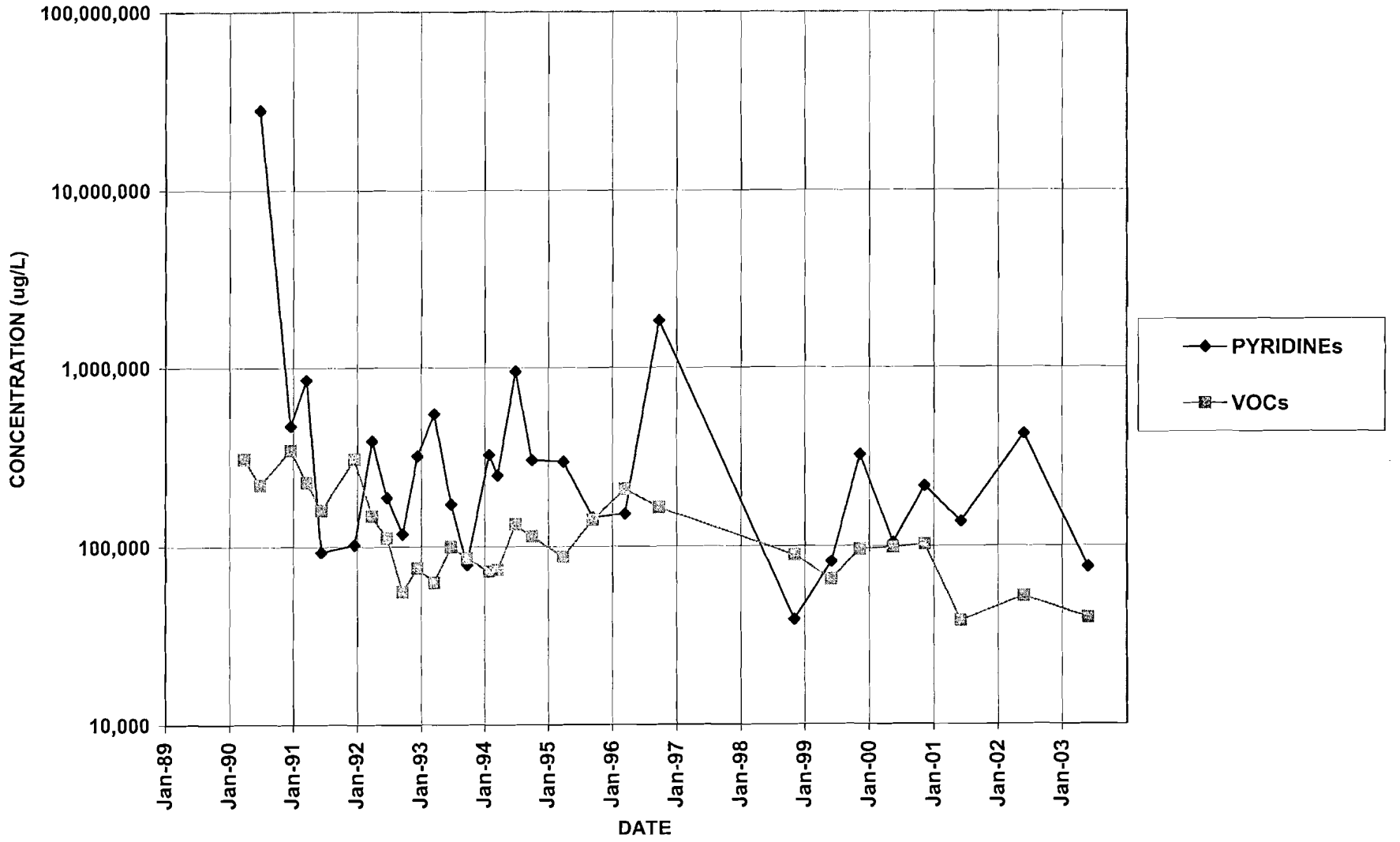
I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 1 1 **By:** _____ **Company:** _____

Appendix B

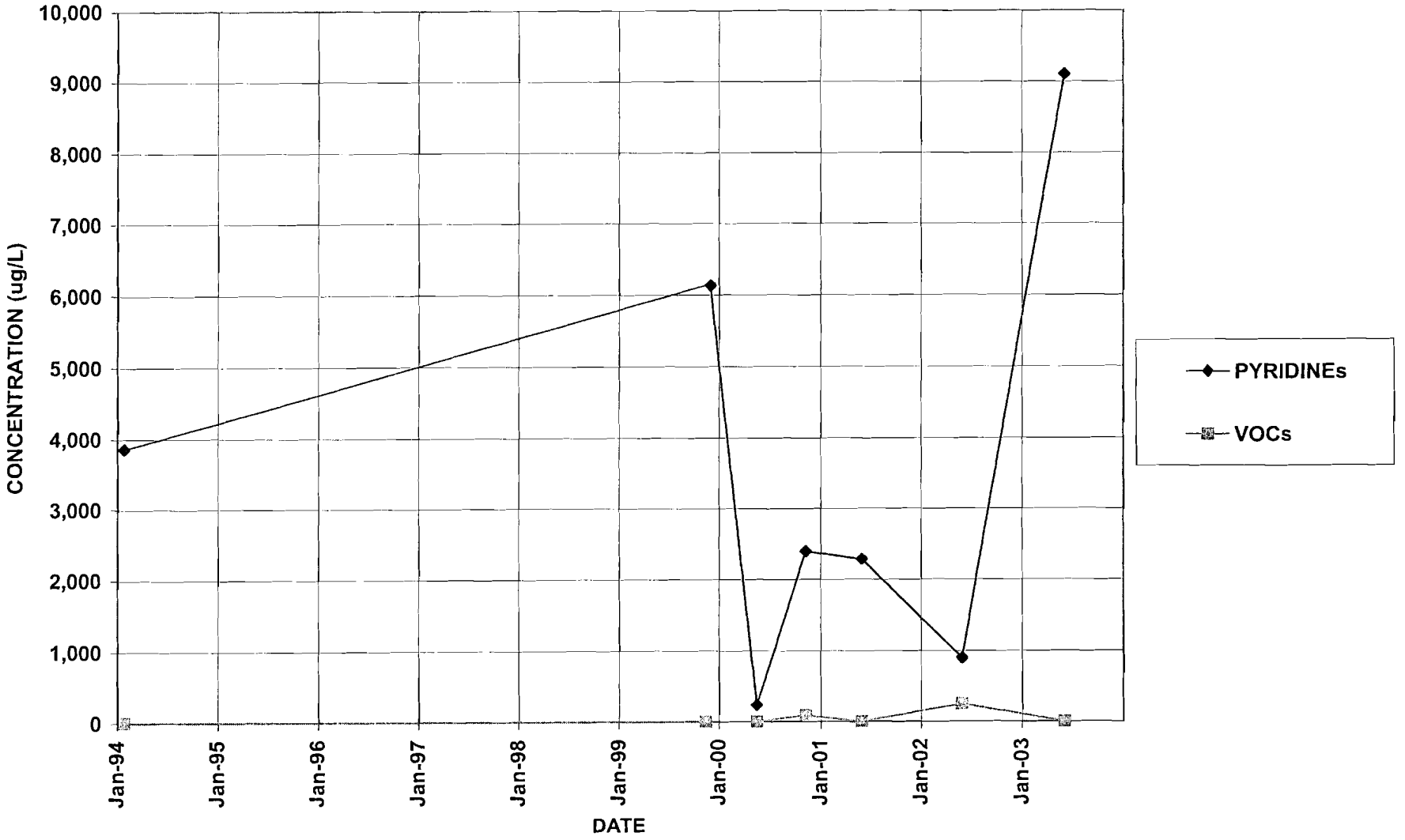
Well Trend Data

B-17



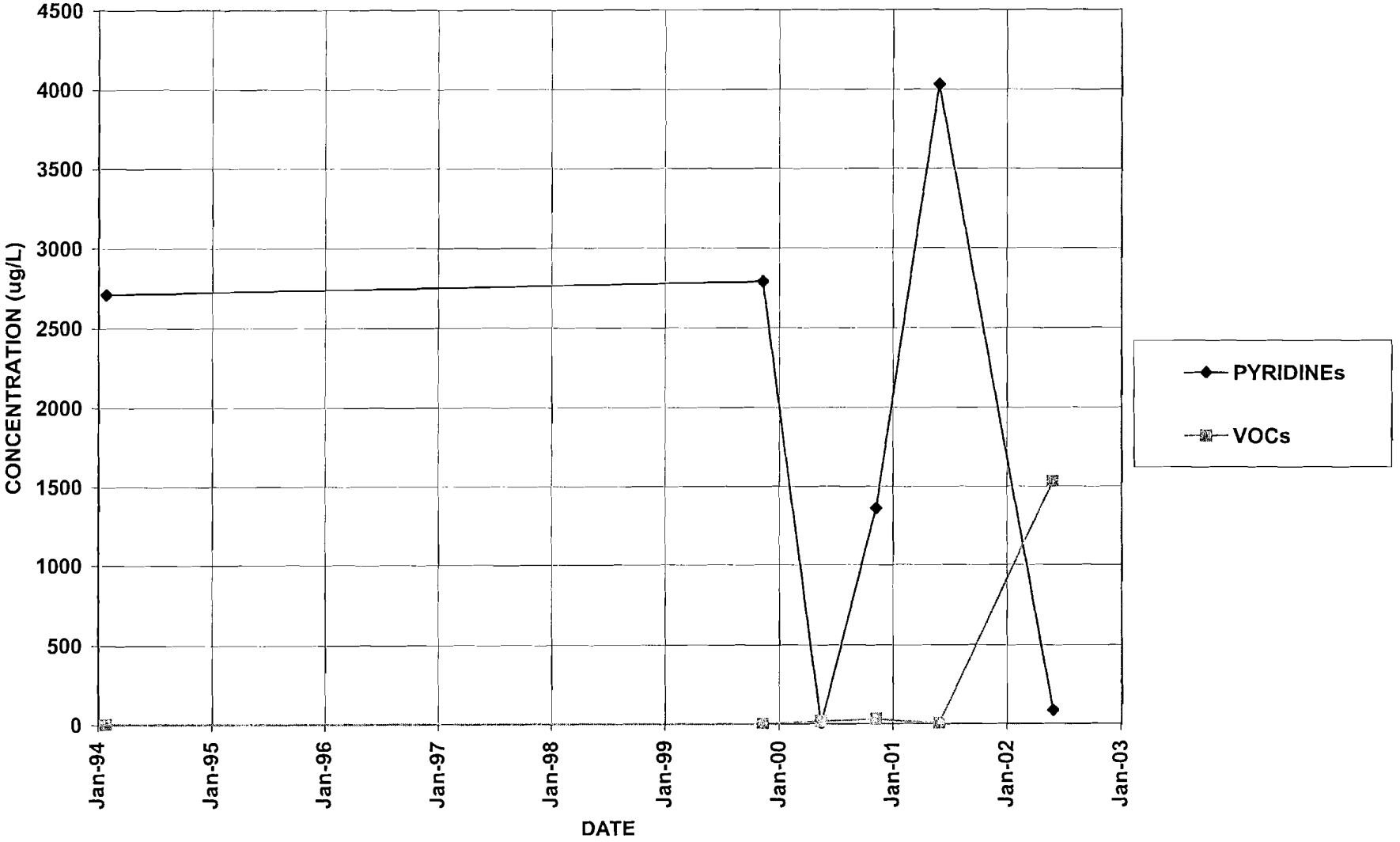
Prepared by: nmb
Reviewed by: jrb

B-7



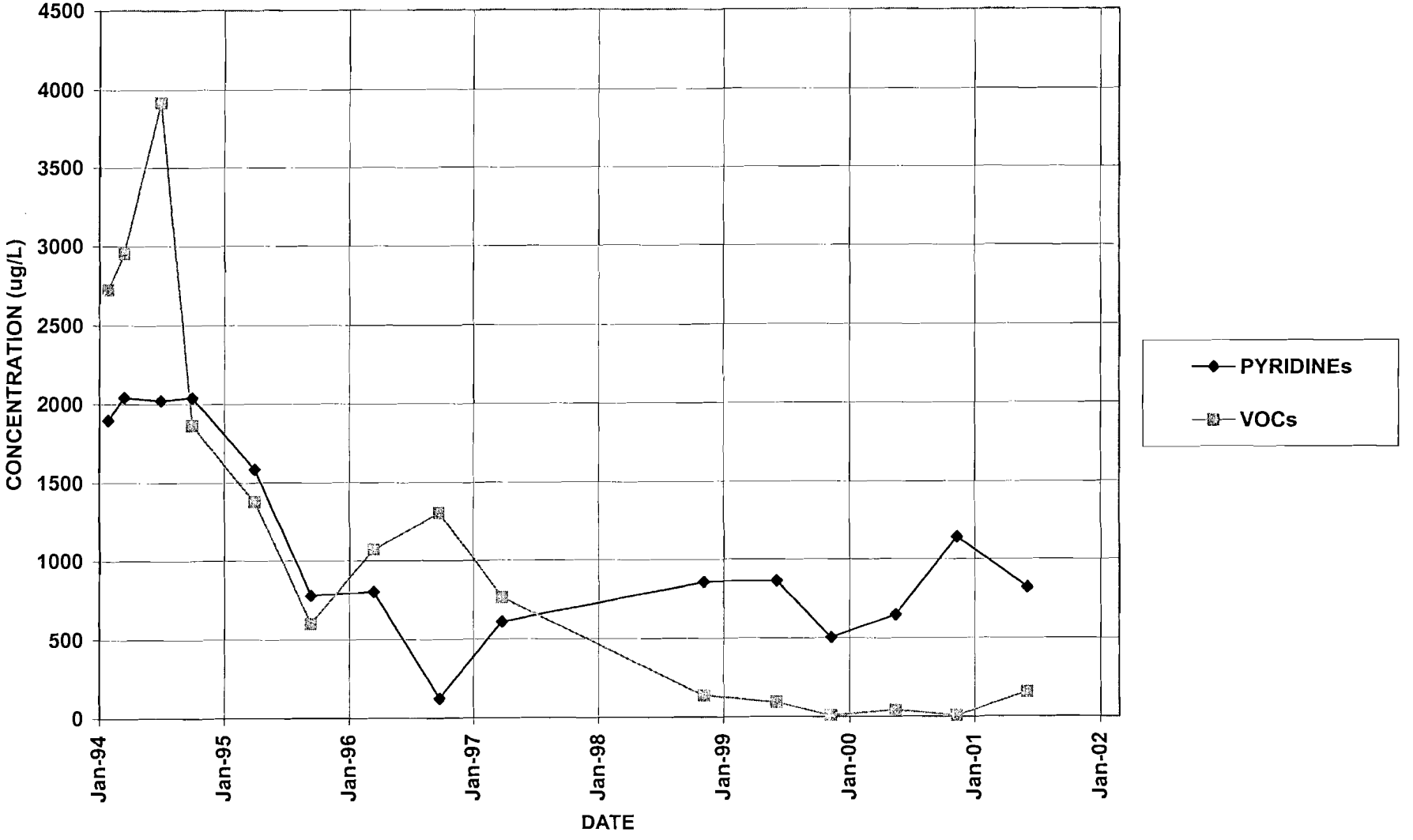
Prepared by: nmb
Reviewed by: jrb

B-9



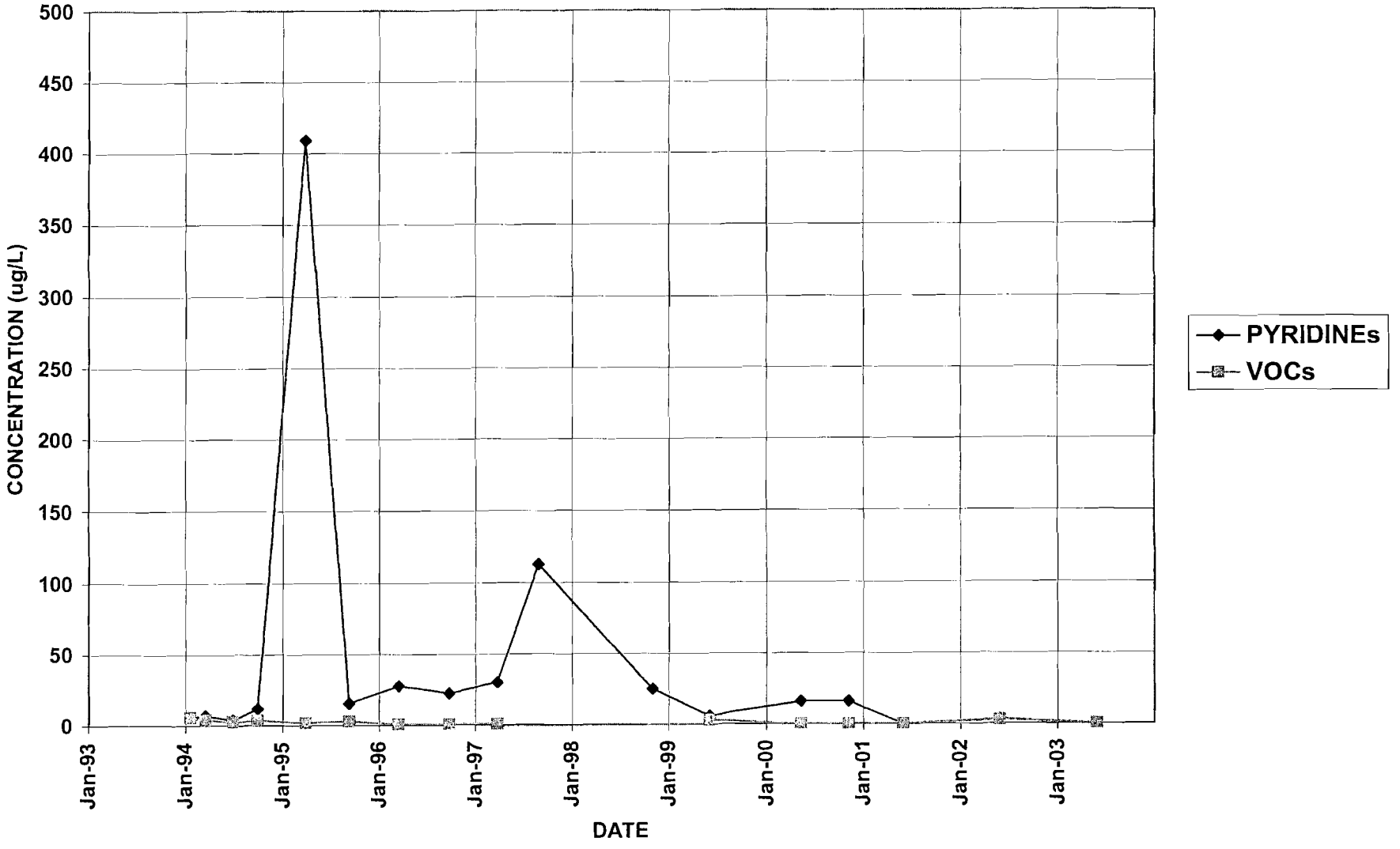
Prepared by: nmb
Reviewed by: jrb

BR-102



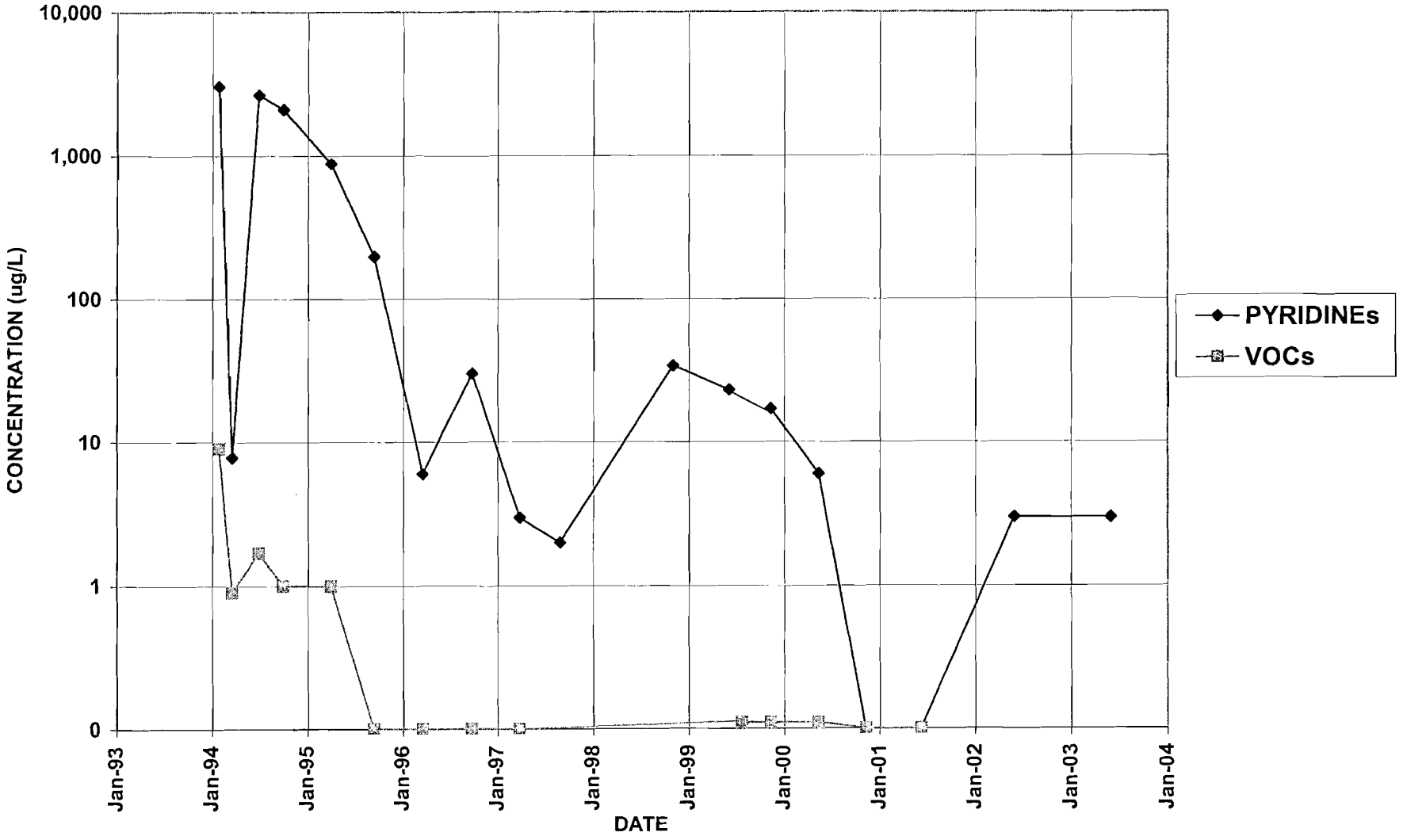
Prepared by: nmb
Reviewed by: jrb

BR-103

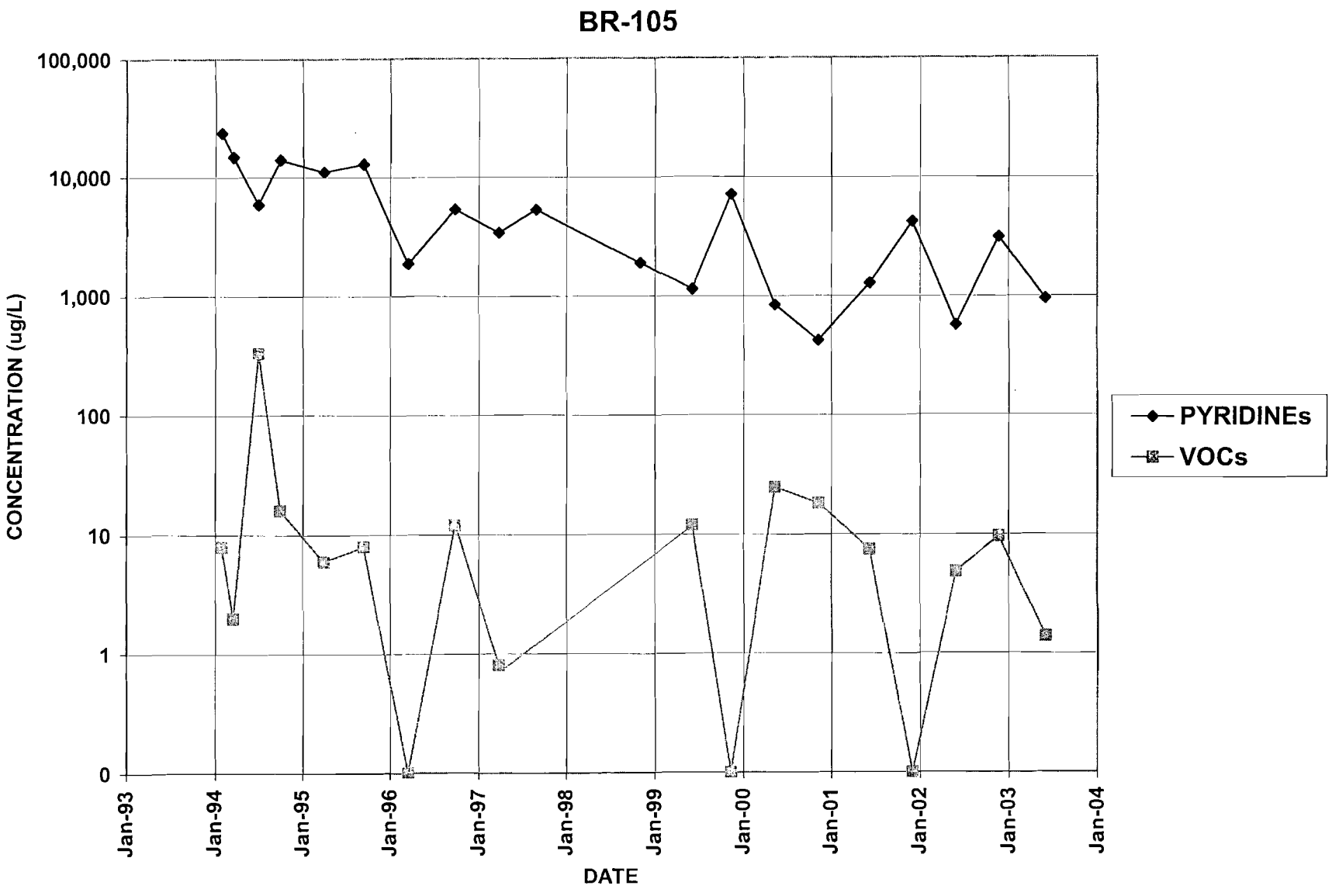


Prepared by: nmb
Reviewed by: jrb

BR-104

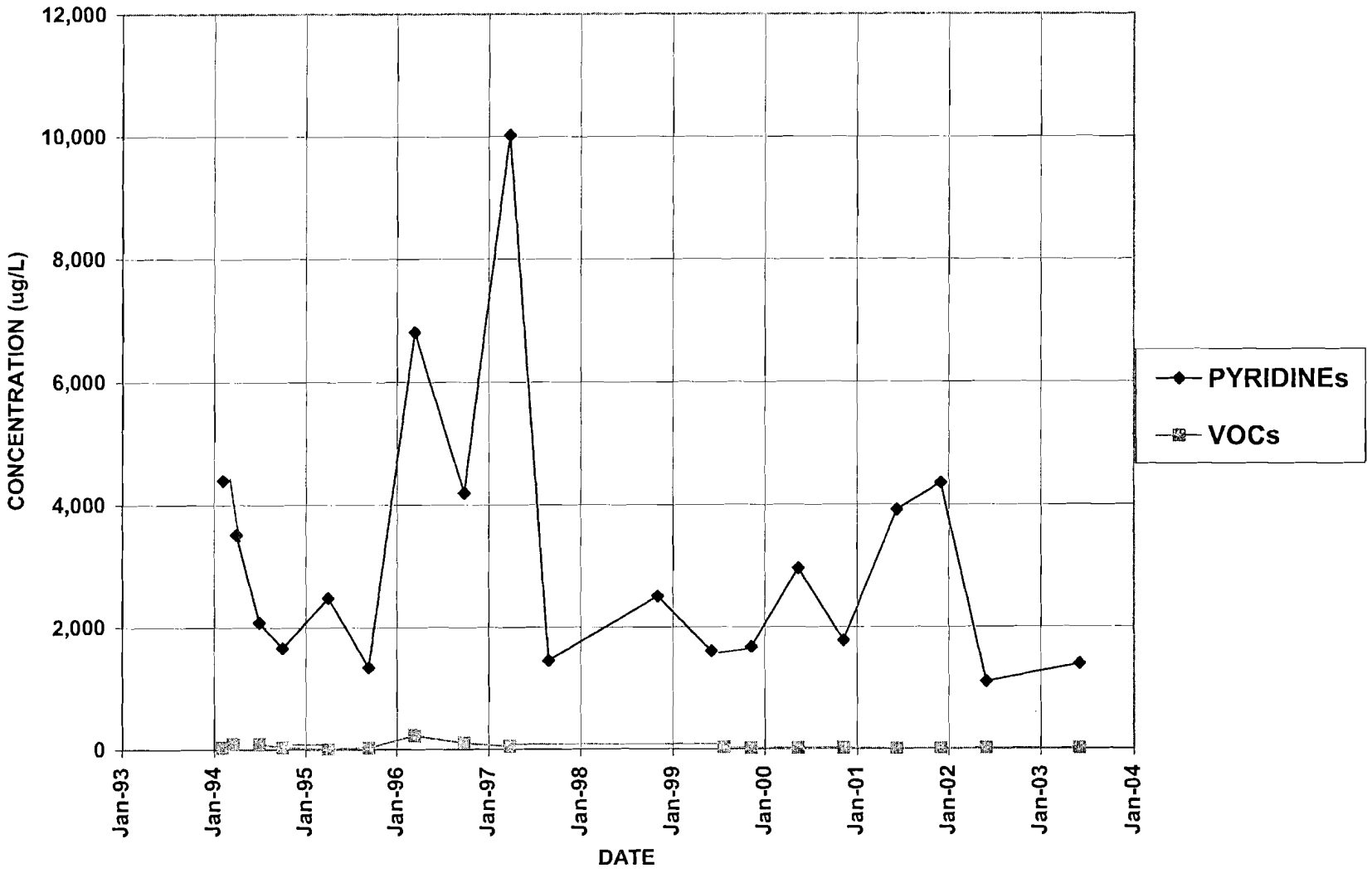


Prepared by: nmb
Reviewed by: jrb



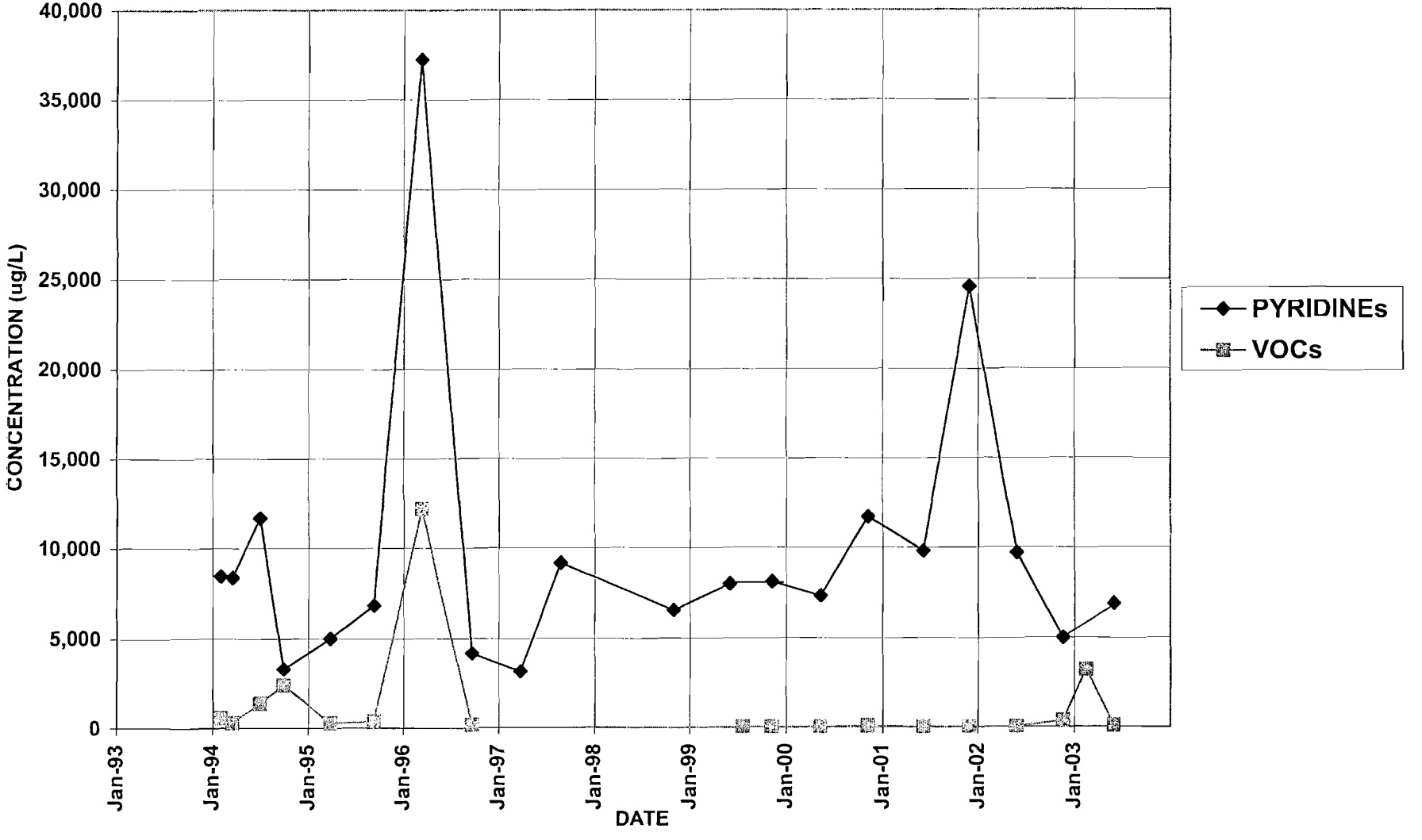
Prepared by: nmb
Reviewed by: jrb

BR-105D



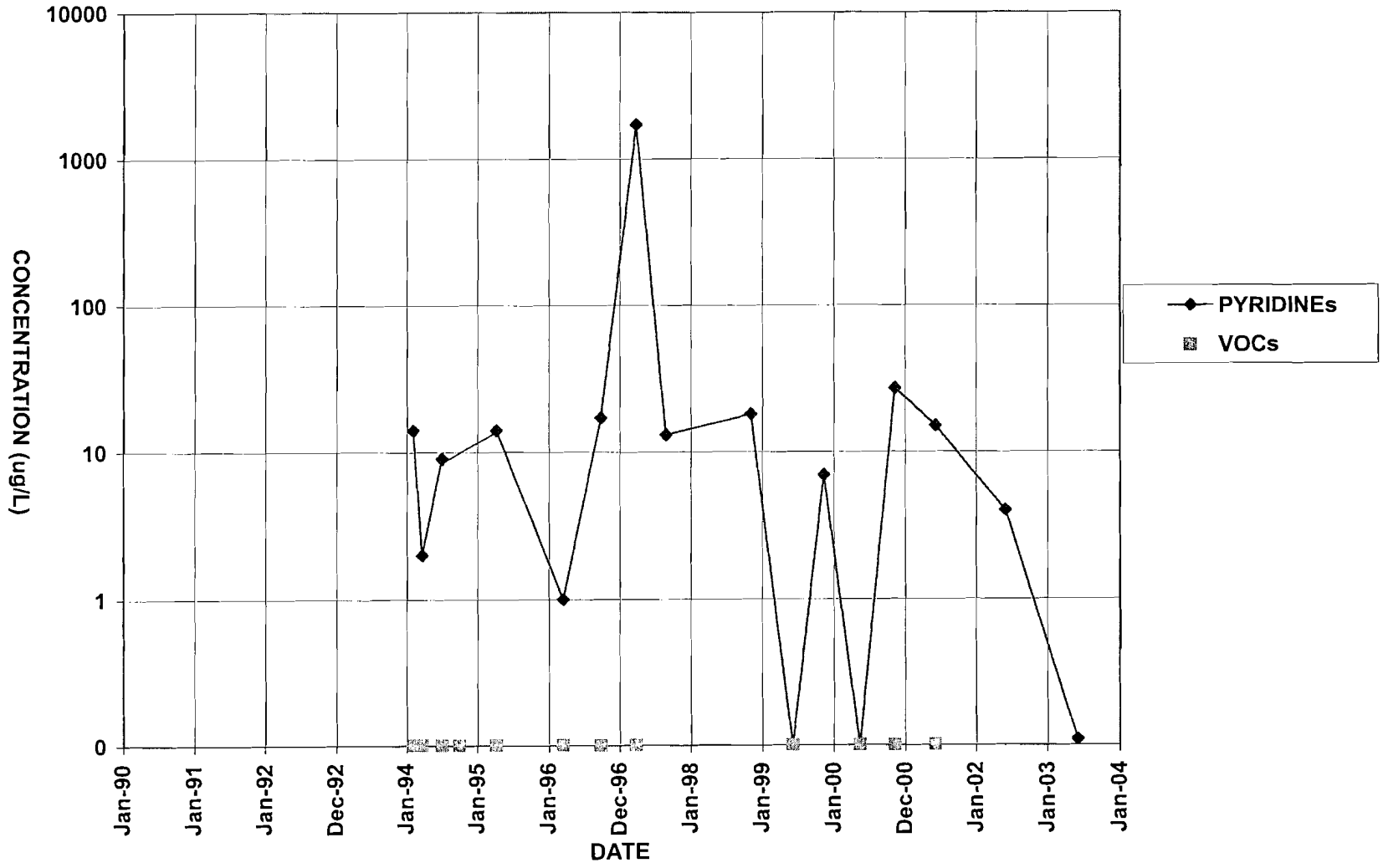
Prepared by: nmb
Reviewed by: jrb

BR-106



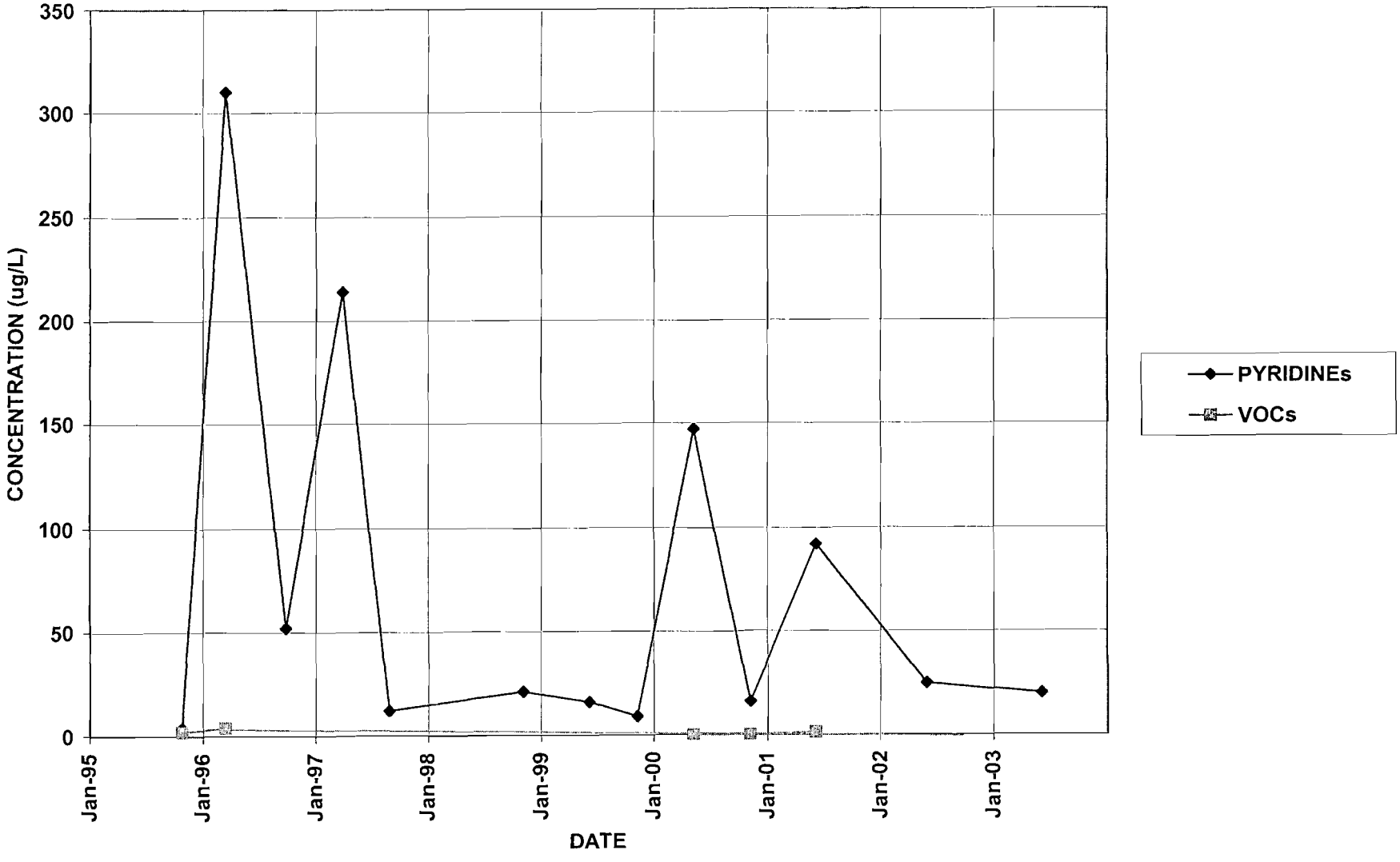
Prepared by: nmb
Reviewed by: jrb

BR-108



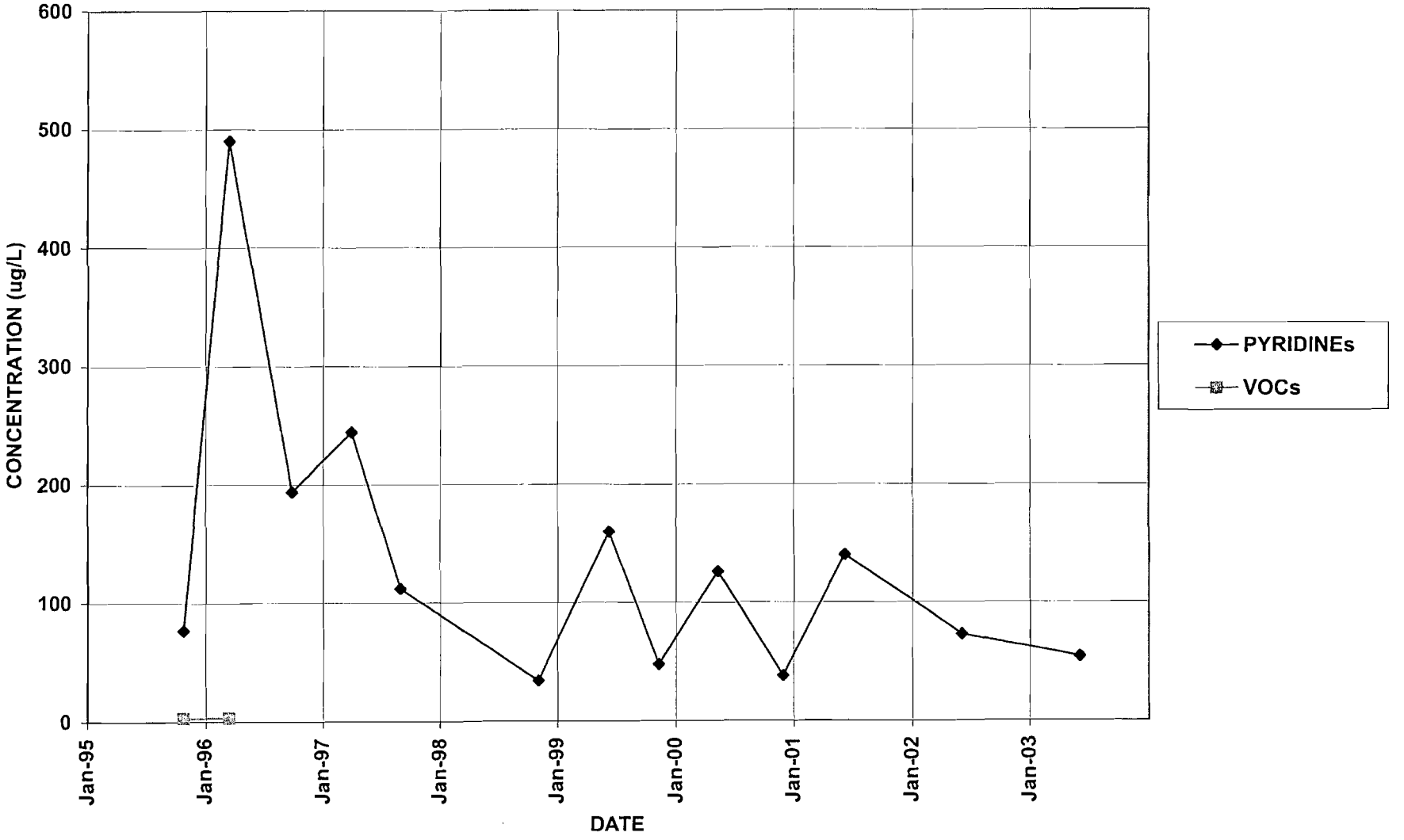
Prepared by: nmb
Reviewed by: jrb

BR-112D



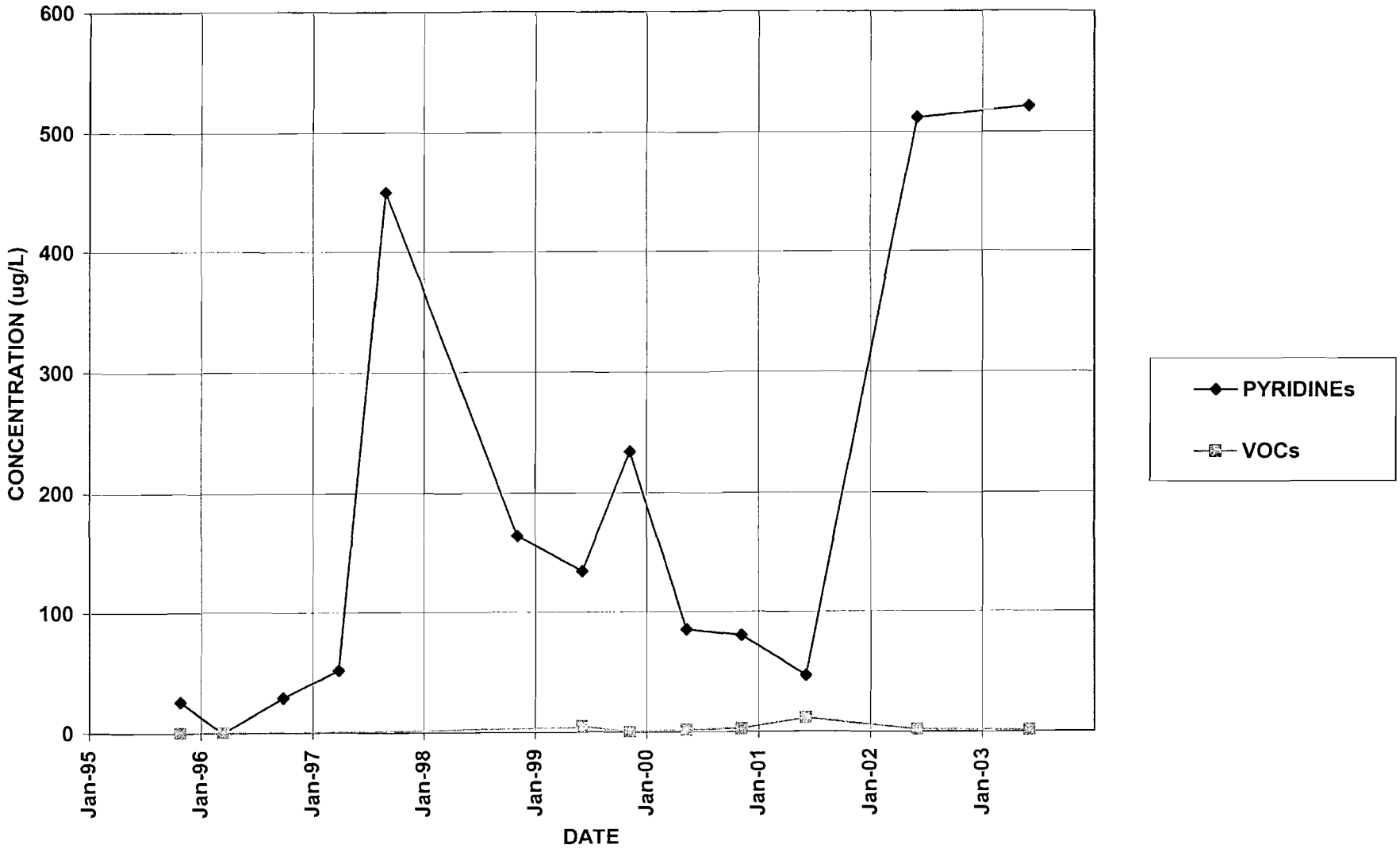
Prepared by: nmb
Reviewed by: jrb

BR-113D



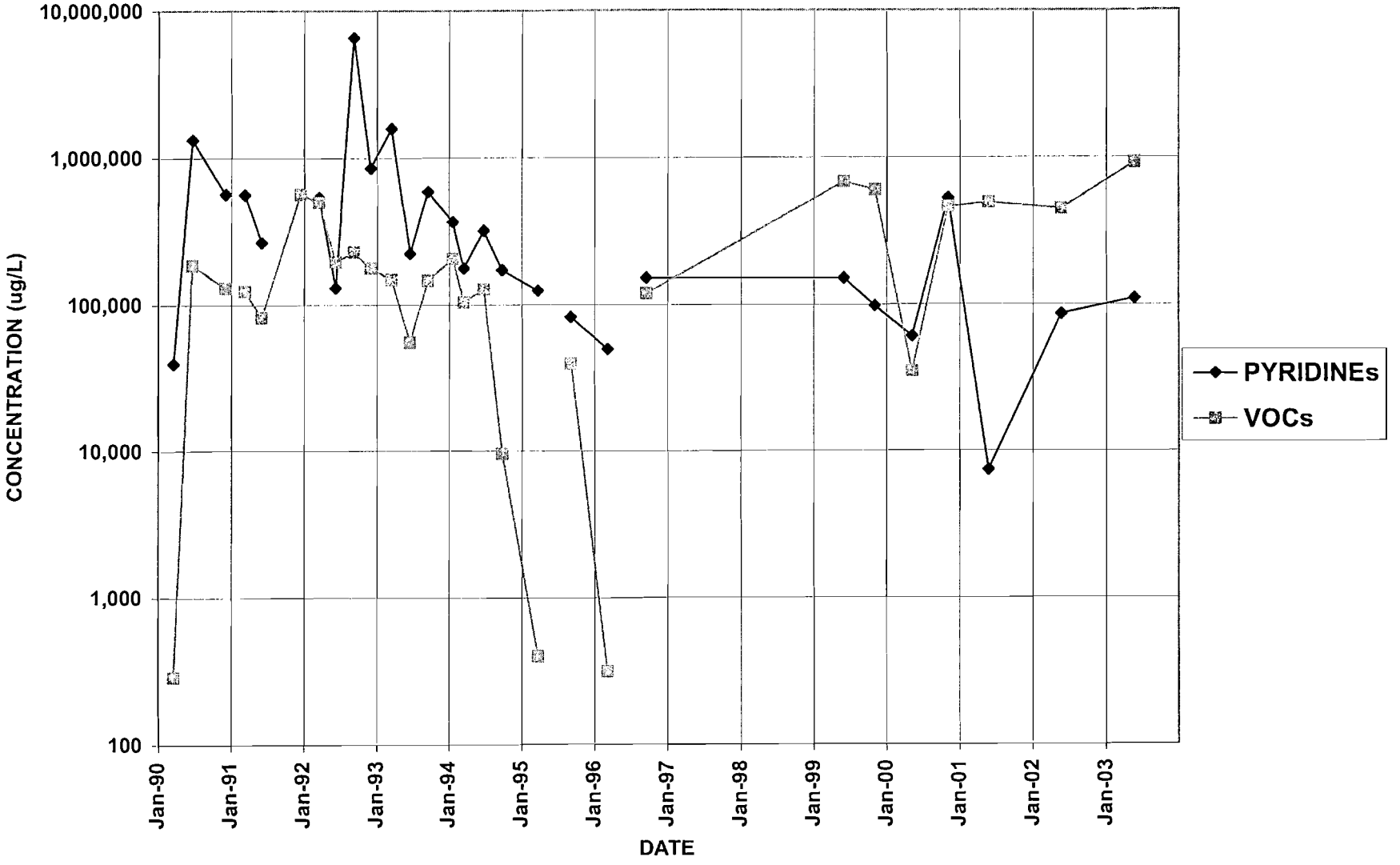
Prepared by: nmb
Reviewed by: jrb

BR-114



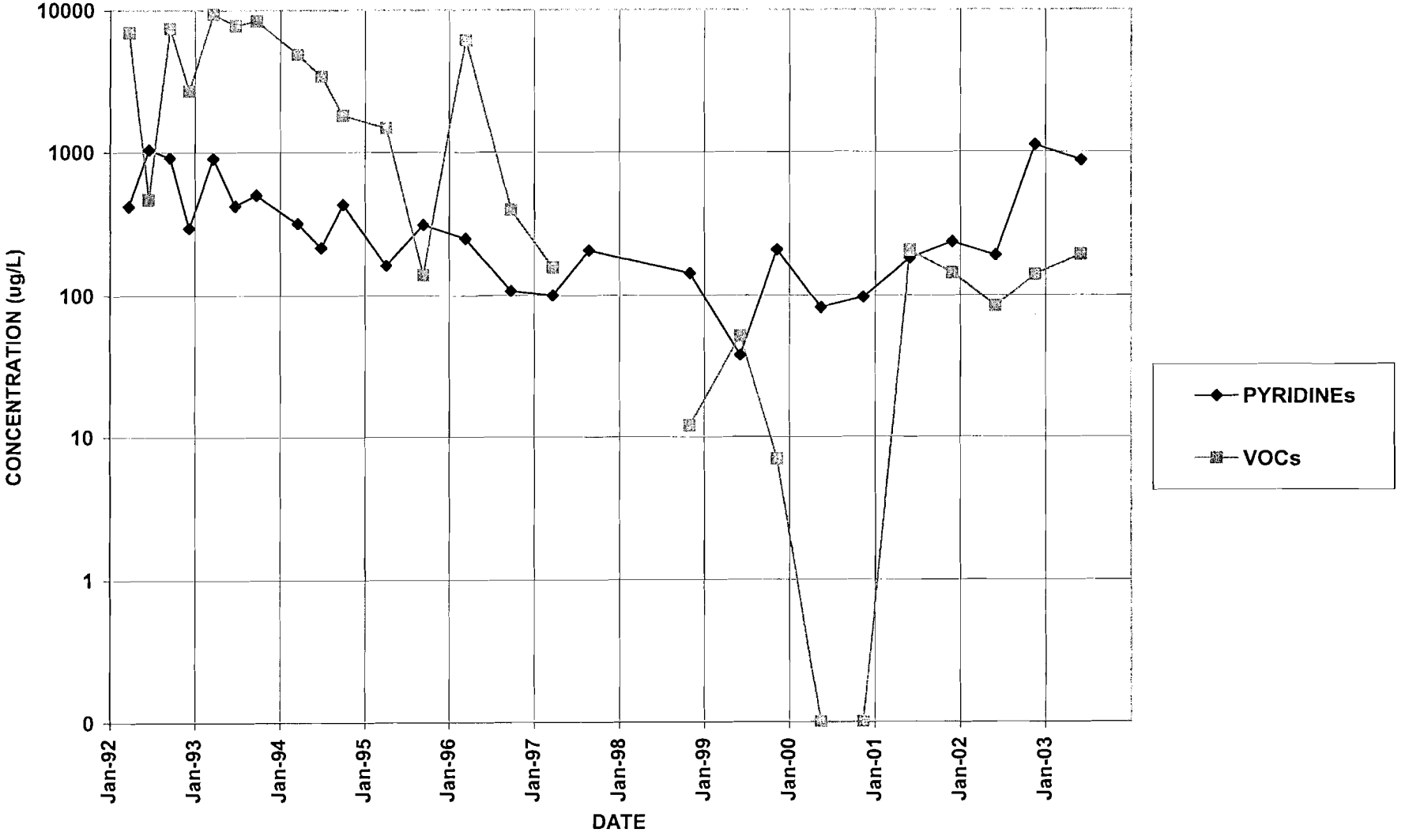
Prepared by: nmb
Reviewed by: jrb

BR-3



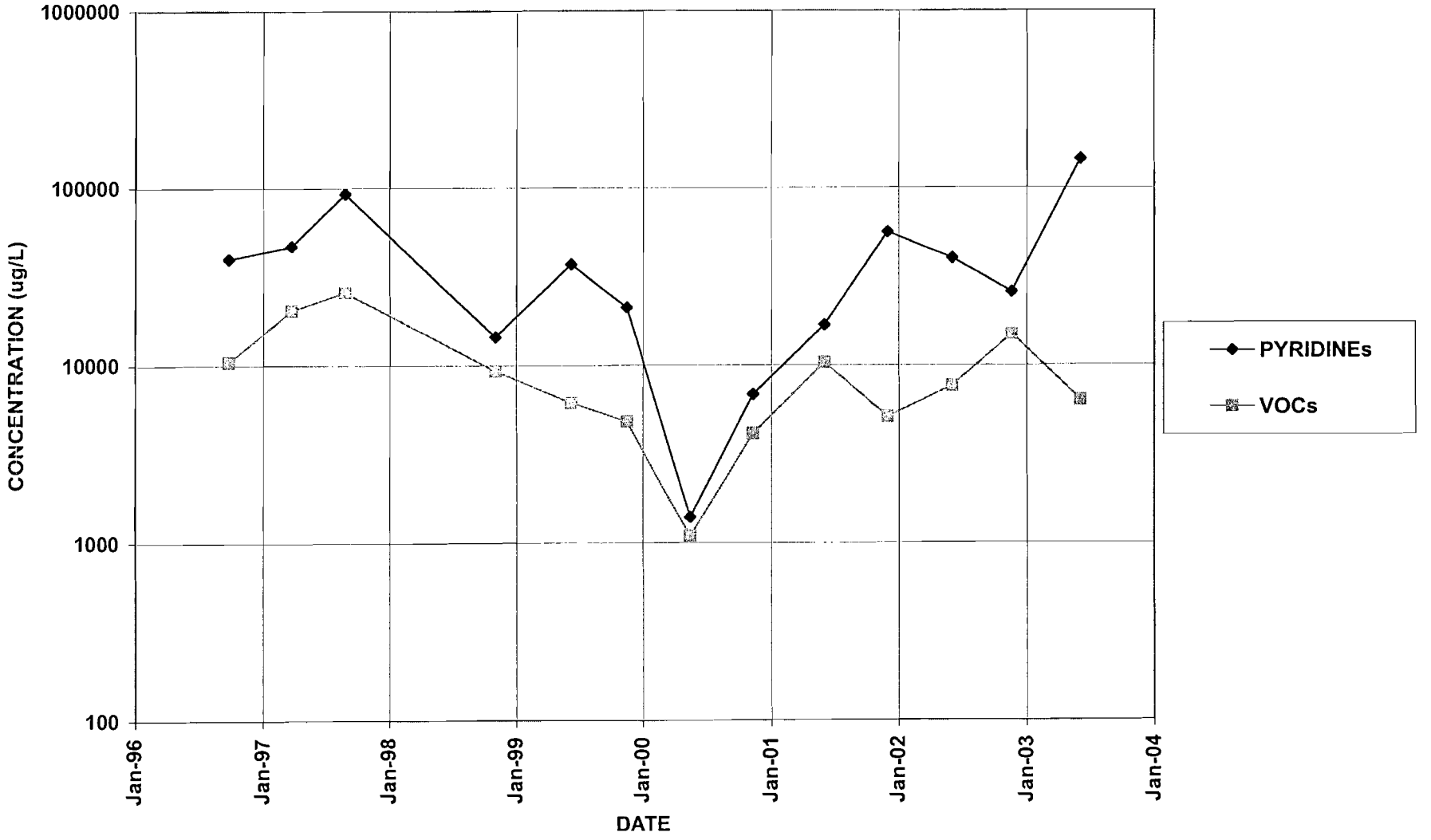
Prepared by: nmb
Reviewed by: jrb

BR-5A



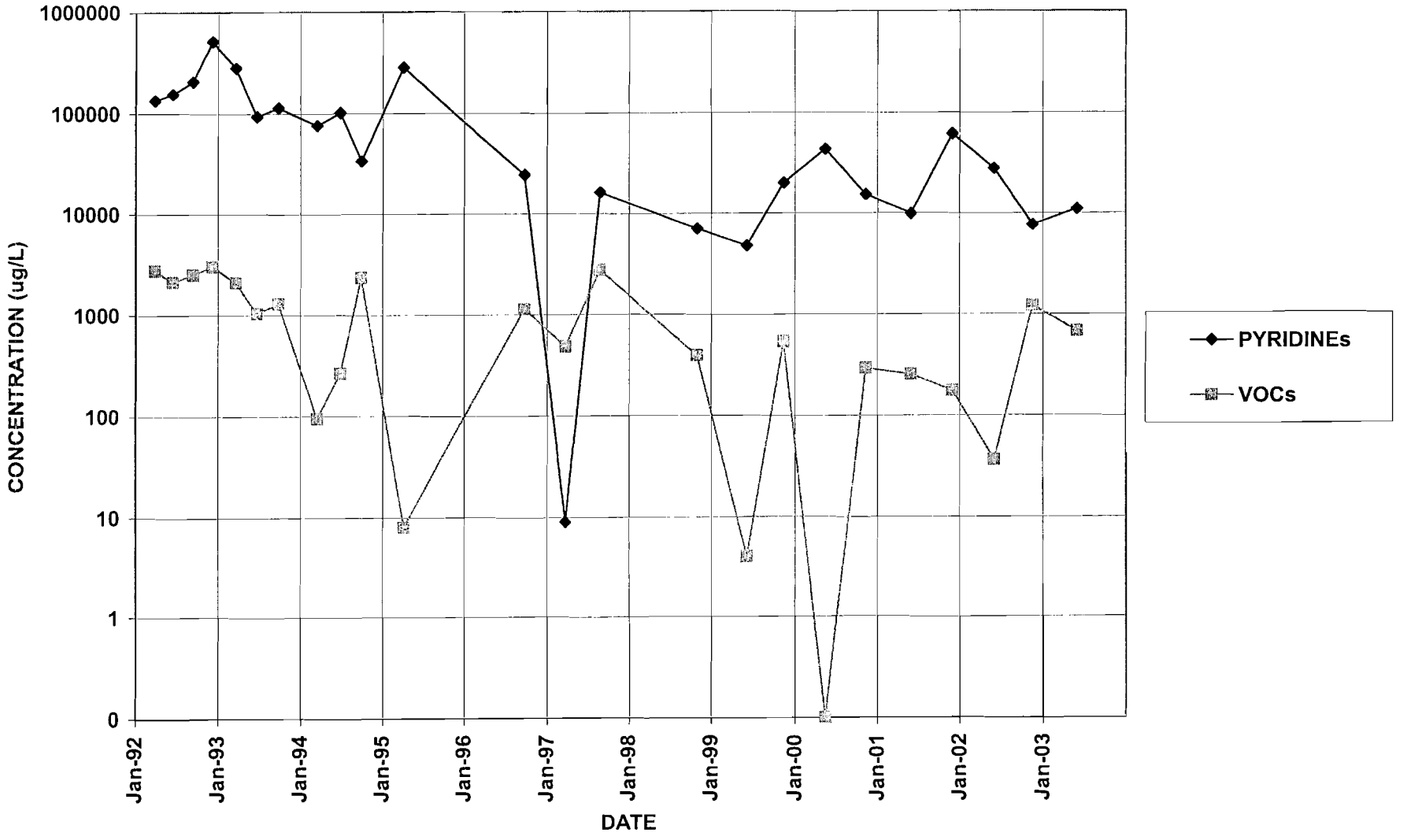
Prepared by: nmb
Reviewed by: jrb

BR-6A



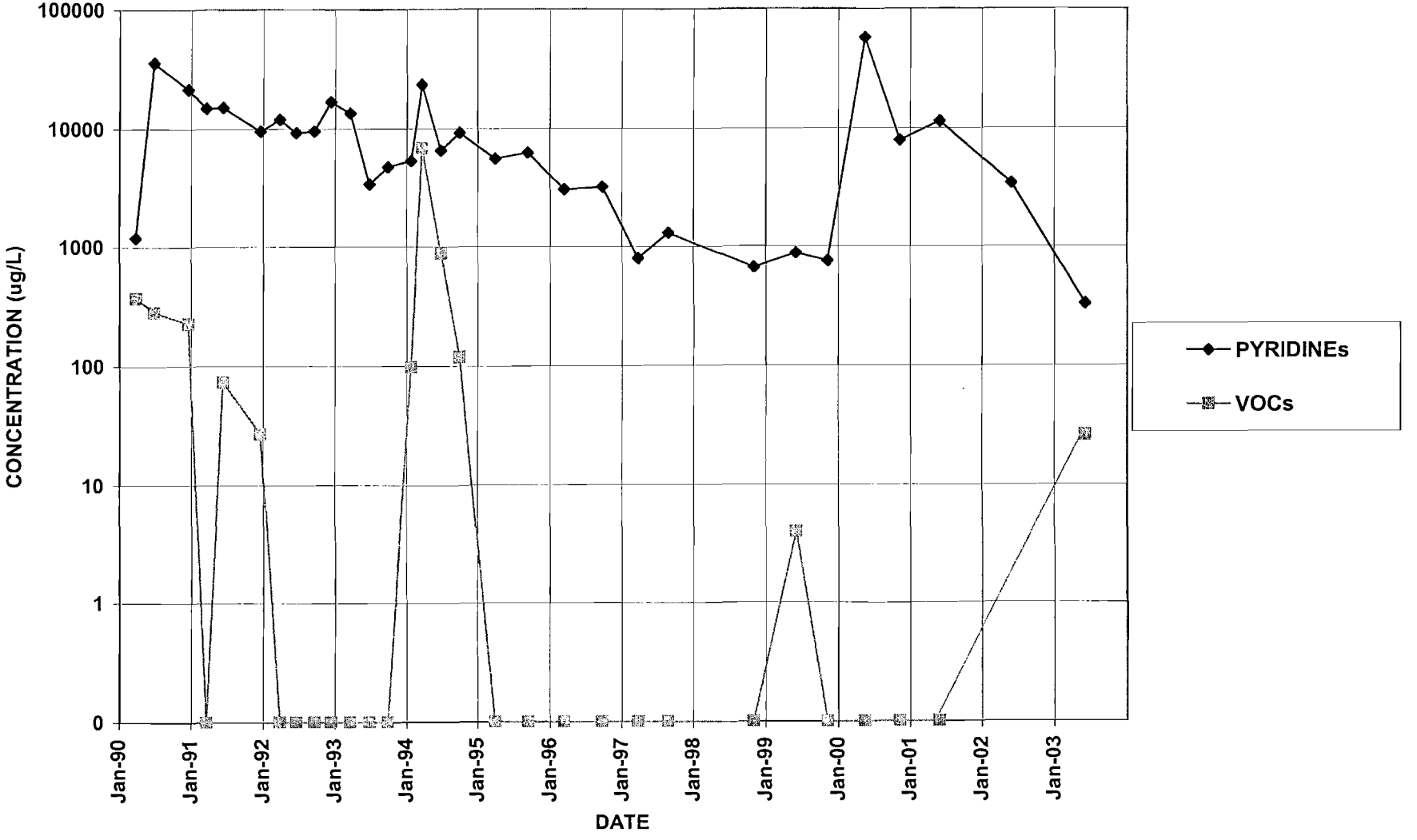
Prepared by: nmb
Reviewed by: jrb

BR-7A



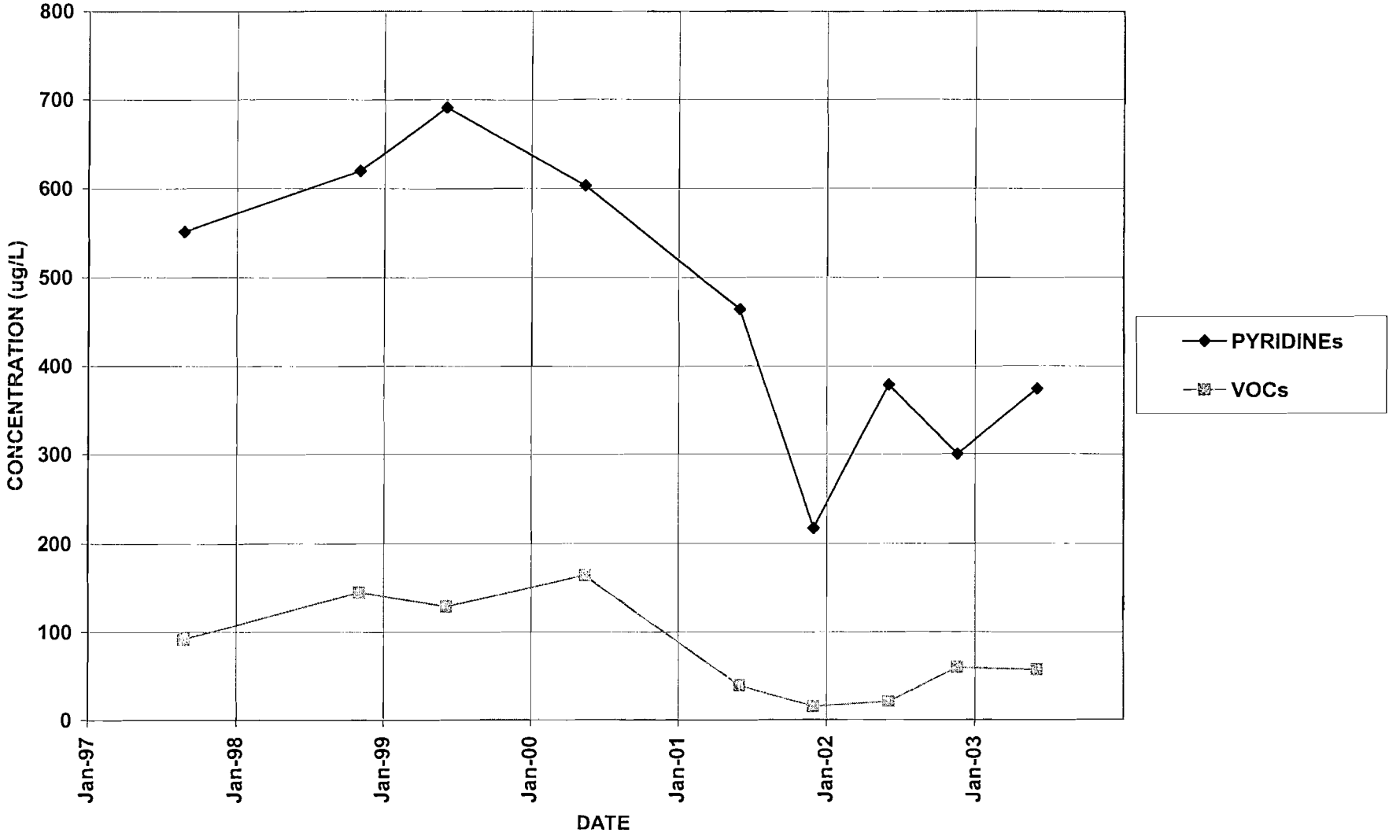
Prepared by: nmb
Reviewed by: jrb

BR-8



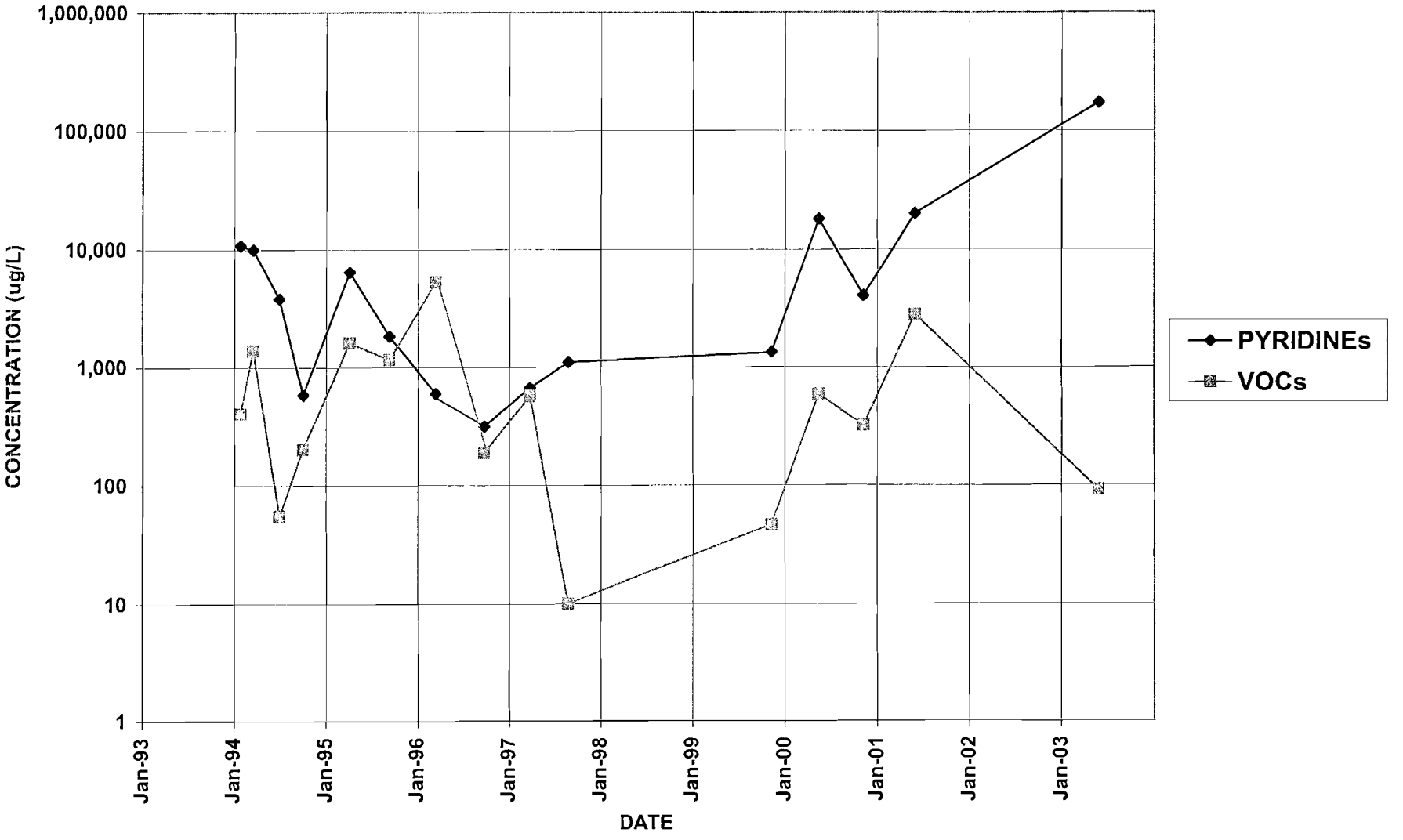
Prepared by: nmb
Reviewed by: jrb

BR-9



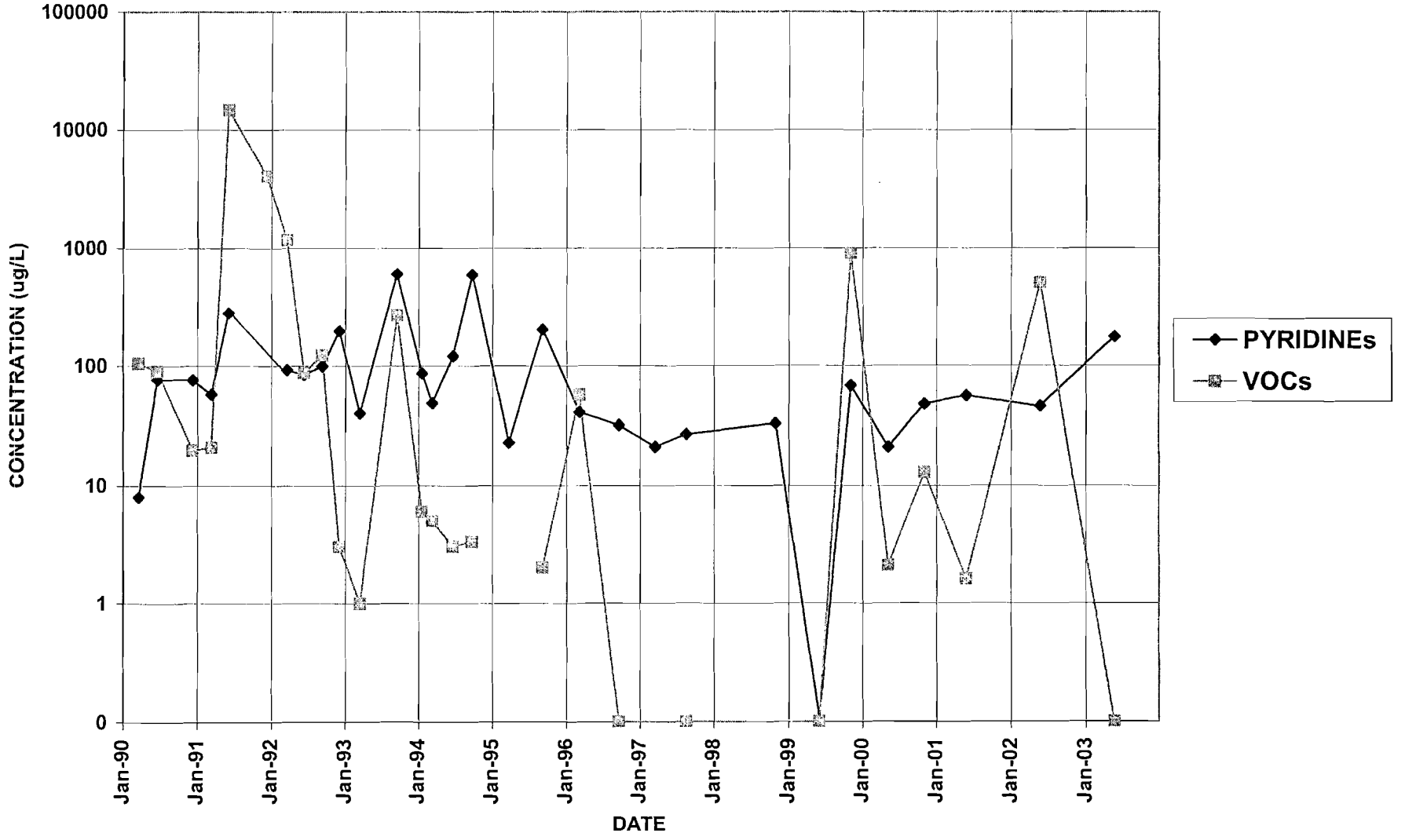
Prepared by: nmb
Reviewed by: jrb

E-1



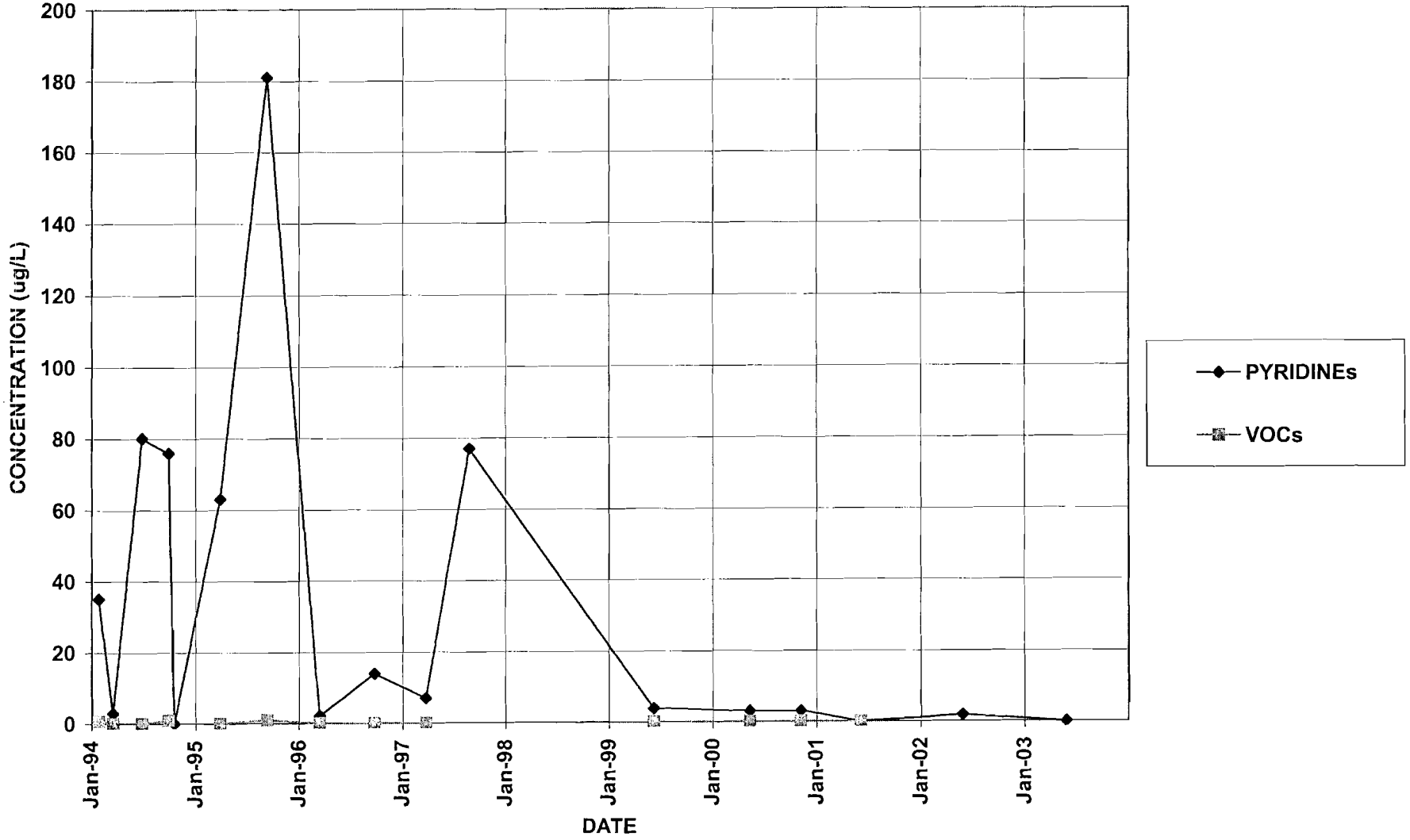
Prepared by: nmb
Reviewed by: jrb

E-3



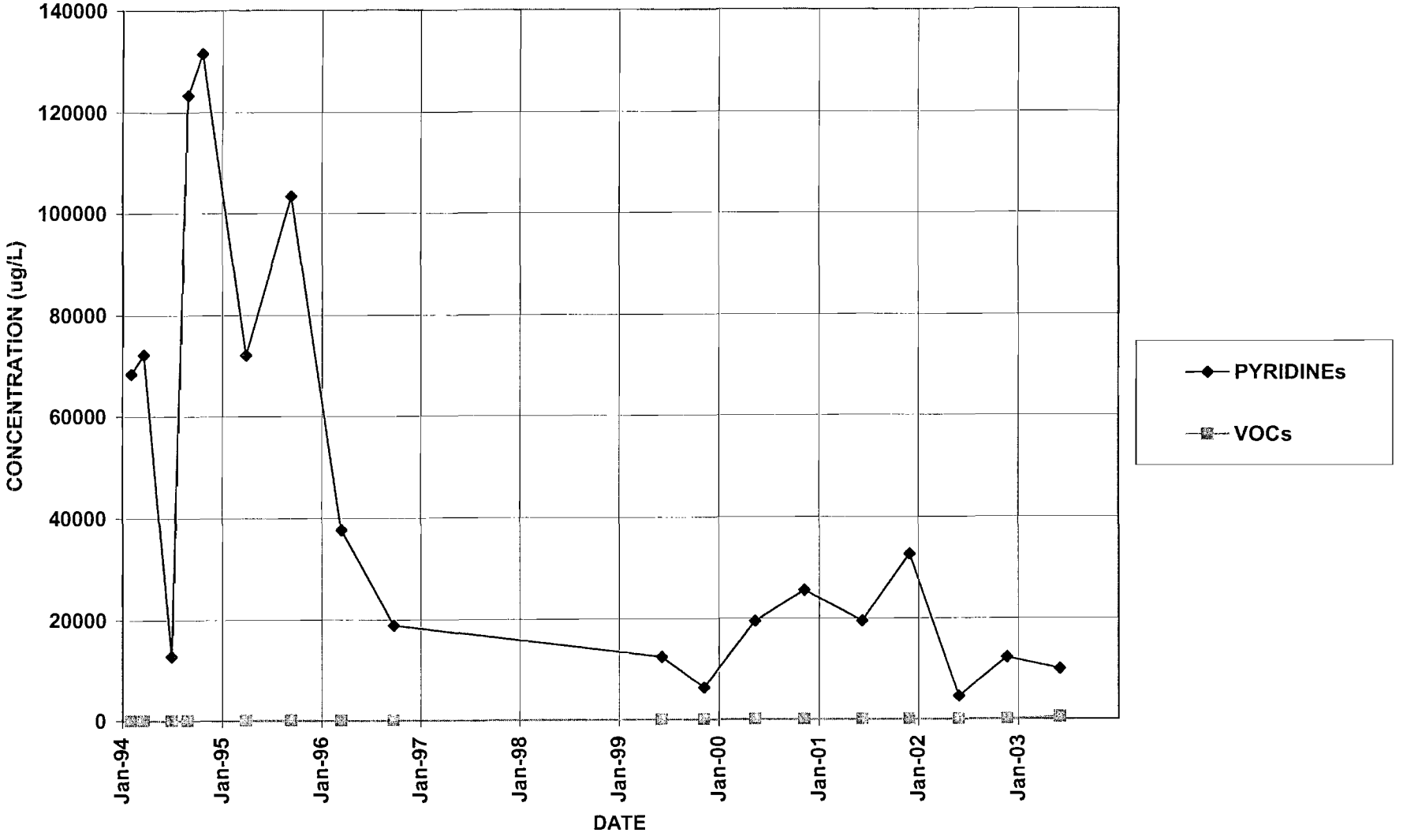
Prepared by: nmb
Reviewed by: jrb

MW-104



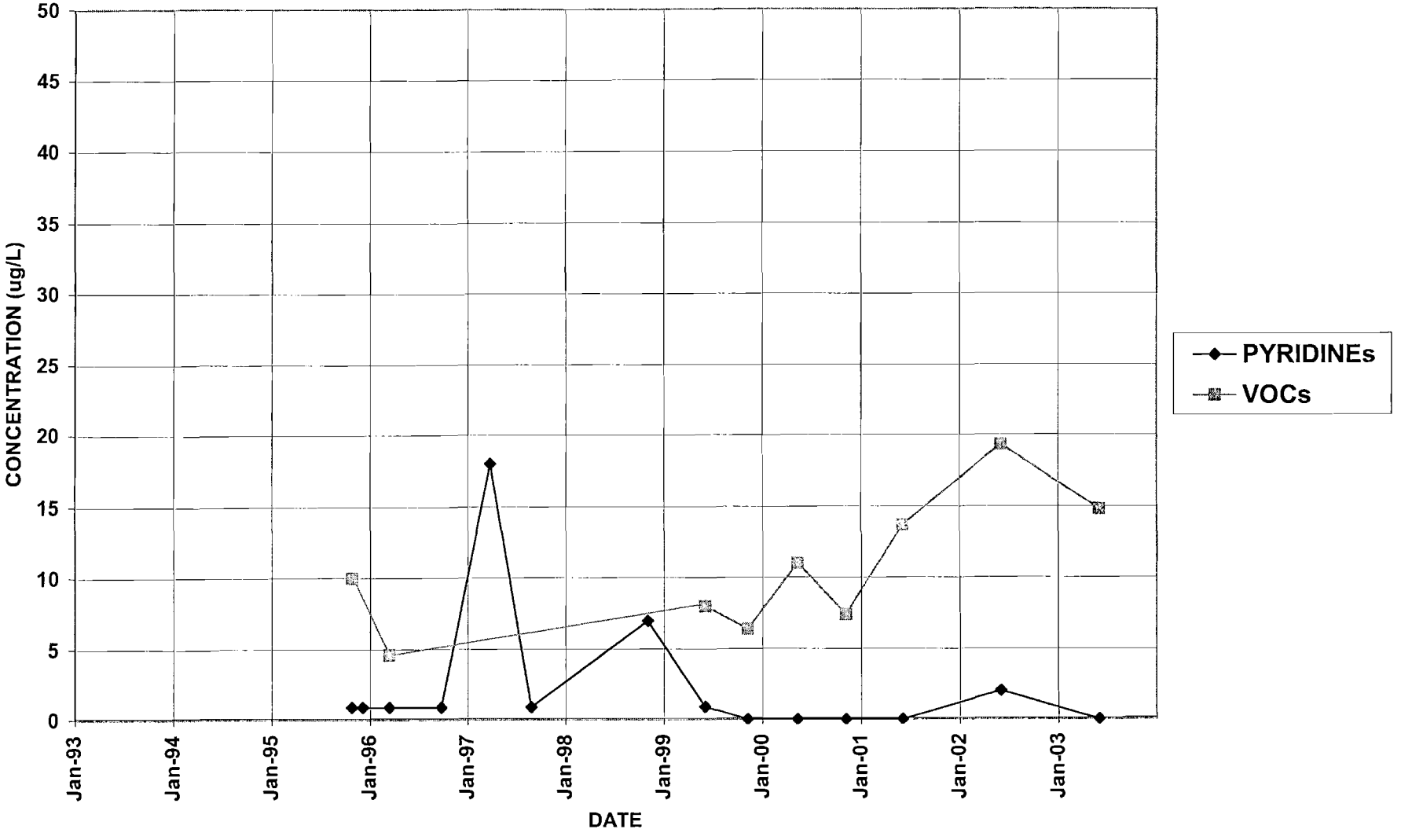
Prepared by: nmb
Reviewed by: jrb

MW-106



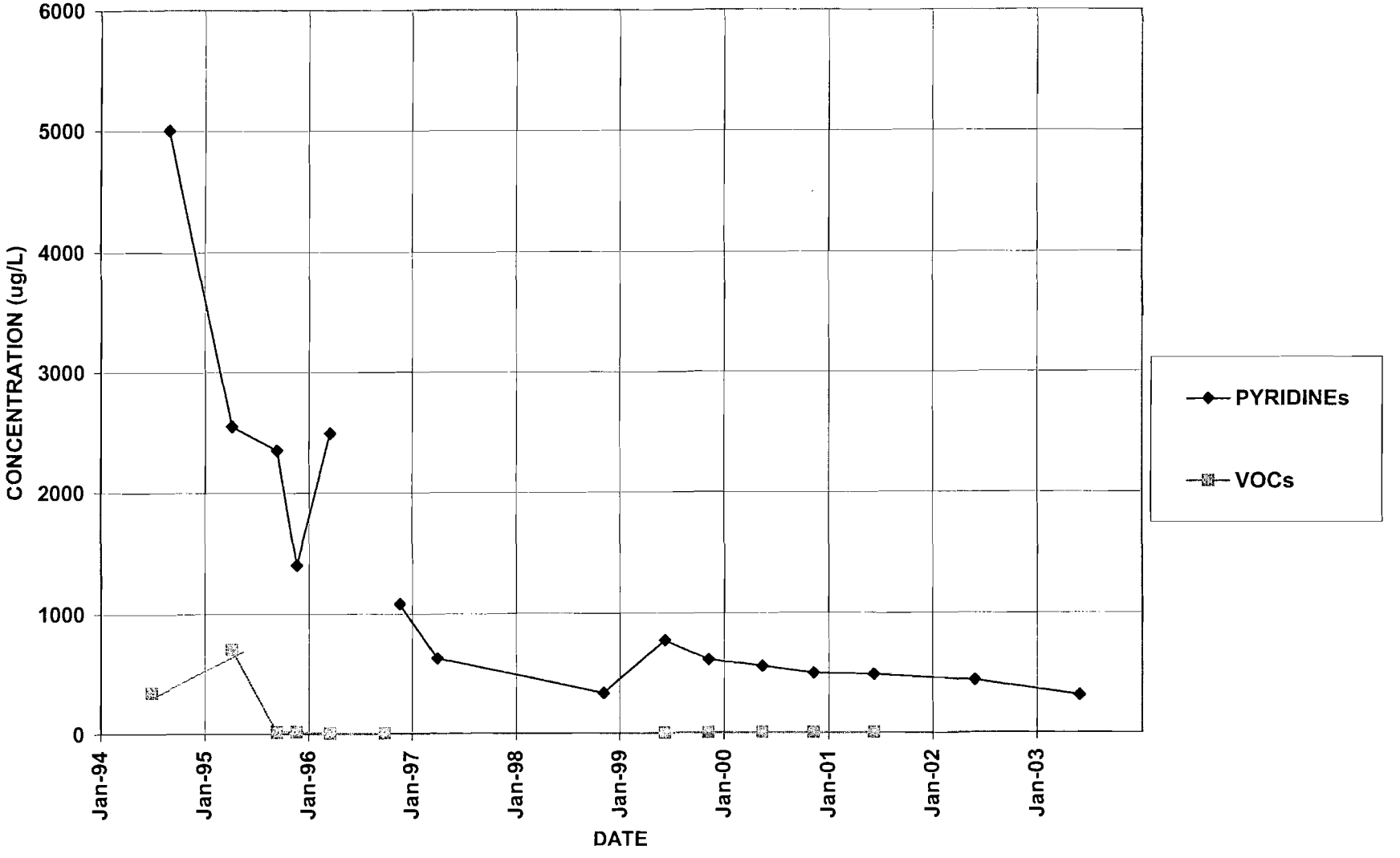
Prepared by: nmb
Reviewed by: jrb

MW-114

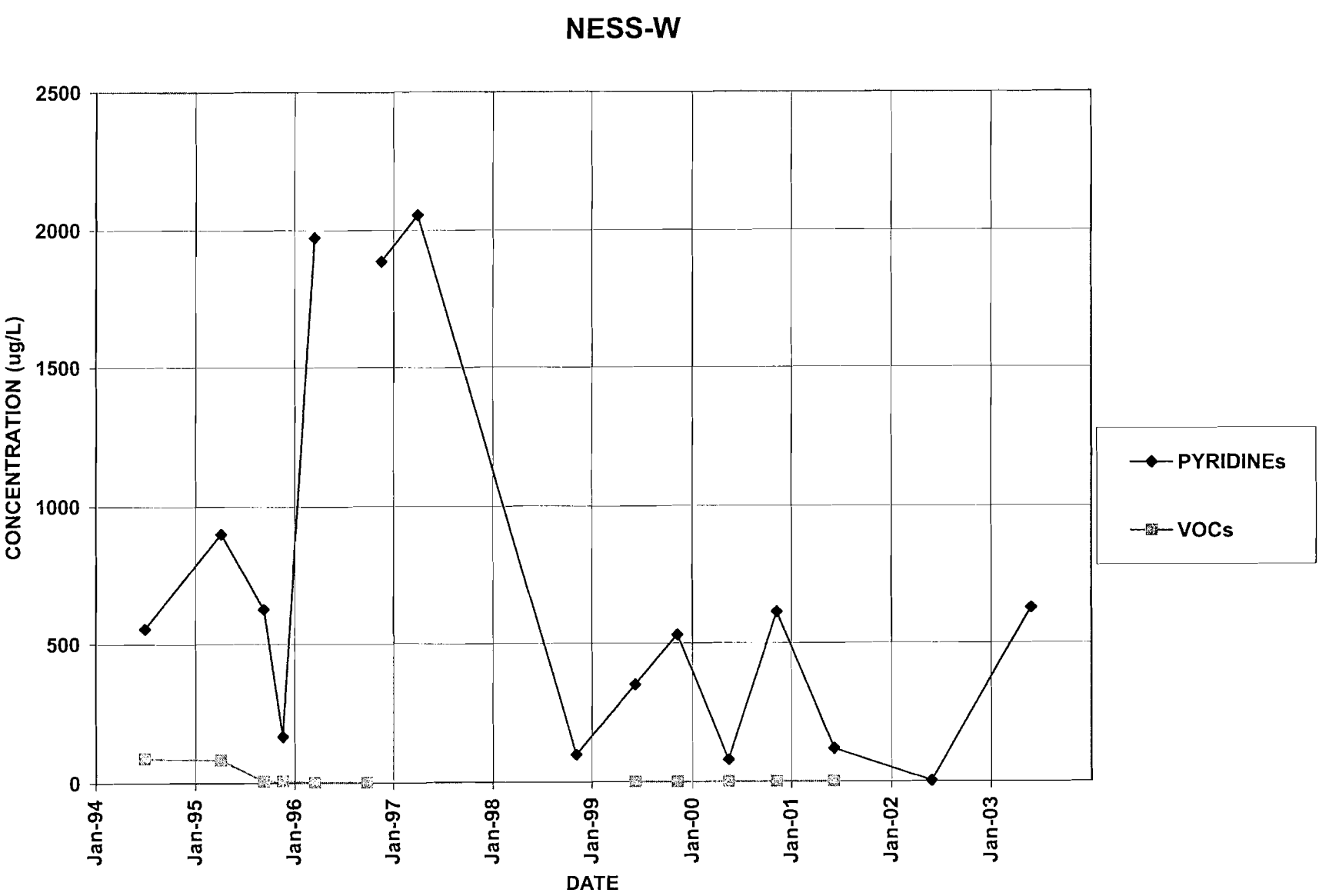


Prepared by: nmb
Reviewed by: jrb

NESS-E

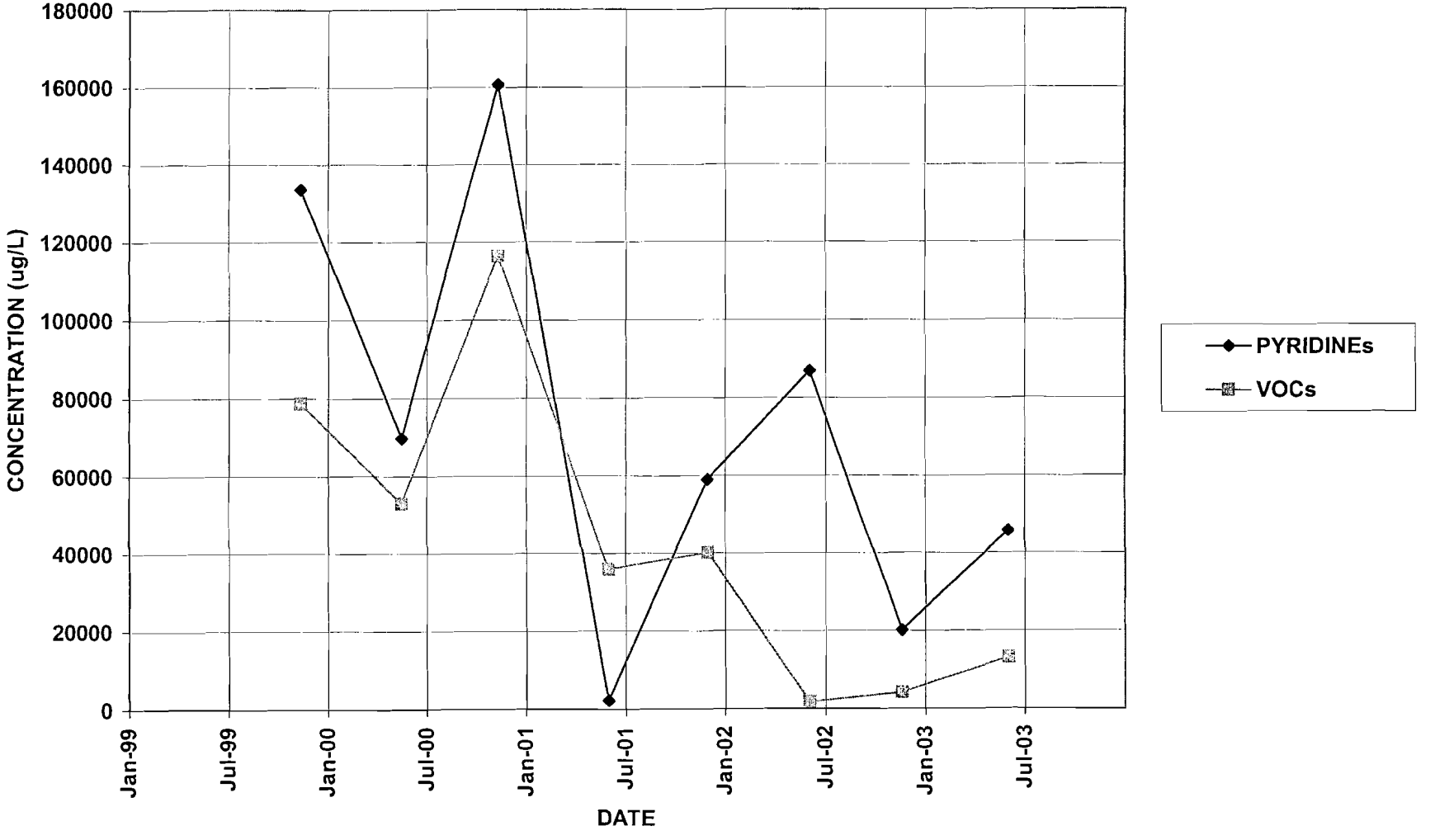


Prepared by: nmb
Reviewed by: jrb



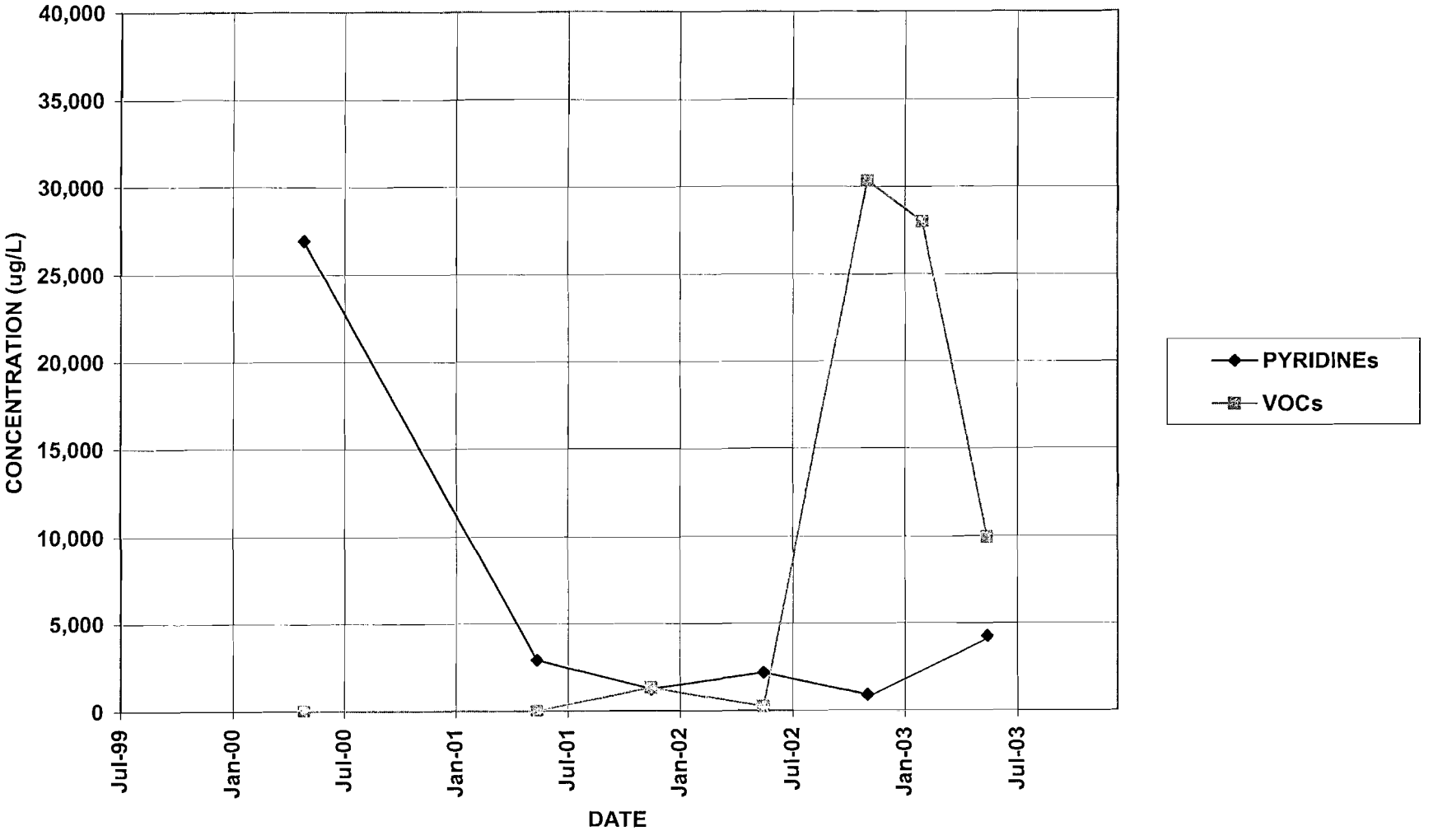
Prepared by: nmb
Reviewed by: jrb

PW10



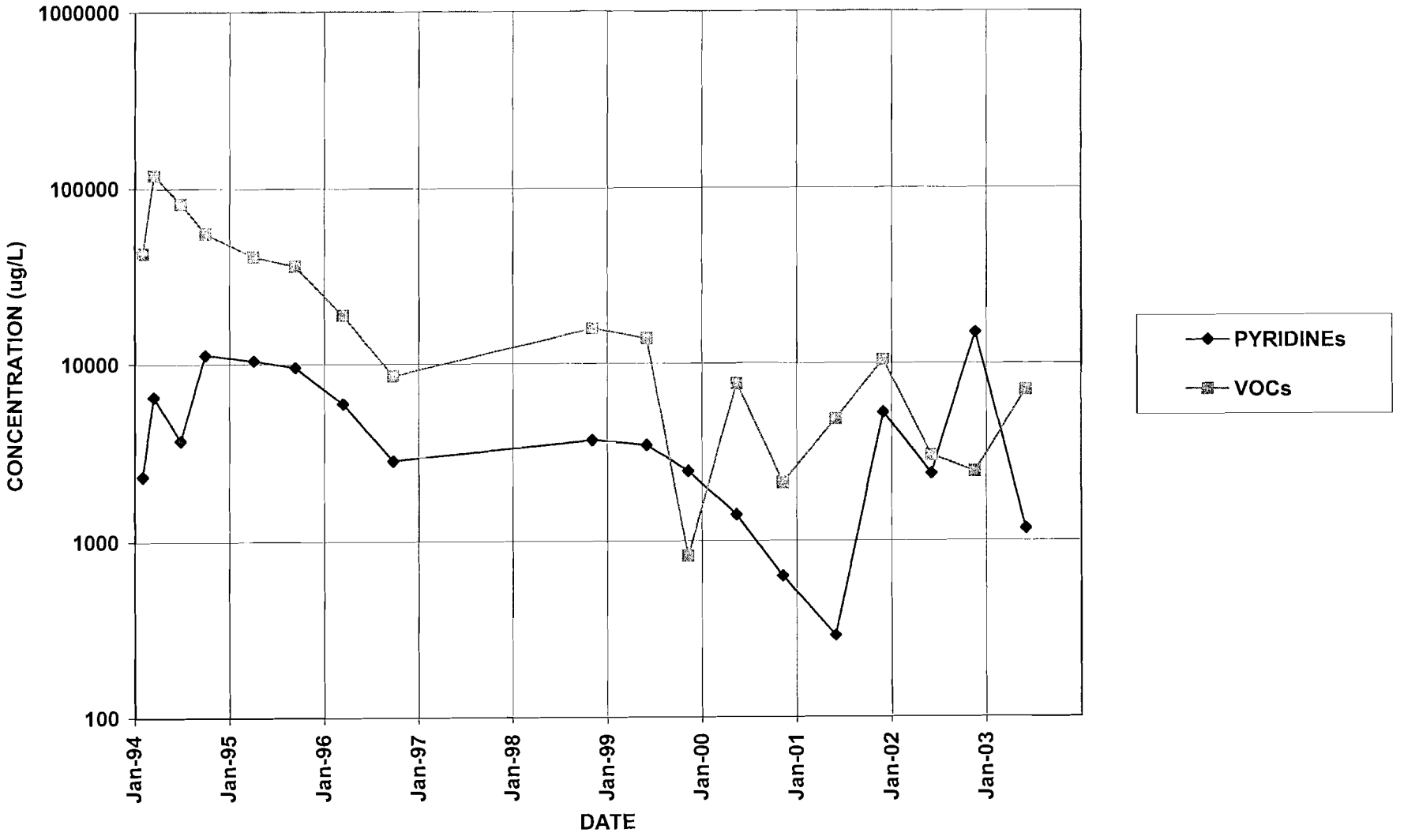
Prepared by: nmb
Reviewed by: jrb

PW11



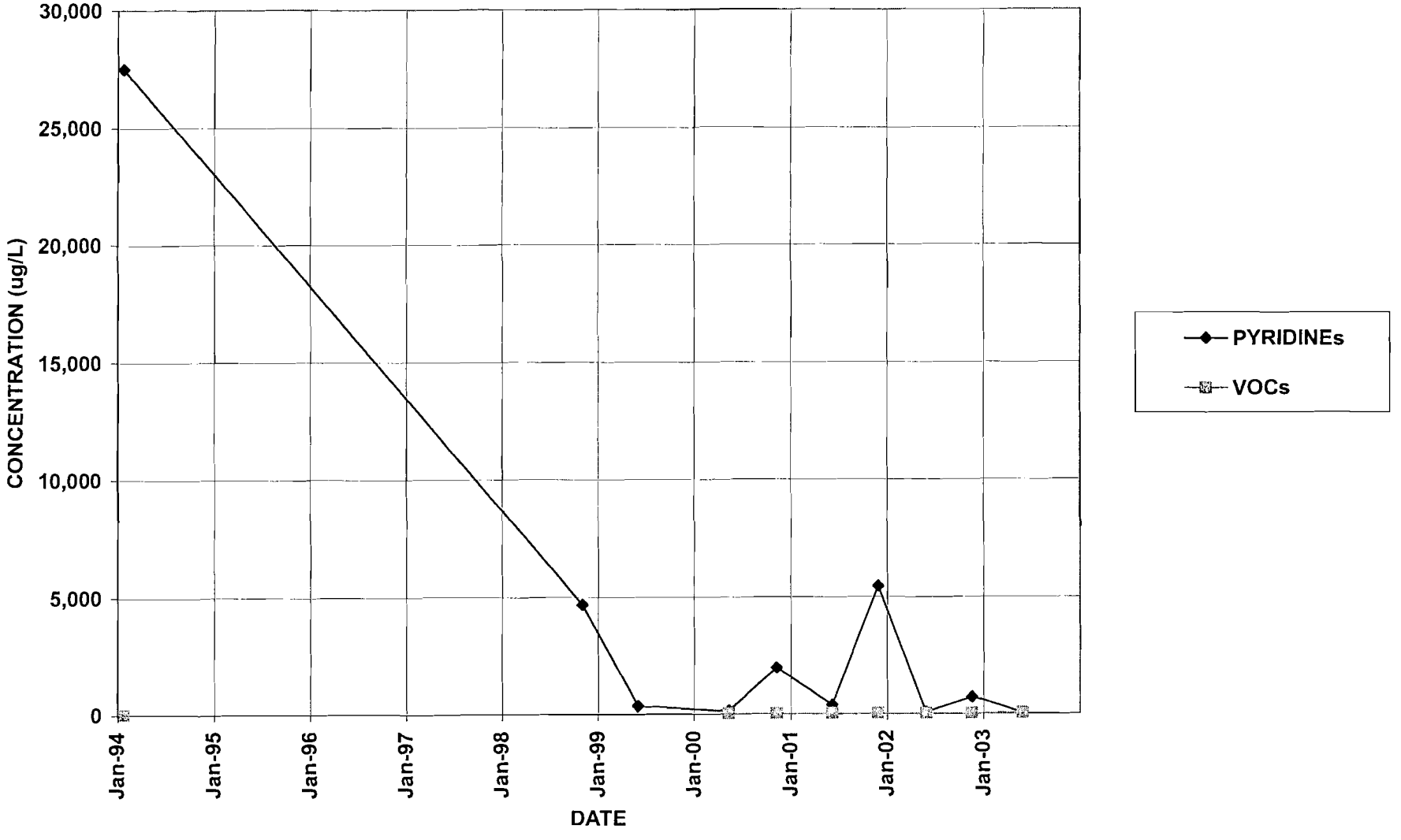
Prepared by: nmb
Reviewed by: jrb

PW12 (Formerly BR-101)



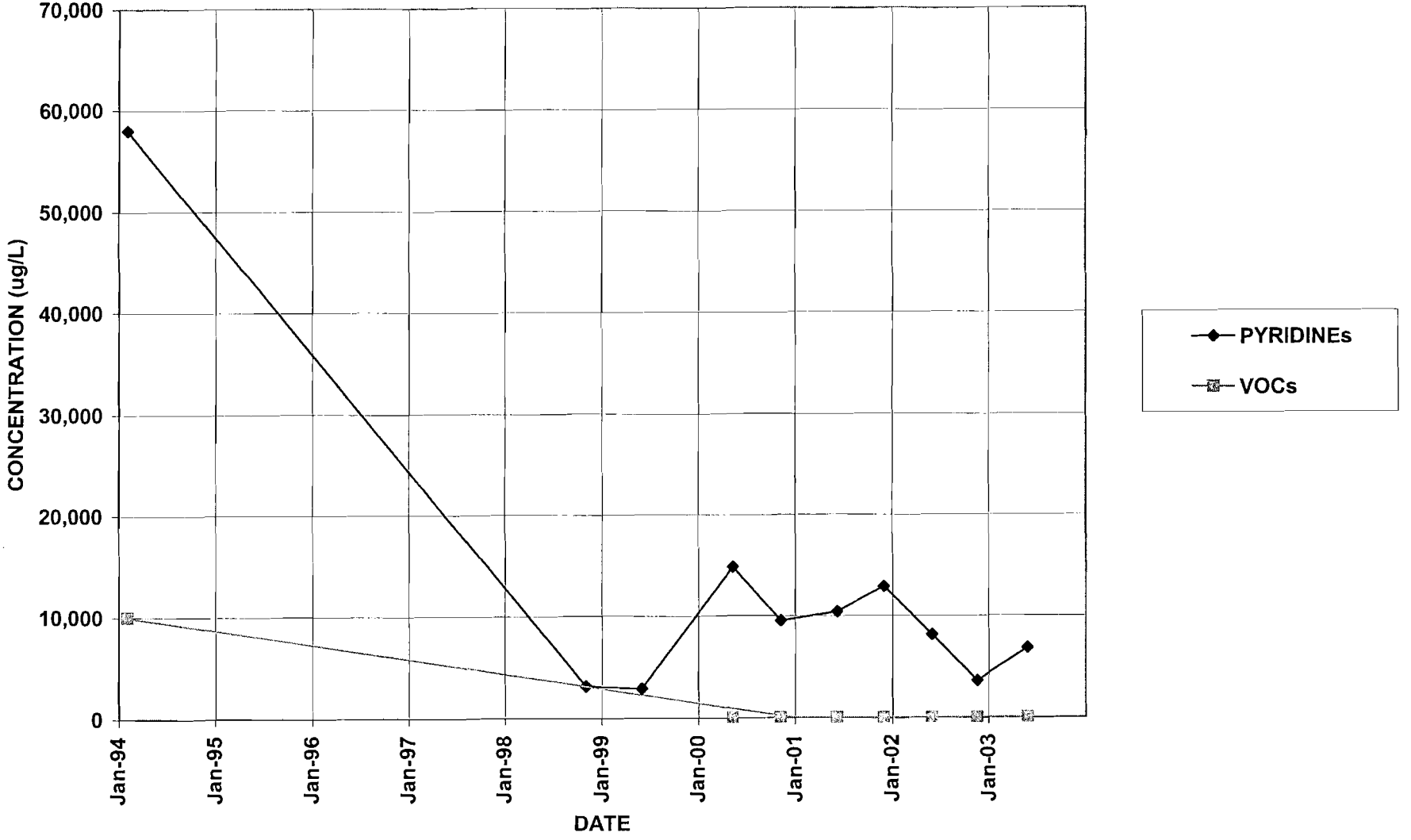
Prepared by: nmb
Reviewed by: jrb

PZ-101



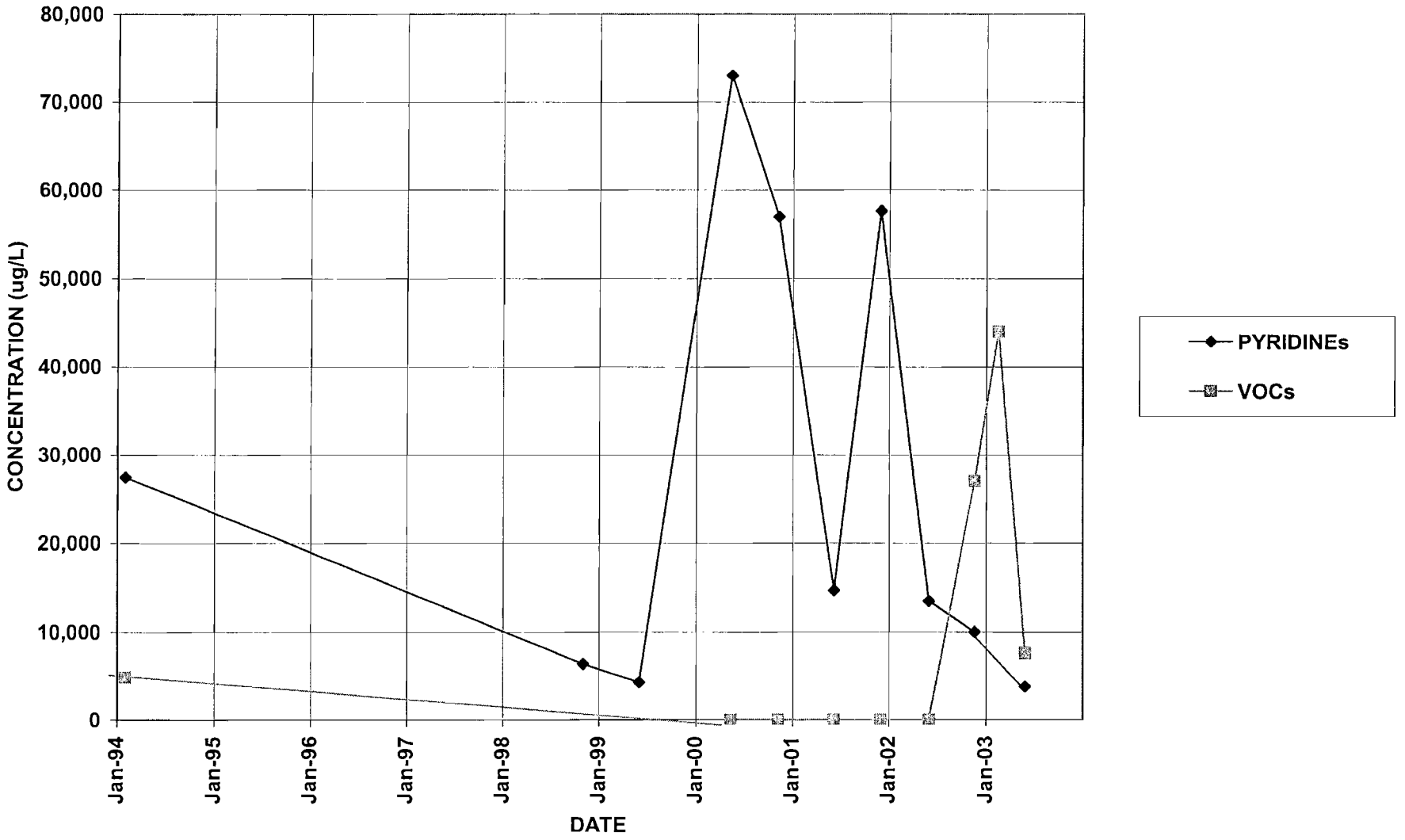
Prepared by: nmb
Reviewed by: jrb

PZ-102



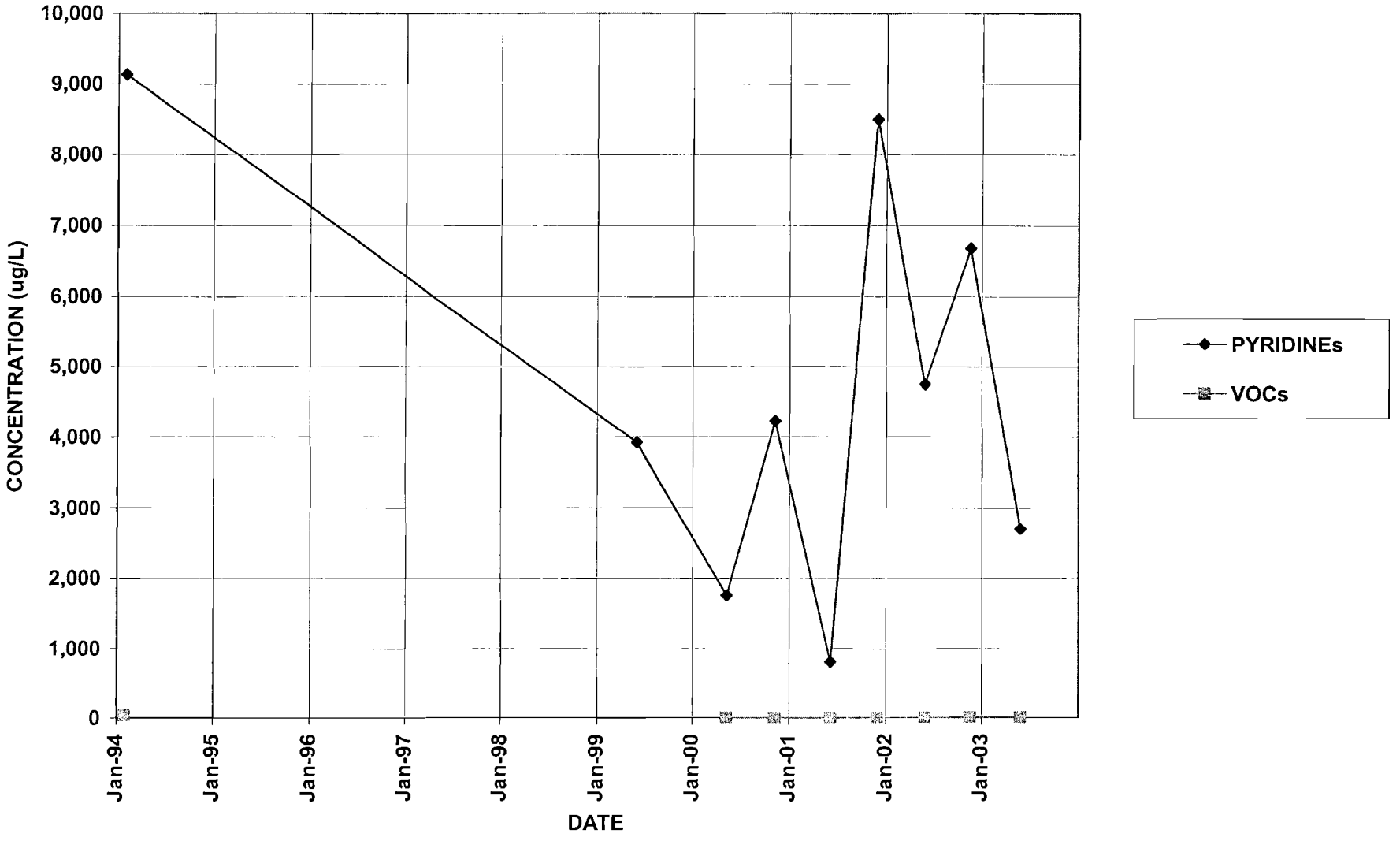
Prepared by: nmb
Reviewed by: jrb

PZ-103



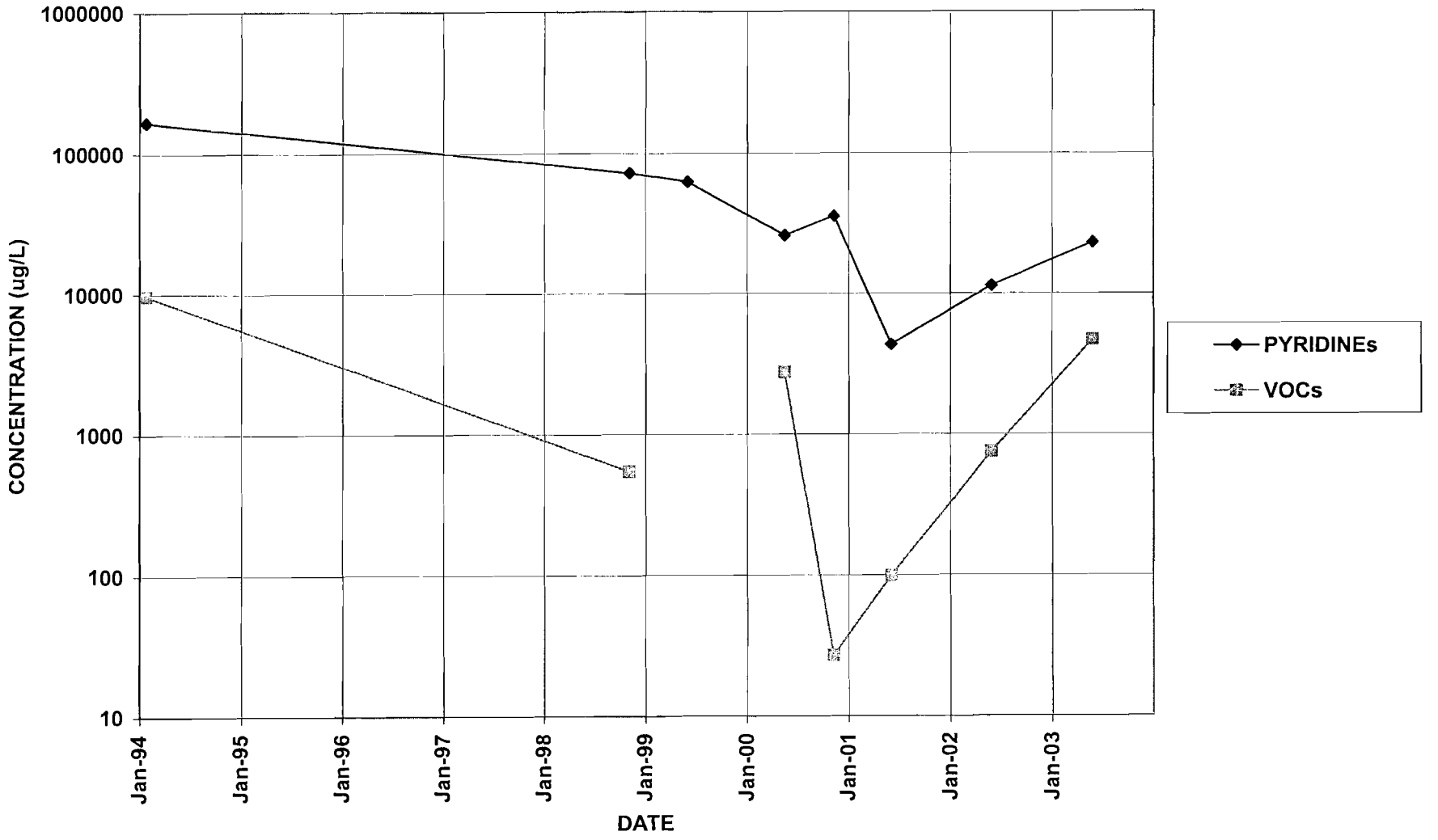
Prepared by: nmb
Reviewed by: jrb

PZ-104



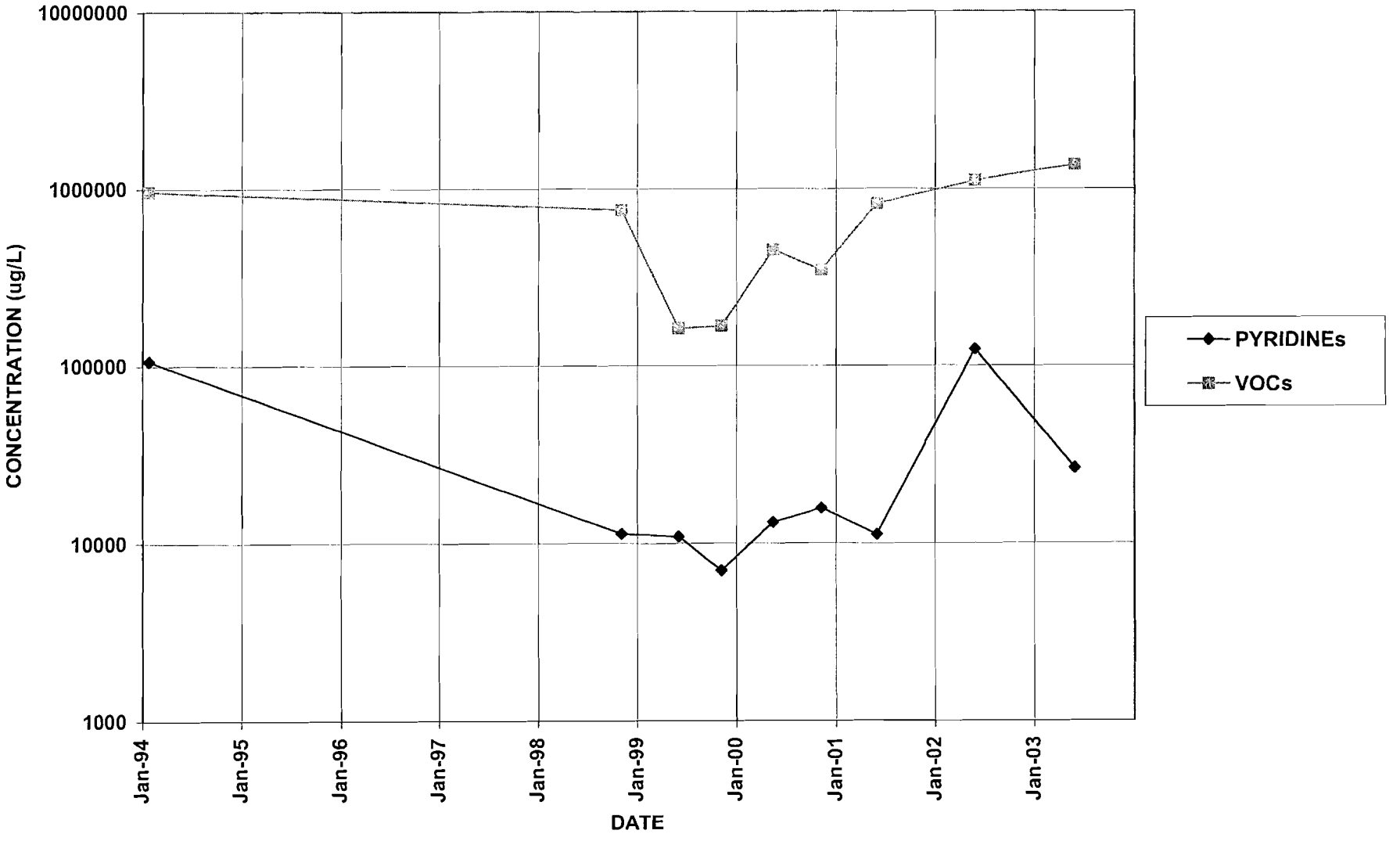
Prepared by: nmb
Reviewed by: jrb

PZ-105



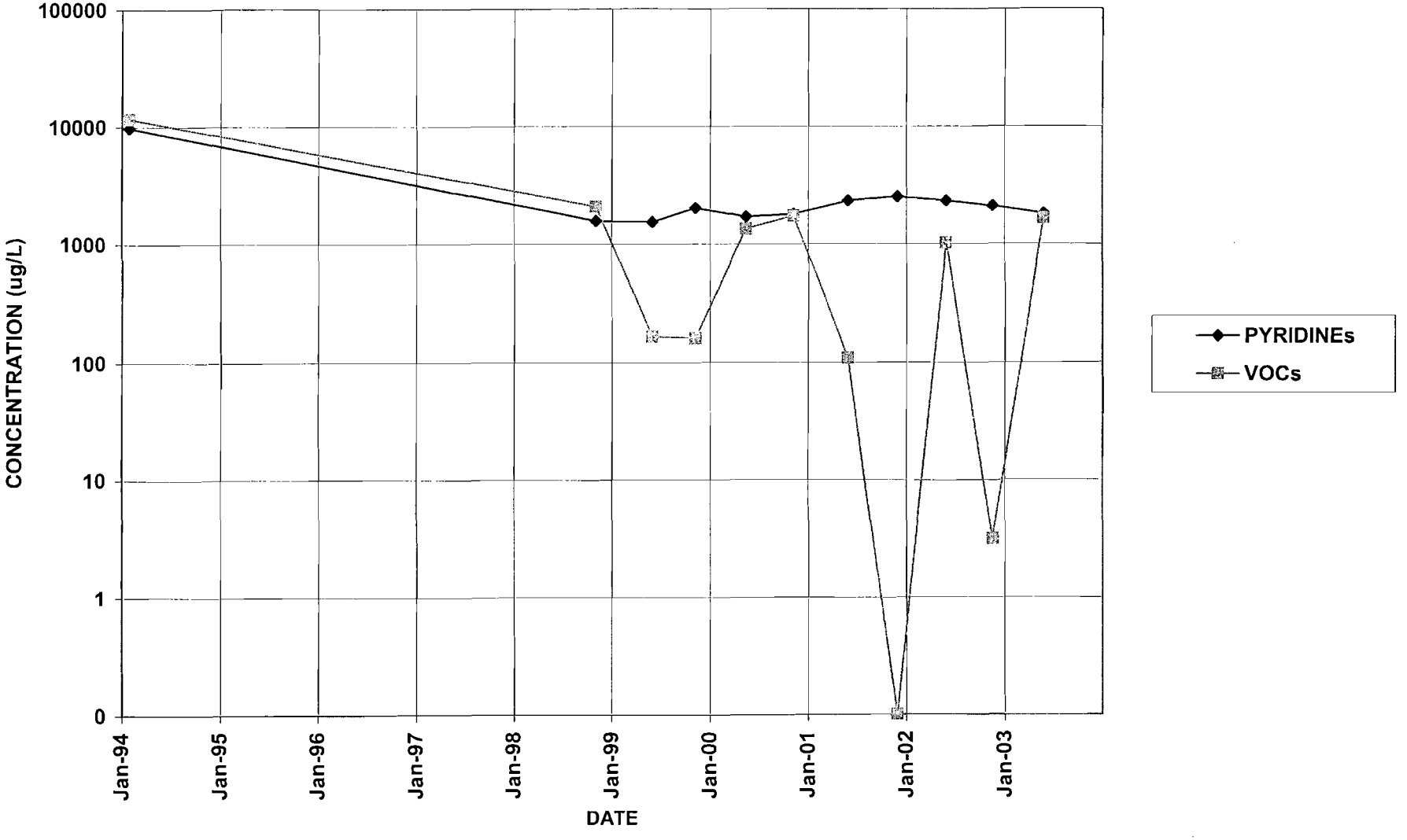
Prepared by: nmb
Reviewed by: jrb

PZ-106



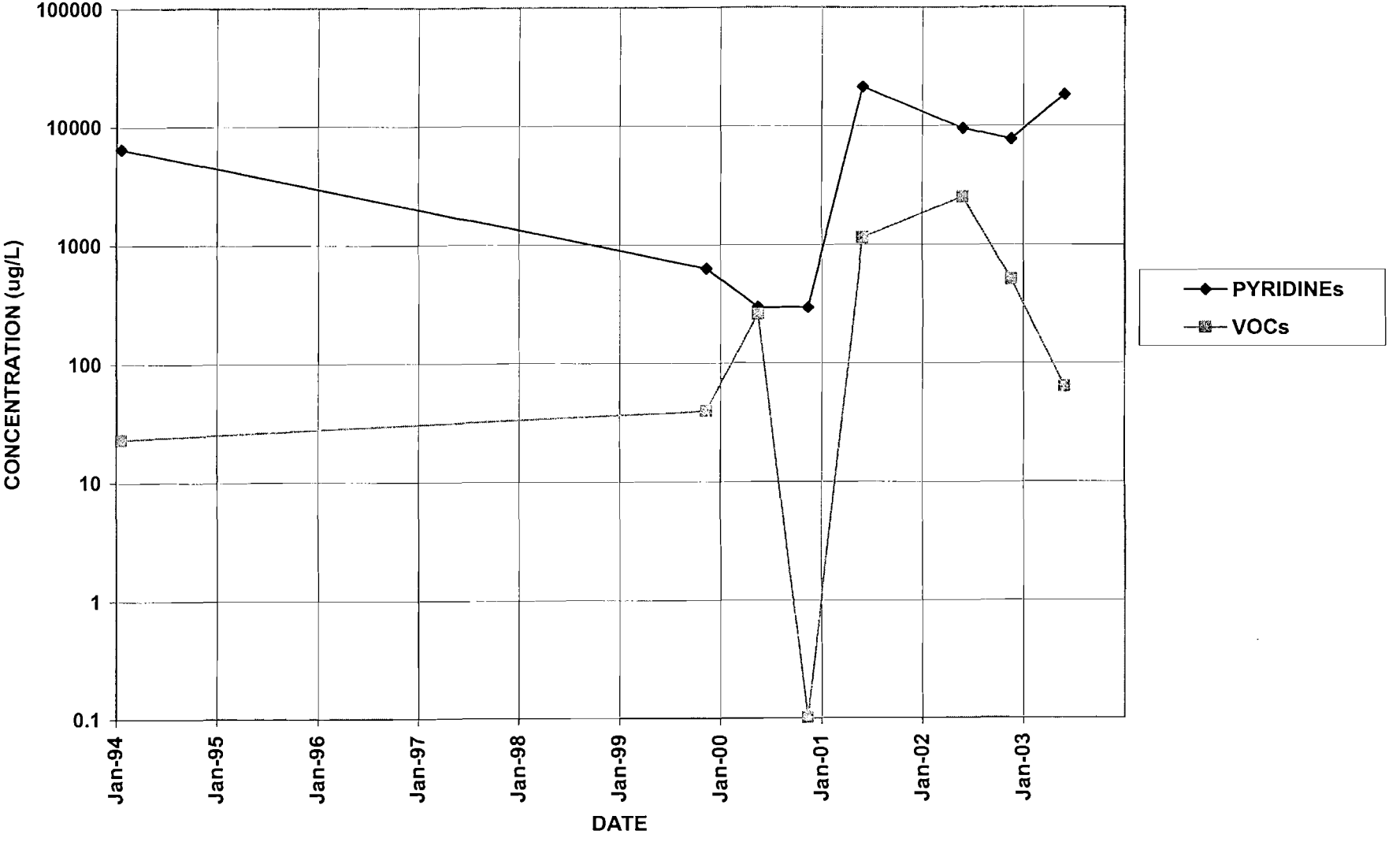
Prepared by: nmb
Reviewed by: jrb

PZ-107



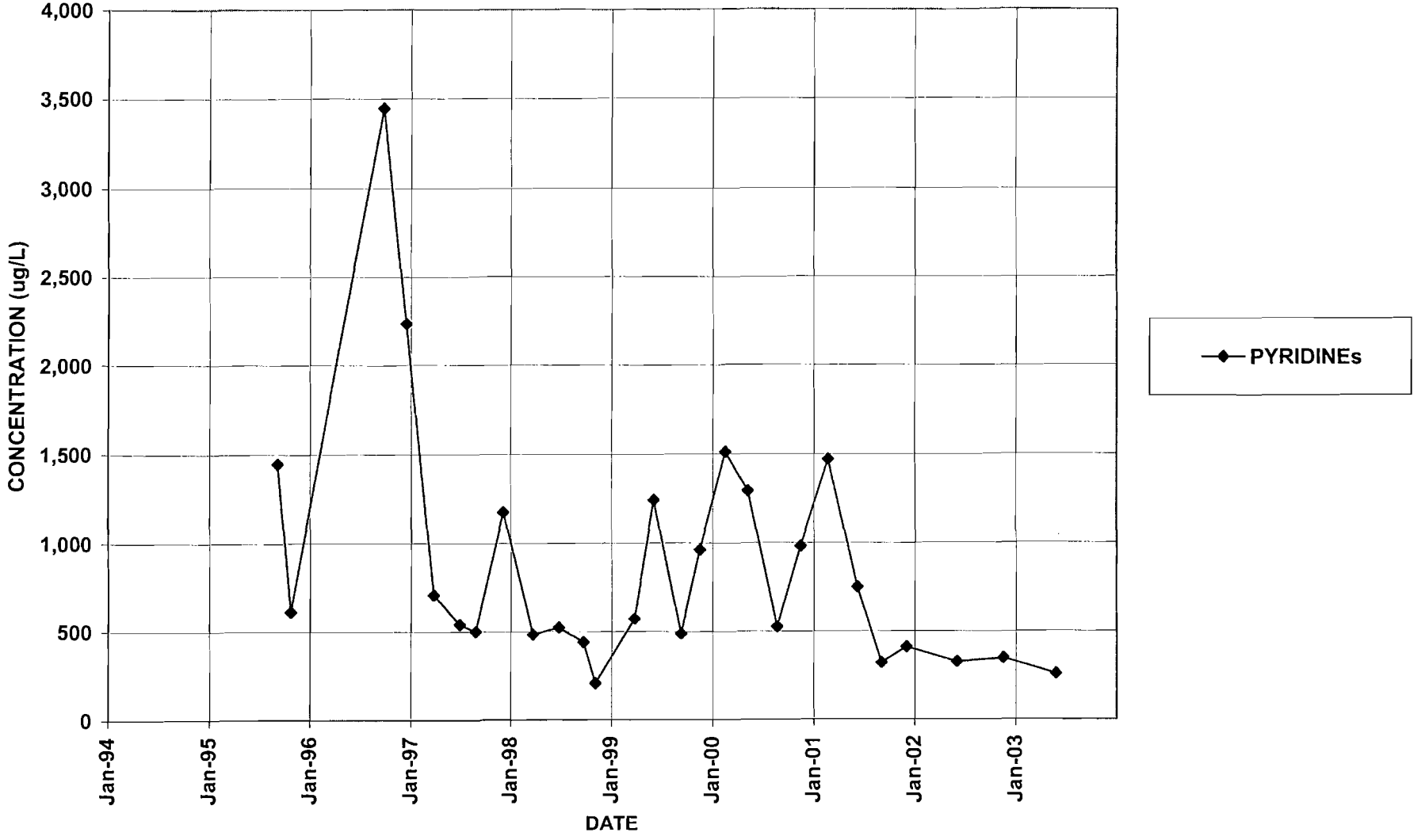
Prepared by: nmb
Reviewed by: jrb

S-3



Prepared by: nmb
Reviewed by: jrb

QS-4 (QUARRY SEEP)



Prepared by: nmb
Reviewed by: jrb

Appendix C

Re-sampling of Wells
PW-11, PZ-103, and BR-106
2/17/03

APPENDIX C

RE-SAMPLING OF WELLS PW-11, PZ-103, AND BR-106
FEBRUARY 17, 2003

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-106		PW11		PZ-103	
SAMPLE DATE:	02/17/03		02/17/03		02/17/03	
QC TYPE:	N		N		N	
VOLATILE ORGANIC COMPOUNDS BY SW-846 Method 8260/5ML (µg/L)						
1,1,1-Trichloroethane	50	U	10	U	1000	U
1,1,2,2-Tetrachloroethane	50	U	10	U	1000	U
1,1,2-Trichloroethane	50	U	10	U	1000	U
1,1-Dichloroethane	50	U	4	J	1000	U
1,1-Dichloroethene	50	U	10	U	1000	U
1,2-Dichloroethane	50	U	10	U	1000	U
1,2-Dichloroethene (total)	50	U	59		1000	U
1,2-Dichloropropane	50	U	10	U	1000	U
2-Butanone	100	U	20	U	2000	U
2-Hexanone	100	U	20	U	2000	U
4-Methyl-2-pentanone	100	U	20	U	2000	U
Acetone	250	U	50	U	5000	U
Benzene	53		28		1000	U
Bromodichloromethane	50	U	8.3	J	1000	U
Bromoform	50	U	10	U	1000	U
Bromomethane	100	U	20	U	2000	U
Carbon disulfide	50	U	15		1000	U
Carbon tetrachloride	50	U	10	U	1000	U
Chlorobenzene	350		200		1600	
Chloroethane	100	U	20	U	2000	U
Chloroform	2400		28000		35000	
Chloromethane	100	U	20	U	2000	U
cis-1,3-Dichloropropene	50	U	10	U	1000	U
Dibromochloromethane	50	U	10	U	1000	U
Ethylbenzene	50	U	10	U	1000	U
Methylene chloride	750		280		9300	
Styrene	50	U	10	U	1000	U
Tetrachloroethene	50	U	10	U	1000	U
Toluene	20	J	11		1000	U
Total Xylenes	150	U	30	U	3000	U
trans-1,3-Dichloropropene	50	U	10	U	1000	U
Trichloroethene	50	U	2.8	J	1000	U
Vinyl acetate	100	U	20	U	2000	U
Vinyl chloride	50	U	50		1000	U

Notes:
U = Compound not detected; value represents sample quantitation limit.
J = Estimated value.
QC TYPE: N = Field sample; D = Field duplicate.