Arch Chemicals, Inc.
P. O. Box 800
1200 Lower River Road
Charleston, TN 37310
Tel (423) 780-2724

February 17, 2005

Mr. James H. Craft
New York State
Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, NY 14414

Re: Arch Rochester Fall 2004 Groundwater Monitoring Report
Arch Chemicals (Site #628018a) 100 McKee Rd., Rochester, NY

Dear Mr. Craft:

The enclosed report presents the results of an on-going groundwater and surface water monitoring program being conducted by Arch Chemicals, Inc., at its Rochester, New York, manufacturing facility. Results in this report include surface and groundwater samples collected from November 15 through December 6, 2004.

If you have any questions regarding this submittal, please call me at (423) 780-2175.

Sincerely,

Gayle M. Taylor /jeb

Gayle M. Taylor
Manager, Environmental Issues
Arch Chemicals, Inc.

encl.

cc (w/encl): Bart Putzig, NYSDEC
Renee Gelblat, USEPA Region II
Ron Skipp, Arch Chemicals, Inc.
Jeffrey Brandow, MACTEC Engineering & Consulting, P.C.

SURFACE WATER AND GROUNDWATER MONITORING PROGRAM
FALL 2004 MONITORING REPORT

ARCH CHEMICALS
ROCHESTER PLANT SITE
ROCHESTER, NEW YORK

ARCH CHEMICALS, INC.
CHARLESTON, TENNESSEE

February 2005

SURFACE WATER AND GROUNDWATER MONITORING PROGRAM
FALL 2004 MONITORING REPORT

ARCH CHEMICALS
ROCHESTER PLANT SITE
ROCHESTER, NEW YORK

Prepared by

MACTEC Engineering & Consulting, P.C.
Portland, Maine

for

ARCH CHEMICALS, INC.
Charleston, Tennessee

February 2005

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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 November 15 to December 6, 2004.

During this monitoring event, samples from a total of 23 groundwater monitoring or pumping wells and ten locations associated with the Dolomite Products Quarry seep and outfall (including two canal samples) were collected and analyzed by Severn Trent Laboratories in Amherst, New York.

As in prior reports, monitoring results were compared with previous average concentrations at each sampling location. Out of the 26 regular monitoring locations sampled for chloropyridines, three had contaminant concentrations exceeding their respective 5-year prior averages. For the 25 routine monitoring locations sampled for volatile organic compounds, only one had a concentration exceeding the 5-year prior average. Contaminant contour plots are generally consistent with past observations.

Regular sampling locations associated with the quarry included the main quarry seep (QS-4), the quarry discharge as it enters the Erie Barge Canal (QO-2), and the surface water in the canal approximately 100-feet downstream of the quarry discharge (QO-2S1). Along with these routine quarry sampling locations, seven additional samples were collected for chloropyridine and VOC analysis. These seven samples were added at the request of the NYSDEC to confirm that potential exposures to site-related contaminants are below levels of regulatory concern, and included:

- Three additional seep samples;
- One sample from the runoff collection pond inside the quarry;
- One sample of the discharge of the quarry dewatering system as it enters the surface ditch at the rim of the quarry;
- One sample from the surface ditch approximately mid-way from the quarry to the Barge Canal; and
- One upstream sample of the Barge Canal at the Buffalo Road bridge.

The sample from quarry seep QS-4 remained below its historical average. The additional quarry seep samples were all at lower concentrations than QS-4, which is consistent with data collected during the Remedial Investigation program. The seep sample from the southern wall of the quarry had no detectable chloropyridines.

The quarry pond sample contained an estimated 4 parts per billion of chloropyridines. The ditch samples contained no detectable levels of chloropyridines. Canal samples QO-2S1 and SW-2 were also non-detect for chloropyridines. No VOCs were detected in any of the quarry-related samples.

During the period June 1 through November 29, 2004, the on-site groundwater extraction system pumped approximately 6.4 million gallons of groundwater to the on-site treatment system, containing an estimated 506 pounds of chloropyridines and 78

pounds of target volatile organic compounds. During the period, pump and/or meter repairs were required in wells BR-5A, PW-10 and PW-11.

All accessible on-site monitoring wells were checked for the presence of dense non-aqueous phase liquids (DNAPL), using an interface probe. No DNAPL was observed in any of these wells. As has been reported previously to the NYSDEC, a small quantity of floating product was observed in newly-installed PW-13. A GC fingerprint on a sample of this material indicated it is a weathered No. 2 fuel oil. Arch Chemicals has no underground sources of No. 2 fuel oil at the Rochester plant, and knows of no spills in the area. Arch believes the fuel oil is likely from an off-site source.

Additional issues related to the remedial action program at the Arch Rochester Plant Site are now discussed in the monthly progress reports, which commenced in February 2005.

1.0 INTRODUCTION

In accordance with the Order on Consent executed between Arch Chemicals, Inc., and the New York State Department of Environmental Conservation (NYSDEC), effective August 21, 2003, Arch is conducting a Remedial Action program at its facility on McKee Road in Rochester, New York. As part of this program, Arch conducts twice-yearly monitoring events consisting of sampling and chemical analysis of groundwater and surface water in the vicinity of the Rochester facility.

The Fall 2004 sampling event included the collection and analysis of a total of 33 groundwater, surface water, and seep samples from off-site and on-site locations. This included seven additional samples associated with the Dolomite Products Quarry that are not part of the regular monitoring program. These samples were added at the request of the NYSDEC to confirm that potential exposures to site-related contaminants at the quarry are below levels of regulatory concern. Samples were collected from November 15 through December 6, 2004, for analysis of selected chloropyridines and volatile organic compounds (VOCs).

This report presents the results of the Fall 2004 monitoring event.

2.0 SAMPLE COLLECTION AND ANALYSIS

2.1 GROUNDWATER

Groundwater samples were collected from off-site wells, on-site wells and piezometers for analysis of selected chloropyridines (2-chloropyridine, 2,6-dichloropyridine, 3-chloropyridine, 4-chloropyridine, pyridine, and p-fluoroaniline) and target compound list (TCL) VOCs. Samples were collected by Severn Trent Laboratories and transported to their laboratory in Amherst, New York for analysis. Table 1 lists the wells that were sampled and the requested analyses. The off-site and on-site locations of these sampling points are shown in Figures 1 and 2, respectively. 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-7A, BR-9, PW10, PW11, and PW12) were collected from the discharge lines. Because pumping well BR-6A was not operating at the time of the sampling event, it was sampled using a stainless steel bailer.

Groundwater piezometric elevations were measured on November 10, 2004. Piezometric contour maps were constructed for each water-bearing zone (overburden, bedrock, and deep bedrock) and are presented in Figures 3, 4, and 5.

All accessible on-site monitoring wells were checked for the presence of dense non-aqueous phase liquids (DNAPL), using a product interface probe. No DNAPL was detected in any of the wells; however, as has been reported previously to the NYSDEC, a small quantity of floating product was observed in newly-installed PW-13. A GC fingerprint on a sample of this material indicated it is a weathered No. 2 fuel oil. Arch Chemicals has

no underground sources of No. 2 fuel oil at the Rochester plant, and knows of no spills in the area. Arch believes the fuel oil is likely from an off-site source.

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. During this sampling event, the quarry sampling program was expanded to include seven additional samples at the request of the NYSDEC. The location of the quarry and its outfall in relation to the site is shown on Figure 6. Samples of the quarry seeps, runoff collection pond, the surface ditch that receives the quarry discharge, and the Barge Canal were collected by Severn Trent Laboratories on November 30, 2004. Samples were analyzed for selected chloropyridines and TCL VOCs. The quarry locations sampled during this event are listed below and are shown on Figure 7.

Quarry Seeps	Runoff Pond	Surface Ditch	Canal
QS-2 (east wall)	QP-1	QD-1 (quarry rim)	QO-2S1 (100' so. of QO-2)
QS-3 (east wall)		QD-2 (mid point)	SW-2 (Buffalo Road bridge)
QS-4 (east wall)		QO-2 (discharge to canal)	
QS-5 (south wall)			

2.3 ANALYTICAL PROCEDURES

The analytical procedures, data review findings, and validated data for this groundwater and surface water 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 U.S. Environmental Protection Agency Contract Laboratory Program (USEPA CLP), "National Functional Guidelines For Organic Data Review", October, 1999, as modified by USEPA Region II, "SOP No. HW-6 Revision XII", March 2001. Analytical results were evaluated for the following parameters:

* Collection and Preservation
* Holding Times
* Surrogate Recoveries
  Blank Contamination
* Duplicates
* Laboratory Control Samples
* Matrix Spike/Matrix Spike Duplicates

* - *all criteria were met for this parameter*

With the exception of the following items discussed below, the data quality is considered to be very good and is deemed usable as reported by the laboratory.

Blank Contamination. Trichloroethene was observed below the reporting limit (1.2 J ug/L) in one of the five VOC method blanks. An action level was established at five times the concentration reported in the blank. Sample results affected include BR-9 and BR-105: results were qualified as non-detect (U) at the reporting level.

3.0 ANALYTICAL RESULTS

3.1 GROUNDWATER

The validated results from the Fall 2004 groundwater monitoring event are provided in Tables 2 and 3. Table 4 provides a comparison of the Fall 2004 analytical results for selected chloropyridines and VOCs in representative wells to mean concentrations of the prior five years (Fall 1999 through Spring 2004). 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 all fourteen on-site wells sampled in the Fall 2004 event. Concentrations of chloropyridines ranged from 55 micrograms per liter (µg/L) (sum of all chloropyridine and pyridine isomer concentrations) in monitoring well S-4 to 171,400 µg/L in pumping well PW-10. Three on-site wells had selected chloropyridines concentrations above their respective means from monitoring events over the previous five years (see Table 4).

Off-Site. Chloropyridines were detected above sample quantitation limits in all nine off-site wells that were sampled. Concentrations of total selected chloropyridines ranged from 179 µg/L to 9,000 µg/L. None of the off-site wells contained total chloropyridines concentrations above their respective 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. Contours are approximated (shown as dashed lines) where they are based on data from previous sampling rounds.

3.1.2 Selected VOCs.

On-Site. Selected VOCs were detected in eleven of the fourteen on-site wells sampled in the Fall 2004 event. Concentrations of VOCs ranged from non-detect to 14,560 µg/L for the sum of the principal site-related contaminants (carbon tetrachloride, chloroform, methylene chloride, tetrachloroethene, and trichloroethene). None of the fourteen on-site wells had VOC concentrations greater than their 5-year prior means. In addition to the selected VOCs, other notable constituents detected in on-site wells include chlorobenzene (in 11 out of 14 wells), 1,2-dichloroethene (10 of 14), benzene (9 of 14), toluene (9 of 14),

carbon disulfide (6 of 14), vinyl chloride (6 of 14), 1,1-dichloroethane (4 of 14), ethylbenzene (3 of 14), and bromoform (3 of 14).

Off-Site. Selected VOCs were detected in two of the eight off-site wells sampled for VOCs in the Fall 2004 event. Total concentrations of selected VOCs ranged from non-detect to 14.5 ug/L. One off-site well (BR-105) had selected VOC concentrations above its prior 5-year mean. In addition to the selected VOCs, other notable constituents detected in off-site wells include benzene (in 8 out of 8 wells), chlorobenzene (7 of 8), toluene (3 of 8), 1,1-dichloroethane (2 of 8), 1,2-dichloroethene (2 of 8), carbon disulfide (2 of 8), and vinyl chloride (2 of 8).

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, and are dashed where approximated using data from previous sampling rounds.

3.2 SURFACE WATER

Results from the Fall 2004 canal and quarry monitoring event are presented in Table 5. Several additional samples were collected during this event at the request of the NYSDEC to confirm that potential exposures at the quarry and Barge Canal are below levels of regulatory concern.

3.2.1 Quarry

For samples collected from the Dolomite products quarry seeps (QS-2 through QS-5) and runoff collection pond (QP-1), the chloropyridine analyses yielded the following results:

PARAMETER[1]	QS-2	QS-3	QS-4	QS-5	QP-1
pyridine	ND	ND	ND	ND	ND
2,6-Dichloropyridine	5J	22	34	ND	ND
2-Chloropyridine	5J	68	100	ND	4J
3-Chloropyridine	ND	ND	ND	ND	ND
p-Fluoroanaline	ND	ND	ND	ND	ND

Notes:
[1] = Concentrations reported in micrograms per liter (µg/L)
J = estimated value, below reporting limit

These chloropyridine concentrations are below historical averages.

No VOCs were detected in any of the quarry samples.

3.2.2 Quarry Discharge Ditch

Three samples were collected from the quarry discharge ditch. Sample QD-1 was collected from the ditch at the location of the discharge pipe from the quarry, near the quarry rim. Sample QO-2 is the regular sampling location at the point where the ditch discharges to the canal. Sample QD-2 was collected approximately midway between QD-1 and QO-2. No chloropyridines or VOCs were detected in any of the ditch samples.

3.2.3 Barge Canal

No chloropyridines or VOCs were detected in either of the surface water samples collected from the Erie Barge Canal (QO-2S1, located approximately 100 feet downstream of QO-2, and SW-2, located at the Buffalo Road bridge).

4.0 EXTRACTION SYSTEM PERFORMANCE AND MAINTENANCE

Table 6 is a summary of the system flow measurements for the seven extraction wells from June 2004 through November 2004. The total volume pumped during the six-month period is approximately 6.4 million gallons.

Pumping wells PW-10 and BR-7A were physically and chemically cleaned in November 2004. All extraction wells are currently pumping at their expected rates except for well BR-6A, which is performing poorly and has not responded to rehabilitation efforts. A replacement for well BR-6A is scheduled for installation in March 2005. A previous attempt to install this new extraction well (to be called PW-14) failed when the surface of the bedrock proved to be too heavily fractured to allow for construction of an open corehole well as designed. This well will now be re-installed with a well screen and filter pack. Both PW-14 and new extraction well PW-13, located along McKee Road between PW-11 and BR-7A, are expected to be activated in March 2005.

During the period, pump and/or meter repairs were required in wells BR-5A, PW-10 and PW-11.

Table 7 provides a calculation of mass removal rates since the previous groundwater monitoring event (i.e., from June 2004 through November 2004). Arch estimates that approximately 78 pounds of target VOCs and 506 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

For other issues related to the remedial action program at the Arch Rochester Plant Site, please see the monthly progress reports, which commenced in February 2005.

6.0 NEXT MONITORING EVENT

Arch has proposed collecting a round of samples from the quarry seeps and the quarry's discharge to the surface ditch (sample QD-1) in late winter of 2005. This sampling is tentatively scheduled to take place in March 2005.

The next regular monitoring event will occur in May 2005 and will include groundwater, surface water, and seep sampling.

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

Figures

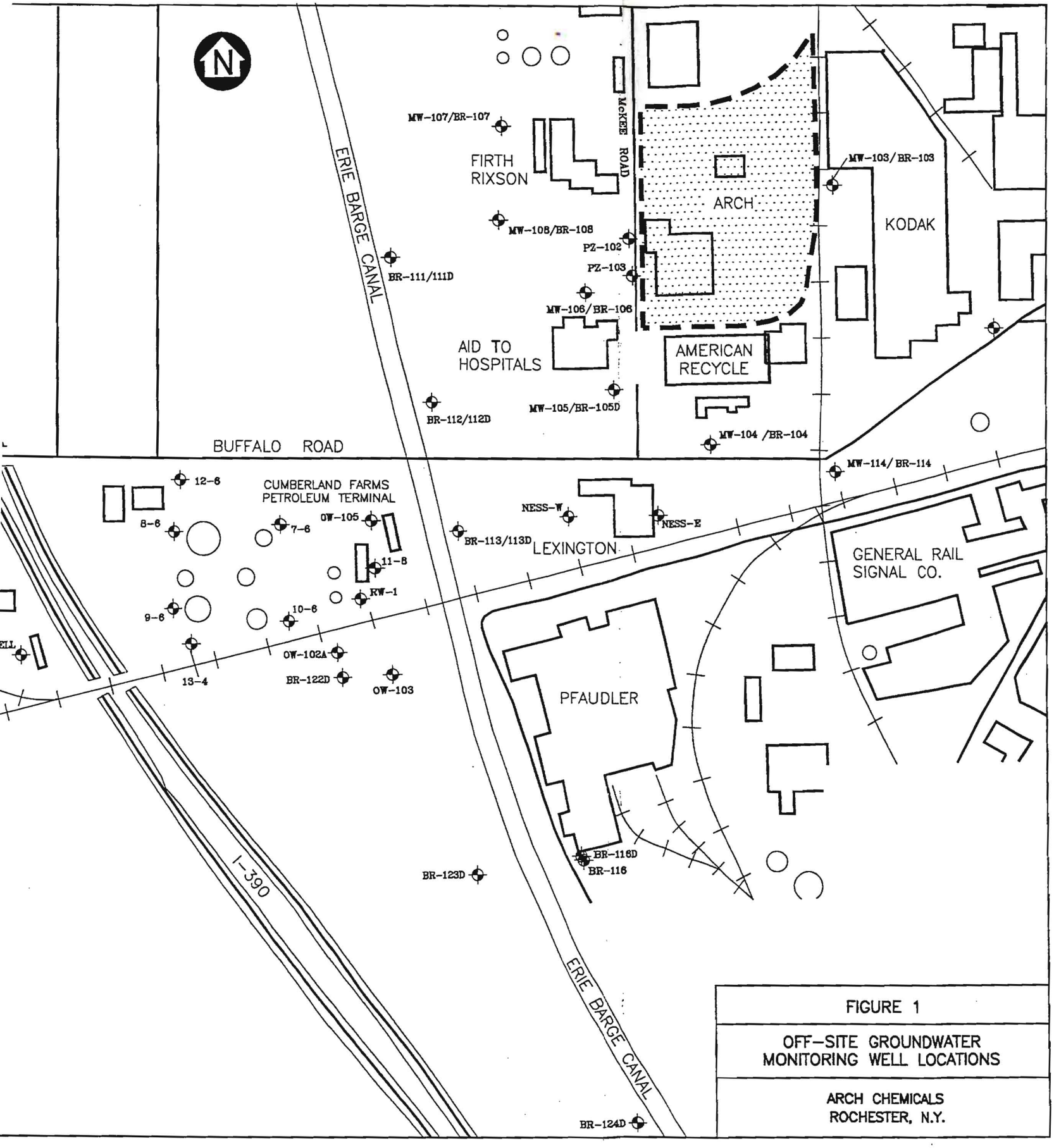
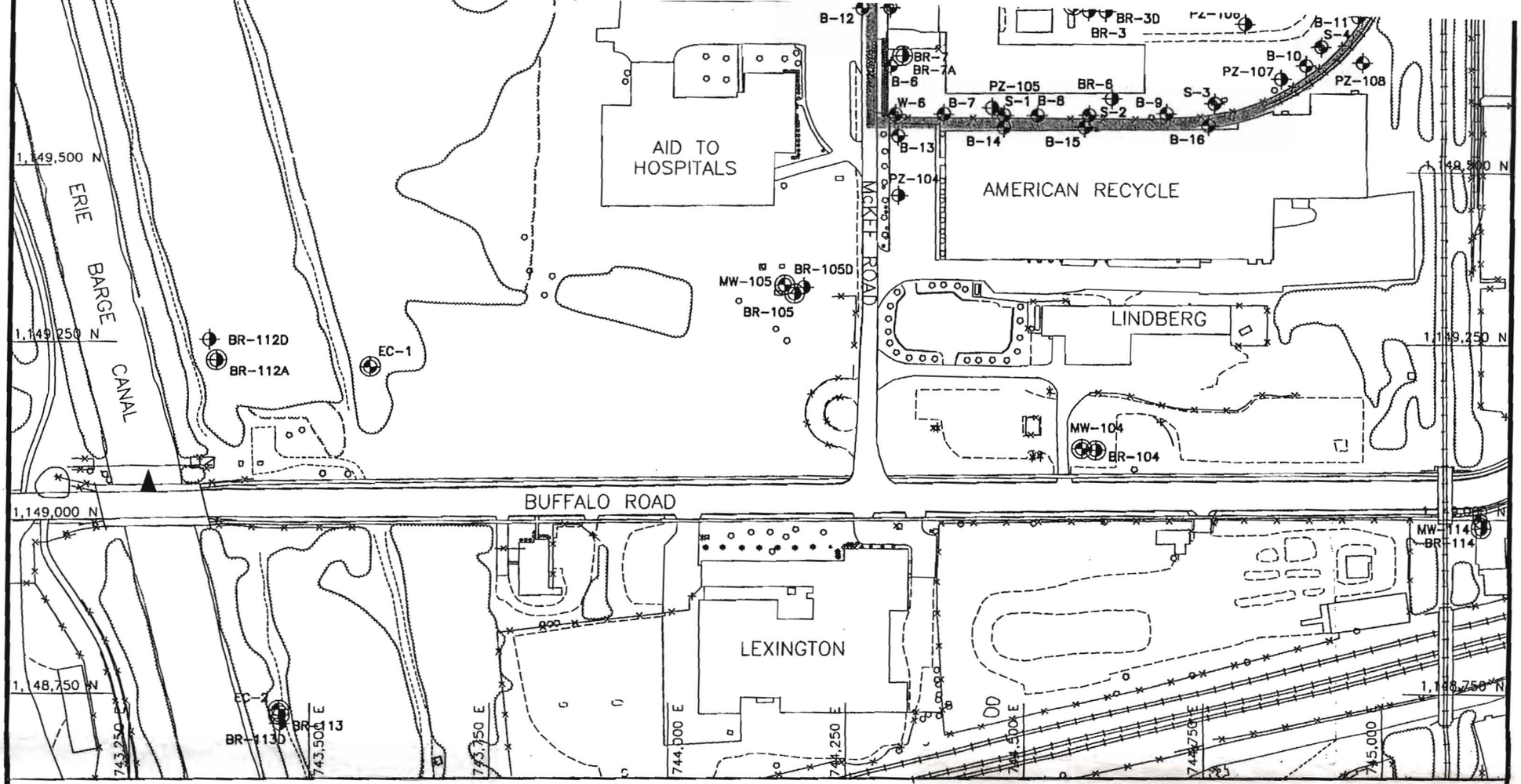


FIGURE 1

OFF–SITE GROUNDWATER MONITORING WELL LOCATIONS

ARCH CHEMICALS
ROCHESTER, N.Y.



LEGEND

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

0 100 200 400 FEET

SCALE: 1"=200'

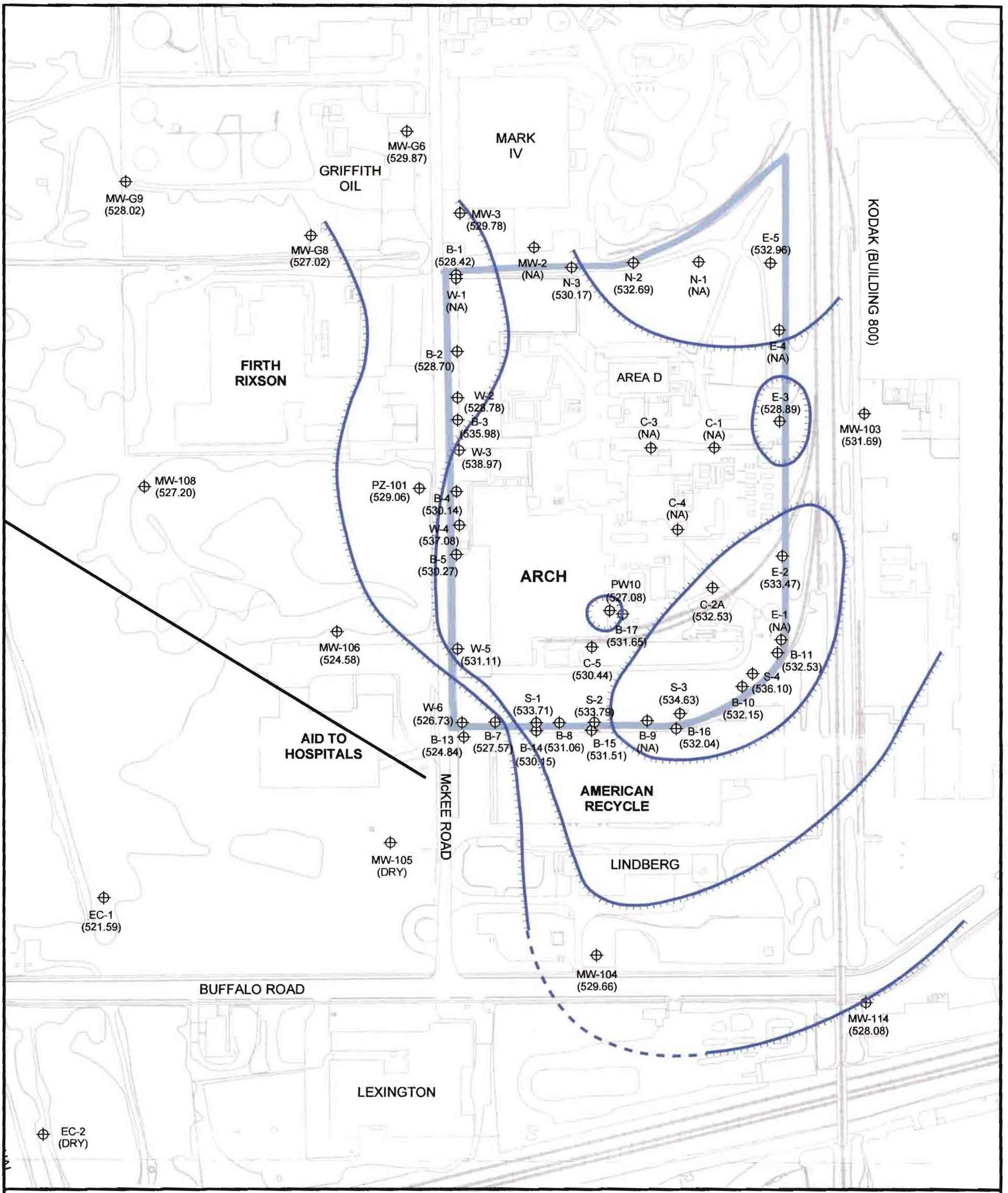
NOTE:

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

FIGURE 2

ON-SITE MONITORING WELL LOCATIONS

ARCH CHEMICALS
ROCHESTER, N.Y.



Legend

- Outline of Arch Property Boundary
- Interpreted Groundwater Flow Direction
- **528** — Overburden Piezometric Elevation Contour (MSL)
- MW-114 (528.08) — Piezometric Elevation at Well or Piezometer

NOTES:

1. Water Levels Measured on November 10, 2004
2. NA = Not Available
3. Dashed Contours Reflect Uncertainty
4. (<517.90) Reflects Bottom of Well Elevation, Well Observed Dry

0 100 200 400 Feet

N

Prepared by BRP | Checked by NMB

Figure 3
Fall 2004
Overburden Groundwater
Interpreted Piezometric Contours

Arch Chemicals
Rochester, NY
MACTEC, Inc.

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Legend

- Outline of Arch Property Boundary
- 501 — Deep Bedrock Elevation Contour (MSL)
- ⊕ Bedrock Well ('D' Designates Deep Well)
- ← Interpreted Groundwater Flow Direction
- BR-116D (509.47) Piezometric Elevation at Deep Bedrock Well

NOTES
1. Water Levels Measured on November 10, 2004
2. Dashed Contours Reflect Uncertainty

N

0 250 500 1,000 Feet

Prepared by BRP | Checked by NMB

ERIE BARGE CANAL
I-390
KODAK
ARCH
BR-9
BR-103
BR-111D (511.15)
BR-111
BR-108
BR-2D (NA)
BR-3D (472.69)
AID TO HOSPITALS
BR-106
AMERICAN RECYCLE
BR-112D (511.40)
BR-112
BR-105
BR-105D (511.24)
BR-104
BR-114
BUFFALO ROAD
CUMBERLAND FARMS PETROLEUM TERMINAL
BR-113
BR-113D (511.45)
LEXINGTON
GENERAL RAIL SIGNAL CO.
DOLOMITE PRODUCTS QUARRY
PFAULDER
BR-122D (507.69)
BR-117D (498.33)
BR-117
BR-118
BR-118D (499.78)
BR-121D (500.86)
BR-120D (500.69)
BR-119D (499.93)
BR-116D (509.47)
BR-116
BR-123D (508.40)
BR-124D (505.54)
LETTINGTON DRIVE
499
501
503
505
507
509
511

Figure 5
Fall 2004
Deep Bedrock Groundwater
Interpreted Piezometric Contours

Arch Chemicals
Rochester, NY
MACTEC, Inc.

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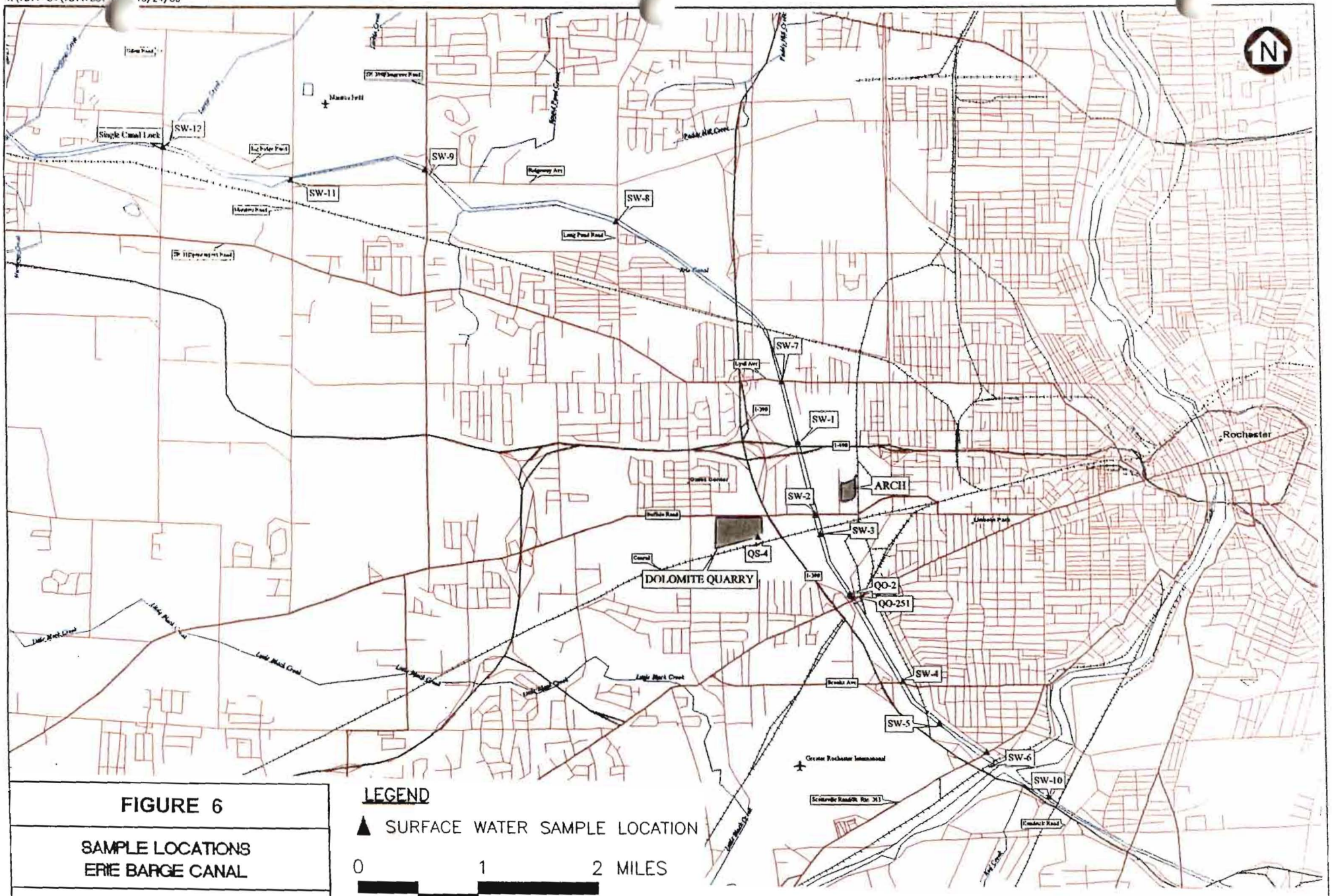


FIGURE 6

SAMPLE LOCATIONS
ERIE BARGE CANAL

ARCH CHEMICALS
ROCHESTER, N.Y.

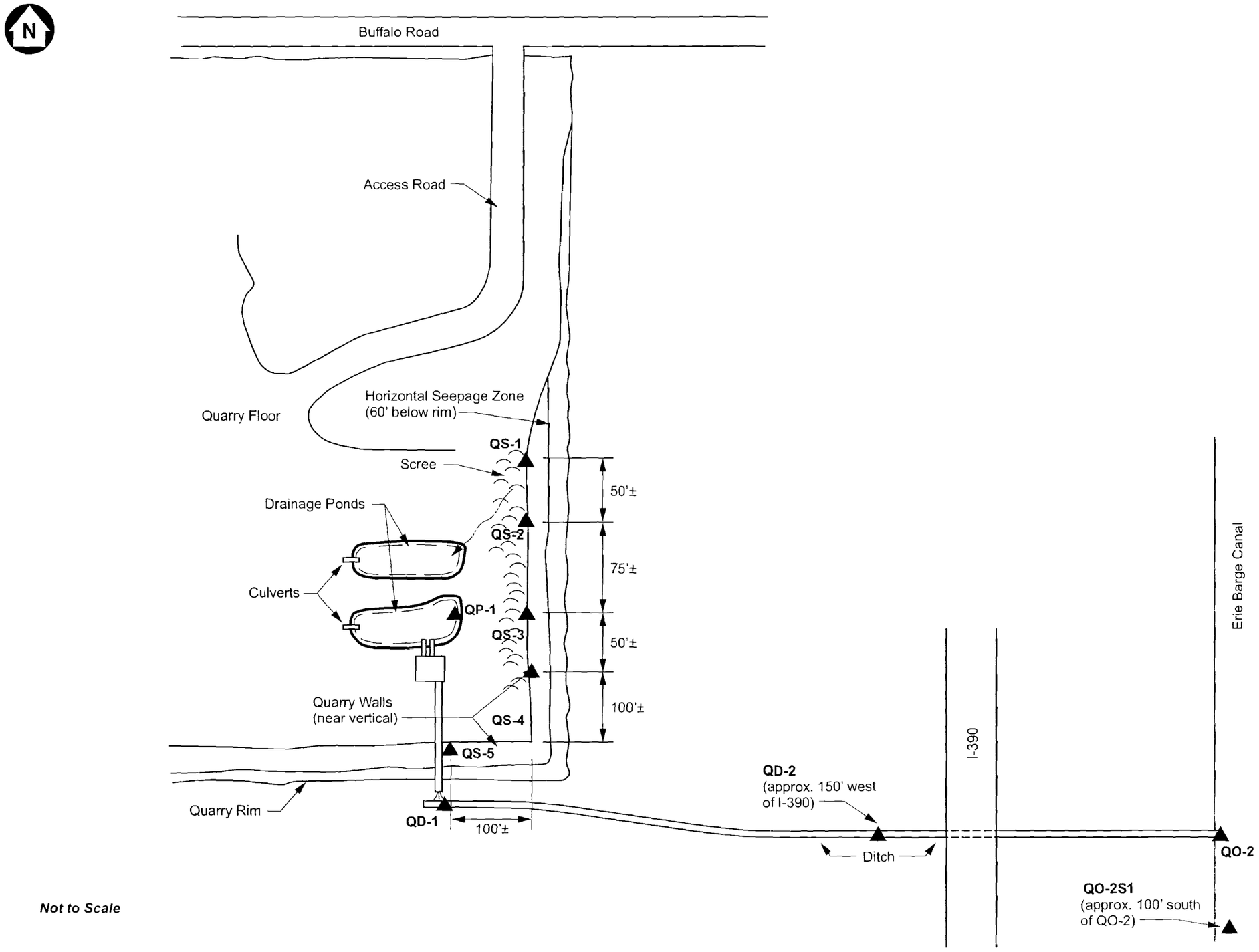
LEGEND

▲ SURFACE WATER SAMPLE LOCATION

0 1 2 MILES

APPROXIMATE SCALE

SOURCE: DeLorme Mapping 1995



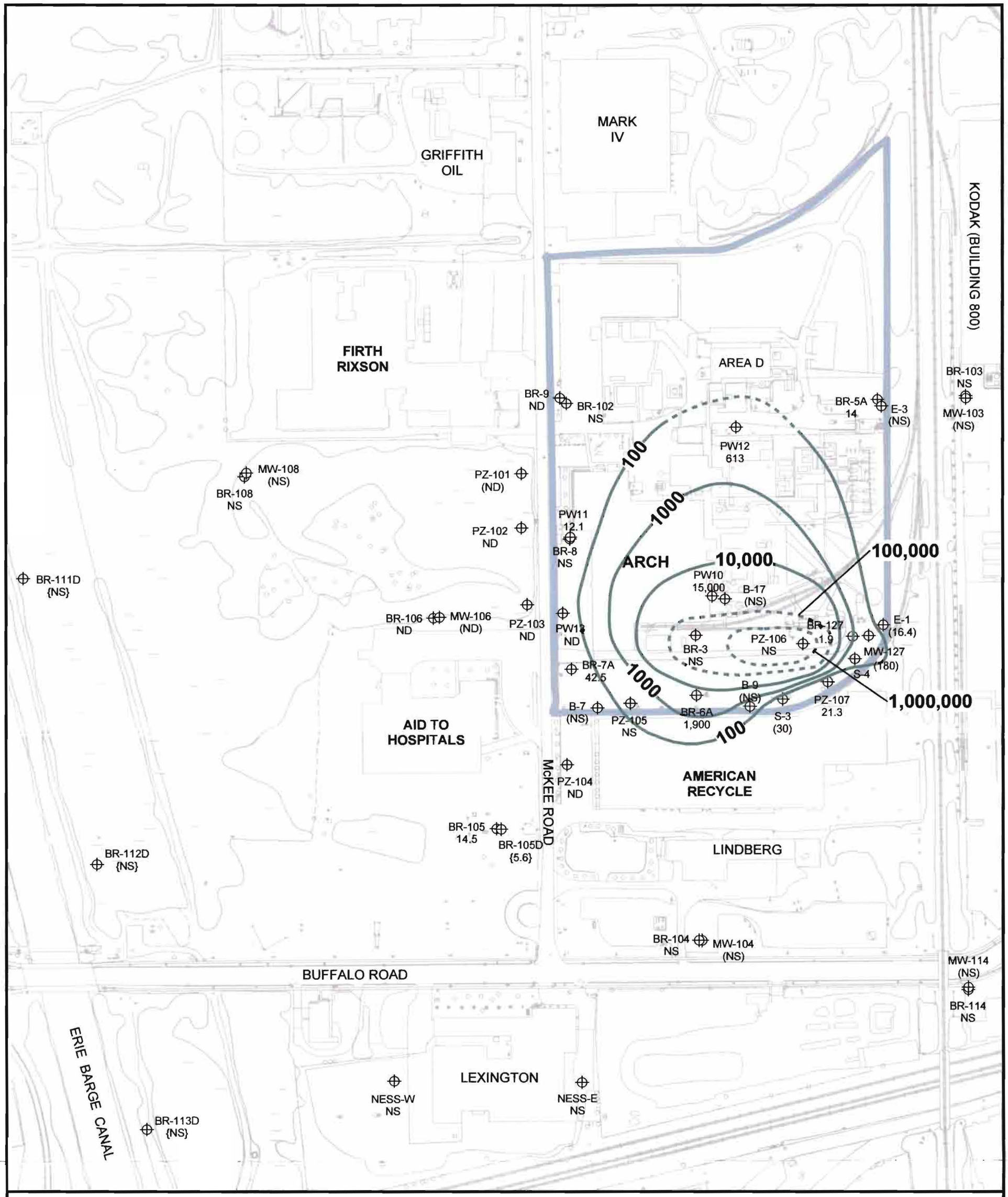
Not to Scale

FIGURE 7

SAMPLE LOCATIONS
DOLOMITE PRODUCTS
QUARRY

ARCH CHEMICALS
ROCHESTER, NEW YORK

W2004030a.cdr



Legend

- Outline of Arch Property Boundary
- 100 — VOC Concentration Contour
- BR-113D {NS} — Monitoring Location with Concentration

{1000}	Deep Bedrock Well
(1000)	Overburden Well
1000	Bedrock Well
NS	Not Sampled
ND	Not Detected

0 100 200 Feet

N

Prepared by BRP | Checked by NMB

NOTES:

1. Samples Collected in November and December, 2004
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.

Figure 9
Fall 2004
Selected Volatile Organic Compound Concentration Contours

Arch Chemicals
Rochester, NY
MACTEC, Inc.

Document: P:\Projects\Arch\Rochester\GIS\MapDocuments\Arch_VOCs_Fig9.mxd PDF: P:\Projects\Arch\Rochester\GIS\Figures\Monitoring_Fall2004\Figure9.pdf 02/14/2005 10:40 AM brpeters

Tables

TABLE 2
FALL 2004 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-105		BR-105D		BR-106		BR-106		BR-127		BR-5A		BR-6A		BR-7A		BR-9		E-1	
SAMPLE DATE:	11/16/04		11/16/04		11/16/04		11/16/04		11/15/04		11/18/04		12/06/04		11/18/04		11/18/04		11/15/04	
QC TYPE:	N		N		D		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
PARAMETER																				
2,6-Dichloropyridine	140		100		1400		1900		440		78		1000		3200		35	J	18000	
2-Chloropyridine	960		1800		5300		7100		940		160		8100		10000		140		43000	
3-Chloropyridine	100	U	100	U	500	U	500	U	98		50	U	1000	U	1000	U	48	U	1800	
4-Chloropyridine	100	U	100	U	500	U	500	U	9	U	50	U	1000	U	1000	U	48	U	1000	U
p-Fluoroaniline	100	U	100	U	500	U	500	U	6	J	50	U	1000	U	1000	U	48	U	1000	U
Pyridine	250	U	250	U	1200	U	1200	U	24	U	120	U	2500	U	2500	U	120	U	2500	U

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

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

TABLE 1
FALL 2004 GROUNDWATER SAMPLING AND ANALYTICAL PROGRAM

ARCH CHEMICALS, INC
ROCHESTER, NEW YORK

			ANALYSIS	PYRIDINES[1]	VOCs[2]
SITE / AREA	WELL / POINT	DATE	QC TYPE		
AID TO HOSPITALS	BR-106	11/16/2004	Duplicate	X	X
	BR-106	11/16/2004	Sample	X	X
	MW-106	11/16/2004	Sample	X	X
	PZ-101	11/17/2004	Sample	X	X
	PZ-102	11/17/2004	Sample	X	X
	PZ-103	11/17/2004	Sample	X	X
AMERICAN RECYCLE MANUF. (58 MCKEE ROAD)	PZ-104	11/17/2004	Sample	X	X
ARCH ROCHESTER	BR-127	11/15/2004	Sample	X	X
	BR-5A	11/18/2004	Sample	X	X
	BR-6A	12/6/2004	Sample	X	X
	BR-7A	11/18/2004	Sample	X	X
	BR-9	11/18/2004	Sample	X	X
	E-1	11/15/2004	Sample	X	X
	MW-127	11/15/2004	Sample	X	X
	PW10	11/18/2004	Sample	X	X
	PW11	11/18/2004	Sample	X	X
	PW12	11/18/2004	Sample	X	X
	PW13	11/16/2004	Sample	X	X
	PZ-107	11/15/2004	Sample	X	X
	S-3	11/15/2004	Sample	X	X
	S-4	11/15/2004	Sample	X	X
DOLOMITE PRODUCTS, INC.	QD-1	11/30/2004	Duplicate	X	X
	QD-1	11/30/2004	Sample	X	X
	QD-2	11/30/2004	Sample	X	X
	QP-1	11/30/2004	Sample	X	X
	QS-2	11/30/2004	Sample	X	X
	QS-3	11/30/2004	Sample	X	X
	QS-4	11/30/2004	Sample	X	X
	QS-5	11/30/2004	Sample	X	X
ERIE BARGE CANAL	QO-2	11/30/2004	Sample	X	X
	QO-2S1	11/30/2004	Sample	X	X
	SW-2	11/30/2004	Sample	X	X
FORMER GENERAL CIRCUITS	MW-16	11/17/2004	Sample	X	
RG & E RIGHT OF WAY	BR-105	11/16/2004	Sample	X	X
	BR-105D	11/16/2004	Sample	X	X

Notes:

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

TABLE 2
FALL 2004 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	MW-106		MW-127		MW-16		PW10		PW11		PW12		PW13		PZ-101		PZ-102		PZ-103	
SAMPLE DATE:	11/16/04		11/15/04		11/17/04		11/18/04		11/18/04		11/18/04		11/16/04		11/17/04		11/17/04		11/17/04	
QC TYPE:	N		N		N		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
PARAMETER																				
2,6-Dichloropyridine	1900		2200		9	J	17000		130	J	420	J	1200		150		220		2300	
2-Chloropyridine	5500		12000		170		150000		560		1400		6000		1000		880		5600	
3-Chloropyridine	500	U	280		19	U	4400	J	250	U	500	U	46		100	U	200	U	500	U
4-Chloropyridine	500	U	24		19	U	10000	U	250	U	500	U	180	J	100	U	200	U	500	U
p-Fluoroaniline	500	U	3	J	19	U	10000	U	250	U	150	J	55		100	U	200	U	500	U
Pyridine	1200	U	36		48	U	25000	U	620	U	1200	U	24	U	250	U	500	U	1200	U

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

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

TABLE 2
FALL 2004 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	PZ-104		PZ-107		S-3		S-4	
SAMPLE DATE:	11/17/04		11/15/04		11/15/04		11/15/04	
QC TYPE:	N		N		N		N	
BY SW-846 Method 8270C (µg/L)								
PARAMETER								
2,6-Dichloropyridine	420		700		1200		40	
2-Chloropyridine	2800		2700		2600		15	
3-Chloropyridine	400	U	150		100	U	9	U
4-Chloropyridine	400	U	100	U	100	U	9	U
p-Fluoroaniline	400	U	100	U	100	U	9	U
Pyridine	1000	U	250	U	250	U	24	U

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

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

FALL 2004 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-105	BR-105D	BR-106	BR-106	BR-127	BR-5A	BR-6A	BR-7A	BR-9	E-1
SAMPLE DATE:	11/16/04	11/16/04	11/16/04	11/16/04	11/15/04	11/18/04	12/06/04	11/18/04	11/18/04	11/15/04
QC TYPE:	N	N	D	N	N	N	N	N	N	N
VOLATILE ORGANIC COMPOUNDS										
BY SW-846 Method 8260/5ML (µg/L)										
1,1,1-Trichloroethane	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
1,1,2,2-Tetrachloroethane	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
1,1,2-Trichloroethane	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
1,1-Dichloroethane	1.2 J	6.3	10 U	10 U	5 U	5 U	25 U	3.4 J	15 J	25 U
1,1-Dichloroethene	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
1,2-Dichloroethane	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
1,2-Dichloroethene (total)	44	8.6 J	20 U	20 U	4.2 J	12	16 J	5 J	480	9.9 J
1,2-Dichloropropane	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
2-Butanone	25 U	25 U	50 U	50 U	25 U	25 U	120 U	50 U	100 U	120 U
2-Hexanone	25 U	25 U	50 U	50 U	25 U	25 U	120 U	50 U	100 U	120 U
4-Methyl-2-pentanone	25 U	25 U	50 U	50 U	25 U	25 U	120 U	50 U	100 U	120 U
Acetone	25 U	25 U	50 U	50 U	25 U	25 U	120 U	50 U	100 U	160
Benzene	2.2 J	8.4	35	39	1.6 J	10	25 U	24	80	25 U
Bromodichloromethane	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
Bromoform	5 U	5 U	10 U	10 U	5 U	5 U	9 J	10 U	20 U	25 U
Bromomethane	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
Carbon disulfide	1.8 J	5 U	10 U	10 U	5 U	5 U	25 U	4.4 J	20 U	19 J
Carbon tetrachloride	4.9 J	5 U	10 U	10 U	5 U	5 U	980	10 U	20 U	25 U
Chlorobenzene	5.6	5 U	300	300	5 U	8.8	33	290	20	32
Chloroethane	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
Chloroform	4.9 J	5.6	10 U	10 U	5 U	3.5 J	850	25	20 U	9 J
Chloromethane	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
cis-1,3-Dichloropropene	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
Dibromochloromethane	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
Ethylbenzene	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	8.2 J	25 U
Methylene chloride	5 U	5 U	10 U	10 U	5 U	4 J	18 J	15	20 U	25 U
Styrene	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
Tetrachloroethene	4.7 J	5 U	10 U	10 U	5 U	5 U	73	2.5 J	20 U	7.4 J
Toluene	5 U	5 U	3.3 J	3.4 J	5 U	3.5 J	38	10	4.8 J	25 U
Total Xylenes	15 U	15 U	30 U	30 U	15 U	15 U	75 U	30 U	60 U	75 U
trans-1,3-Dichloropropene	5 U	5 U	10 U	10 U	5 U	5 U	25 U	10 U	20 U	25 U
Trichloroethene	5 U	5 U	10 U	10 U	1.9 J	6.5	10 J	10 U	20 U	25 U
Vinyl acetate	25 U	25 U	50 U	50 U	25 U	25 U	120 U	50 U	100 U	120 U
Vinyl chloride	17	4.6 J	10 U	10 U	2 J	3.3 J	25 U	6 J	180	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

FALL 2004 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	MW-106	MW-127	PW10	PW11	PW12	PW13	PZ-101	PZ-102	PZ-103	PZ-104
SAMPLE DATE:	11/16/04	11/15/04	11/18/04	11/18/04	11/18/04	11/16/04	11/17/04	11/17/04	11/17/04	11/17/04
QC TYPE:	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	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
1,1,2-Trichloroethane	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
1,1-Dichloroethane	5 U	5 U	250 U	17	10 U	1.2 J	5 U	10 U	25 U	5 U
1,1-Dichloroethene	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
1,2-Dichloroethane	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
1,2-Dichloroethene (total)	10 U	10 U	500 U	220	5.5 J	10 U	10 U	20 U	50 U	10 U
1,2-Dichloropropane	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
2-Butanone	25 U	25 U	1200 U	50 U	50 U	25 U	25 U	50 U	120 U	25 U
2-Hexanone	25 U	25 U	1200 U	50 U	50 U	25 U	25 U	50 U	120 U	25 U
4-Methyl-2-pentanone	25 U	25 U	1200 U	50 U	50 U	25 U	25 U	50 U	120 U	25 U
Acetone	25 U	25 U	1200 U	50 U	50 U	25 U	25 U	50 U	120 U	25 U
Benzene	38	5 U	250 U	37	45	19	16	28	34	3.1 J
Bromodichloromethane	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
Bromoform	5 U	5 U	960	10 U	5 J	5 U	5 U	10 U	25 U	5 U
Bromomethane	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
Carbon disulfide	5 U	5 U	320	10 U	7.2 J	10	5 U	10 U	13 J	5 U
Carbon tetrachloride	5 U	5 U	5500	10 U	200	5 U	5 U	10 U	25 U	5 U
Chlorobenzene	350	5 U	240 J	31	220	98	130	240	540	9.5
Chloroethane	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
Chloroform	5 U	5 U	7100	9.7 J	340	5 U	5 U	10 U	25 U	5 U
Chloromethane	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
Dibromochloromethane	5 U	5 U	68 J	10 U	10 U	5 U	5 U	10 U	25 U	5 U
Ethylbenzene	5 U	5 U	250 U	3.2 J	16	5 U	5 U	10 U	25 U	5 U
Methylene chloride	5 U	180	690	10 U	50	5 U	5 U	10 U	25 U	5 U
Styrene	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
Tetrachloroethene	5 U	5 U	1200	10 U	23	5 U	5 U	10 U	25 U	5 U
Toluene	2.9 J	2.5 J	290	3.6 J	190	3.9 J	5 U	10 U	7.9 J	5 U
Total Xylenes	15 U	15 U	750 U	30 U	99	15 U	15 U	30 U	75 U	15 U
trans-1,3-Dichloropropene	5 U	5 U	250 U	10 U	10 U	5 U	5 U	10 U	25 U	5 U
Trichloroethene	5 U	5 U	70 J	2.4 J	10 U	5 U	5 U	10 U	25 U	5 U
Vinyl acetate	25 U	25 U	1200 U	50 U	50 U	25 U	25 U	50 U	120 U	25 U
Vinyl chloride	5 U	5 U	250 U	150	10 U	5 U	5 U	10 U	25 U	5 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

FALL 2004 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	PZ-107		S-3		S-4	
SAMPLE DATE:	11/15/04		11/15/04		11/15/04	
QC TYPE:	N		N		N	
VOLATILE ORGANIC COMPOUNDS BY SW-846 Method 8260/5ML (µg/L)						
1,1,1-Trichloroethane	5	U	25	U	50	U
1,1,2,2-Tetrachloroethane	5	U	25	U	50	U
1,1,2-Trichloroethane	5	U	25	U	50	U
1,1-Dichloroethane	5	U	25	U	50	U
1,1-Dichloroethene	5	U	25	U	50	U
1,2-Dichloroethane	5	U	25	U	50	U
1,2-Dichloroethene (total)	8.2	J	30	J	100	U
1,2-Dichloropropane	5	U	25	U	50	U
2-Butanone	25	U	120	U	250	U
2-Hexanone	25	U	120	U	250	U
4-Methyl-2-pentanone	25	U	120	U	250	U
Acetone	25	U	120	U	250	U
Benzene	3	J	7.9	J	50	U
Bromodichloromethane	5	U	25	U	50	U
Bromoform	5	U	25	U	50	U
Bromomethane	5	U	25	U	50	U
Carbon disulfide	3.8	J	25	U	50	U
Carbon tetrachloride	7.5		12	J	50	U
Chlorobenzene	2.2	J	16	J	50	U
Chloroethane	5	U	25	U	50	U
Chloroform	11		18	J	50	U
Chloromethane	5	U	25	U	50	U
cis-1,3-Dichloropropene	5	U	25	U	50	U
Dibromochloromethane	5	U	25	U	50	U
Ethylbenzene	5	U	25	U	50	U
Methylene chloride	5	U	25	U	50	U
Styrene	5	U	25	U	50	U
Tetrachloroethene	5	U	25	U	50	U
Toluene	5	U	25	U	50	U
Total Xylenes	15	U	75	U	150	U
trans-1,3-Dichloropropene	5	U	25	U	50	U
Trichloroethene	2.8	J	25	U	50	U
Vinyl acetate	25	U	120	U	250	U
Vinyl chloride	6		14	J	50	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 FALL 2004
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)

ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - SPRING 2004

WELL	SELECTED CHLOROPYRIDINES				SELECTED VOCs			
	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOV-2004 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOV-2004 RESULT
ON-SITE WELLS/LOCATIONS								
B-17	7	28,000,000	200,000		7	345,000	63,000	
B-7	7	9,100	3,200		7	91	50	
BR-127*	0	NA	NA	1,484	0	NA	NA	1.9
BR-3	7	6,500,000	150,000		7	920,000	560,000	
BR-5A	10	1,700	510	238	10	9,400	94	14
BR-6A	10	144,500	34,000	9,100	10	26,000	7,300	1,931
BR-7A	10	510,000	21,000	13,200	10	3,000	330	42.5
BR-8	7	57,000	12,000		7	6,900	3.7	
BR-9	8	720	340	175	8	160	46	ND
E-1	9	171,680	43,000	**62,800**	9	5,300	470	16.4
E-3	7	600	63		7	12,000	200	
MW-127*	0	NA	NA	14,543	0	NA	NA	180
PW10	10	160,000	77,000	**171,400**	10	120,000	40,000	14,560
PW11	8	27,000	5,500	690	9	30,000	7,900	12.1
PW12	10	15,000	3,300	1,970	10	120,000	4,200	613
PW13*	0	NA	NA	7,481	0	NA	NA	ND
PZ-105	6	190,000	17,000		6	9,700	1,400	
PZ-106	7	120,000	40,000		7	1,359,000	780,000	
PZ-107	10	11,000	2,400	**3,550**	10	12,000	600	21.3
S-3	9	18,240	7,800	3,800	9	2,500	520	30
S-4	9	3,200	820	55	9	870	100	ND
OFF-SITE WELLS/LOCATIONS								
BR-103	6	400	9.8		6	1	0.45	
BR-104	7	3,100	4.1		4	9	ND	
BR-105	10	24,000	1,900	1,100	10	310	4.6	**14.5**
BR-105D	10	10,000	2,300	1,900	10	230	7	5.6
BR-106	10	21,000	9,100	9,000	11	6,300	330	ND
BR-108	7	1,700	7.6		3	ND	ND	
BR-112D	7	310	46		3	4.3	0.43	
BR-113D	7	490	72		NS	2.8	NS	
BR-114	7	521	230		7	5	2.7	
BR-116	5	12	0.0		NS	84	NS	
BR-116D	5	710	94		NS	120	NS	
BR-117D	5	80	23		NS	1.9	NS	
BR-118D	5	330	91		NS	6.6	NS	
BR-122D	5	650	210		NS	ND	NS	
BR-123D	5	860	410		NS	4	NS	
MW-103	6	82	4.3		6	ND	120	
MW-104	6	180	1.6		3	1	ND	
MW-106	10	130,000	14,000	7,400	10	453	46	ND
MW-114	7	18	0.29		7	19	13	
MW-16	3	360	250	179	NS	NA	NS	
NESS-E	7	5,000	460		4	700	ND	
NESS-W	7	2,100	280		4	89	0.28	

Prepared by: NMB
Checked by: JEB

TABLE 4
COMPARISON OF FALL 2004
CHLOROPYRIDINES AND VOLATILE ORGANICS CONCENTRATIONS
IN GROUNDWATER TO PREVIOUS RESULTS (ug/L)

ARCH ROCHESTER
SEMI-ANNUAL GROUNDWATER MONITORING REPORT - SPRING 2004

WELL	SELECTED CHLOROPYRIDINES				SELECTED VOCs			
	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOV-2004 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	NOV-2004 RESULT
PZ-101	9	27,000	1,300	1,150	9	6.1	0.86	ND
PZ-102	9	58,000	7,600	1,100	9	10,000	2.4	ND
PZ-103	9	73,000	26,000	7,900	10	44,300	8,000	ND
PZ-104	9	9,100	3,900	3,220	9	40	1.3	ND
QO-2	14	380	45	ND	9	ND	ND	ND
QO-2S1	13	27	0.038	ND	6	ND	ND	ND
QS-4	15	3,400	660	134	10	ND	ND	ND

Note:

1) Number of samples and mean reflect 5-year sampling period from November 1999 through June 2004. Historic maximum based on all available results from March 1990 through June 2004
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** - June 2004 exceeds 5-year mean.
5) NA = Not analyzed or not applicable
   ND = Not detected
   NS = Not sampled

* - First sampling event for newly installed wells BR-127, MW-127, and PW13.

Prepared by: NMB
Checked by: JEB

TABLE 5
FALL 2004 CANAL/QUARRY MONITORING RESULTS

ARCH CHEMICAL, INC.
ROCHESTER, NEW YORK

WELL / POINT	QD-1		QD-1		QD-2		QO-2		QO-2S1		QP-1	
DATE	11/30/2004		11/30/2004		11/30/2004		11/30/2004		11/30/2004		11/30/2004	
QC	D		N		N		N		N		N	
VOLATILE ORGANIC COMPOUNDS												
BY SW-846 Method 8260/5ML (µg/L)												
PARAMETER												
1,1,1-Trichloroethane	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethane	5	U	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethene	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethane	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethene (total)	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	5	U	5	U	5	U	5	U	5	U	5	U
2-Butanone	25	U	25	U	25	U	25	U	25	U	25	U
2-Hexanone	25	U	25	U	25	U	25	U	25	U	25	U
4-Methyl-2-pentanone	25	U	25	U	25	U	25	U	25	U	25	U
Acetone	25	U	25	U	25	U	25	U	25	U	25	U
Benzene	5	U	5	U	5	U	5	U	5	U	5	U
Bromodichloromethane	5	U	5	U	5	U	5	U	5	U	5	U
Bromoform	5	U	5	U	5	U	5	U	5	U	5	U
Bromomethane	5	U	5	U	5	U	5	U	5	U	5	U
Carbon disulfide	5	U	5	U	5	U	5	U	5	U	5	U
Carbon tetrachloride	5	U	5	U	5	U	5	U	5	U	5	U
Chlorobenzene	5	U	5	U	5	U	5	U	5	U	5	U
Chloroethane	5	U	5	U	5	U	5	U	5	U	5	U
Chloroform	5	U	5	U	5	U	5	U	5	U	5	U
Chloromethane	5	U	5	U	5	U	5	U	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U	5	U	5	U	5	U	5	U
Dibromochloromethane	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	5	U	5	U	5	U	5	U	5	U	5	U
Methylene chloride	5	U	5	U	5	U	5	U	5	U	5	U
Styrene	5	U	5	U	5	U	5	U	5	U	5	U
Tetrachloroethene	5	U	5	U	5	U	5	U	5	U	5	U
Toluene	5	U	5	U	5	U	5	U	5	U	5	U
Total Xylenes	15	U	15	U	15	U	15	U	15	U	15	U
trans-1,3-Dichloropropene	5	U	5	U	5	U	5	U	5	U	5	U
Trichloroethene	5	U	5	U	5	U	5	U	5	U	5	U
Vinyl acetate	25	U	25	U	25	U	25	U	25	U	25	U
Vinyl chloride	5	U	5	U	5	U	5	U	5	U	5	U
SELECTED CHLOROPYRIDINES												
BY SW-846 Method 8270C (µg/L)												
2,6-Dichloropyridine	9	U	10	U	10	U	10	U	9	U	10	U
2-Chloropyridine	9	U	10	U	10	U	10	U	9	U	4	J
3-Chloropyridine	9	U	10	U	10	U	10	U	9	U	10	U
4-Chloropyridine	9	U	10	U	10	U	10	U	9	U	10	U
p-Fluoroaniline	9	U	10	U	10	U	10	U	9	U	10	U
Pyridine	24	U	24	U	24	U	24	U	24	U	25	U

Notes:

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

J = Estimated value.

NA = Not analyzed

TABLE 5
FALL 2004 CANAL/QUARRY MONITORING RESULTS

ARCH CHEMICAL, INC.
ROCHESTER, NEW YORK

WELL / POINT	QS-2		QS-3		QS-4		QS-5		SW-2	
DATE	11/30/2004		11/30/2004		11/30/2004		11/30/2004		11/30/2004	
QC	N		N		N		N		N	
VOLATILE ORGANIC COMPOUNDS										
BY SW-846 Method 8260/5ML (µg/L)										
PARAMETER										
1,1,1-Trichloroethane	5	U	5	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	5	U	5	U	5	U	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethane	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethene	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethane	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethene (total)	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	5	U	5	U	5	U	5	U	5	U
2-Butanone	25	U	25	U	25	U	25	U	25	U
2-Hexanone	25	U	25	U	25	U	25	U	25	U
4-Methyl-2-pentanone	25	U	25	U	25	U	25	U	25	U
Acetone	25	U	25	U	25	U	25	U	25	U
Benzene	5	U	5	U	5	U	5	U	5	U
Bromodichloromethane	5	U	5	U	5	U	5	U	5	U
Bromoform	5	U	5	U	5	U	5	U	5	U
Bromomethane	5	U	5	U	5	U	5	U	5	U
Carbon disulfide	5	U	5	U	5	U	5	U	5	U
Carbon tetrachloride	5	U	5	U	5	U	5	U	5	U
Chlorobenzene	5	U	5	U	5	U	5	U	5	U
Chloroethane	5	U	5	U	5	U	5	U	5	U
Chloroform	5	U	5	U	5	U	5	U	5	U
Chloromethane	5	U	5	U	5	U	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U	5	U	5	U	5	U
Dibromochloromethane	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	5	U	5	U	5	U	5	U	5	U
Methylene chloride	5	U	5	U	5	U	5	U	5	U
Styrene	5	U	5	U	5	U	5	U	5	U
Tetrachloroethene	5	U	5	U	5	U	5	U	5	U
Toluene	5	U	5	U	5	U	5	U	5	U
Total Xylenes	15	U	15	U	15	U	15	U	15	U
trans-1,3-Dichloropropene	5	U	5	U	5	U	5	U	5	U
Trichloroethene	5	U	5	U	5	U	5	U	5	U
Vinyl acetate	25	U	25	U	25	U	25	U	25	U
Vinyl chloride	5	U	5	U	5	U	5	U	5	U
SELECTED CHLOROPYRIDINES										
BY SW-846 Method 8270C (µg/L)										
2,6-Dichloropyridine	5	J	22		34		10	U	9	U
2-Chloropyridine	5	J	68		100		10	U	9	U
3-Chloropyridine	10	U	10	U	10	U	10	U	9	U
4-Chloropyridine	10	U	10	U	10	U	10	U	9	U
p-Fluoroaniline	10	U	10	U	10	U	10	U	9	U
Pyridine	24	U	24	U	24	U	24	U	24	U

Notes:

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

J = Estimated value.

NA = Not analyzed

P:\Projects\Arch\Rochester\archroch\DataDelv\2004\Fall\Table_5_Swquarry.xls

Prepared by: NMB Checked by: JEB

TABLE 6
EXTRACTION WELL WEEKLY FLOW MEASUREMENTS
JUNE 2004 THROUGH NOVEMBER 2004

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

Week Ending	BR-5A [Gal./Week]	BR-6A [Gal./Week]	BR-7A [Gal./Week]	BR-9 [Gal./Week]	PW-10 [Gal./Week]	PW-11 [Gal./Week]	PW-12 [Gal./Week]	Total [Gal.]
June '04								
06/07/04	63,029	1,224	108,591	54,614	13,250	3,132	19,871	263,711
06/14/04	66,149	1,556	111,978	67,381	15,030	12,793	2,711	277,598
06/21/04	52,564	916	85,299	52,805	12,770	30,773	10,325	245,452
06/28/04	57,192	922	68,097	58,969	11,760	20,530	33,237	250,707
							Total [Gal.]	1,037,468
July '04								
07/05/04	55,675	1,097	58,229	62,514	12,990 *	21,703	32,581	244,789
07/12/04	50,335	562	52,936	60,228	12,400 *	23,052	32,328	231,841
07/19/04	55,133	163	73,074	57,951	11,630	18,111	30,916	246,978
07/26/04	59,271	2	58,506	56,175	10,890	20,211	37,489	242,544
							Total [Gal.]	966,152
Aug. '04								
08/02/04	58,052	30	58,691	55,870	9,960	19,042	33,317	234,962
08/09/04	57,994	0	65,044	60,346	4,100	20,724	31,804	240,012
08/16/04	54,741	12	66,760	64,999	6,650	17,342	34,091	244,595
08/23/04	41,838	4	73,442	63,612	9,150	16,763	35,700	240,509
08/30/04	36,213	0	69,758	59,167	5,680	8,369	35,798	214,985
							Total [Gal.]	1,175,063
Sep. '04								
09/06/04	59,863 *	0	58,197	58,348	5,815	23,431	34,650	240,304
09/13/04	64,902 *	1	65,372	57,312	7,655	28,045 *	34,255	257,542
09/20/04	63,867	102	79,080	63,113	7,480	28,098 *	34,270	276,010
09/27/04	53,765	207	75,479	47,959	2,460	21,501 *	34,409	235,780
							Total [Gal.]	1,009,636
Oct. '04								
10/04/04	43,154	44	86,319	49,601	5,490	20,160 *	34,132	238,900
10/11/04	39,862	0	87,656	50,987	2,180	27,591	36,602	244,878
10/18/04	33,363	0	82,416	49,995	4,170	35,729	36,567	242,240
10/25/04	34,421	8	93,682	50,701	5,370	33,889	36,374	254,445
							Total [Gal.]	980,463
Nov. '04								
11/01/04	38,687	50	78,101	62,381	7,920	29,144	36,715	252,998
11/08/04	58,495	75	61,481	37,535	5,320	32,768	36,057	231,731
11/15/04	53,447	95	64,881	30,361	31,000	32,157	32,948	244,889
11/22/04	32,766	152	53,717	53,997	29,140	17,638 *	25,260	212,670
11/29/04	50,940	47	68,469	72,537	40,386	25,200 *	31,379	288,958
							Total [Gal.]	1,231,246
Total 6 Mo. Removal (Gal.)	1,335,718	7,269	1,905,255	1,459,458	290,646	587,896	813,786	6,400,028

Notes:
1) Wells PW-10 and BR-7A underwent rehabilitation in November 2004
2) Well BR-6A is performing poorly and is scheduled for replacement
3) * - Flow rate is estimated due to a meter failure

Prepared by: NMB Checked by: JEB

TABLE 7

MASS REMOVAL SUMMARY
PERIOD: JUNE 2004 - NOVEMBER 2004

ARCH ROCHESTER
FALL 2004 GROUNDWATER MONITORING REPORT

Well	Total Vol. Pumped (gallons)	Avg. VOC Conc. (ppm)	Avg. PYR. Conc. (ppm)	VOCs Removed (pounds)	PYR. Removed (pounds)
BR-5A	1,336,000	0.076	0.44	0.84	4.9
BR-6A	7,000	4.1	13	0.2	0.7
BR-7A	1,905,000	0.077	10	1.2	162
BR-9	1,459,000	0.002	0.18	0.024	2.2
PW-10	291,000	28	130	69	316
PW-11	588,000	0.023	2.2	0.11	10.8
PW-12	814,000	1.0	1.4	6.9	9.5
Totals:	6,400,000			78	506

Note: VOC and pyridine concentrations used in this table are an average of the analytical results from the Spring 2004 and Fall 2004 sampling events for each well

Prepared by: NMB Checked by: JEB

TABLE 8
2005 SAMPLING SCHEDULE
ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

`CH ROCHESTER						2005					
MONITORING PROGRAM						SPRING		FALL		TOTAL	
	Well	*zone*	*area*	*Frequency/Parameters*	*Purpose*	*Pyridines*	*VOCs*	*Pyridines*	*VOCs*	*Pyridines*	*VOCs*
OFF-SITE MONITORING	MW-103	OB	KODAK EAST	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-103	BR	KODAK EAST	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	MW-125	OB	KODAK EAST	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	BR-125	BR	KODAK EAST	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	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-126	OB	ALH	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	BR-126	BR	ALH	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	MW-16	BR	Gen'l Circuits	annual monitoring, PYR	trend monitoring			1		1	0
ON-SITE MONITORING	PZ-107	BR	ON-SITE	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PZ-106	BR	ON-SITE	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	PZ-105	BR	ON-SITE	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	BR-127	BR	ON-SITE	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	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
	MW-127	OB	ON-SITE	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	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
	PW13	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	PW14	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
QUARRY/CANAL MONITORING	QS-2	quarry seep	QUARRY	temporary monitoring	risk evaluation/SPDES Permit	1	1	1	1	2	2
	QS-3	quarry seep	QUARRY	temporary monitoring	risk evaluation/SPDES Permit	1	1	1	1	2	2
	QS-4	quarry seep	QUARRY	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	QS-5	quarry seep	QUARRY	temporary monitoring	risk evaluation/SPDES Permit	1	1	1	1	2	2
	QD-1	quarry outfall	DITCH	temporary monitoring	risk evaluation/SPDES Permit	1	1	1	1	2	2
	QO-2	quarry outfall	DITCH	semi-annual monitoring, VOCs & PYR	trend monitoring	1	1	1	1	2	2
	QD-3	quarry outfall	DITCH	temporary monitoring	risk evaluation/SPDES Permit	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
	QP-1	runoff pond	QUARRY	temporary monitoring	risk evaluation/SPDES Permit	1	1	1	1	2	2
`OTAL SAMPLES						60	47	39	38	99	85

Revised: 02/04/05 (added new wells / quarry locations)

Prepared by: NMB Checked by: JEB

Appendix A

Groundwater Field Sampling Data Sheets

SEVERN TRENT STL

STL Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

FIELD REPORT

REMEDIAL INVESTIGATION SAMPLING
ARCH CHEMICAL
ROCHESTER, NEW YORK

FALL 2004 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: 12-22-04

1.0 INTRODUCTION

This report describes the sampling of the following points:

- Twenty-three (23) groundwater samples
- Two (2) barge canal samples
- Three (3) quarry outfall sample
- Five (5) quarry seep/pond samples

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 November 15 – December 6, 2004 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, three (3) outfall samples and one (1) Pond Sample. Sample locations were noted on the Field Forms.

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

Groundwater samples were collected from seeps at the quarry (QS2-QS5) located on Buffalo Road. The samples were 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 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 Summary Table
HARDING L[illegible] ASSOCIATES
NOVEMBER 2004
RI SAMPLING/ROCHESTER NY FACILITY

Sample Point	—Water Level— Date	Time	Water Level (ft)*	Water Elevation (ft)**	Bottom Of Well (ft)*	Field Measurements Date	Time	pH (STD) (Units)	Spec. Cond. (umhos)	Temp (°C)	Turb. (NTU)	Other Field Measurements	
BR-105	11/16/2004	1330	23.27	N/A	43.25	11/16/2004	1400	7.10	1755	13.7	1.15	EH(mv)= -245	DO(ppm)= 0.87
	Comments: CLEAR												
BR-105D	11/16/2004	1310	24.18	N/A	79.65	11/16/2004	1340	7.13	13230	14.0	1.52	EH(mv)= -300	DO(ppm)= 0.69
	Comments: CLEAR												
BR-106	11/16/2004	1139	23.49	N/A	40.28	11/16/2004	1210	7.14	3992	13.1	15.60	EH(mv)= -179	DO(ppm)= 0.56
	Comments: CLEAR												
BR-106	11/16/2004	1139	23.49	N/A	40.28	11/16/2004	1212	7.15	3992	13.1	15.40	EH(mv)= -180	DO(ppm)= 0.55
	Comments: CLEAR/FIELD DUP												
BR-127	11/15/2004	1112	4.28	N/A	50.63	11/15/2004	1155	7.99	1109	12.9	15.20	EH(mv)= -205	DO(ppm)= 0.85
	Comments: CLEAR												
BR-5A	11/18/2004	1120	16.56	N/A	N/A	11/18/2004	1122	7.65	1683	14.8	3.92	EH(mv)= -77	
	Comments: CLEAR												
BR-6A	12/06/2004	945	10.38	N/A	N/A	12/06/2004	947	6.77	4082	16.7	20.30	EH(mv)= -96	
	Comments: CLEAR BLACK TINT												
BR-7A	11/18/2004	1215	30.42	N/A	N/A	11/18/2004	1217	7.31	2993	15.3	17.50	EH(mv)= -135	
	Comments: CLEAR WITH BLACK SPECKS 7.48GPM												
BR-9	11/18/2004	1205	26.72	N/A	N/A	11/18/2004	1207	7.13	2672	15.7	272.00	EH(mv)= -80	
	Comments: TURBID GREY SPECKS												
E-1	11/15/2004	1408	0.47	N/A	8.30	11/15/2004	1430	8.50	12150	11.0	25.30	EH(mv)= -247	DO(ppm)= 0.85
	Comments: CLEAR BLACK SPECKS 7.53GPM												
MW-106	11/16/2004	1213	10.60	N/A	19.30	11/16/2004	1240	7.04	3483	13.8	12.70	EH(mv)= -148	DO(ppm)= 0.62
	Comments: CLEAR												
MW-127	11/15/2004	1039	4.71	N/A	11.25	11/15/2004	1105	7.49	4283	12.2	5.27	EH(mv)= -38	DO(ppm)= 0.69
	Comments: CLEAR												
MW-16	11/17/2004	939	11.74	N/A	34.40	11/17/2004	1010	7.10	2865	15.0	2.63	EH(mv)= -201	DO(ppm)= 0.83
	Comments: CLEAR												
PW-10	11/18/2004	1150	11.98	N/A	N/A	11/18/2004	1152	9.48	8223	16.3	15.10	EH(mv)= -112	
	Comments: BROWN STRONG ODER												
PW-11	11/18/2004	1010	30.67	N/A	N/A	11/18/2004	1015	6.83	2641	14.9	48.10	EH(mv)= -88	
	Comments: CLEAR WITH GREY AND BLACK SPECKS												
PW-12(BR-101)	11/18/2004	1110	19.26	N/A	N/A	11/18/2004	1113	7.56	4167	16.6	17.50	EH(mv)= -112	
	Comments: CLEAR BLACK TINT												

SG - Specific Gravity
EH - Redox
DO - Dissolved Oxygen

* From Top of Riser
** Elevation Above Sea Level

Sampling Summary Table
HARDING L ASSOCIATES
NOVEMBER 2004
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-13	11/18/2004	1048	27.45	N/A	50.61	11/16/2004	1115	6.99	2985	13.7	10.54	EH(mv)= -154
	Comments: CLEAR											
PZ-101	11/17/2004	1053	14.16	N/A	21.60	11/17/2004	1115	6.85	6595	13.5	2.70	EH(mv)= -159 DO(ppm)= 0.90
	Comments: CLEAR											
PZ-102	11/17/2004	1137	13.51	N/A	32.53	11/17/2004	1200	7.30	6155	13.2	1.81	EH(mv)= -137 DO(ppm)= 0.87
	Comments: CLEAR											
PZ-103	11/17/2004	1218	12.40	N/A	32.45	11/17/2004	1240	7.44	4031	14.2	1.86	EH(mv)= -181 DO(ppm)= 1.29
	Comments: CLEAR BLACK SPECKS											
PZ-104	11/17/2004	1302	13.50	N/A	23.64	11/17/2004	1325	7.07	1984	15.9	2.20	EH(mv)= -129 DO(ppm)= 0.99
	Comments: CLEAR											
PZ-107	11/15/2004	1249	6.66	N/A	27.73	11/15/2004	1310	7.66	2513	13.6	5.18	EH(mv)= -141 DO(ppm)= 0.90
	Comments: CLEAR											
QD-1	11/30/2004	1255	0.00	N/A	N/A	11/30/2004	1300	7.97	1420	8.9	59.90	EH(mv)= 55
	Comments: GREY TINT											
QD-1	11/30/2004	1255	0.00	N/A	N/A	11/30/2004	1300	8.00	1419	8.9	59.90	EH(mv)= 55
	Comments: GREY TINT/FIELD DUP											
QD-2	11/30/2004	1005	0.00	N/A	N/A	11/30/2004	1010	7.92	1399	8.2	47.60	EH(mv)= 113
	Comments: MILKY TINT											
QO-2	11/30/2004	1025	0.00	N/A	N/A	11/30/2004	1030	7.94	1417	7.8	33.70	EH(mv)= 94
	Comments: MILKY TINT											
QO-2S1	11/30/2004	1035	0.00	N/A	N/A	11/30/2004	1040	7.81	650	7.2	20.90	EH(mv)= 65
	Comments: CLEAR											
QP-1	11/30/2004	1055	0.00	N/A	N/A	11/30/2004	1100	7.96	1402	9.2	55.40	EH(mv)= 57
	Comments: GREY TINT											
QS-2	11/30/2004	1110	0.00	N/A	N/A	11/30/2004	1120	8.34	1262	7.6	5.15	EH(mv)= 37
	Comments: CLEAR											
QS-3	11/30/2004	1120	0.00	N/A	N/A	11/30/2004	1125	8.11	1467	9.2	4.64	EH(mv)= -15
	Comments: CLEAR											
QS-4	11/30/2004	1135	0.00	N/A	N/A	11/30/2004	1140	8.04	1824	9.2	2.19	EH(mv)= -25
	Comments: CLEAR											
QS-5	11/30/2004	1145	0.00	N/A	N/A	11/30/2004	1150	8.30	802	6.6	5.91	EH(mv)= -21
	Comments: CLEAR											

SG - Specific Gravity
EH - Redox
DO - Dissolved Oxygen

* From Top of Riser
** Elevation Above Sea Level

Sampling Summary Table
HARDING L ASSOCIATES
NOVEMBER 2004
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
S-3	11/15/2004	1328	2.47	N/A	12.27	11/15/2004	1350	7.59	2401	10.1	7.44	EH(mv)= -98 DO(ppm)= 0.95
	Comments: CLEAR BLACK SPECKS											
S-4	11/15/2004	1217	0.67	N/A	10.50	11/15/2004	1240	7.70	252	10.7	8.38	EH(mv)= -41 DO(ppm)= 0.90
	Comments: CLEAR											
SW-2(BRIDGE)	11/30/2004	1230	0.00	N/A	N/A	11/30/2004	1240	7.95	676	7.1	21.60	EH(mv)= 23
	Comments: CLEAR											

SG - Specific Gravity
EH - Redox
DO - Dissolved Oxygen

* From Top of Riser
** Elevation Above Sea Level

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Time: 08:0 7

Groundwater Elevation Report
HARDING ON ASSOC.
NOVEMBER 2004
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
B-1	11/10/2004	1228	0.00	9.33	N/A	
B-10	11/10/2004	1125	0.00	6.65	N/A	
B-11	11/10/2004	1101	0.00	3.47	N/A	
B-13	11/10/2004	1320	0.00	12.23	N/A	
B-14	11/10/2004	1322	0.00	7.80	N/A	
B-15	11/10/2004	1324	0.00	3.78	N/A	
B-16	11/10/2004	1330	0.00	4.17	N/A	
B-17	11/10/2004	1200	0.00	7.09	N/A	
B-2	11/10/2004	1225	0.00	10.32	N/A	
B-3	11/10/2004	1207	0.00	5.83	N/A	
B-4	11/10/2004	1236	0.00	12.73	N/A	
B-5	11/10/2004	1245	0.00	9.94	N/A	
B-7	11/10/2004	1254	0.00	13.54	N/A	
B-8	11/10/2004	1140	0.00	7.82	N/A	
B-9	11/10/2004	0	0.00	N/A	N/A	BROKEN AT SURFACE AND BURIED UNDER ROCKS
BR-1	11/10/2004	1003	0.00	8.29	N/A	
BR-102	11/10/2004	1210	0.00	21.52	N/A	
BR-103	11/10/2004	1127	0.00	6.02	N/A	
BR-104	11/10/2004	1055	0.00	12.38	N/A	OBSTRUCTION AT 20FT
BR-105	11/10/2004	1016	0.00	23.33	N/A	
BR-105D	11/10/2004	1025	0.00	25.25	N/A	
BR-106	11/10/2004	1012	0.00	23.41	N/A	
BR-107	11/10/2004	0	0.00	N/A	N/A	DESTROYED
BR-108	11/10/2004	1000	0.00	25.08	N/A	
BR-111	11/10/2004	1152	0.00	28.84	N/A	
BR-111D	11/10/2004	1150	0.00	29.19	N/A	
BR-112A	11/10/2004	1138	0.00	27.51	N/A	
BR-112D	11/10/2004	1140	0.00	36.51	N/A	
BR-113	11/10/2004	1218	0.00	31.51	N/A	
BR-113D	11/10/2004	1215	0.00	31.48	N/A	
BR-114	11/10/2004	1115	0.00	13.90	N/A	
BR-116	11/10/2004	1325	0.00	28.61	N/A	
BR-116D	11/10/2004	1320	0.00	35.75	N/A	
BR-117	11/10/2004	1240	0.00	25.50	N/A	

Groundwater Elevation Report
HARDING [illegible]ON ASSOC.
NOVEM[illegible]R 2004
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
BR-117D	11/10/2004	1243	0.00	48.83	N/A	
BR-118	11/10/2004	1248	0.00	37.19	N/A	
BR-118D	11/10/2004	1250	0.00	48.15	N/A	
BR-119D	11/10/2004	1255	0.00	67.13	N/A	
BR-120D	11/10/2004	1230	0.00	56.74	N/A	
BR-121D	11/10/2004	1235	0.00	53.93	N/A	
BR-122D	11/10/2004	1315	0.00	44.65	N/A	
BR-123D	11/10/2004	1310	0.00	45.22	N/A	
BR-124D	11/10/2004	1305	0.00	31.91	N/A	
BR-127	11/10/2004	1049	0.00	3.80	N/A	
BR-2	11/10/2004	1035	0.00	7.01	N/A	
BR-2A	11/10/2004	1032	0.00	8.11	N/A	
BR-2D	11/10/2004	1037	0.00	0.05	N/A	
BR-3	11/10/2004	1118	0.00	10.44	N/A	
BR-3D	11/10/2004	1114	0.00	64.98	N/A	
BR-4	11/10/2004	1055	0.00	6.76	N/A	
BR-5	11/10/2004	1014	0.00	14.29	N/A	
BR-5A	11/10/2004	1019	0.00	16.57	N/A	0.00=FLOW RATE
BR-6	11/10/2004	1138	0.00	11.97	N/A	
BR-6A	11/10/2004	1135	0.00	10.08	N/A	0.00GPM = FLOW RATE
BR-7	11/10/2004	1300	0.00	29.58	N/A	
BR-7A	11/10/2004	1302	0.00	20.46	N/A	
BR-8	11/10/2004	1243	0.00	9.81	N/A	
BR-9	11/10/2004	1215	0.00	25.98	N/A	0.00GPM=FLOW RATE
C-1	11/10/2004	0	0.00	N/A	N/A	DESTROYED
C-2A	11/10/2004	1036	0.00	7.13	N/A	
C-3	11/10/2004	1023	0.00	N/A	N/A	BROKE AT GROUND SURFACE OBSTRUCTION AT 4.49FT
C-4	11/10/2004	0	0.00	N/A	N/A	BUILDING IN THIS AREA/WELL NO LONGER EXISTS
C-5	11/10/2004	1121	0.00	9.19	N/A	
E-1	11/10/2004	1100	0.00	0.69	N/A	
E-2	11/10/2004	1057	0.00	4.85	N/A	
E-3	11/10/2004	1017	0.00	7.70	N/A	
E-4	11/10/2004	1011	0.00	N/A	N/A	OBSTRUCTION AT 2.83FT
E-5	11/10/2004	1007	0.00	6.35	N/A	

Date: 12/22/2004
Time: 08:0 7

Groundwater Elevation Report
HARDING I ON ASSOC.
NOVEM R 2004
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
EC-1	11/10/2004	1200	0.00	18.40	N/A	
EC-2	11/10/2004	1210	0.00	N/A	N/A	DRY AT 12.69
ERIE CANAL	11/10/2004	1205	0.00	33.65	N/A	
MW-103	11/10/2004	1125	0.00	1.56	N/A	
MW-104	11/10/2004	1053	0.00	7.88	N/A	
MW-105	11/10/2004	1020	0.00	N/A	N/A	DRY AT 18.90
MW-106	11/10/2004	1010	0.00	10.86	N/A	
MW-107	11/10/2004	0	0.00	N/A	N/A	DESTROYED
MW-108	11/10/2004	1003	0.00	13.49	N/A	
MW-114	11/10/2004	1120	0.00	11.61	N/A	
MW-127	11/10/2004	1045	0.00	4.09	N/A	
MW-16	11/10/2004	1340	0.00	11.35	N/A	
MW-2	11/10/2004	0	0.00	N/A	N/A	NOT FOUND
MW-3	11/10/2004	950	0.00	6.11	N/A	
MW-G6	11/10/2004	930	0.00	4.78	N/A	
MW-G7	11/10/2004	945	0.00	4.03	N/A	
MW-G8	11/10/2004	935	0.00	7.23	N/A	
MW-G9	11/10/2004	940	0.00	8.58	N/A	
N-1	11/10/2004	1002	0.00	N/A	N/A	DAMAGED CASING/BAILER STUCK IN WELL AT 3.04FT
N-2	11/10/2004	958	0.00	4.64	N/A	
N-3	11/10/2004	955	0.00	7.21	N/A	
NESS-E	11/10/2004	1050	0.00	26.53	N/A	
NESS-W	11/10/2004	1105	0.00	31.77	N/A	
PW-10	11/10/2004	1204	0.00	11.68	N/A	
PW-11	11/10/2004	1241	0.00	17.95	N/A	
PW-12(BR-101)	11/10/2004	1025	0.00	18.08	N/A	3.29 G.P.M.
PW-13	11/10/2004	1306	0.00	26.88	N/A	
PZ-101	11/10/2004	1030	0.00	13.89	N/A	
PZ-102	11/10/2004	1035	0.00	13.32	N/A	
PZ-103	11/10/2004	1040	0.00	12.21	N/A	
PZ-104	11/10/2004	1317	0.00	13.28	N/A	
PZ-105	11/10/2004	1148	0.00	8.68	N/A	
PZ-106	11/10/2004	1107	0.00	10.94	N/A	
PZ-107	11/10/2004	1128	0.00	6.16	N/A	

Groundwater Elevation Report
HARDING [illegible]ON ASSOC.
NOVEM[illegible] 2004
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
S-1	11/10/2004	1145	0.00	3.78	N/A	
S-2	11/10/2004	1149	0.00	3.36	N/A	
S-3	11/10/2004	1133	0.00	2.56	N/A	
S-4	11/10/2004	1124	0.00	0.68	N/A	
W-1	11/10/2004	1230	0.00	N/A	N/A	UNABLE TO OBTAIN MEASUREMENT/OBSTRUCTION
W-2	11/10/2004	1220	0.00	11.54	N/A	
W-3	11/10/2004	1235	0.00	3.67	N/A	
W-4	11/10/2004	1239	0.00	4.02	N/A	
W-5	11/10/2004	1304	0.00	7.42	N/A	
W-6	11/10/2004	1257	0.00	12.26	N/A	

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-105

Field Personnel: P. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-16-04 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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 11-16-04 1335

Date / Time Completed: 11-16-04 1400

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 23.27

Elevation. G/W MSL: ____

Well Total Depth, Feet: 43.25

Method of Well Purge: Bladder Pump Peristaltic Pump

One (1) Riser Volume, Gal: ____

Dedicated: Y / (N)

Total Volume Purged, Gal: 1.5

Purged To Dryness Y / (N)

Purge Observations: ____

Start Clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1340	200	23.30		13.8	7.30	1986	1.94	-276	1.76
1345				13.8	7.10	1759	1.28	-246	1.31
1350				13.7	7.10	1755	1.27	-245	1.10
1355				13.7	7.10	1754	1.20	-246	0.96
1400	↓	↓		13.7	7.10	1755	1.15	-245	0.87

SAMPLED AT 1405 / 11-16-04
PL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-105

Date/Time 11-16-04 1405 Water Level @ Sampling, Feet: 23.30

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)
1400	13.7	7.10	1755	1.15	-24.5	0.87

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

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.

te: 1 1 By: _____ Company: _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-105D

Field Personnel: R. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-16-04 / 1310

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

Prot. Casing/riser height: —

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

If prot.casing; depth to riser below: —

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

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

PURGE INFORMATION:

Date / Time Initiated: 11-16-04 / 1315

Date / Time Completed: 11-16-04 / 1340

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 24.18

Elevation. G/W MSL: —

Well Total Depth, Feet: 79.65

Method of Well Purge: Bennett Pump ~~Peristaltic Pump~~

One (1) Riser Volume, Gal: —

Dedicated: Y / (N)

Total Volume Purged, Gal: 1.0

Purged To Dryness Y / (N)

Purge Observations: —

Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1320	150	25.0#		14.0	7.00	12,690	8.10	-290	1.11
1325	↓	↓		14.2	7.07	12,720	4.13	-291	0.93
1330				13.9	7.18	13,190	1.44	-300	0.87
1335				13.9	7.17	13,200	1.82	-300	0.77
1340	↓	↓		14.0	7.13	13,230	1.52	-300	0.69

Sampled AT 1345/11-16-04

R L

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-105D

Date/Time 11-16-04 1345 Water Level @ Sampling, Feet: 25.04

Method of Sampling: BLADDER PUMP Dedicated: Y (N)

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1340	14.0	7.13	13,230	1.52	-30.0	0.69

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

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.

e: 1 1 By: _____ Company: _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-106

Field Personnel: P. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-16-04 / 1139

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

Prot. Casing/riser height: —

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

If prot.casing; depth to riser below: —

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

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

PURGE INFORMATION:

Date / Time Initiated: 11-16-04 / 1150

Date / Time Completed: 11-16-04 / 1210

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 23.49

Elevation. G/W MSL:

Well Total Depth, Feet: 40.28

Method of Well Purge: BLADDER PUMP ~~Peristaltic Pump~~

One (1) Riser Volume, Gal:

Dedicated: Y / (N)

Total Volume Purged, Gal: 1.5

Purged To Dryness Y / (N)

Purge Observations:

Start Clear Finish Clear
Grey / Black Specks

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
1155	200	23.55		12.9	7.04	3958	23.6	-168	0.75
1200	↓	↓		13.1	7.10	3982	21.3	-180	0.69
1205				13.1	7.15	3990	16.7	-180	0.60
1210				13.1	7.14	3992	15.6	-179	0.56
1212				13.1	7.15	3992	15.4	-180	0.55

SAMPLED AT 1215 / [illegible] 11-16-04
[illegible] [illegible] Field Pol

Field Form
Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-106

Date/Time 11-16-04 1215 Water Level @ Sampling, Feet: 23.55

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 (ORP)	Other (DO)
1210	13.1	7.14	3992	15.6	-179	0.56

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 5.0 NTU 5.0 NTU std. = 5.0 NTU

Solutions: 8-65-E

pH Serial #: MP20-1201 4.0 std.= 4.00 7.0 std.= 7.00 10.0 std. = _____

Solutions: 4-3135, 7-3117

Conductivity Serial #: MP20 1201 1410 umhos/cm= 1410 _____ umhos/cm= _____

Solutions: 3077

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.

e: 1 1 By: _____ Company: _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-127

Field Personnel: P. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-15-04 / 1112

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

Prot. Casing/riser height: —

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

If prot.casing; depth to riser below: ____

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

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

PURGE INFORMATION:

Date / Time Initiated: 11-15-04 / 1130

Date / Time Completed: 11-15-04 / 1155

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

Riser Diameter, Inches: 6.0

Initial Water Level, Feet: 4.28

Elevation. G/W MSL: ____

Well Total Depth, Feet: ~~50.63~~ 50.63

Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: ____

Dedicated: Y / (N)

Total Volume Purged, Gal: 1.5

Purged To Dryness Y / (N)

Purge Observations: ____

Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1135	minimum 100	4.28		12.9	7.71	1059	17.1	-205	1.19
1140	↓	↓		12.9	7.91	1071	17.6	-208	1.06
1145	↓	↓		12.9	8.05	1106	15.7	-207	0.96
1150	↓	↓		12.8	8.00	1109	16.1	-206	0.90
1155	↓	↓		12.9	7.99	1109	15.2	-205	0.85

SAMPLED AT 1200 / 11-15-04

R. Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-127

Date/Time 11-15-04 / 1200 Water Level @ Sampling, Feet: 4.28

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1155	12.5	7.99	1109	15.2	-20.5	0.85

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

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

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

Field Personnel: R. Little, T. Palmer Sample Matrix: GW

( ) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-18-04 1120 Water Level @ Sampling, Feet: 16.56

Method of Sampling: SAMPLE PORT 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 (ORP)	Other ( )
1122	14.8	7.65	1683	3.92	-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: cloudy 50°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 11/18/04 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ALCH Sample Point ID: BL-6A

Field Personnel: P. Little, T Palmer Sample Matrix: GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 12-6-09 / 0945 Water Level @ Sampling, Feet: 10.38

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 ( )
0947	16.7	6.77	4082	20.3	-96	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 5.0 NTU 5.0 NTU std. = 5.0 NTU

Solutions: B-65-E

Serial #: 614162 4.0 std.= 4.00 7.0 std.= 7.00 10.0 std. =

Solutions: 4-3135 7-3117

Conductivity Serial #: 614162 1410 umhos/cm= 1411 umhos/cm=

Solutions: 1910 - 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: Cloudy 30°

Sample Characteristics: Clear BLACK TINT

COMMENTS AND OBSERVATIONS:

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

Date: 12/6/09 By: Company: SIT

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

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

Field Personnel: P. Little, T. Palmer Sample Matrix: GW

( ) Grab ( ) Composite

SAMPLING INFORMATION:

7.49 GPM

Date/Time 11-18-04 1215 Water Level @ Sampling, Feet: 30.42

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 ( )
1217	15.3	7.31	2993	17.5	-135	

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

Sample Characteristics: Clear with Grey Sheen

COMMENTS AND OBSERVATIONS:

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

Date: 11/18/04 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

BR-9

Facility: ARCH CHEMICAL Sample Point ID: ~~BK-9~~

Field Personnel: R. Little, T. Palmer Sample Matrix: GW

( ) Grab ( ) Composite

SAMPLING INFORMATION:

7.53 GIA

Date/Time 11-18-04 1205 Water Level @ Sampling, Feet: 26.72

Method of Sampling: SAMPLE POINT 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 (ORP)	Other ( )
1207	15.7	7.13	2672	272	-80	

INSTRUMENT CHECK DATA:

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

Solutions: _____

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 50°

Sample Characteristics: TURBID Gray Sludge

COMMENTS AND OBSERVATIONS:

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

Date: 11/18/04 By: R. Little Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: E-1

Field Personnel: P. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-15-04 / 1468

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

Prot. Casing/riser height: ____

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

If prot.casing; depth to riser below: ____

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

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

PURGE INFORMATION:

Date / Time Initiated: 11-15-04 / 1410

Date / Time Completed: 11-15-04 / 1430

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

Riser Diameter, Inches: ____

Initial Water Level, Feet: 0.47

Elevation. G/W MSL: ____

Well Total Depth, Feet: 8.30

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 Finish Clear Black Specks

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
1415	100	0.47		11.1	8.50	12,950	3880	-247	1.17
1420	↓	↓		11.1	8.55	12,160	34.7	-247	0.48
1425				11.2	8.55	12,150	28.6	-248	0.90
1430	↓	↓		11.0	8.50	12,150	25.3	-247	0.85

SAMPLED AT 1435 / 11-15-04
JL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID E-1

Date/Time 11-15-09 1435 Water Level @ Sampling, Feet: 0.47

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1470	11.06	8.50	12,130	25.3	-247	0.85

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

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-106

Field Personnel: R. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-16-04 / 1213

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

Prot. Casing/riser height: —

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

If prot.casing; depth to riser below: —

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

% LEL: — / —

Vol. Organic Meter (Calibration/Reading):

Volatiles (ppm): — / —

PURGE INFORMATION:

Date / Time Initiated: 11-16-04 / 1215

Date / Time Completed: 11-16-04 / 1240

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 10.60

Elevation. G/W MSL:

Well Total Depth, Feet: 19.30

Method of Well Purge: BLADDER PUMP ~~Peristaltic Pump~~

One (1) Riser Volume, Gal:

Dedicated: Y / (N)

Total Volume Purged, Gal: 1.0

Purged To Dryness Y / (N)

Purge Observations:

Start SL TURBID ORANGE Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1220	ml/min 150	10.24		13.8	6.99	3465	84.0	-147	1.06
1225	↓	↓		13.8	7.04	3474	54.3	-147	.92
1230				13.7	7.02	3475	30.1	-148	0.85
1235				13.8	7.06	3480	28.6	-148	0.77
1240	↓	↓		13.8	7.04	3483	12.7	-148	0.62

SAMPLED AT 1245 / 11-16-04

RL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID MW-10C

Date/Time 11-16-04 1 1245 Water Level @ Sampling, Feet: 10.24

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)
1240	13.8	7.04	3483	12.7	-148	0.62

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

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 127

Field Personnel: P. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-16-04 1039

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: — 1 — % LEL: — 1 —

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) 0 1 0

PURGE INFORMATION:

Date / Time Initiated: 11-15-04 1040

Date / Time Completed: 11-15-04 1105

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 4.71

Elevation. G/W MSL:

Well Total Depth, Feet: ~~11.30~~ 11.25

Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal:

Dedicated: (Y) / N

Total Volume Purged, Gal: < 1.0

Purged To Dryness Y / (N)

Purge Observations:

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1045	ml/min 75	5.11		12.4	7.09	4235	6.23	-1	1.12
1050	50	5.22		12.4	7.46	4273	5.64	-39	0.99
1055		5.30		12.3	7.49	4288	5.30	-38	0.95
1100		5.31		12.3	7.50	4280	5.33	-38	0.78
1105	↓	↓		12.2	7.49	4283	5.27	-38	0.69

SAMPLED AT 1110 / 11-15-04

pl Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID MW-127

Date/Time 11-15-04 1110 Water Level @ Sampling, Feet: 5.31

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1105	12.2	7.49	4283	5.27	-38	0.69

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 50 NTU 500 NTU std. = 500 NTU

Solutions: 8-65-E

pH Serial #: MP20 1201 4.0 std.= 4.00 7.0 std.= 7.00 10.0 std. = _____

Solutions: 4-3135, 7-3117

Conductivity Serial #: MP20 1201 1410 umhos/cm= 1410 _____ umhos/cm= _____

Solutions: 3077

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-16

Field Personnel: R. Little, T. Palmer | Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-17-04 1 0839 | Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried ____ %

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

If prot.casing; depth to riser below: —

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

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

PURGE INFORMATION:

Date / Time Initiated: 11-17-04 1 0945 | Date / Time Completed: 11-17-04 1 1010

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

Initial Water Level, Feet: 11.74 | Elevation. G/W MSL:

Well Total Depth, Feet: 34.40 | Method of Well Purge: BLADDER PUMP ~~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 BLACK SPECKS 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
0950	mL/min 100	11.77		15.5	6.75	2971	10.97	-199	1.17
0955	↓	↓		14.9	7.02	2858	6.05	-200	1.01
1000				15.0	7.00	2860	3.97	-200	0.95
1005				15.0	7.00	2862	3.73	-201	0.89
1010	↓	↓		15.0	7.10	2865	2.63	-201	0.83

SAMPLED AT 1015 / 11-17-04

R. Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID MW-16

Date/Time 11-17-04 1015 Water Level @ Sampling, Feet: 11.77

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)
1010	15.0	7.10	2865	2.63	-201	0.83

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 5.0 NTU 5.0 NTU std. = 5.0 NTU

Solutions: 8-65-E

pH Serial #: MP 20 1201 4.0 std.= 4.00 7.0 std.= 7.00 10.0 std. =

Solutions: 4-3135, 7-3117

Conductivity Serial #: MP.20 1201 1410 umhos/cm= 1410 umhos/cm=

Solutions: 3077

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

cility: ARCH CHEMICAL Sample Point ID: MW-10

Field Personnel: P. Little, T. Palmer Sample Matrix: GW

( ) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-18-04 1150 Water Level @ Sampling, Feet: 11.98

Method of Sampling: SAMPLE PORT 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 (ORP)	Other ( )
1152	16.3	9.48	8223	15.1	-112	

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 50°

Sample Characteristics: Brown strong odor

COMMENTS AND OBSERVATIONS:

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

Date: 11/18/04 By: M Lee Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

cility: ARCH CHEMICAL Sample Point ID: PW-11

Field Personnel: P. Little, T. Palmer Sample Matrix: GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-18-04 1010 Water Level @ Sampling, Feet: 30.67

Method of Sampling: SAMPLE PORT PERISTALTIC 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 ( )
1015	14.9	6.83	2641	48.1	-80	

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 50°

Sample Characteristics: Clear with Grey and Black Specks

COMMENTS AND OBSERVATIONS:

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

Date: 11/18/04 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

cility: ARCH CHEMICAL Sample Point ID: PW-12

Field Personnel: R. Little, T. Palmer Sample Matrix: GW

( ) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-18-04 / 1110 Water Level @ Sampling, Feet: 19.25

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 ( )
1113	16.6	7.56	4167	17.5	-112	

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 50°

Sample Characteristics: Clear BLACK TINT

COMMENTS AND OBSERVATIONS:

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

Date: 11/18/04 By: [signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: PW-13

Field Personnel: P. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-16-04 / 1048

Cond of seal: ( ) Good ( ) Cracked ____ %
(X) 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: 11-16-04 / 1050

Date / Time Completed: 11-16-04 / 1115

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

Riser Diameter, Inches: 6.0

Initial Water Level, Feet: 27.45

Elevation. G/W MSL: ____

Well Total Depth, Feet: 50.61

Method of Well Purge: Peristaltic Pump

ne (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
1055	milms 100	29.48		14.0	6.95	3247	125	-155	
1100	↓	↓		13.8	6.99	2928	12.6	-154	
1105	↓	↓		13.8	7.00	2971	10.99	-153	
1110	↓	↓		13.7	7.00	2979	10.76	-153	
1115	↓	↓		13.7	6.99	2985	10.54	-152	

SAMPLED AT 1120 / 11-16-04

DL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID MW-13

Date/Time 11-16-04 1120 Water Level @ Sampling, Feet: 29.48

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1115	13.7	6.99	2985	10.54	-152	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 5.0 NTU 5.0 NTU std. = 5.0 NTU

Solutions: 8-65-E

pH Serial #: 614162 4.0 std.= 4.01 7.0 std.= 7.00 10.0 std. = _____

Solutions: 4-3135, 7-3117

Conductivity Serial #: 614162 1410 umhos/cm= 1410 _____ umhos/cm= _____

Solutions: 3077

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: P2-101

Field Personnel: P. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-17-04 / 1053

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

Prot. Casing/riser height: -

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

If prot.casing; depth to riser below: -

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

% LEL: - / -

Vol. Organic Meter (Calibration/Reading):

Volatiles (ppm) - / -

PURGE INFORMATION:

Date / Time Initiated: 11-17-04 / 1055

Date / Time Completed: 11-17-04 / 1115

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 14.16

Elevation. G/W MSL:

Well Total Depth, Feet: 21.60

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 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
	pump	WL							
1100	150	14.42		13.6	6.76	6591	3.48	-158	1.10
1105		14.47		13.4	6.83	6547	3.50	-160	1.00
1110				13.5	6.85	6596	3.40	-159	0.96
1115	↓	↓		13.5	6.85	6595	2.70	-159	0.90

SAMPLE AT 1120 / 11-17-04

P. Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID MW-101

Date/Time 11-17-04 1120 Water Level @ Sampling, Feet: 14.47

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1115	13.5	6.85	6595	2.70	-159	0.90

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

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: B2-102

Field Personnel: R. Little, T. Palmer Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-17-04 / 1137 Cond of seal: (X) Good ( ) Cracked ____ %
( ) None ( ) Buried

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

If prot.casing; depth to riser below: —

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

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

PURGE INFORMATION:

Date / Time Initiated: 11-17-04 / 1140 Date / Time Completed: 11-17-04 / 1200

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

Initial Water Level, Feet: 13.51 Elevation. G/W MSL: ____

Well Total Depth, Feet: 32.53 Method of Well Purge: Peristaltic Pump

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

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

Purge Observations: ____ Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
	ML/min	WL							
1145	100	13.90		13.1	7.32	6081	2.57	-136	.99
1150				12.9	7.30	6135	1.52	-137	0.95
1155				13.2	7.30	6150	1.90	-137	0.90
1200	↓	↓		13.2	7.30	6155	1.81	-137	0.87

SAMPLED AT 1205 / 11-17-04

gal Lite

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID MW-102

Date/Time 11-17-04 1205 Water Level @ Sampling, Feet: 13.90

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1200	13.2	7.30	6155	1.81	-137	0.87

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

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

Date: 11 By: _____ Company: _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: PZ-103

Field Personnel: P. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-17-04 / 1218

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: 11-17-04 / 1220

Date / Time Completed: 11-17-04 / 1240

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 12.40

Elevation. G/W MSL:

Well Total Depth, Feet: 32.45

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 (BLACK SPECKS) Finish Clear BLACK Specks

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
1225	ml/min 100	WL 12.47		14.2	7.35	4013	2.41	-177	2.11
1230	↓	↓		14.0	7.40	3988	1.97	-180	1.80
1235				14.2	7.43	4035	1.94	-181	1.36
1240	↓	↓		14.2	7.44	4031	1.86	-181	1.29

SAMPLED AT 1245 / 11-17-04 per Phil Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID MW-103

Date/Time 11-17-09 1245 Water Level @ Sampling, Feet: 12.47

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1240	14.2	7.44	4031	1.86	-181	1.29

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

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: P2-104

Field Personnel: R. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-17-04 / 1302

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

Prot. Casing/riser height: —

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

If prot.casing; depth to riser below: —

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

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

PURGE INFORMATION:

Date / Time Initiated: 11-17-04 / 1305

Date / Time Completed: 11-17-04 / 1325

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: ~~14.11~~ 13.50

Elevation. G/W MSL: ____

Well Total Depth, Feet: 23.64

Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: ____

Dedicated: (Y) / N

Total Volume Purged, Gal: 1.0

Purged To Dryness Y / (N)

Purge Observations: ____

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1310	200	13.59		15.9	6.48	1960	4.94	-127	1.50
1315	↓	↓		15.9	7.05	1980	2.86	-129	1.27
1320	↓	↓		15.9	7.06	1981	2.27	-129	1.11
1325	↓	↓		15.9	7.07	1984	2.20	-129	0.99

SAMPLED AT 1330 / 11-17-04

RL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID MW-104

Date/Time 11-17-04 1330 Water Level @ Sampling, Feet: 13.59

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1325	15.9	7.07	1984	2.20	-129	0.99

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

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.

te: 1 1 By: _____ Company: _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: PZ-107

Field Personnel: P. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-15-04 1249

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: 11-15-04 1250

Date / Time Completed: 11-15-04 1310

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 6.66

Elevation. G/W MSL:

Well Total Depth, Feet: 27.73

Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal:

Dedicated: (Y) / N

Total Volume Purged, Gal: 1.0

Purged To Dryness Y / (N)

Purge Observations:

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1255	ml/min 100	6.78		13.6	7.48	2443	5.66	-124	1.11
1300	↓	↓		13.5	7.59	2509	5.60	-140	1.00
1305	↓	↓		13.5	7.60	2510	5.58	-142	0.96
1310	↓	↓		13.6	7.66	2513	5.18	-141	0.90

SAMPLED AT 1315 / 11-15-04

P. Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID PZ-107

Date/Time 11-15-04 1315 Water Level @ Sampling, Feet: 6.78

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1310	13.6	7.66	2513	5.18	-141	0.90

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

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.

e: 1 1 By: _____ Company: _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: S-3

Field Personnel: P. Little, T. Palmer Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-15-04 / 1328 Cond of seal: ( ) Good ( ) Cracked ( ) None ( ) Buried %

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

If prot.casing; depth to riser below:

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

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

PURGE INFORMATION:

Date / Time Initiated: 11-15-04 / 1330 Date / Time Completed: 11-15-04 / 1350

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

Initial Water Level, Feet: 2.47 Elevation. G/W MSL:

Well Total Depth, Feet: 12.27 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 Finish Clear (BLACK SPECKS)

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
1335	mL/m 100	2.47		10.7	7.48	2393	22.5	-100	1.55
1340	↓	↓		10.3	~~7.59~~ 7.59	2402	7.85	-99	1.14
1345	↓	↓		10.2	7.58	2402	8.29	-99	0.99
1350	↓	↓		10.1	7.59	2401	7.44	-98	0.95

SAMPLED AT 1355 / 11-15-04

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID S-3

Date/Time 11-15-04 1355 Water Level @ Sampling, Feet: 2.47

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1350	10.1	7.59	2401	7.44	-98	0.95

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: _____

Sample Characteristics: _____

COMMENTS AND OBSERVATIONS: _____

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

Date: 11 By: _____ Company: _____

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: ~~S-4~~ S-4

Field Personnel: R. Little, T. Palmer

Sample Matrix: GW

MONITORTING WELL INSPECTION:

Date/Time 11-15-04 / 1217

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

Prot. Casing/riser height: ____

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

If prot.casing; depth to riser below: ____

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

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

PURGE INFORMATION:

Date / Time Initiated: 11-15-04 / 1220

Date / Time Completed: 11-15-04 / 1240

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

Riser Diameter, Inches: ____

Initial Water Level, Feet: 0.67

Elevation. G/W MSL: ____

Well Total Depth, Feet: 10.50

Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: ____

Dedicated: (Y) / N

Total Volume Purged, Gal: 1.0

Purged To Dryness Y / (N)

Purge Observations: ____

Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1225	pump 100	0.67		10.8	7.23	255	8.26	-36	1.09
1230	↓	↓		10.6	7.58	252	8.50	-40	1.01
1235				10.6	7.68	252	8.81	-41	0.46
1240	↓	↓		10.7	7.70	252	8.38	-41	0.90

SAMPLED AT 1245 / 11-15-04

pH Lite

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID S-4

Date/Time 11-15-04 1245 Water Level @ Sampling, Feet: 0.67

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other (DO)
1240	10.7	7.70	252	8.38	-41	0.90

INSTRUMENT CHECK DATA:

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

Solutions: 8-65-E

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

Solutions: 4-3135, 7-3117

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

Solutions: 3077

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.

e: 1 1 By: _____ Company: _____

LeachField Form
Revision 1
January 29, 2003

FIELD OBSERVATIONS

Facility: ARCH - ROCH., NY Sample Point ID: GD-1

Field Personnel: R. SEUF / P. LITTLE Sample Matrix: S/W - SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-30-04 1255 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 ( )
Grab 1	1300	8.7	7.97	1420	59.9	55	
Grab 2	1301	8.9	8.00	1419	59.9	55	
Grab 3							

INSTRUMENT CHECK DATA:

Turbidity Serial #: 5202 NTU std. = ____ NTU 20.0 NTU std. = 20.0 NTU

Solutions: CHa-48-E

pH Serial #: 616806 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = ____

Solutions: 4-3135 7-3117

Conductivity Serial #: 616806 1410 umhos/cm= 1410 ____ umhos/cm= ____

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 40°F

Sample Characteristics: GRAY TINT

COMMENTS AND OBSERVATIONS: FIELD DUPLICATE

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

Date: 11/30/04 By: [signature] Company: STL

LeachField Form
Revision 1
January 29, 2003

FIELD OBSERVATIONS

Facility: ARCH - ROCH., NY Sample Point ID: GD-2

Field Personnel: R. SENF / D. LITTLE Sample Matrix: S/W - SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-30-04 1005 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 ( )
Grab 1	1010	8.2	7.92	1399	47.6	113	
Grab 2							
Grab 3							

INSTRUMENT CHECK DATA:

urbidity Serial #: 5202 NTU std. = ____NTU 20.0 NTU std. = 20.0 NTU

Solutions: CHa -48-E

pH Serial #: 616806 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = ____

Solutions: 4 -3135 7-3117

Conductivity Serial #: 616806 1410 umhos/cm= 1410 ____umhos/cm=____

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 40°F

Sample Characteristics: MICKY TINT

COMMENTS AND OBSERVATIONS:

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

Date: 11/30/04 By: [signature] Company: STC

LeachField Form
Revision 1
January 29, 2003

FIELD OBSERVATIONS

Facility: ARCH - ROCH., NY Sample Point ID: QO-2

Field Personnel: R. SENF / P. LITTLE Sample Matrix: S/W - SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-30-04 1025 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 ( )
Grab 1	1030	7.8	7.91	1417	33.7	94	
Grab 2							
Grab 3							

INSTRUMENT CHECK DATA:

urbidity Serial #: 5202 NTU std. = ____NTU 20.0 NTU std. = 20.0 NTU

Solutions: CHa -48-E

pH Serial #: 616806 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = ____

Solutions: 4 -3135 7 -3117

Conductivity Serial #: 616806 1410 umhos/cm= 1410 ____umhos/cm=____

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 40°F

Sample Characteristics: MILKY TINT

COMMENTS AND OBSERVATIONS:

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

Date: 11/30/04 By: [signature] Company: STC

LeachField Form
Revision 1
January 29, 2003

FIELD OBSERVATIONS

Facility: ARCH - ROCH., NY Sample Point ID: QO-251

Field Personnel: R. SENF / P. LITTLE Sample Matrix: S/W - SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-30-04 1035 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 ( )
Grab 1	1040	7.2	7.81	650	20.9	65	
Grab 2							
Grab 3							

INSTRUMENT CHECK DATA:

Turbidity Serial #: 5202 NTU std. = ____ NTU 20.0 NTU std. = 20.0 NTU

Solutions: CHa-48-E

pH Serial #: 616806 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = ____

Solutions: 4-3135 7-3117

Conductivity Serial #: 616806 1410 umhos/cm= 1410 ____ umhos/cm= ____

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 40°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS:

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

Date: 11/30/04 By: [signature] Company: STC

LeachField Form
Revision 1
January 29, 2003

FIELD OBSERVATIONS

Facility: ARCH - ROCH., NY Sample Point ID: GP-1

Field Personnel: R. SENF/P. LITTLE Sample Matrix: S/W - SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-30-04 1055 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 ( )
Grab 1	1100	9.2	7.96	1402	55.4	57	
Grab 2							
Grab 3							

INSTRUMENT CHECK DATA:

Turbidity Serial #: 5202 NTU std. = ____ NTU 20.0 NTU std. = 20.0 NTU

Solutions: CHa-48-E

pH Serial #: 616806 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = ____

Solutions: 4-3135 7-3117

Conductivity Serial #: 616806 1410 umhos/cm= 1410 ____ umhos/cm= ____

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 40°F

Sample Characteristics: GRAY TINT

COMMENTS AND OBSERVATIONS:

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

Date: 11/30/04 By: [signature] Company: STC

LeachField Form
Revision 1
January 29, 2003

FIELD OBSERVATIONS

Facility: ARCH - ROCH., NY Sample Point ID: SS-2

Field Personnel: R. SENF / P. LITTLE Sample Matrix: S/W - SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-30-04 / 1110 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 ( )
Grab 1	1120	7.6	8.34	1262	5.15	37	
Grab 2							
Grab 3							

INSTRUMENT CHECK DATA:

Turbidity Serial #: 5202 NTU std. = ____ NTU 20.0 NTU std. = 20.0 NTU

Solutions: CHa -48-E

pH Serial #: 616806 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = ____

Solutions: 4 -3135 7-3117

Conductivity Serial #: 616806 1410 umhos/cm= 1410 ____ umhos/cm= ____

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 40°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS:

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

Date: 11/30/04 By: [signature] Company: STC

LeachField Form
Revision 1
January 29, 2003

FIELD OBSERVATIONS

Facility: ARCH - ROCH., NY Sample Point ID: GS-3

Field Personnel: R. SENF / P. LITTLE Sample Matrix: S/W - SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-30-04 / 1120 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 ( )
Grab 1	1125	9.2	8.11	1467	4.64	-15	
Grab 2							
Grab 3							

INSTRUMENT CHECK DATA:

Turbidity Serial #: 5202 NTU std. = ____ NTU 20.0 NTU std. = 20.0 NTU

Solutions: CHa-48-E

pH Serial #: 616806 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = ____

Solutions: 4-3135 7-3117

Conductivity Serial #: 616806 1410 umhos/cm= 1410 ____ umhos/cm= ____

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 40°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS:

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

Date: 11/30/04 By: [signature] Company: STC

LeachField Form
Revision 1
January 29, 2003

FIELD OBSERVATIONS

Facility: ARCH - ROCH., NY Sample Point ID: GS-4

Field Personnel: R. SENF / P. CITTER Sample Matrix: S/W - SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-30-04 / 1135 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 ( )
Grab 1	1140	9.2	8.04	1824	2.19	-25	
Grab 2							
Grab 3							

INSTRUMENT CHECK DATA:

urbidity Serial #: 5202 NTU std. = ____NTU 20.0 NTU std. = 20.0 NTU

Solutions: CHa -48-E

pH Serial #: 616806 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = ____

Solutions: 4 -3135 7-3117

Conductivity Serial #: 616806 1410 umhos/cm= 1410 ____umhos/cm=____

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 40°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS:

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

Date: 11/30/04 By: [signature] Company: STC

LeachField Form
Revision 1
January 29, 2003

FIELD OBSERVATIONS

Facility: ARCH - ROCH., NY Sample Point ID: GS-5

Field Personnel: R. SENF / P. CITTER Sample Matrix: S/W - SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-30-04 1145 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 ( )
Grab 1	1150	6.6	8.30	802	5.91	-21	
Grab 2							
Grab 3							

INSTRUMENT CHECK DATA:

Turbidity Serial #: 5202 NTU std. = ____ NTU 20.0 NTU std. = 20.0 NTU

Solutions: CHa -48-E

pH Serial #: 616806 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = ____

Solutions: 4 -3135 7-3117

Conductivity Serial #: 616806 1410 umhos/cm= 1410 ____ umhos/cm= ____

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDY, 40°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS:

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

Date: 11/30/04 By: [signature] Company: STC

LeachField Form
Revision 1
January 29, 2003

FIELD OBSERVATIONS

Facility: ARCH - ROCH., NY Sample Point ID: SW-2

Field Personnel: R. SAUF / P. CITTLA Sample Matrix: S/W - SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 11-30-04 1230 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 ( )
Grab 1	1240	7.1	7.95	676	21.6	23	
Grab 2							
Grab 3							

INSTRUMENT CHECK DATA:

Turbidity Serial #: 5202 NTU std. = ____ NTU 20.0 NTU std. = 20.0 NTU

Solutions: CHa-48-E

pH Serial #: 616806 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = ____

Solutions: 4-3135 7-3117

Conductivity Serial #: 616806 1410 umhos/cm= 1410 ____ umhos/cm= ____

Solutions: 3077

GENERAL INFORMATION:

Weather conditions @ time of sampling: Cloudy, 40°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS:

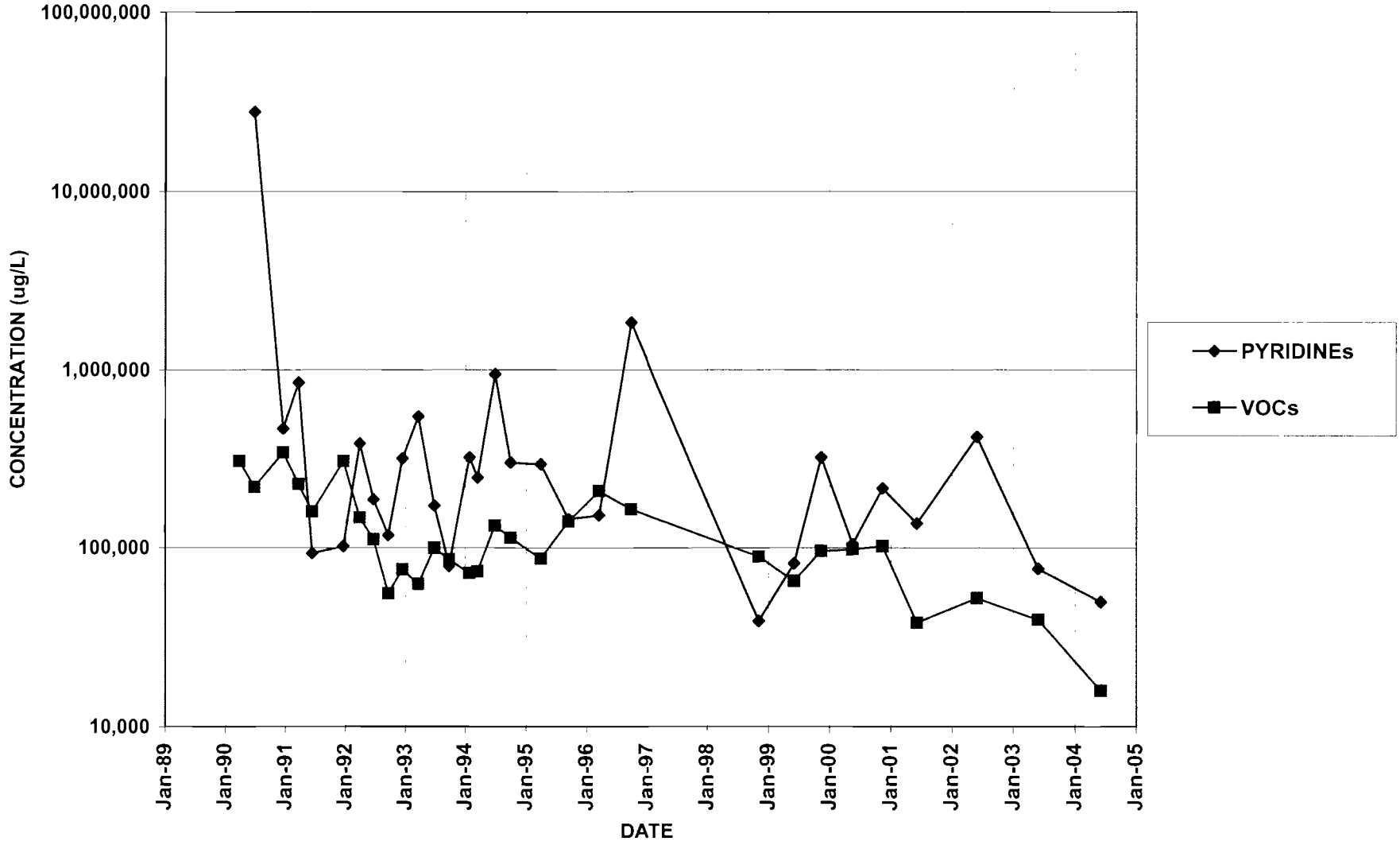
Certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 11/30/04 By: [signature] Company: STL

Appendix B

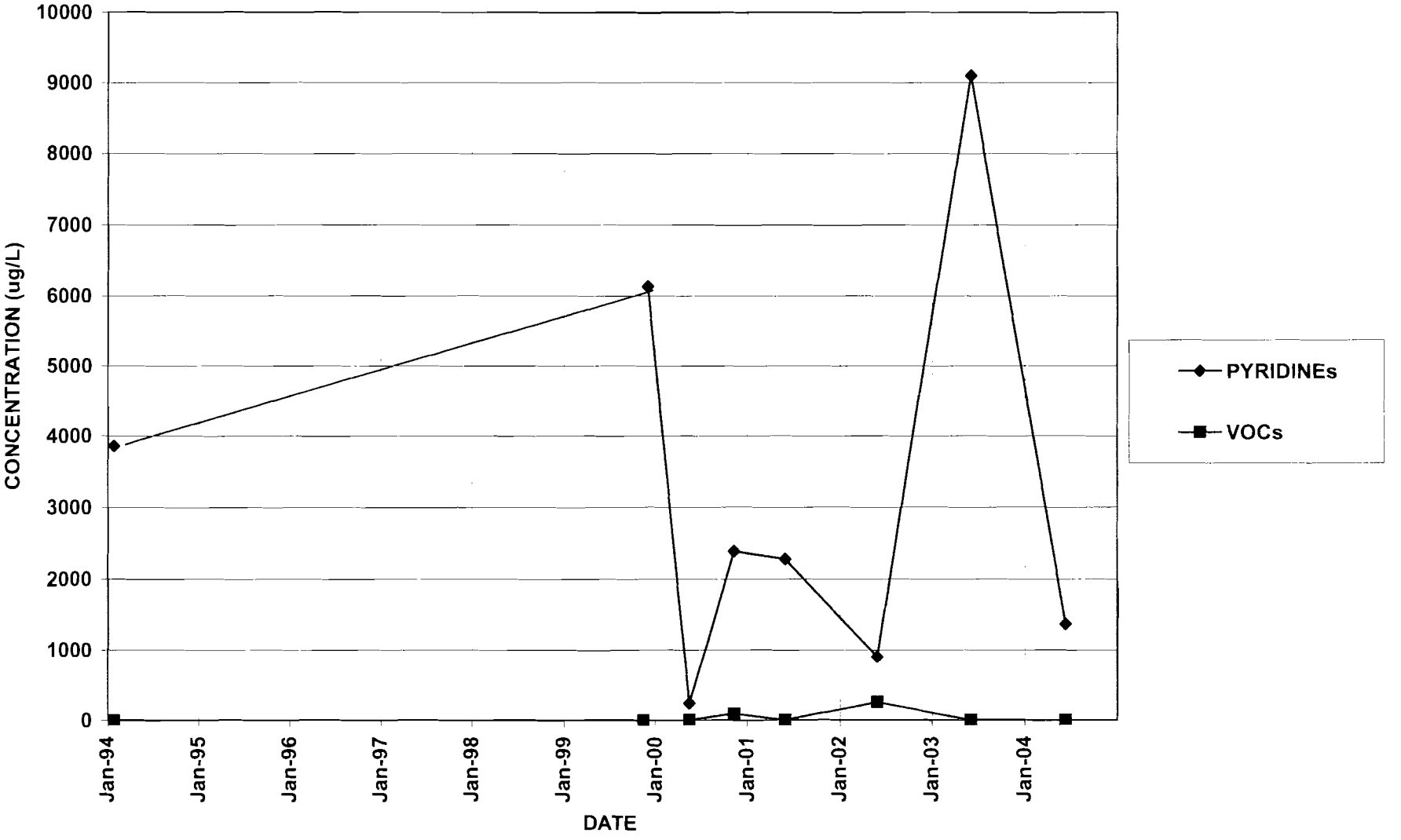
Well Trend Data

B-17



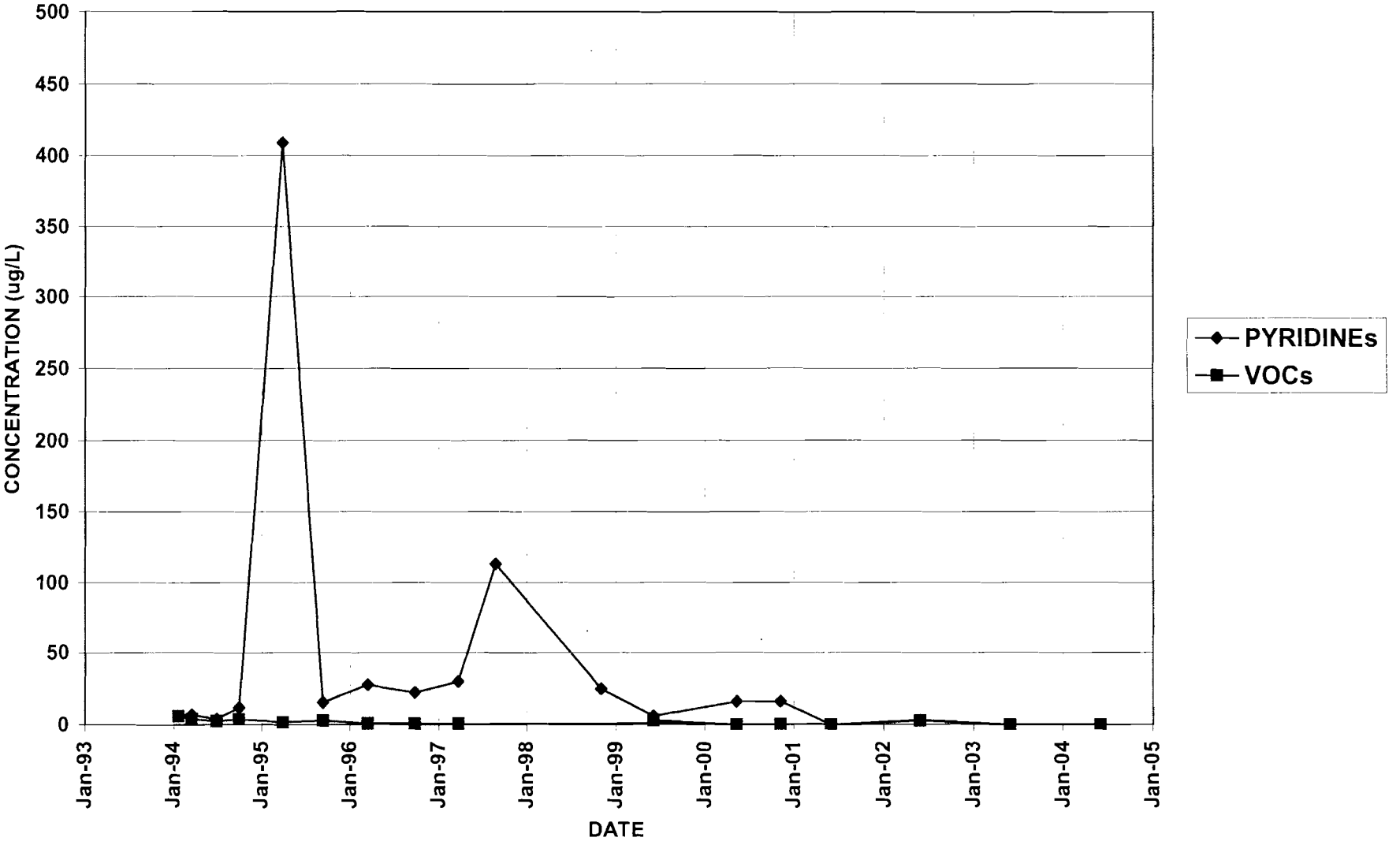
Prepared by: nmb
Reviewed by: jrb

B-7



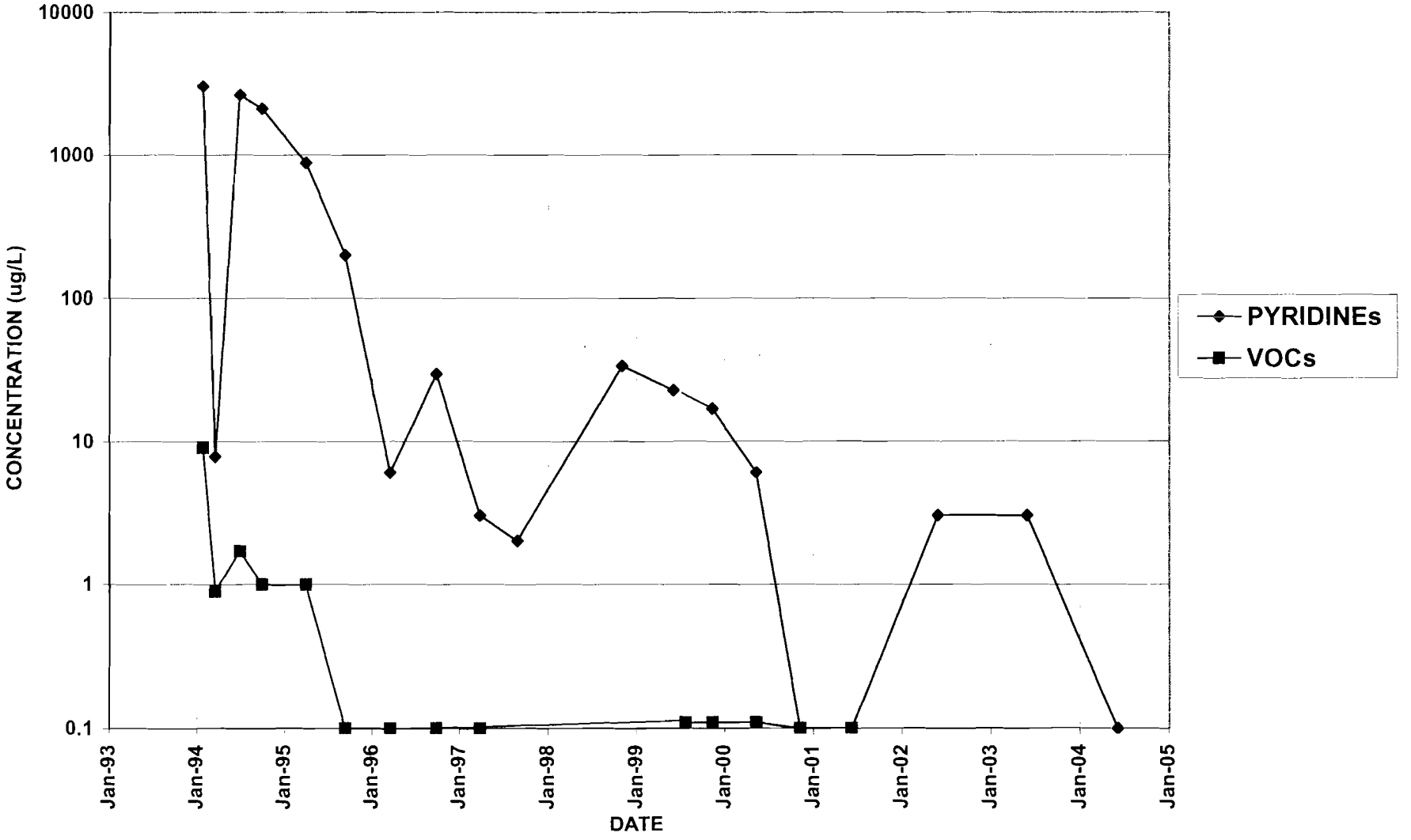
Prepared by: nmb
Reviewed by: jrb

BR-103

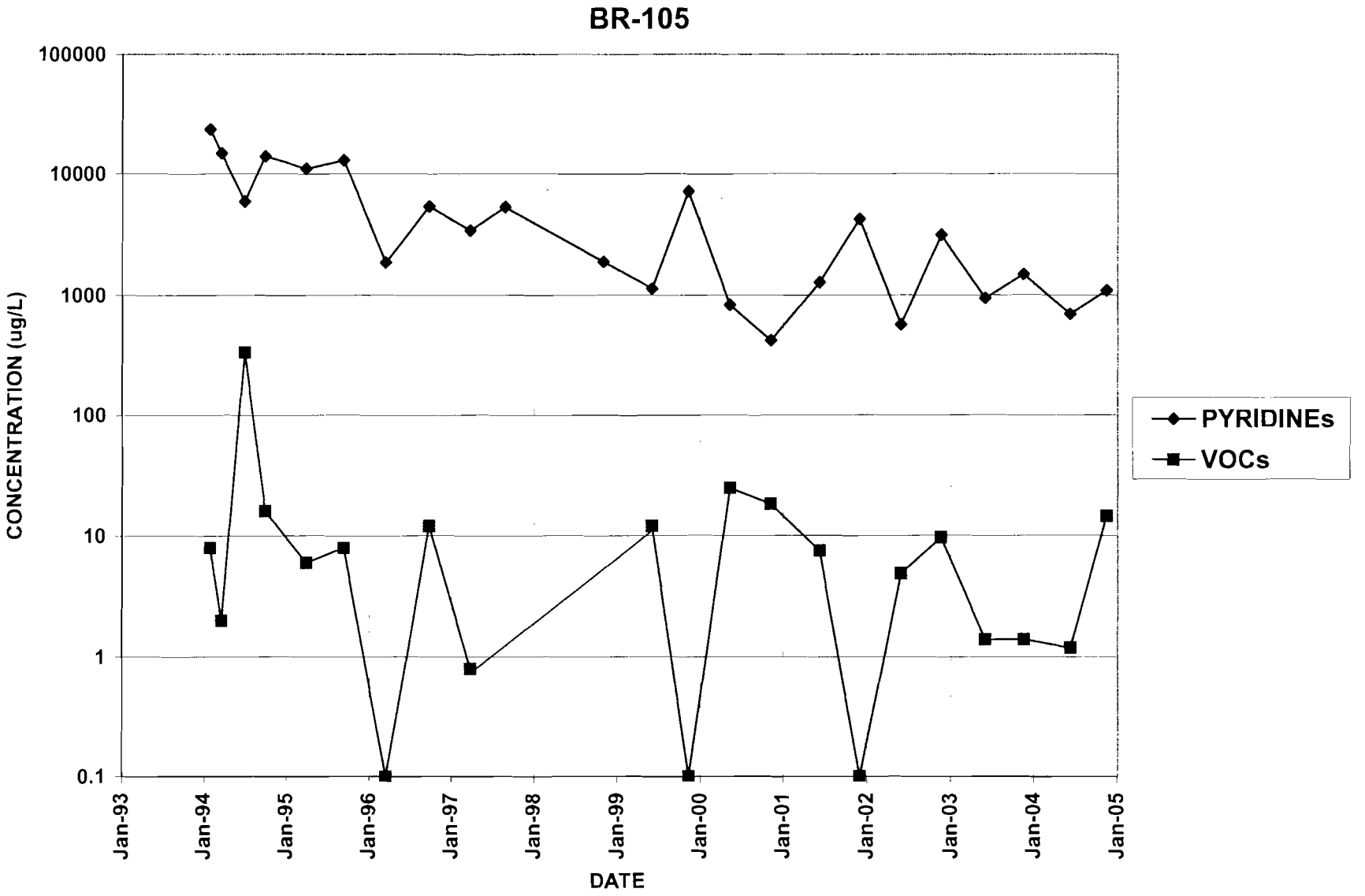


Prepared by: nmb
Reviewed by: jrb

BR-104

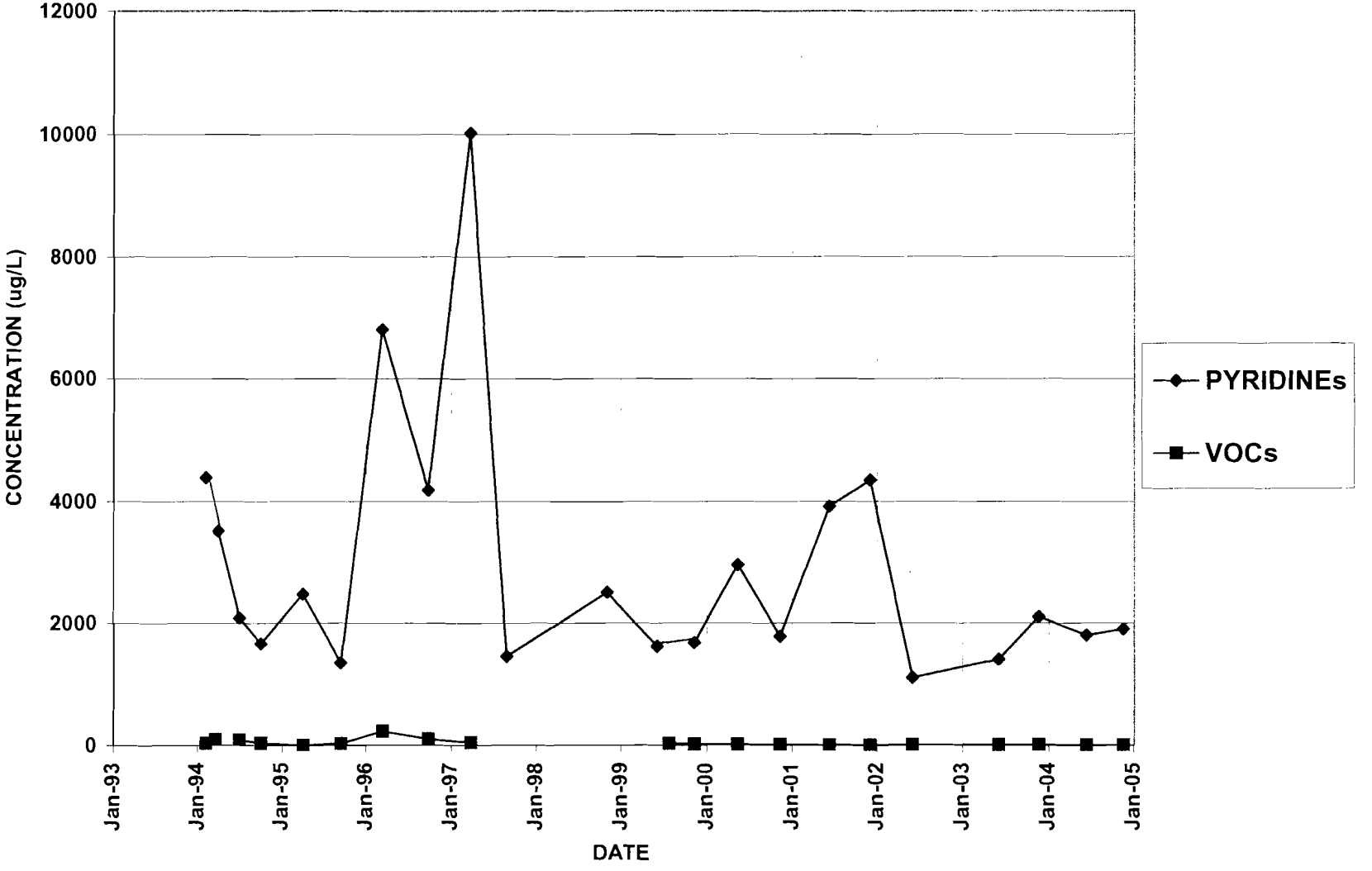


Prepared by: nmb
Reviewed by: jrb



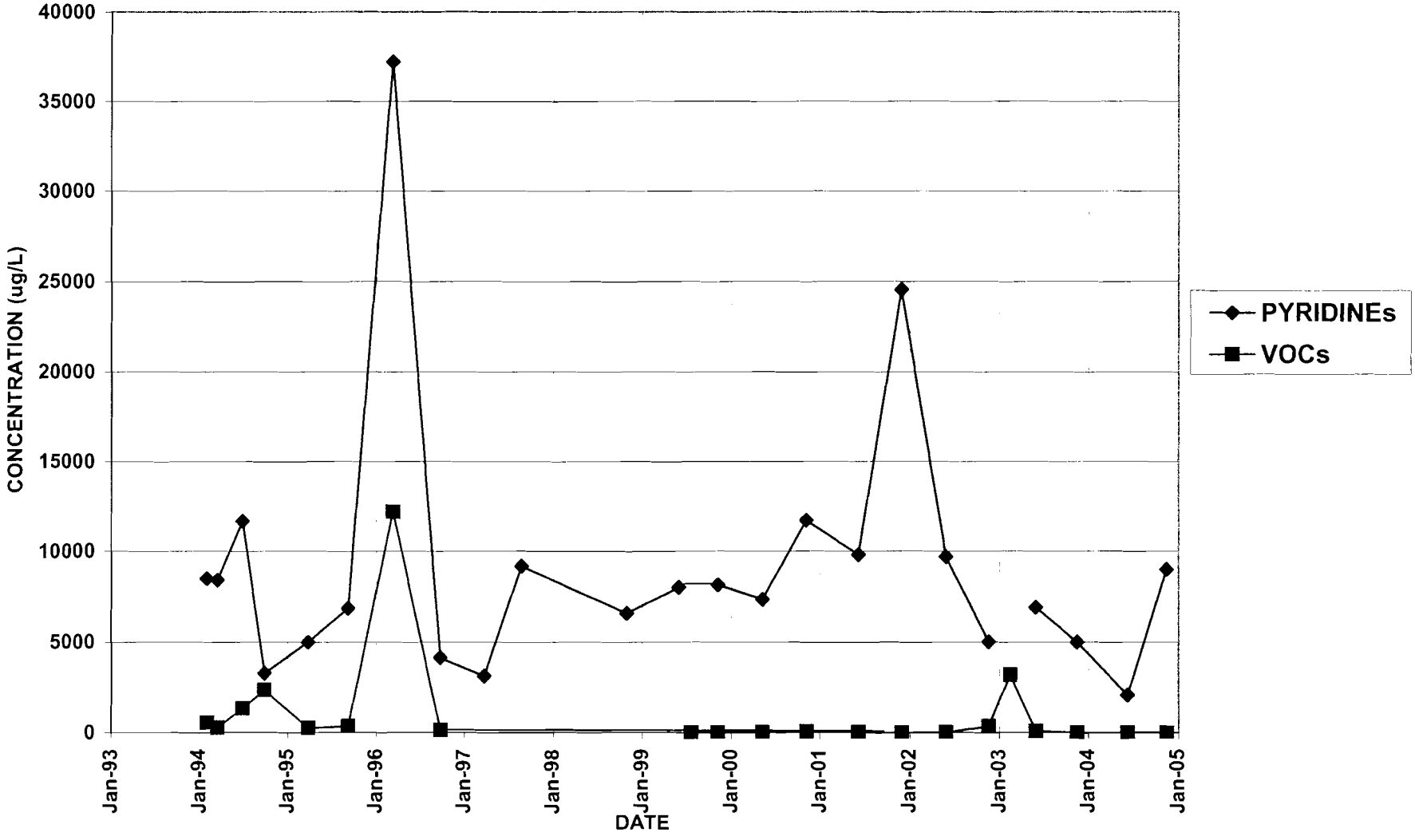
Prepared by: nmb
Reviewed by: jrb

BR-105D



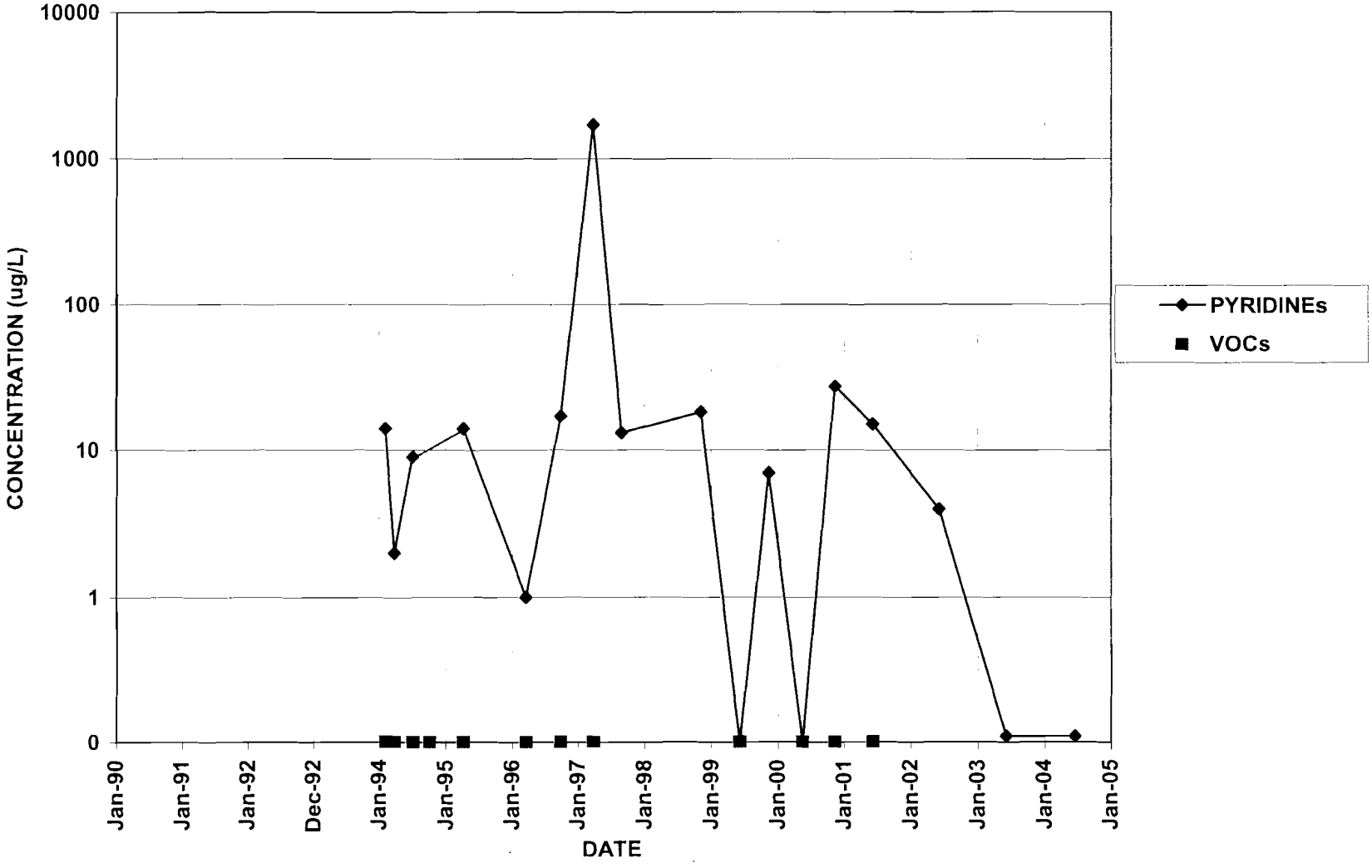
Prepared by: nmb
Reviewed by: jrb

BR-106



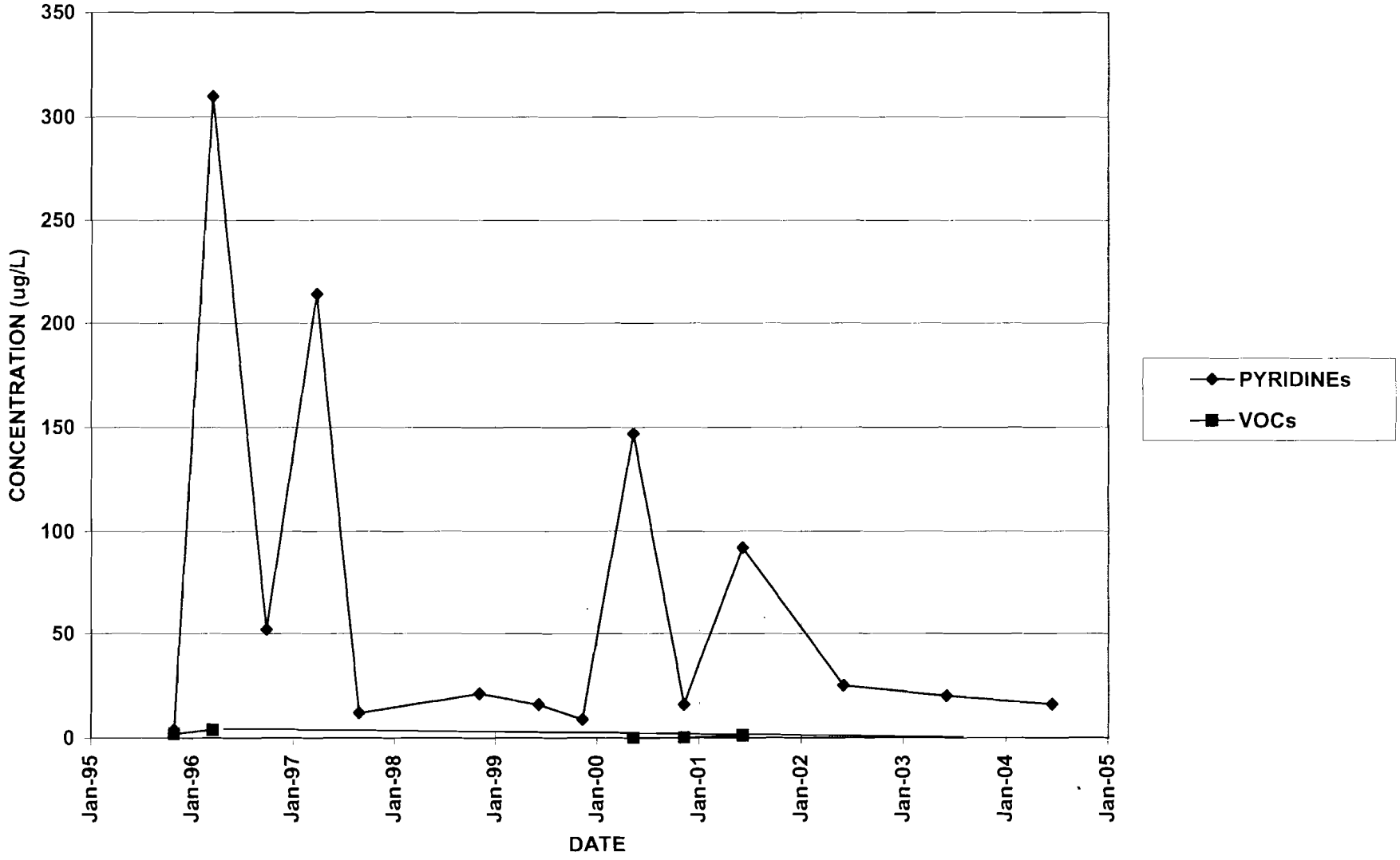
Prepared by: nmb
Reviewed by: jrb

BR-108



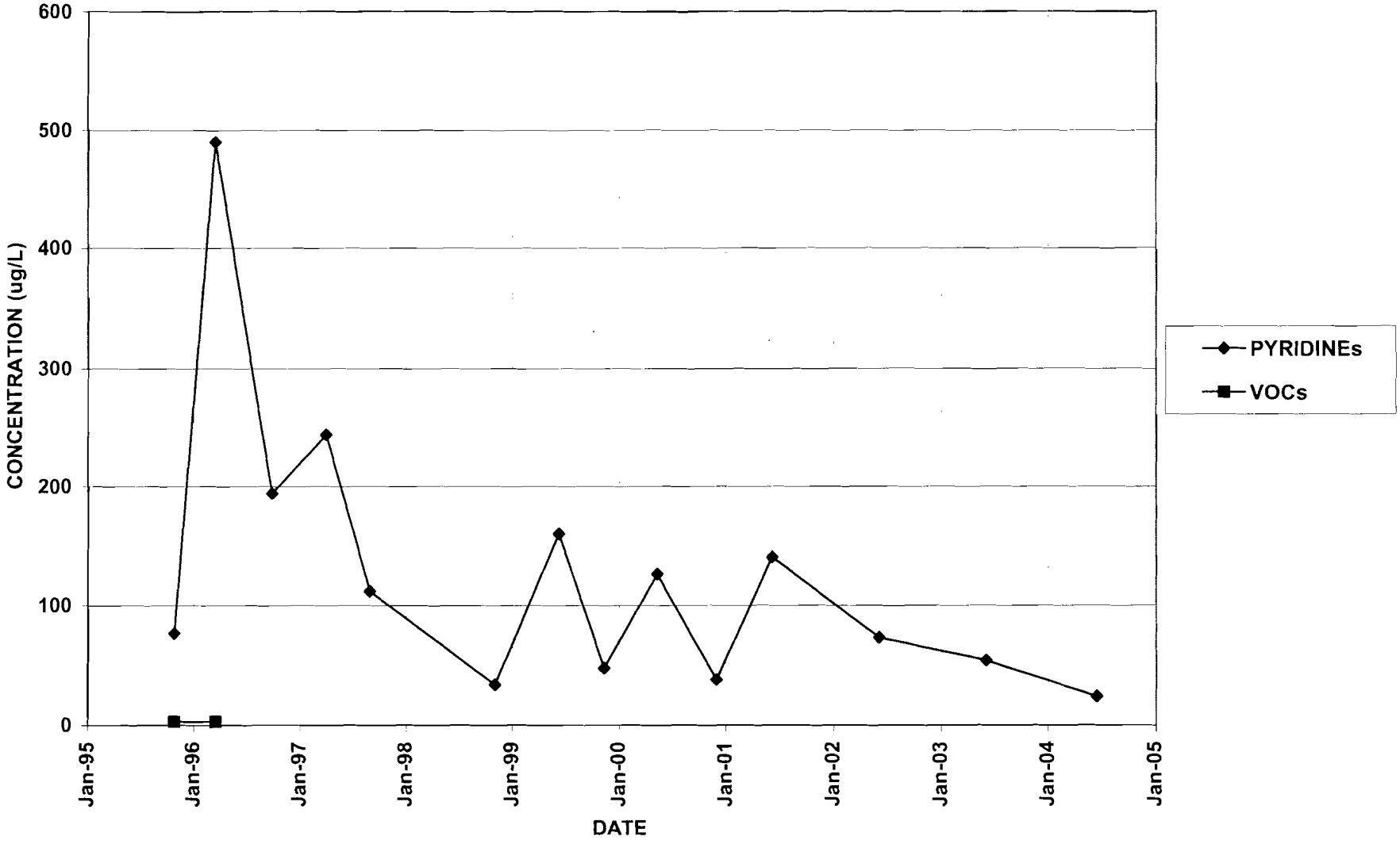
Prepared by: nmb
Reviewed by: jrb

BR-112D



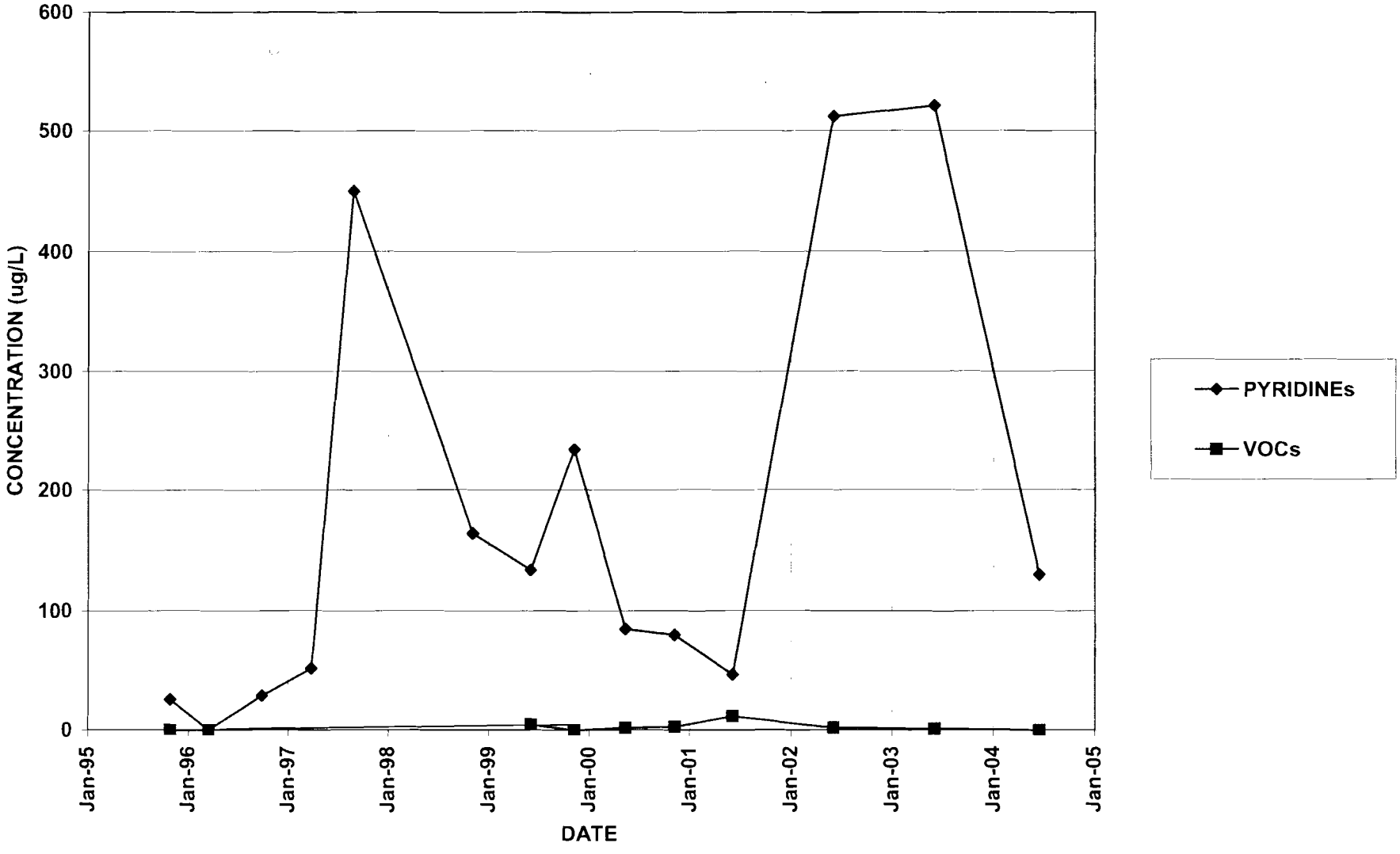
Prepared by: nmb
Reviewed by: jrb

BR-113D

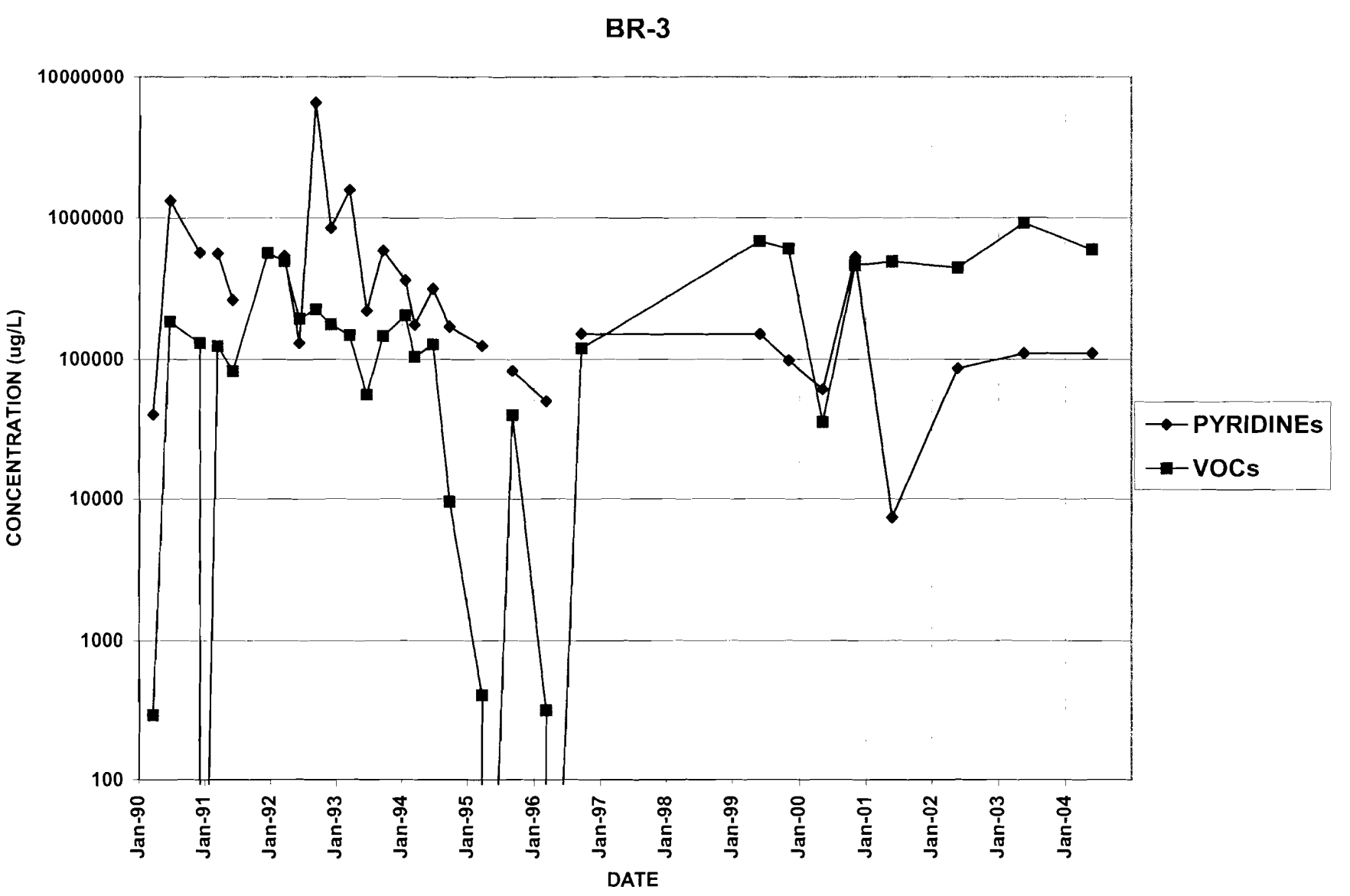


Prepared by: nmb
Reviewed by: jrb

BR-114

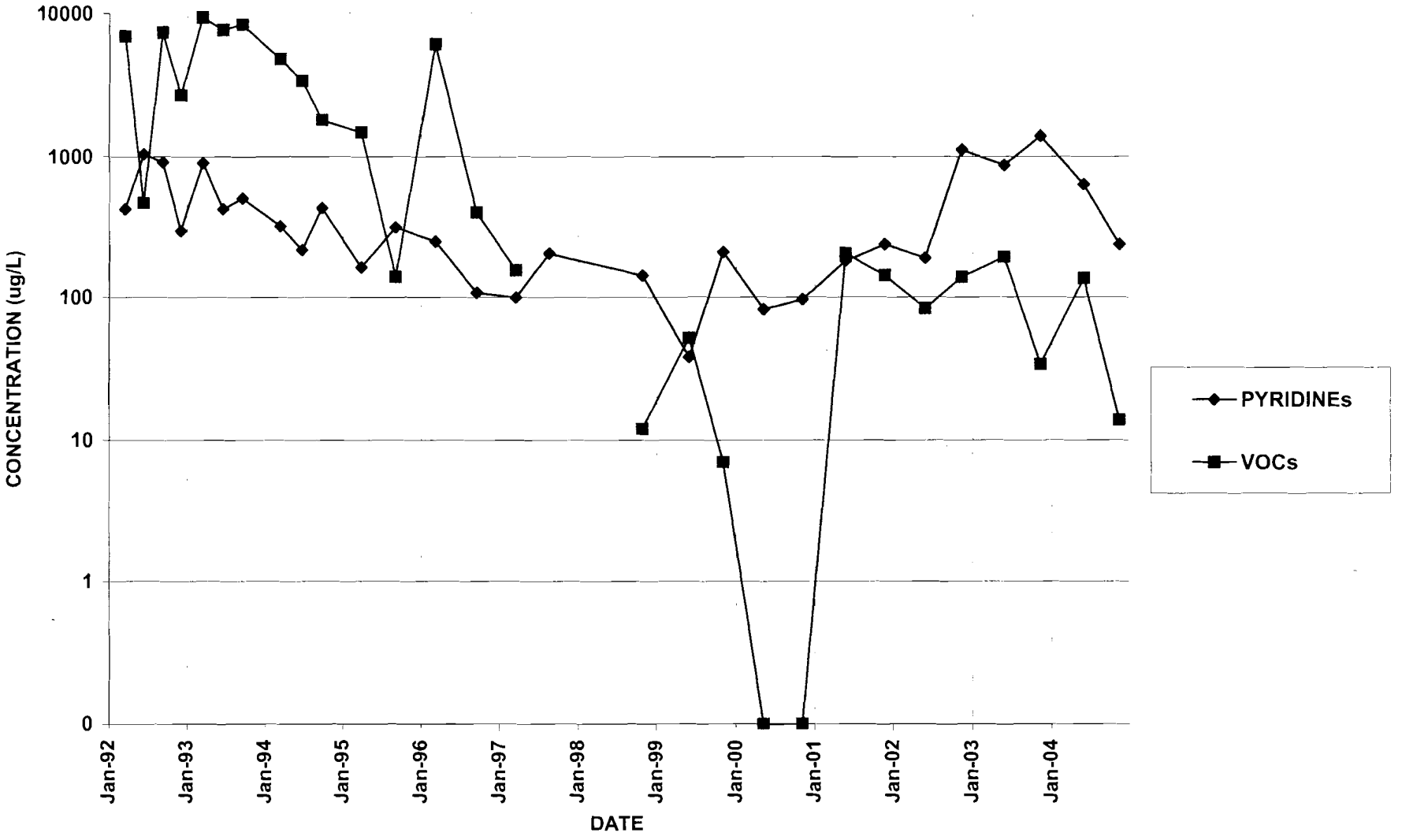


Prepared by: nmb
Reviewed by: jrb



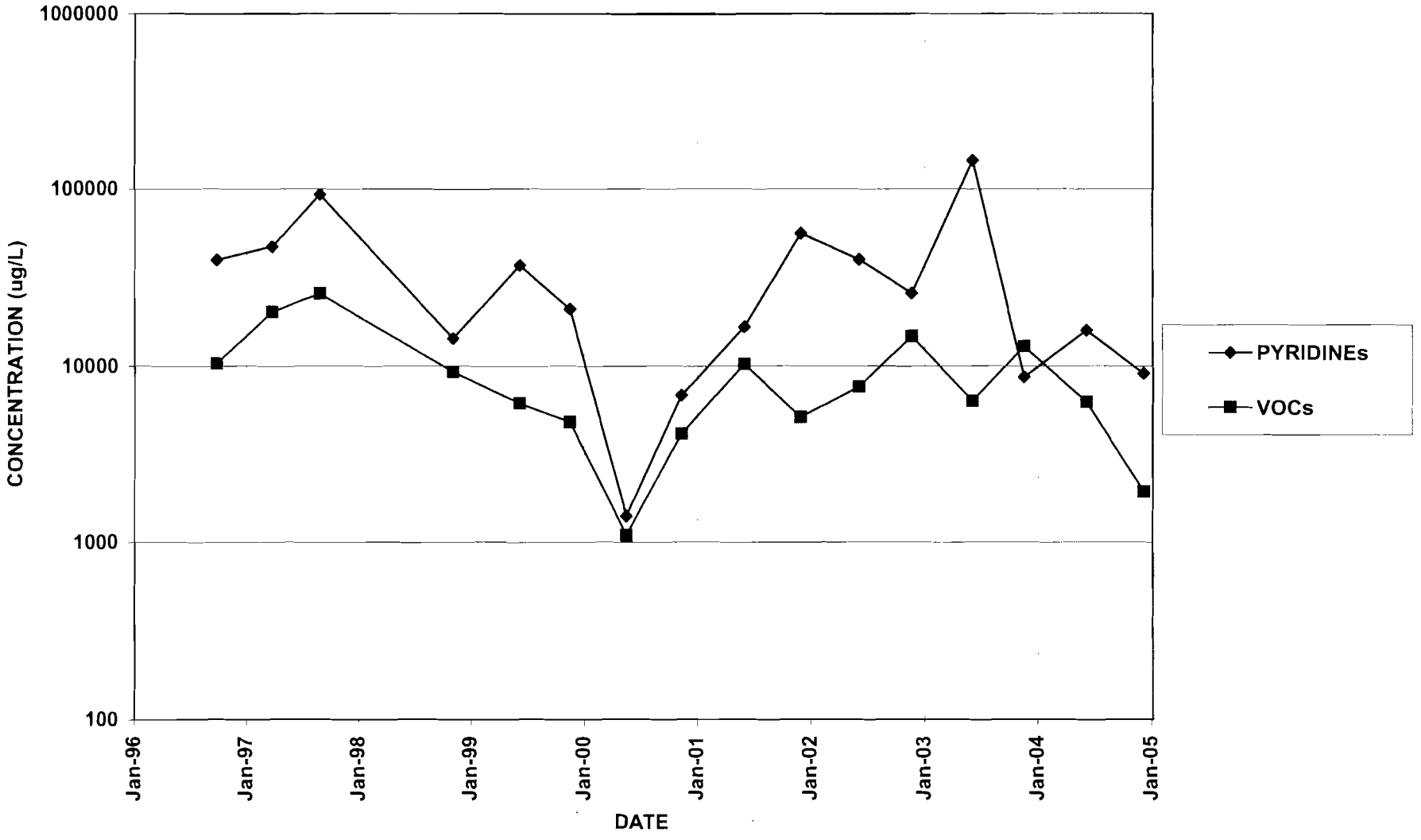
Prepared by: nmb
Reviewed by: jrb

BR-5A



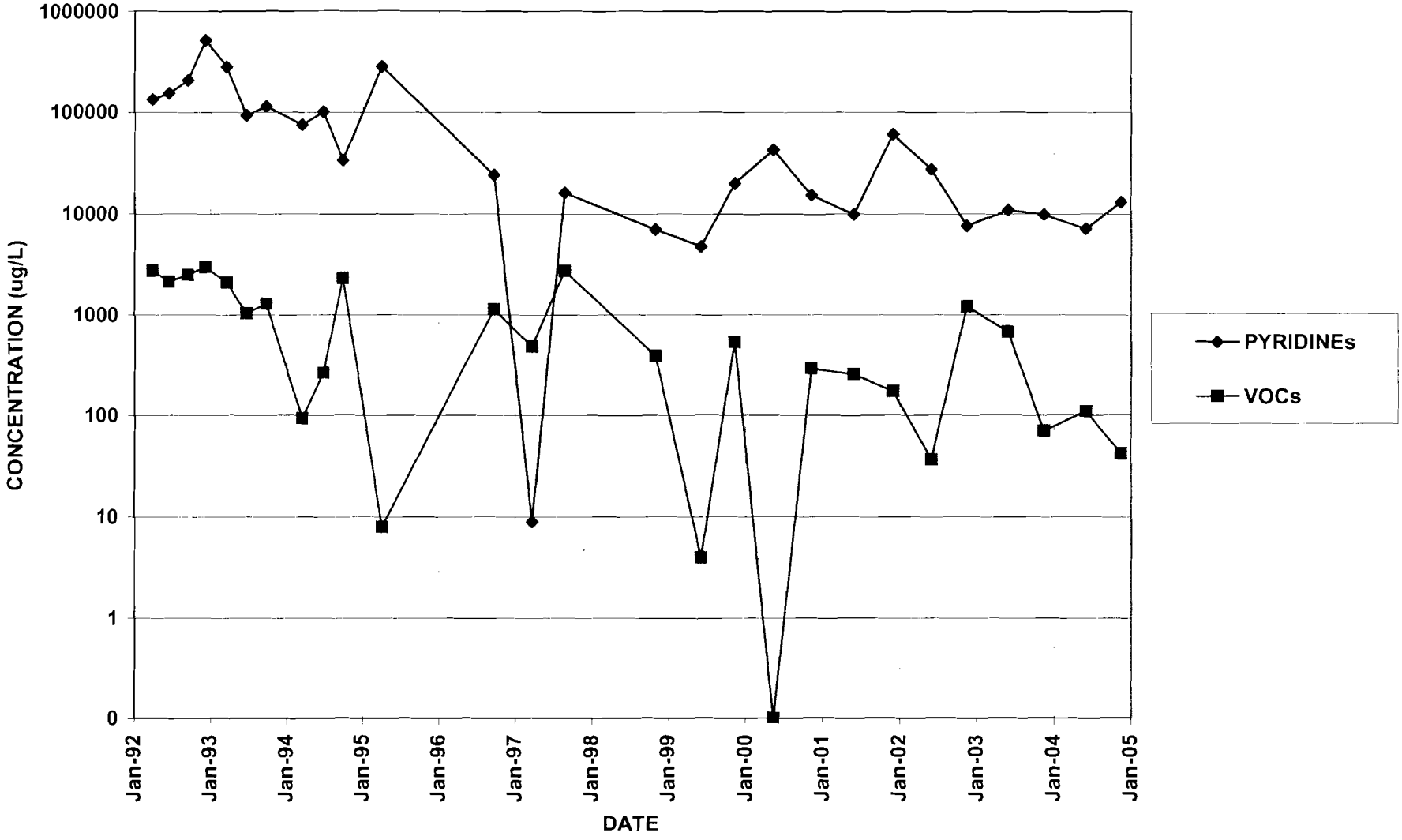
Prepared by: nmb
Reviewed by: jrb

BR-6A



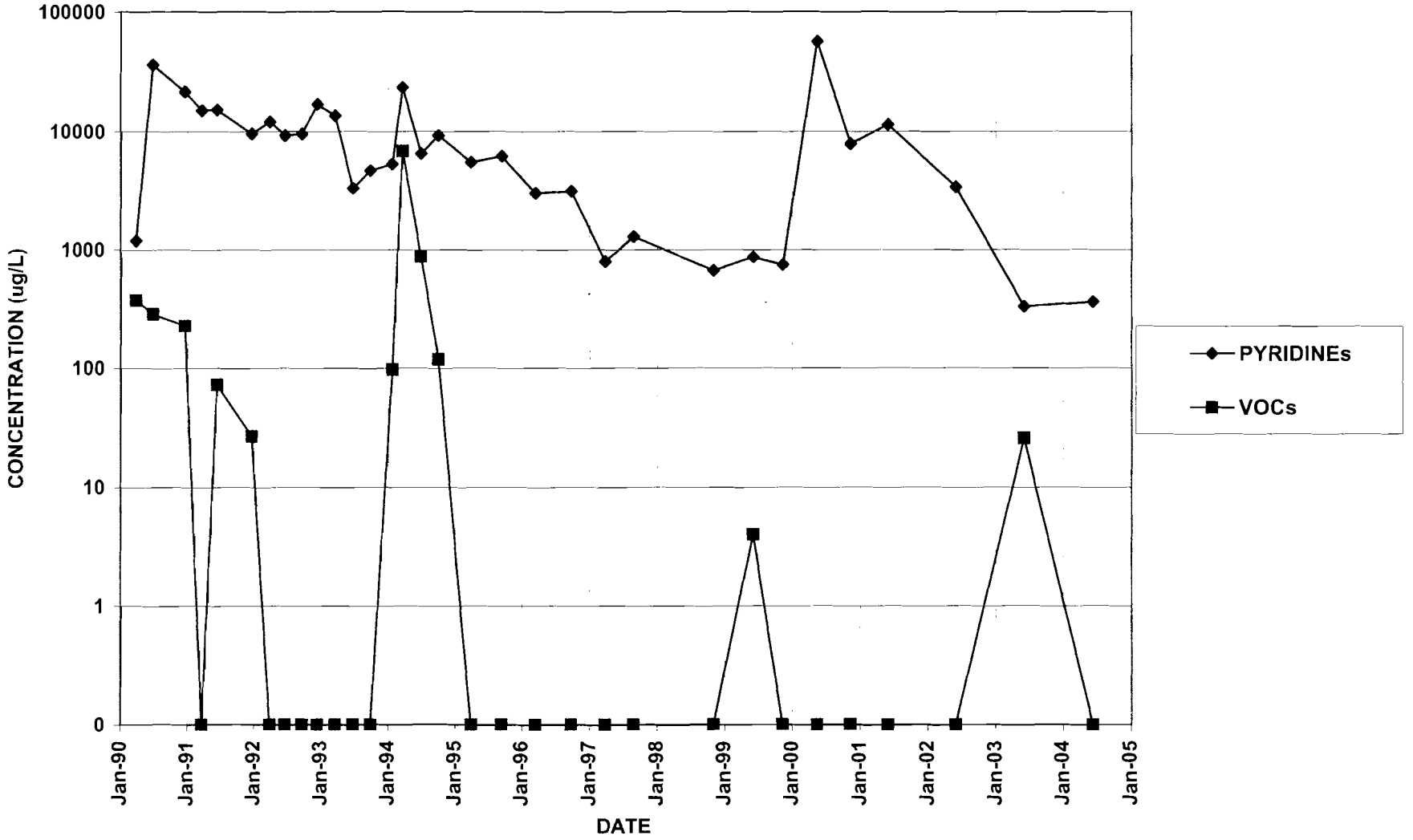
Prepared by: nmb
Reviewed by: jrb

BR-7A



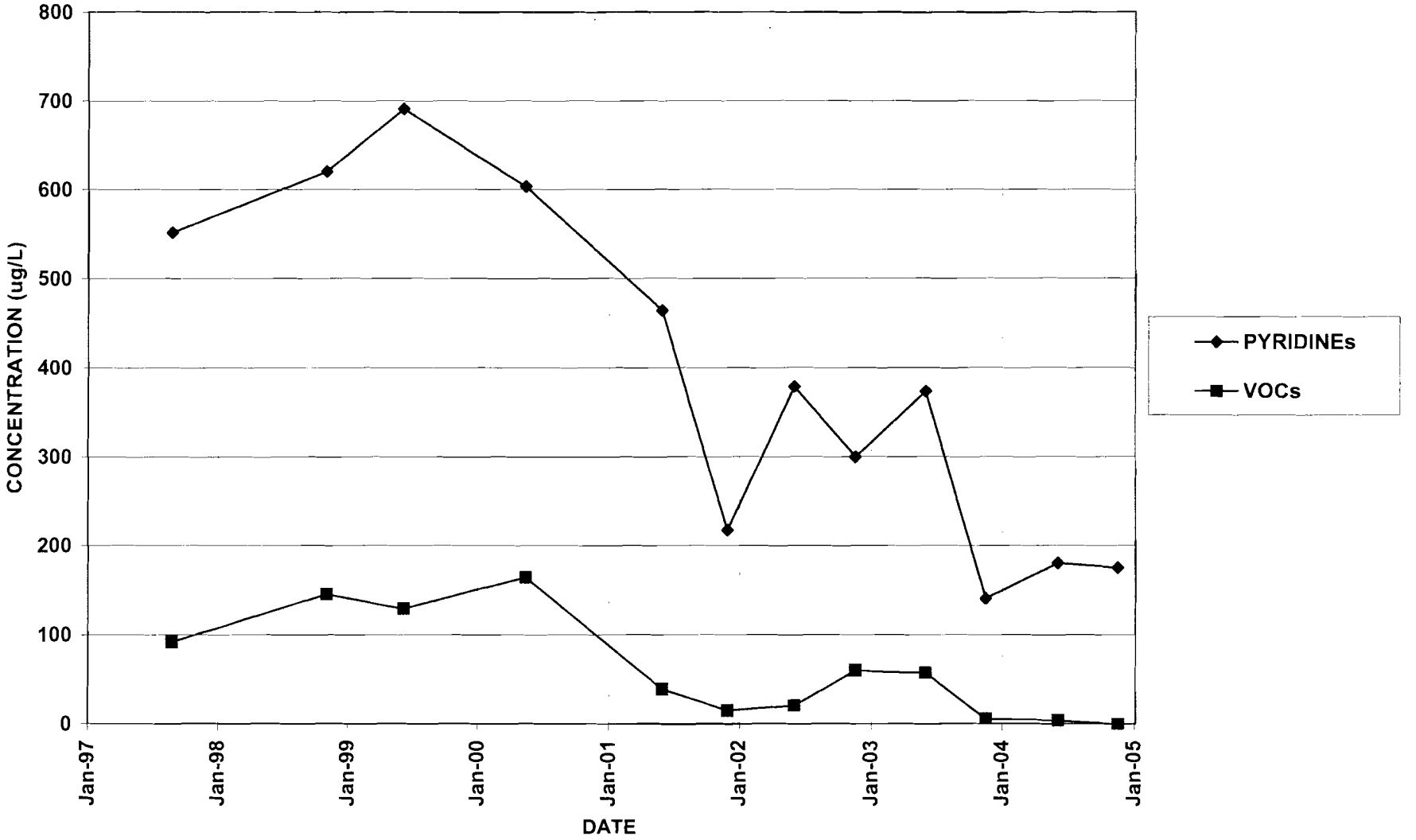
Prepared by: nmb
Reviewed by: jrb

BR-8



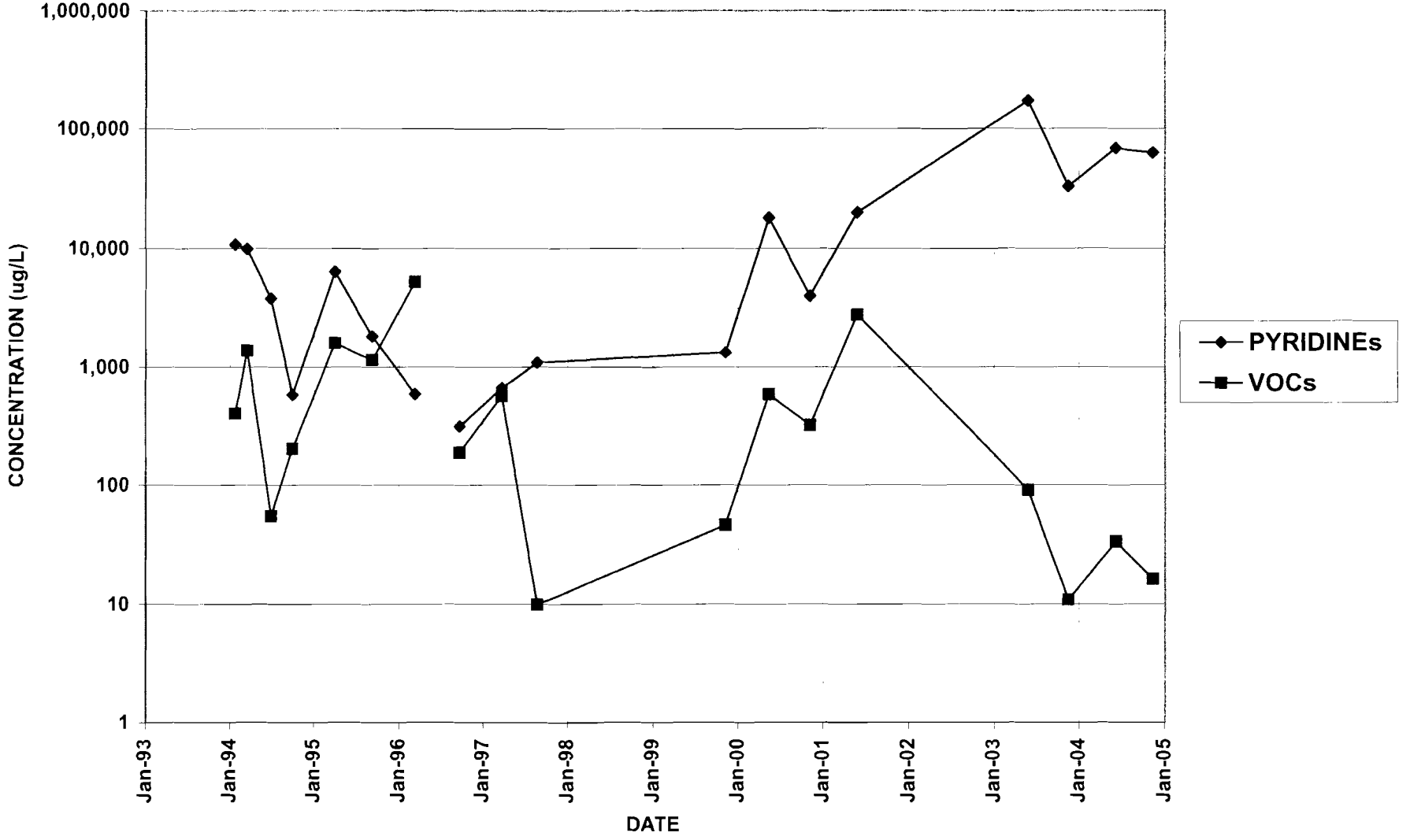
Prepared by: nmb
Reviewed by: jrb

BR-9



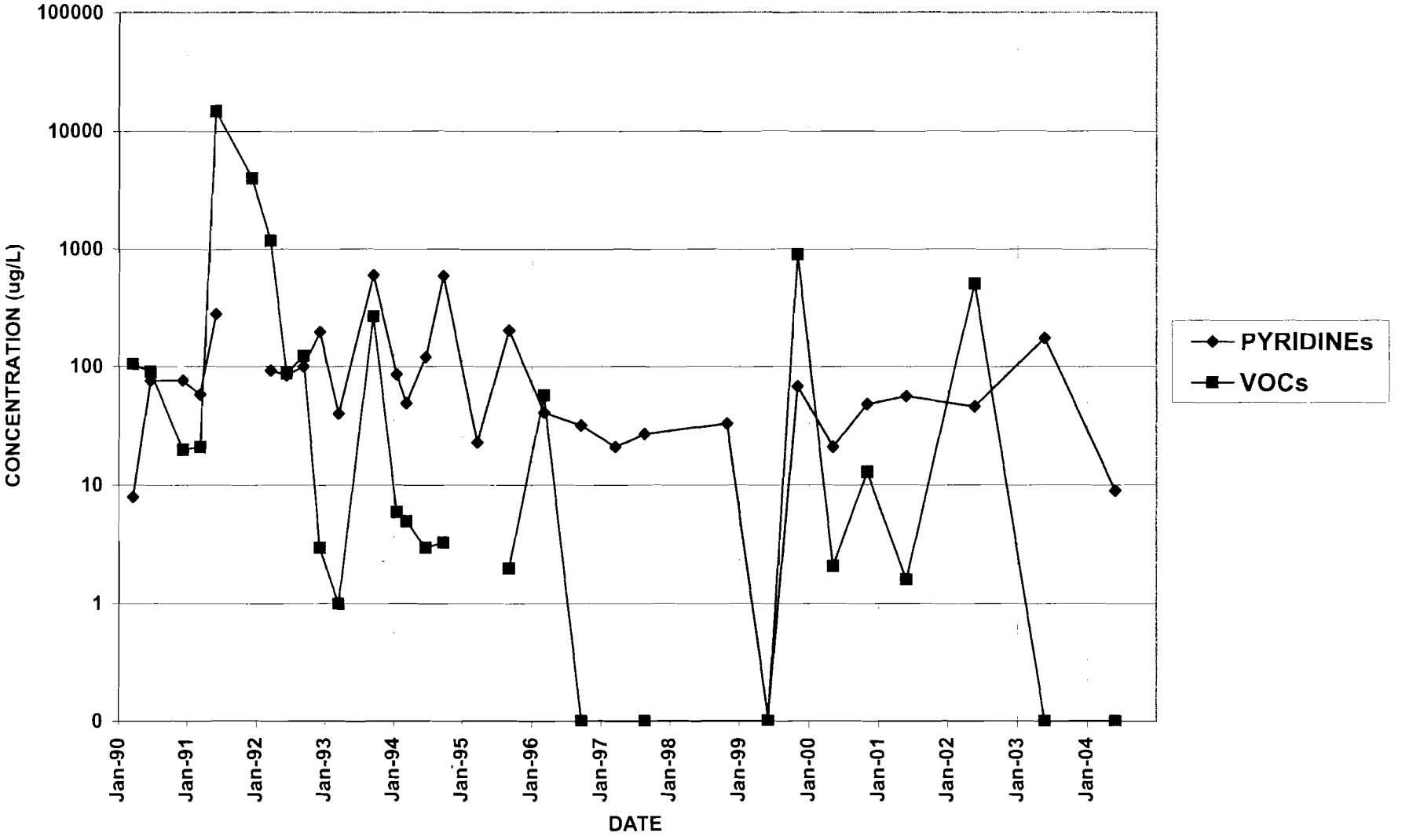
Prepared by: nmb
Reviewed by: jrb

E-1



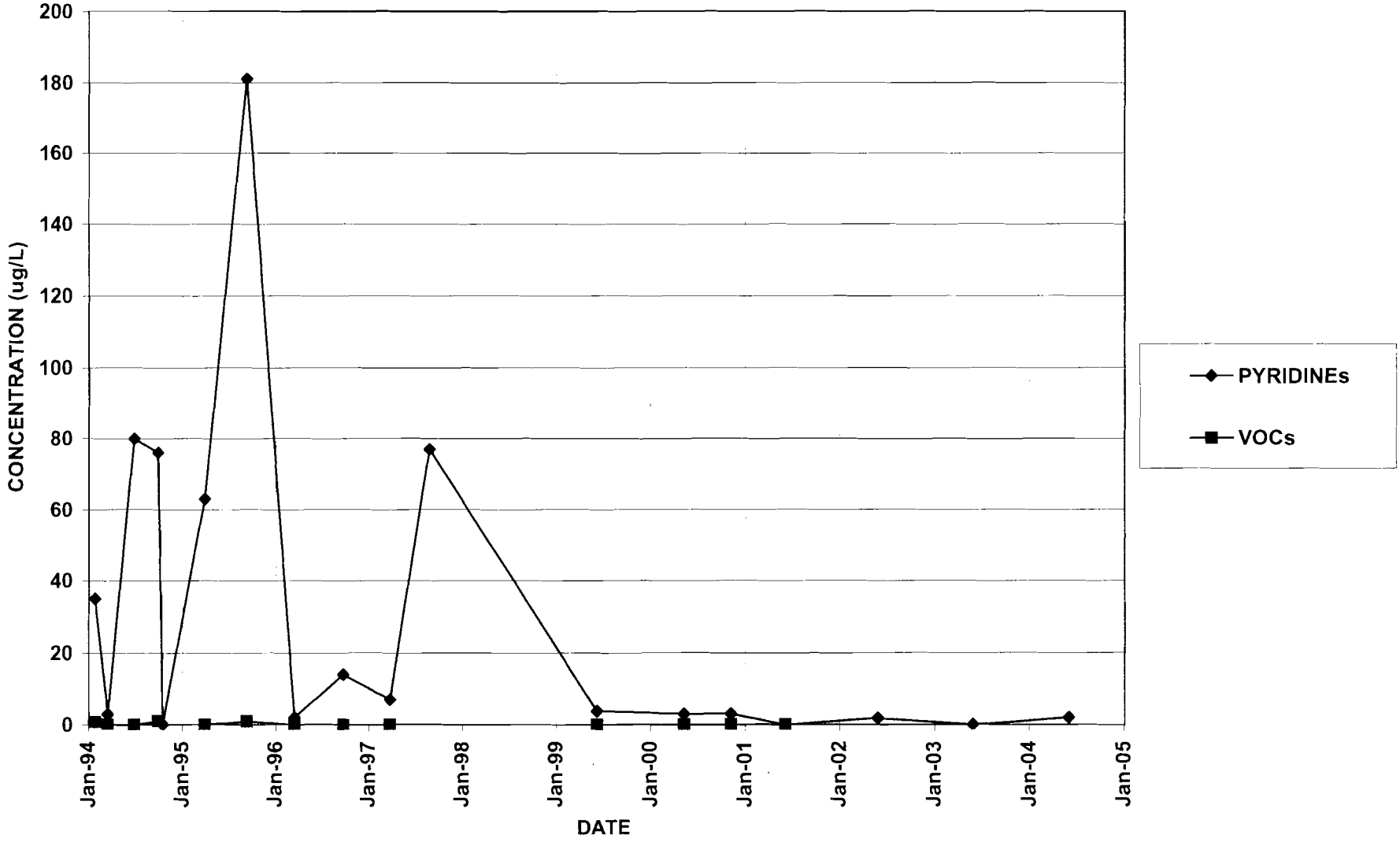
Prepared by: nmb
Reviewed by: jrb

E-3



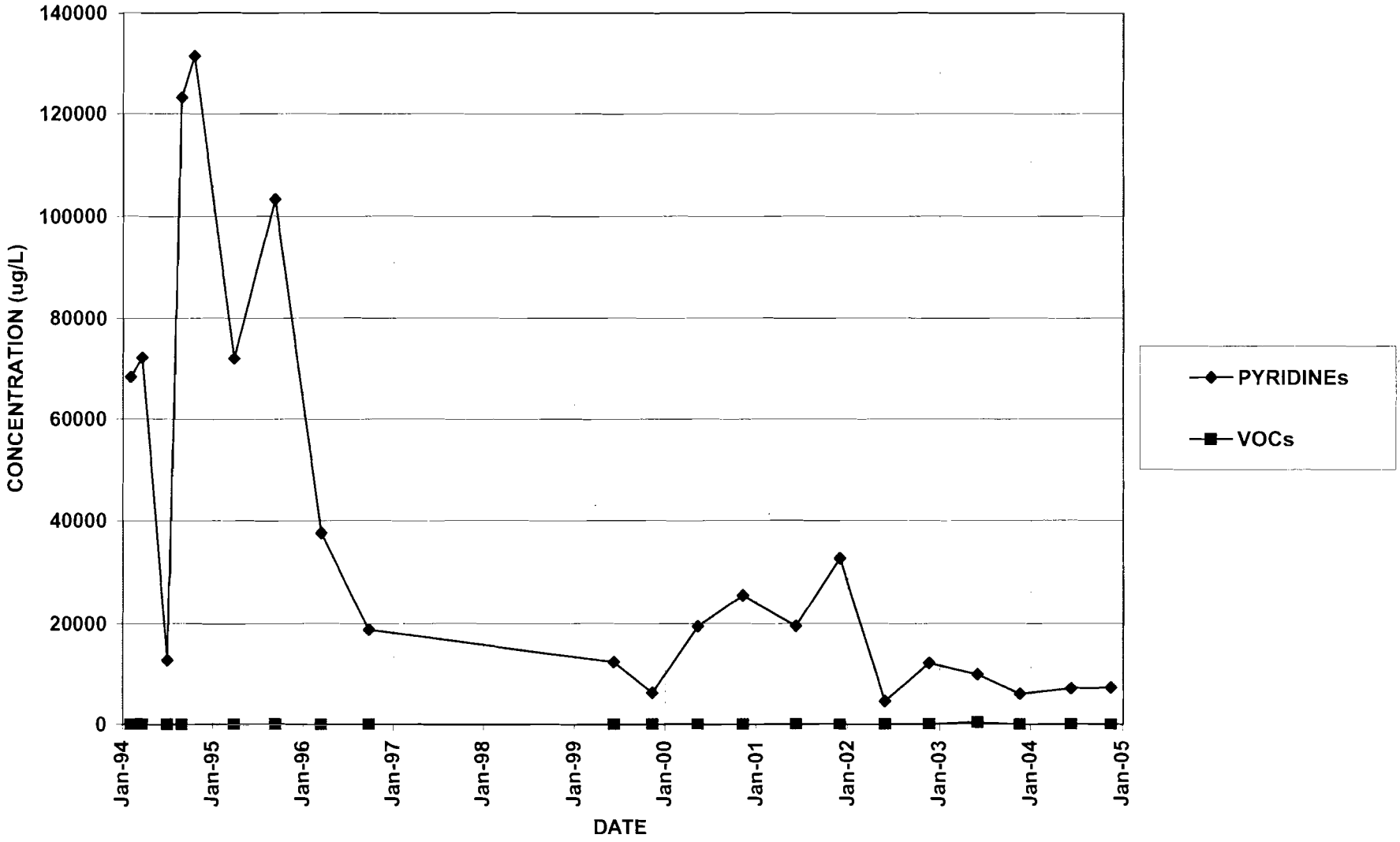
Prepared by: nmb
Reviewed by: jrb

MW-104



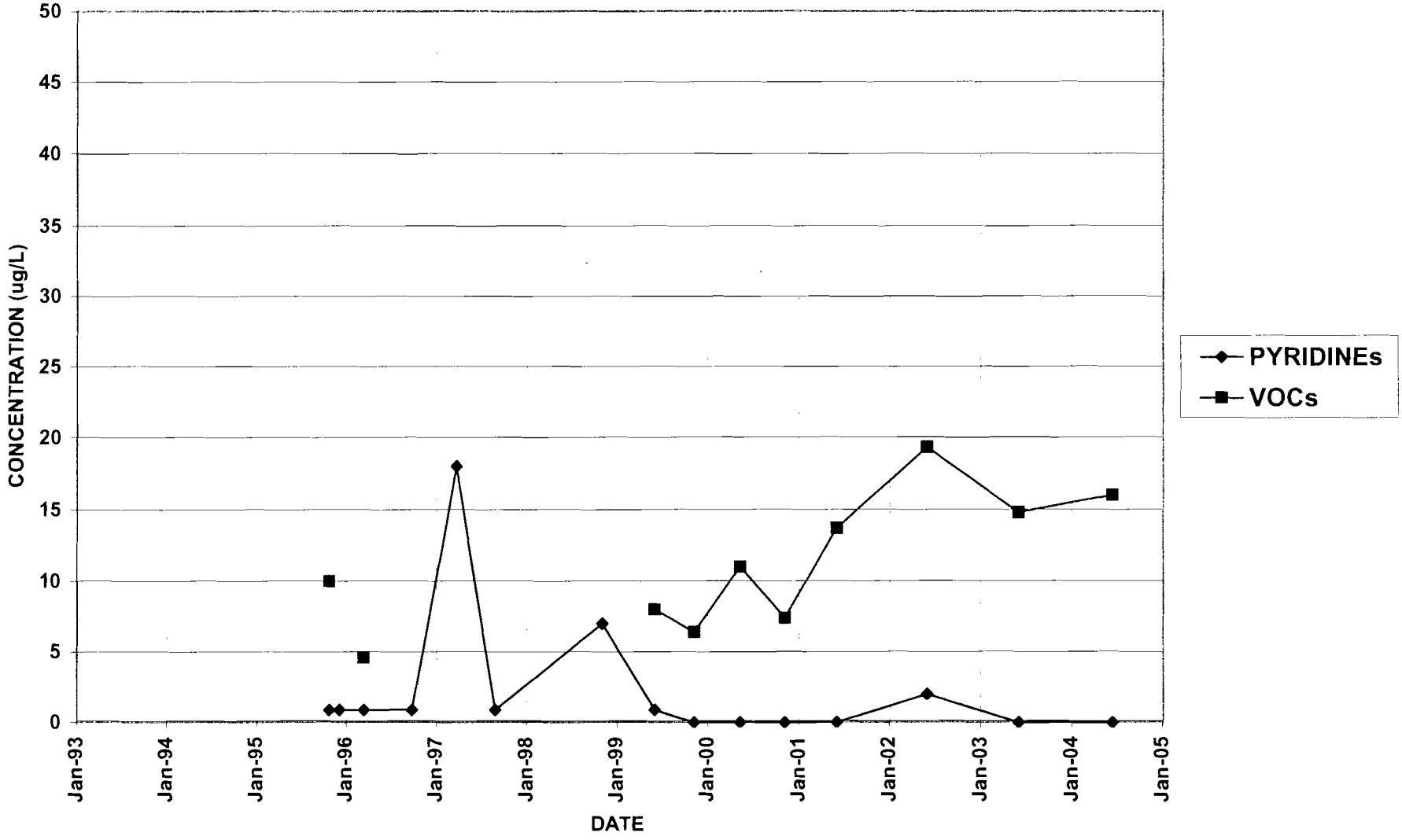
Prepared by: nmb
Reviewed by: jrb

MW-106



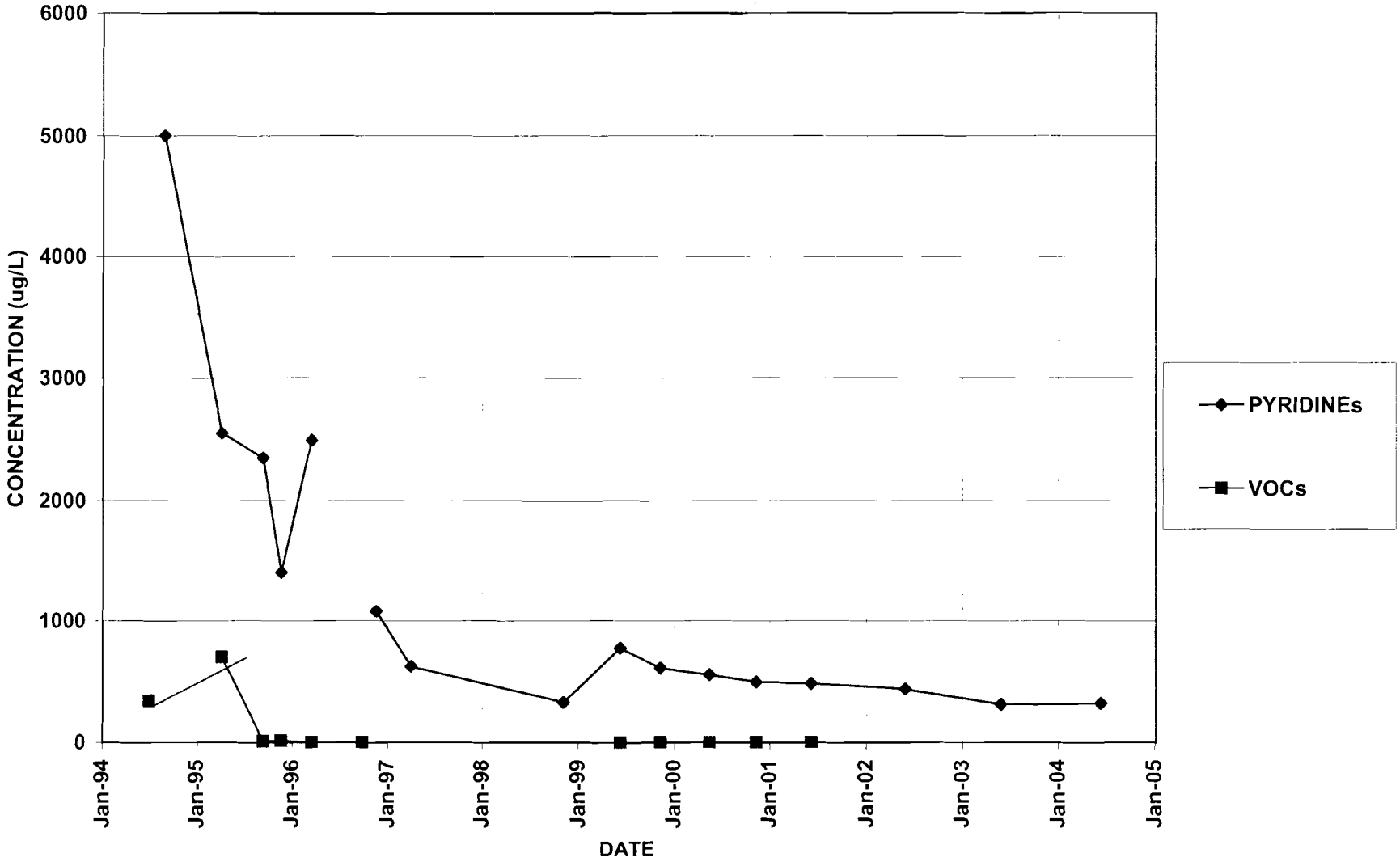
Prepared by: nmb
Reviewed by: jrb

MW-114

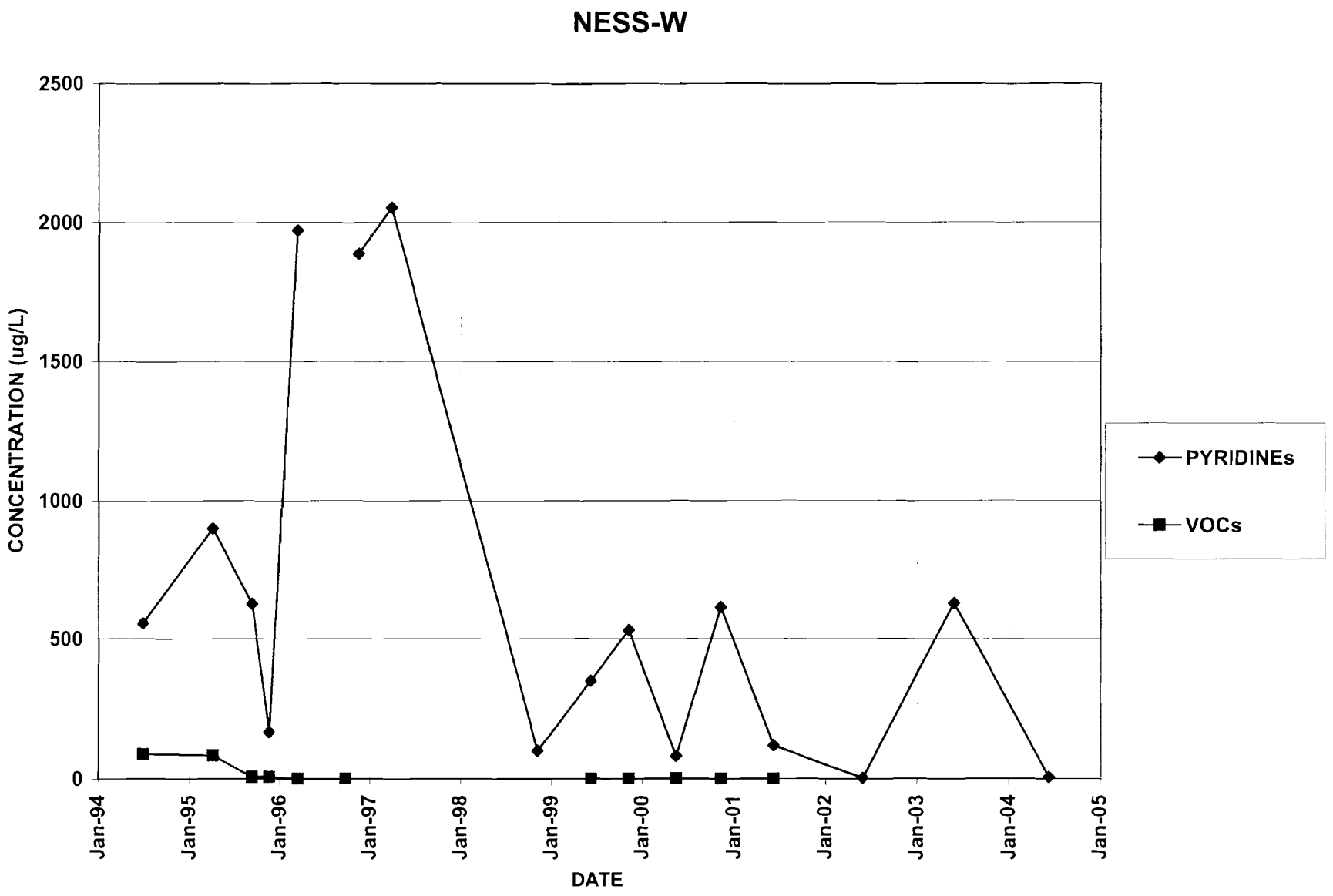


Prepared by: nmb
Reviewed by: jrb

NESS-E

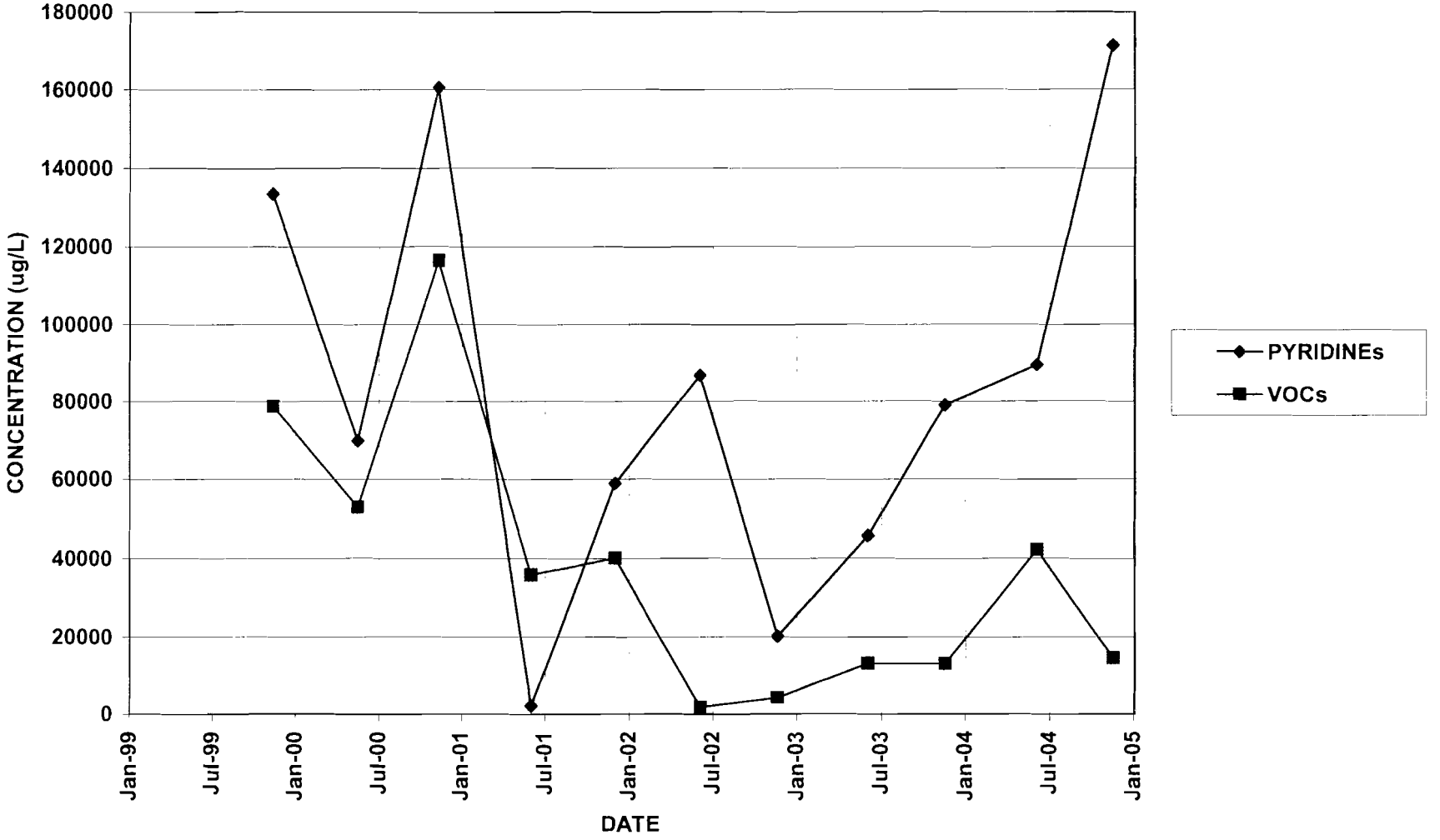


Prepared by: nmb
Reviewed by: jrb



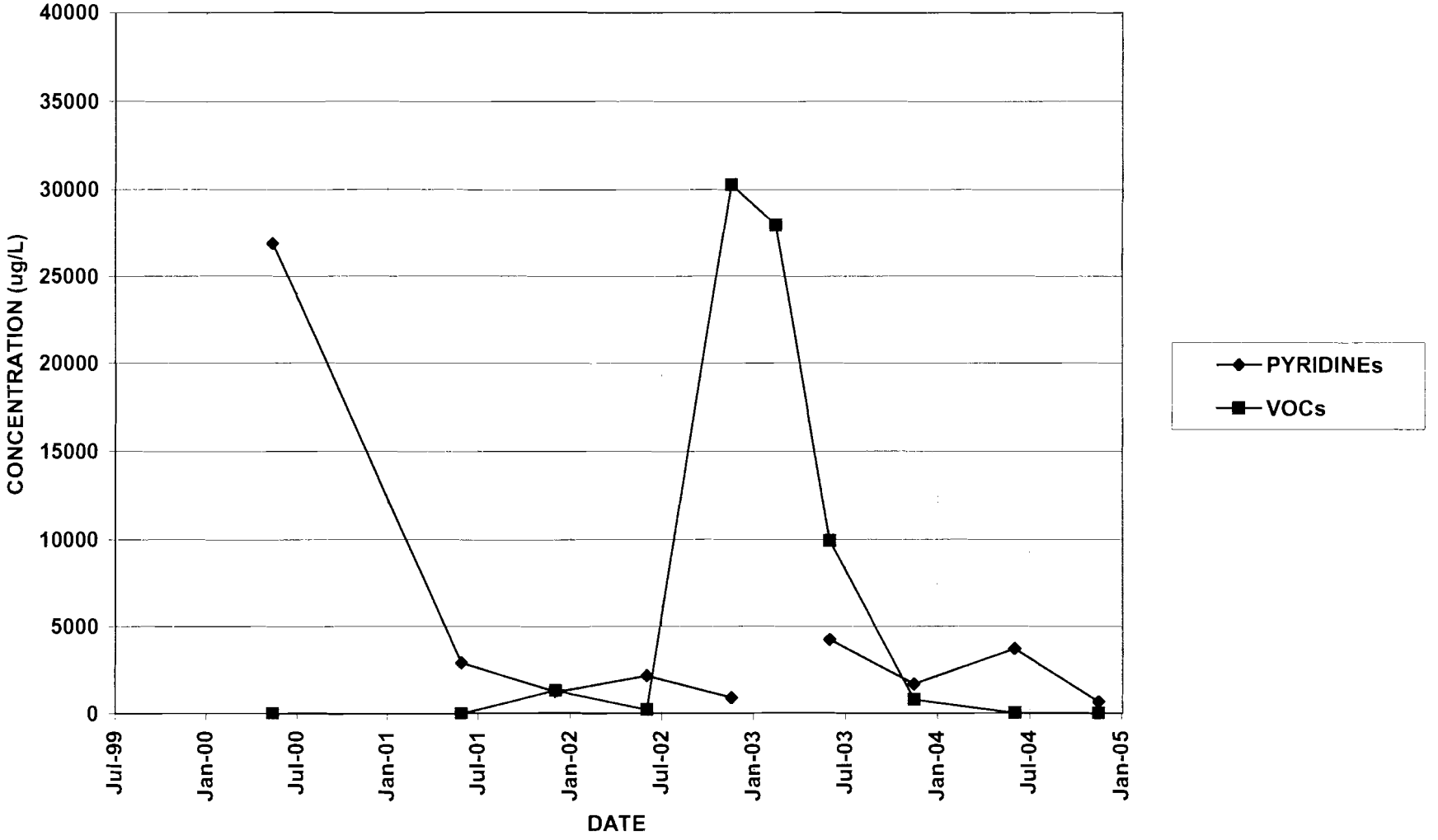
Prepared by: nmb
Reviewed by: jrb

PW10



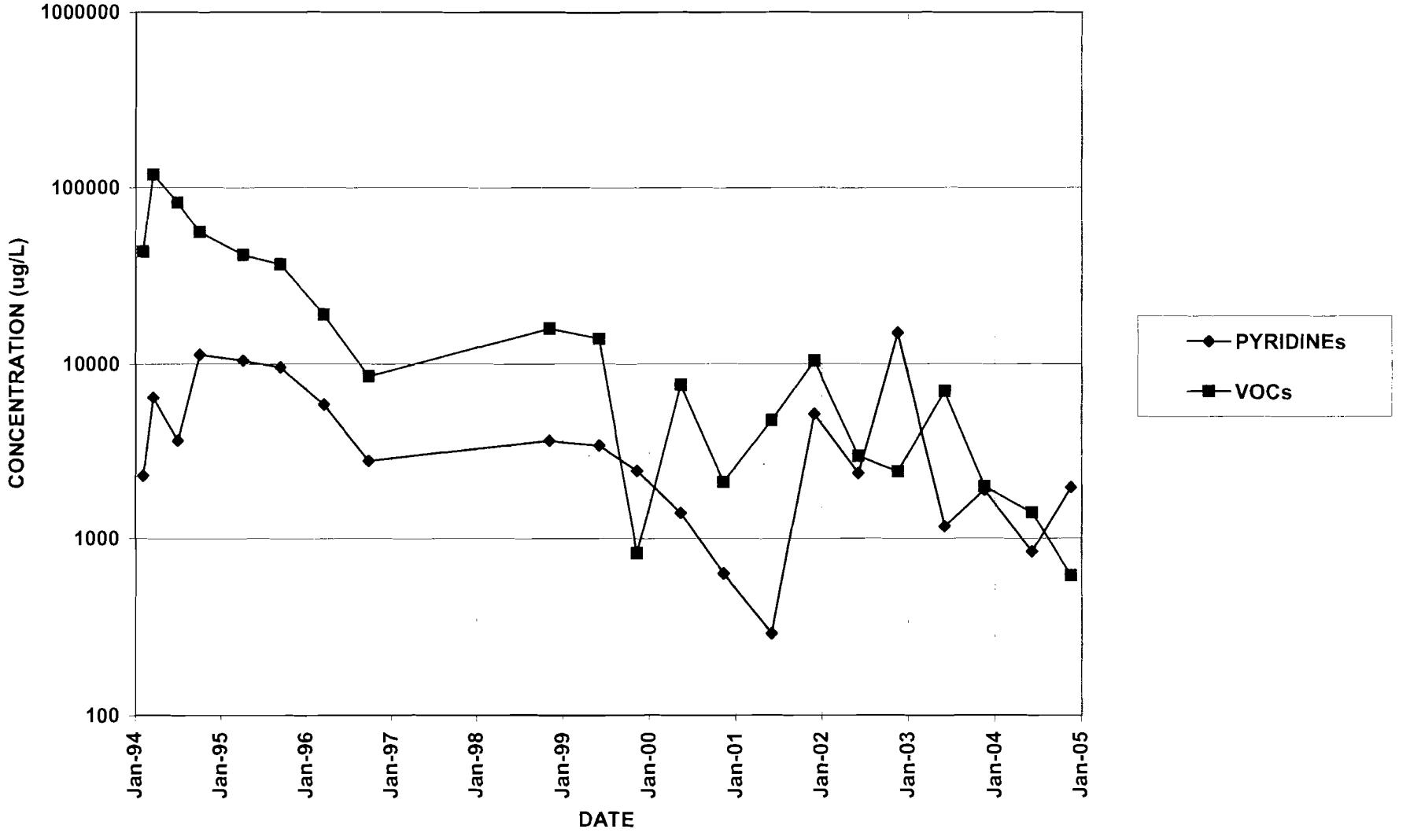
Prepared by: nmb
Reviewed by: jrb

PW11



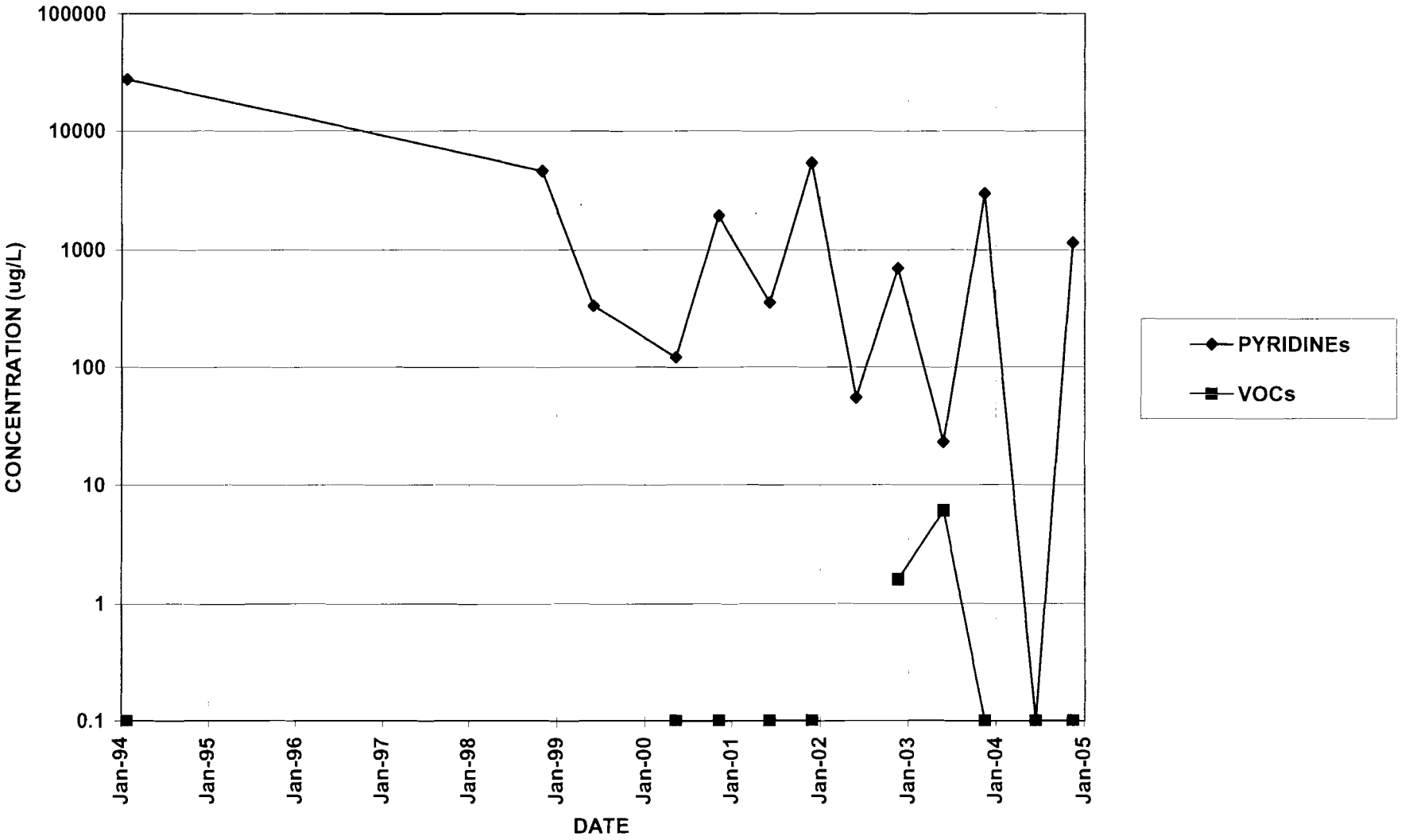
Prepared by: nmb
Reviewed by: jrb

PW12 (Formerly BR-101)



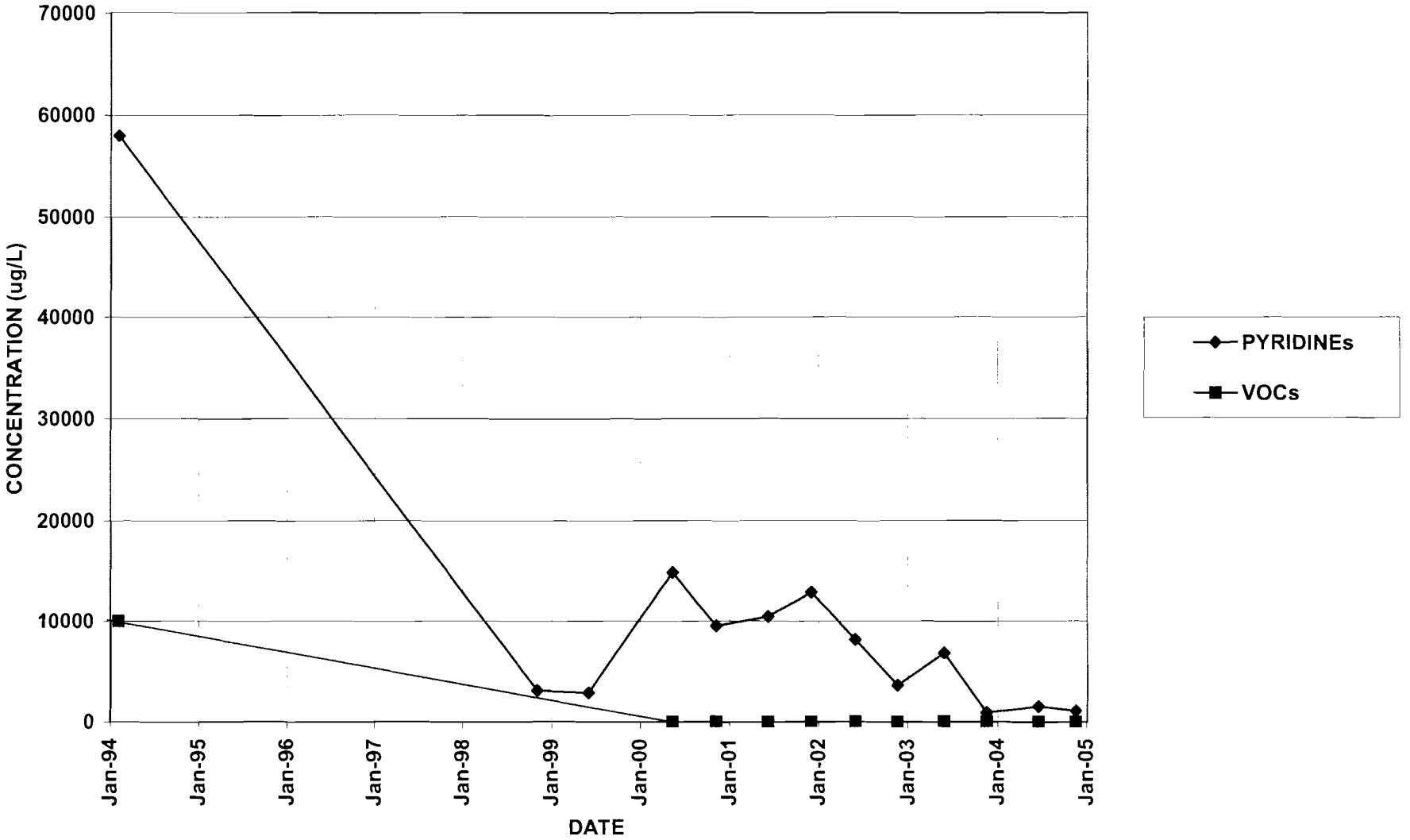
Prepared by: nmb
Reviewed by: jrb

PZ-101



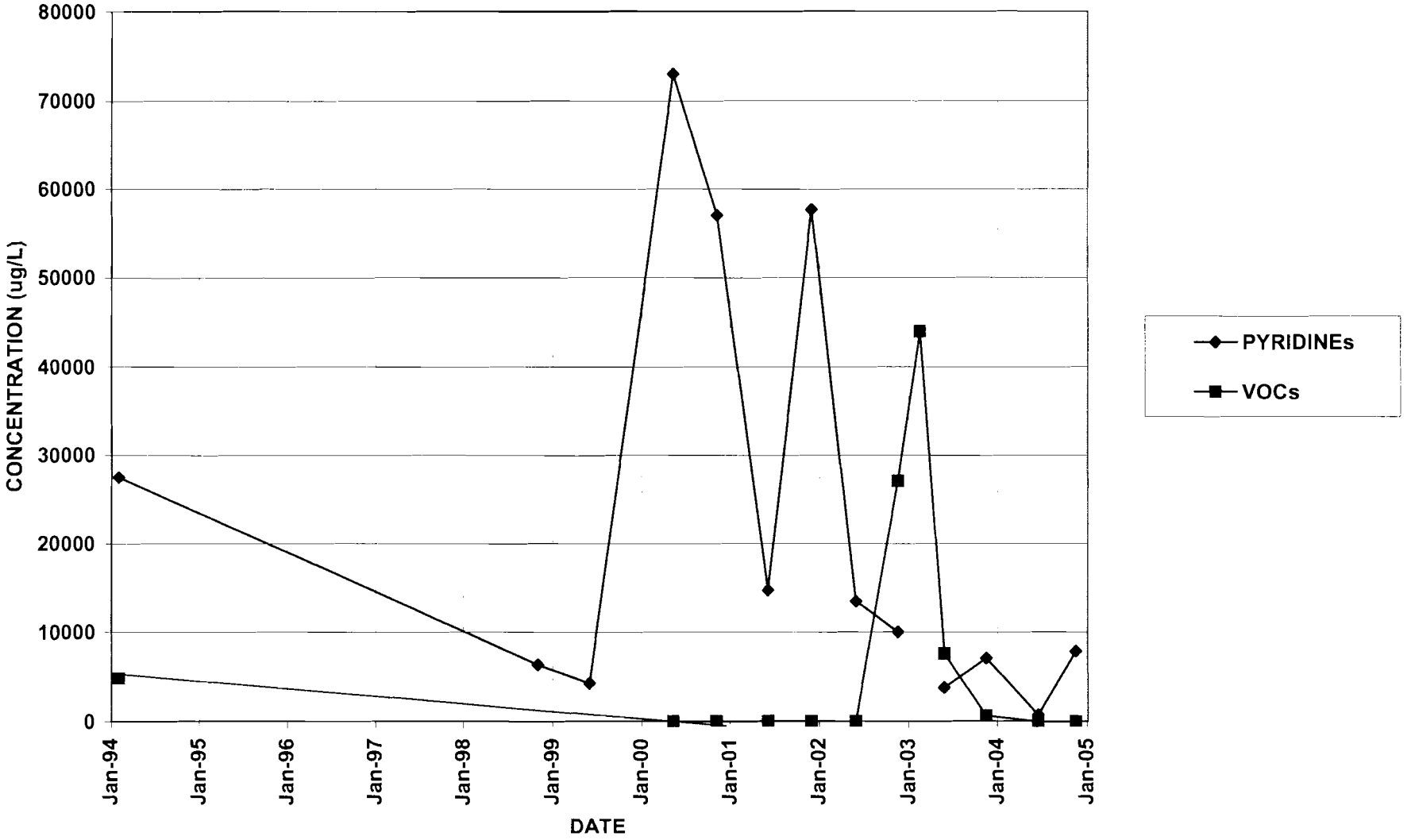
Prepared by: nmb
Reviewed by: jrb

PZ-102



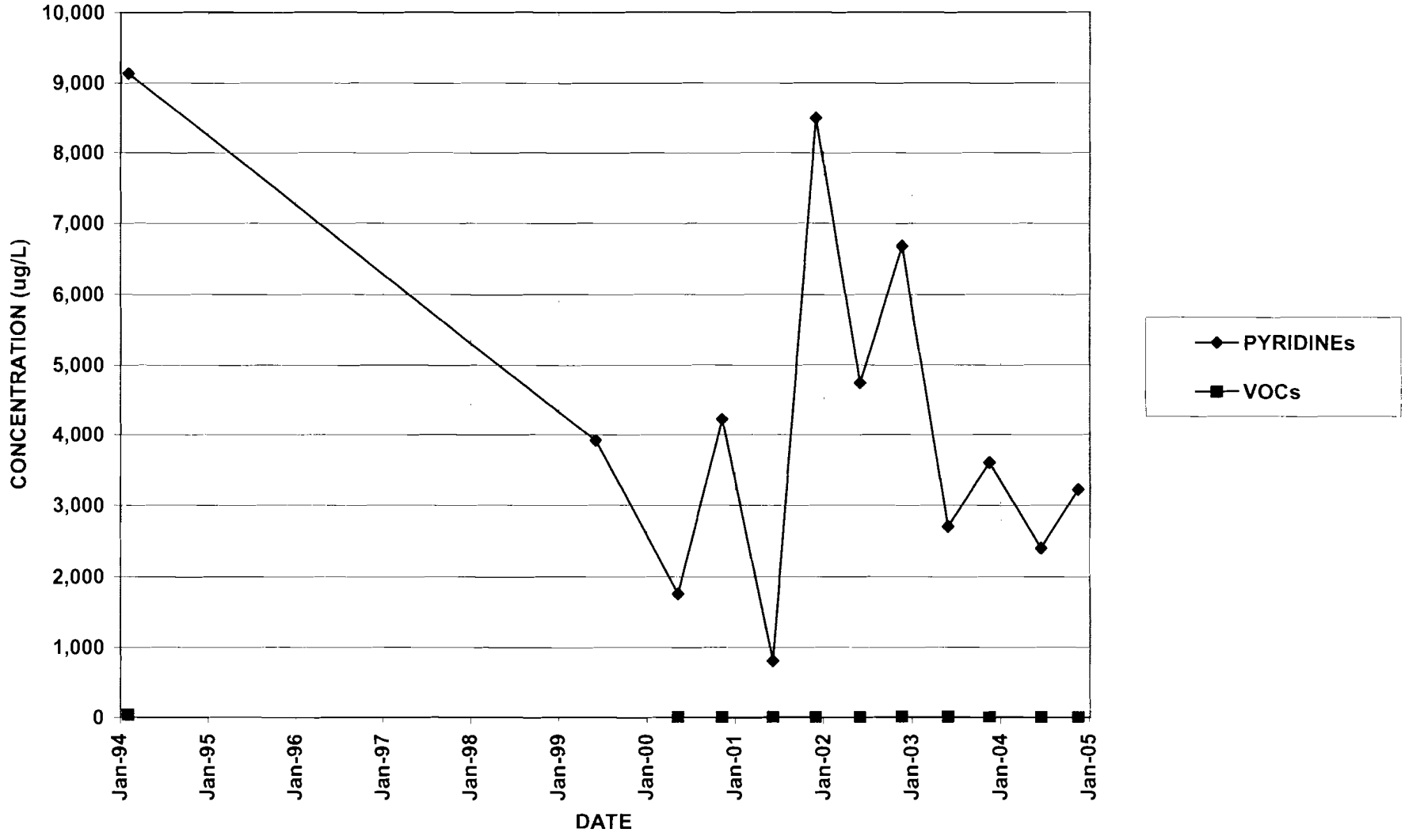
Prepared by: nmb
Reviewed by: jrb

PZ-103



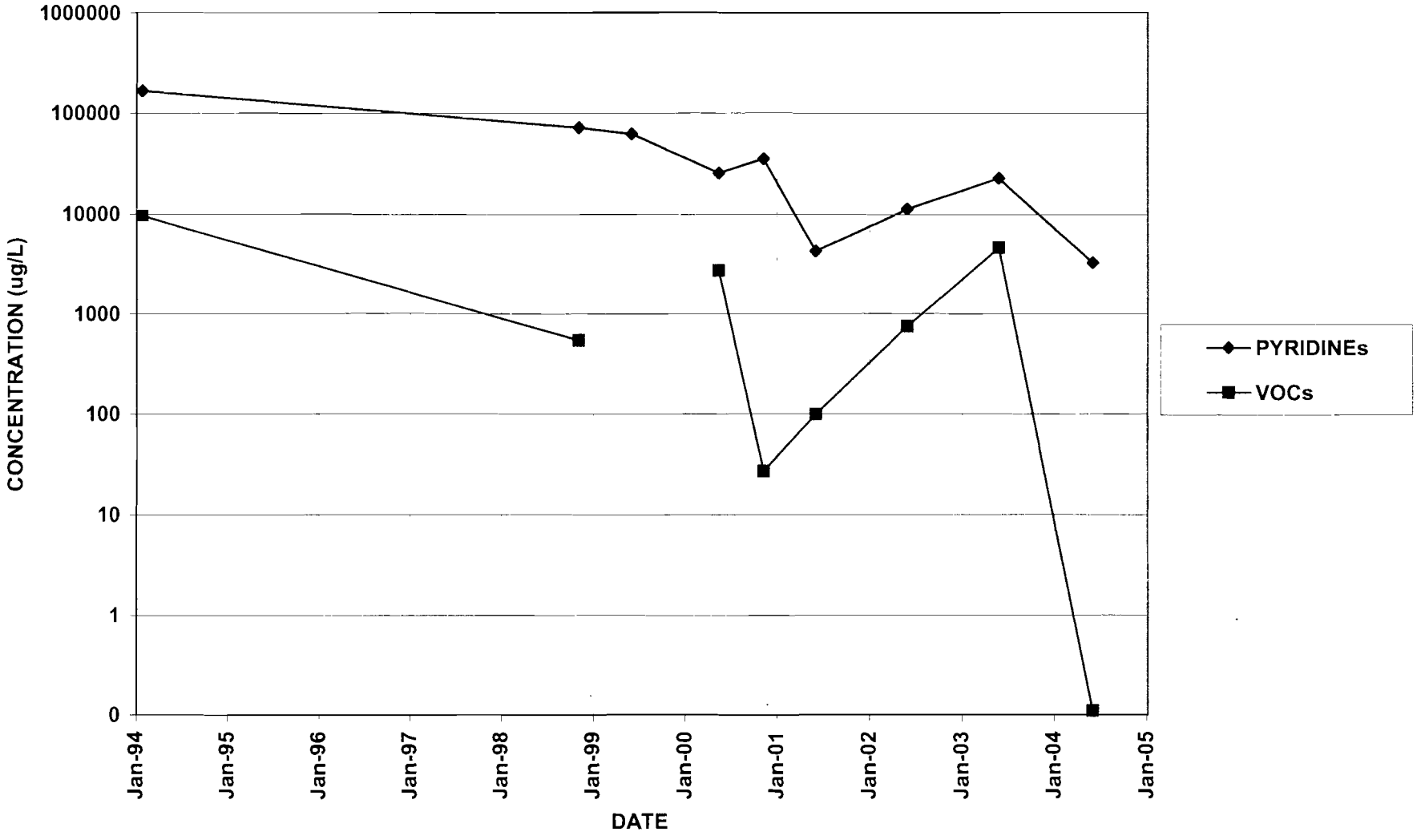
Prepared by: nmb
Reviewed by: jrb

PZ-104



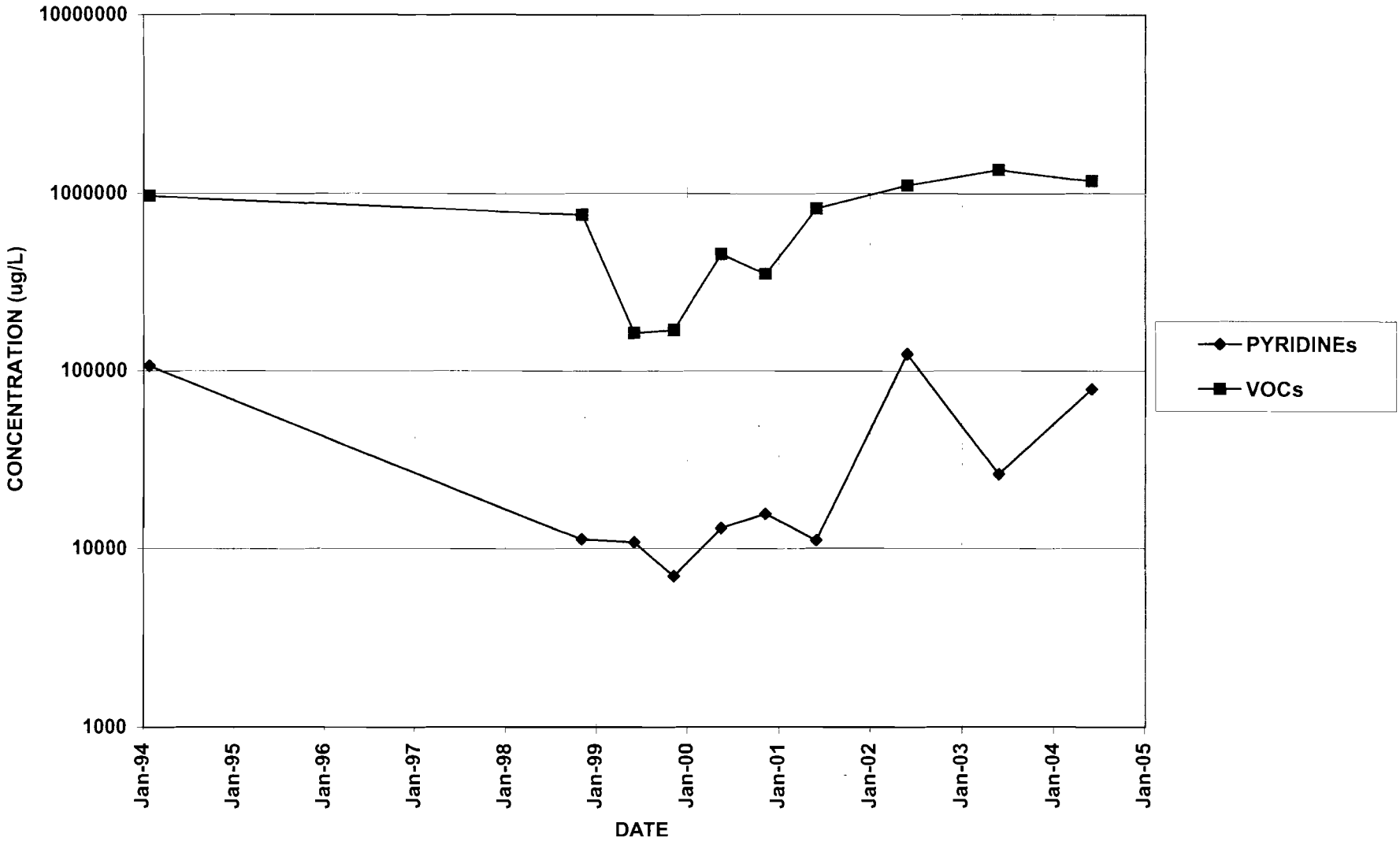
Prepared by: nmb
Reviewed by: jrb

PZ-105



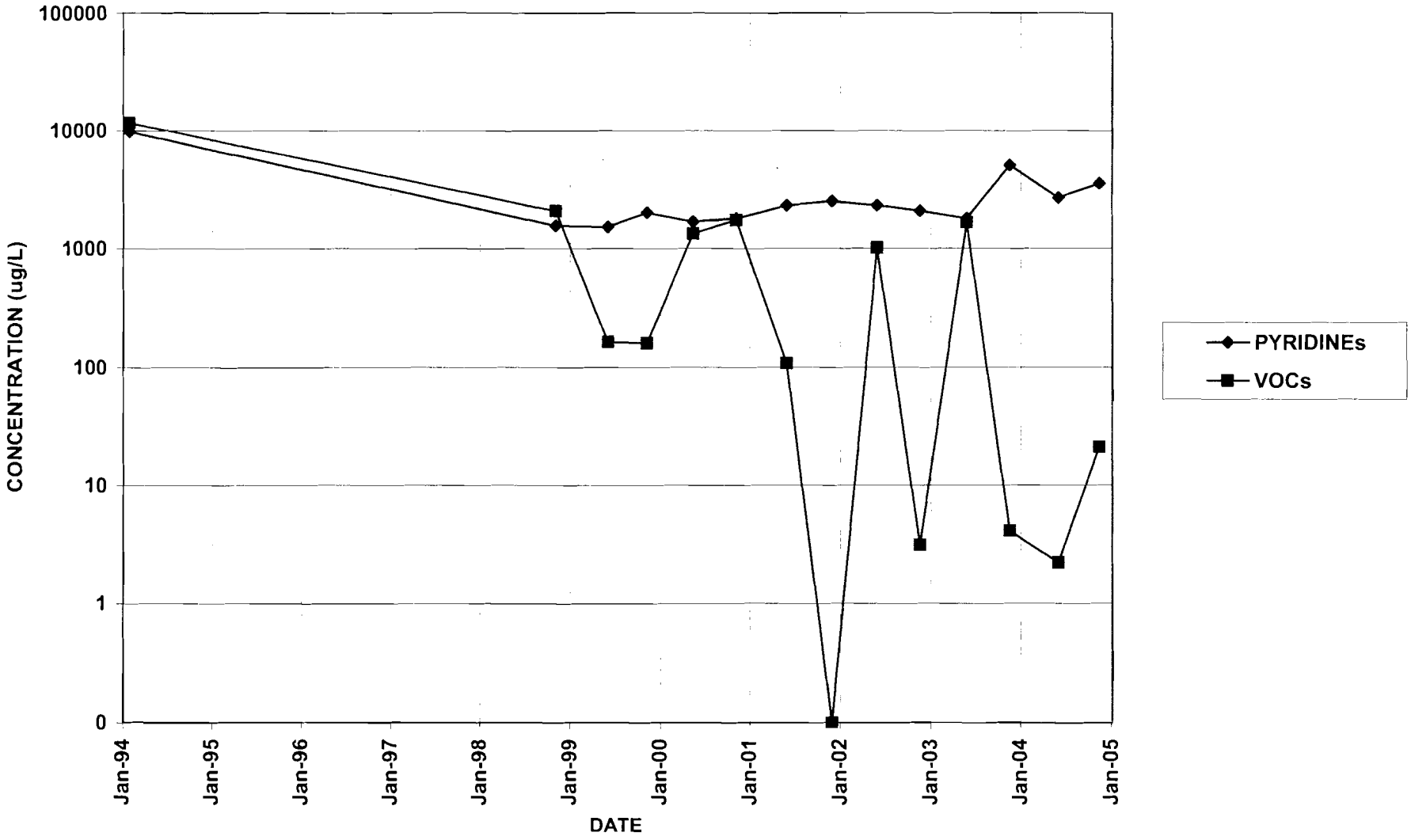
Prepared by: nmb
Reviewed by: jrb

PZ-106



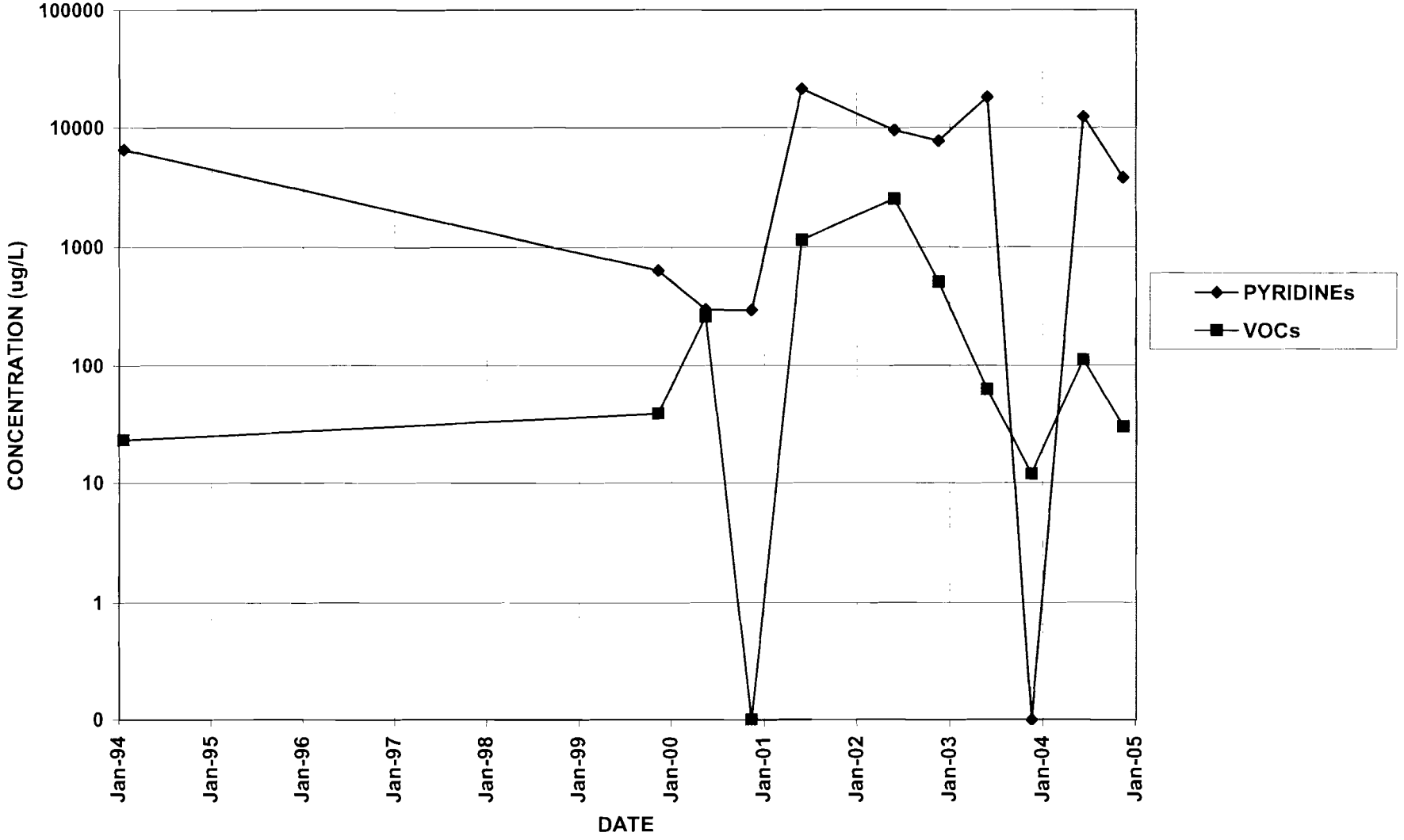
Prepared by: nmb
Reviewed by: jrb

PZ-107



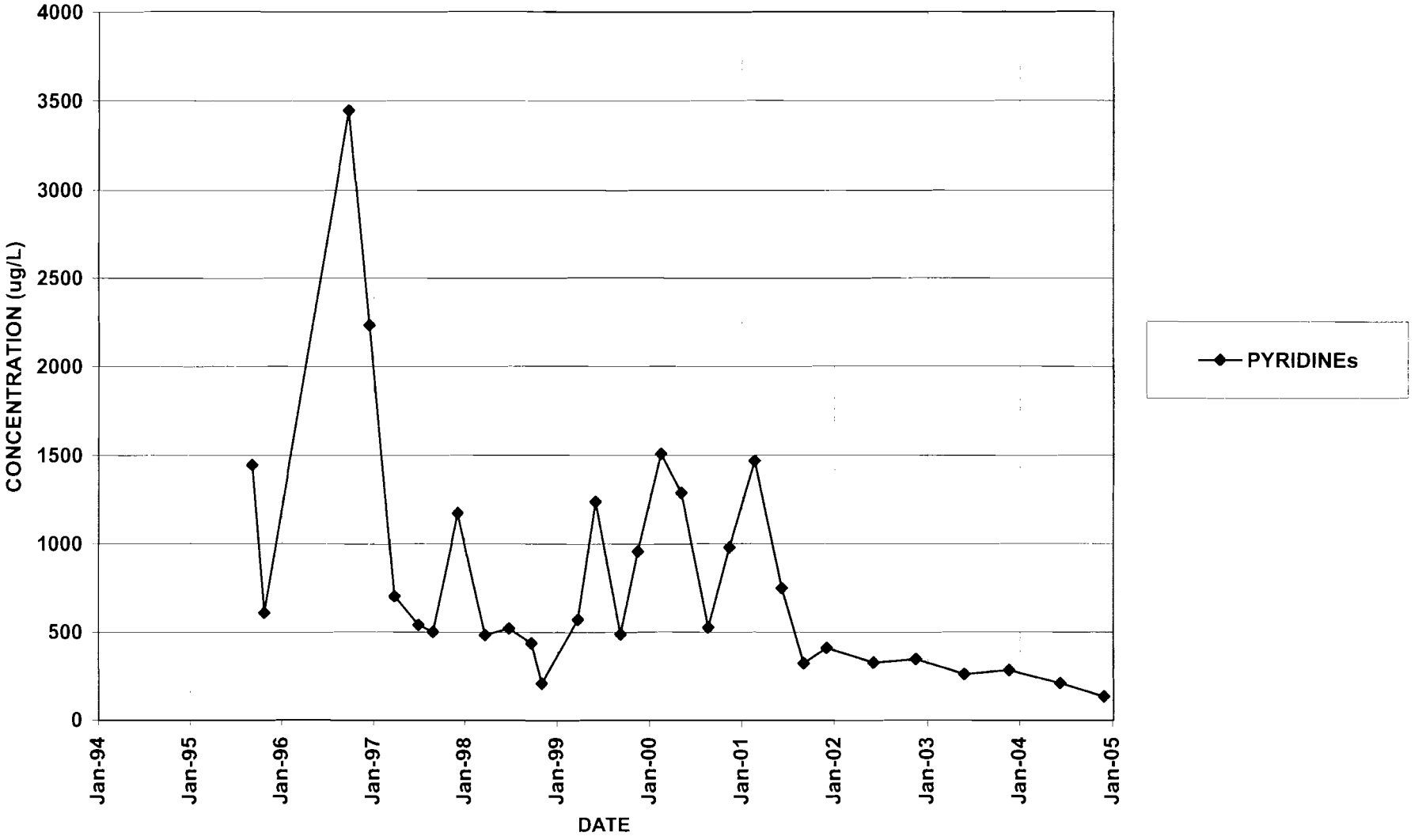
Prepared by: nmb
Reviewed by: jrb

S-3



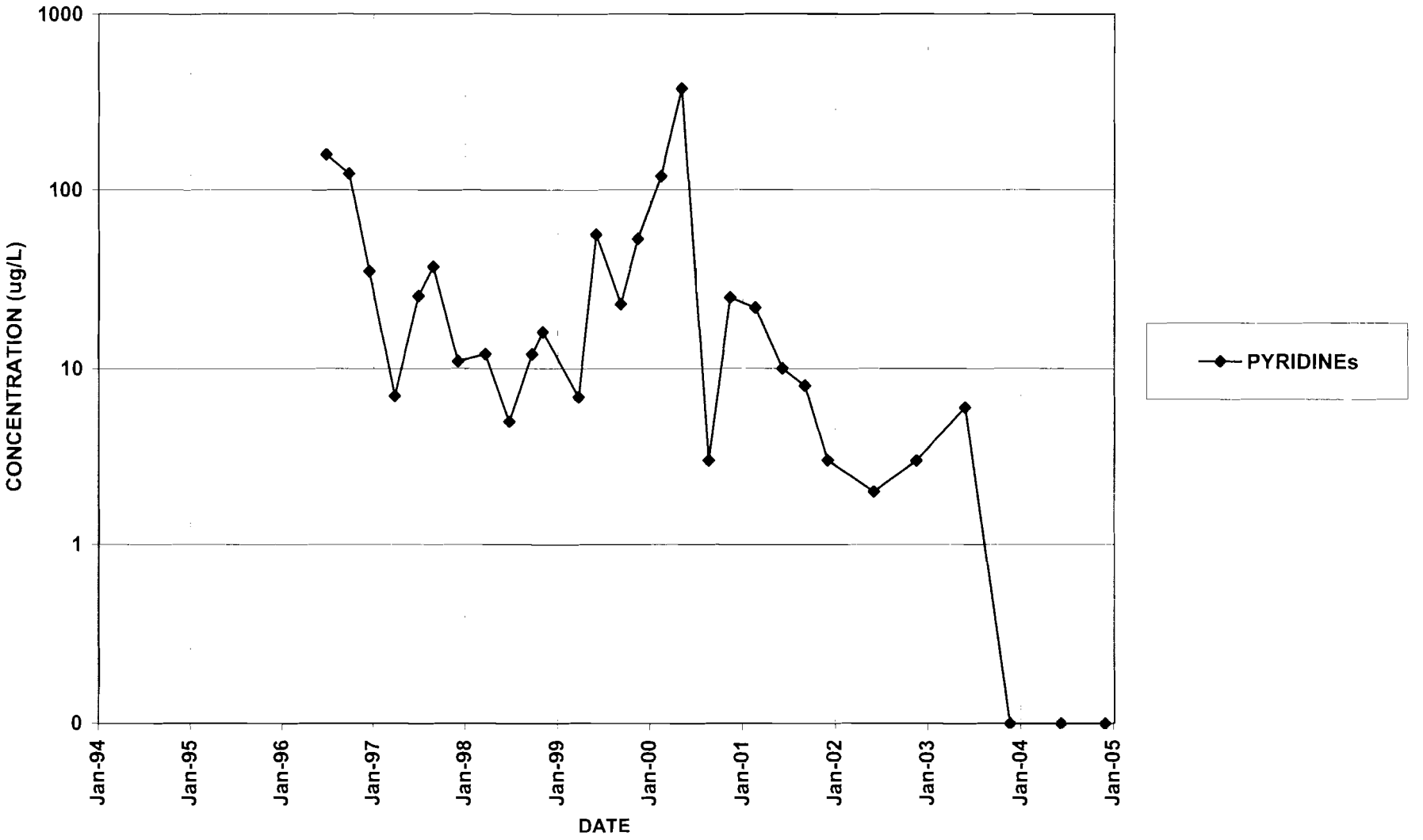
Prepared by: nmb
Reviewed by: jrb

QS-4 (QUARRY SEEP)



Prepared by: nmb
Reviewed by: jrb

QO-2 (QUARRY OUTFALL)



Prepared by: nmb
Reviewed by: jrb