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

August 20, 2004

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

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

Dear Mr. Craft:

The attached 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 June 3 through 15, 2004.

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

Sincerely,

Gayle M Taylor / gb

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, Inc.

SURFACE WATER AND GROUNDWATER MONITORING PROGRAM
SPRING 2004 MONITORING REPORT

ARCH CHEMICALS
ROCHESTER PLANT SITE
ROCHESTER, NEW YORK

ARCH CHEMICALS, INC.
CHARLESTON, TENNESSEE

AUGUST 2004

SURFACE WATER AND GROUNDWATER MONITORING PROGRAM
SPRING 2004 MONITORING REPORT

ARCH CHEMICALS
ROCHESTER PLANT SITE
ROCHESTER, NEW YORK

Prepared by

MACTEC Engineering & Consulting, Inc.
Portland, Maine

for

ARCH CHEMICALS, INC.
Charleston, Tennessee

August 2004

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

Nelson M. Breton, C.G.
Project Geologist

Jeffrey E. Brandow, P.E.
Principal Engineer

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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 June 3 – 15, 2004.

During this monitoring event, samples from a total of 43 groundwater monitoring or pumping wells and ten locations associated with the Dolomite Products Quarry seep and outfall (including one canal sample) 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 46 regular monitoring locations sampled for chloropyridines, nine had contaminant concentrations exceeding their respective 5-year prior averages. For the 33 routine monitoring locations sampled for volatile organic compounds, five had concentrations 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). In addition to 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 were below levels of regulatory concern, and included:

- Four 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; and
- One sample from the surface ditch approximately mid-way from the quarry to the Barge Canal.

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 new seep sample from the southern wall of the quarry had no detectable chloropyridines.

The ditch samples contained trace to non-detectable levels of chloropyridines. Canal sample QO-2S1 was non-detect for chloropyridines. No VOCs were detected in any of the seep, ditch, or canal samples. The quarry pond sample contained a trace of tetrachloroethene, which appears unrelated to the Arch Chemicals site.

During the period December 1, 2003 through May 31, 2004, the on-site groundwater extraction system pumped approximately 6 million gallons of groundwater to the on-site treatment system, containing an estimated 450 pounds of chloropyridines and 120 pounds of target volatile organic compounds. During the period, pump and/or meter replacements were required in wells BR-5A, BR-7A, and PW-12.

During the Spring 2004 sampling event, 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, with the exception of a very small quantity (< 0.1 feet) of a heavy oil-like substance that was co-mingled with sediment in the bottom of well B-5, which Arch does not believe is indicative of a DNAPL issue at that location.

On May 14, 2004, Arch submitted the Preliminary Design for Phase 1 Remediation (On-Site Extraction Wells, Monitoring Wells, and Well Abandonment) to the NYSDEC for review. Arch received approval for the extraction well design and locations via e-mail from NYSDEC on August 9, 2004 (electronic message from James Craft to Gayle Taylor (Arch) and Jeffrey Brandow (MACTEC)). In this same e-mail, well abandonment plans were not approved by NYSDEC, but could be resubmitted by Arch for further discussion on a case-by-case basis. Arch will finalize the design and proceed with extraction well installation this fall.

On June 7, 2004, Arch provided the NYSDEC with a draft Work Plan for a Vapor Intrusion Investigation at the Rochester facility and surrounding properties. Arch is awaiting review comments from the NYSDEC and the NYSDOH before proceeding with the investigation.

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 Spring 2004 sampling event included the collection and analysis of a total of fifty-three groundwater, surface water, and seep samples from off-site and on-site locations. This included seven additional seep and surface water 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 June 3 – 15, 2004, for analysis of selected chloropyridines and volatile organic compounds (VOCs).

This report presents the results of the Spring 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-6A, BR-7A, BR-9, PW10, PW11, and PW12) were collected from the discharge lines. Due to poor access conditions to deliver pump apparatus and because the depth to water prevented crews from using a peristaltic pump, monitoring well BR-108 was sampled with a stainless steel bailer.

Groundwater piezometric elevations were measured on June 1, 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.

During this monitoring event, all on-site monitoring wells were checked for the presence of dense non-aqueous phase liquids (DNAPL), using a product interface probe. The results of the DNAPL survey are discussed in Section 5.

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 June 9, 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. An upgradient canal sample had been planned for this monitoring event (at the Buffalo Road bridge), but was inadvertently missed by the sampling crew.

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

2.3 ANALYTICAL PROCEDURES

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

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

2.4 QUALITY CONTROL

All laboratory analytical results were reviewed and qualified following 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
  Miscellaneous

* - *all criteria were met for this parameter*

With the exception of the following items discussed below, results are determined to be usable as reported by the laboratory.

Surrogate Recoveries. Surrogate recoveries were above the QC limits for two or more of the SVOC surrogates in samples B-17, BR-5A and PZ-107, which may indicate a high bias. Positive SVOC detections in these samples were qualified as estimated (J).

Blank Contamination. Blank contamination was observed in the method blanks for chlorobenzene, toluene, trichloroethene and tetrachloroethene in sample delivery group (SDG) 5257. Action levels for these VOCs were established at five times the concentrations reported in the blanks and dilution factors were applied. Results below the action level and below the reporting limits were raised to the reporting limit and were qualified as non-detect (U). Results above the reporting limits and less than the action level were qualified as non-detect (U). Results above the action levels required no qualifications.

Blank contamination was observed in the trip blank associated with samples BR-105, BR-105D, BR-106 and MW-106 for chlorobenzene. An action level was established at five times the concentration reported in the trip blank. The chlorobenzene detection in sample BR-105 was below the action level and was qualified as non-detect (U).

Matrix Spike/Matrix Spike Duplicate. The percent recoveries for VOCs in the matrix spike/matrix spike duplicate (MS/MSD) sample associated with sample PZ-103 were below the QC limits, which may indicate a low bias. The chlorobenzene detection in sample PZ-103 was qualified as estimated (J).

The relative percent difference (RPD) between the MS/MSD associated with sample BR-105D was outside the QC limits for p-fluoroaniline. p-Fluoroaniline was reported as non-detect (U) in the original sample BR-105D and was qualified as estimated (J).

The RPDs between the MS/MSD associated with sample PZ-102 were outside the QC limits for 2-chloropyridine, 3-chloropyridine, 2,6-dichloropyridine and p-fluoroaniline. Results for 2-chloropyridine, 3-chloropyridine, 2,6-dichloropyridine and p-fluoroaniline in the original sample PZ-102 were qualified as estimated (J or UJ).

Miscellaneous. Due to limited sample volume, VOCs in sample MW-103 were analyzed from a vial that contained headspace, which may cause results to be biased low. All results for sample MW-103 were reported as non-detect (U) and were qualified as estimated (J).

3.0 ANALYTICAL RESULTS

3.1 GROUNDWATER

The validated results from the Spring 2004 groundwater monitoring event are provided in Tables 2 and 3. Table 4 provides a comparison of the Spring 2004 analytical results for selected chloropyridines and VOCs in representative wells to mean concentrations of the prior five years (Spring 1999 through Fall 2003). 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 eighteen on-site wells sampled in the Spring 2004 event. Concentrations of chloropyridines ranged from 9 micrograms per liter (µg/L) (sum of all chloropyridine and pyridine isomer concentrations) in monitoring well E-3 to 110,000 µg/L in monitoring well BR-3. Six 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 seventeen of the twenty-five off-site wells that were sampled. Concentrations of total selected chloropyridines ranged from non-detect to 7,200 µg/L. Three off-site wells contained total chloropyridines concentrations slightly above their 5-year prior means.

Concentration Contours. Chloropyridine distribution in groundwater is shown as a set of concentration contours on Figure 8. The contours were developed using data from both overburden and bedrock monitoring wells. 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 thirteen of the eighteen on-site wells sampled in the Spring 2004 event. Concentrations of VOCs ranged from non-detect to 1,200,000 µg/L for the sum of the principal site-related contaminants (carbon tetrachloride, chloroform, methylene chloride, tetrachloroethene, and trichloroethene). Four of the eighteen 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 10 out of 18 wells), benzene (9 of 18), toluene (8 of 18), 1,2-dichloroethene (7 of 18), carbon disulfide (6 of 18), vinyl chloride (5 of 18), and bromoform (4 of 18).

Off-Site. Selected VOCs were detected in four of the twelve off-site wells sampled for VOCs in the Spring 2004 event. Total concentrations of selected VOCs ranged from non-detect to 16 ug/L. One off-site well (MW-114) had selected VOC concentrations slightly 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 12 wells), chlorobenzene (6 of 12), 1,2-dichloroethene (5 of 12), and toluene (4 of 12).

Concentration Contours. The distribution of selected VOCs in groundwater is shown as a set of concentration contours on Figure 9. These contours were developed using both overburden and bedrock groundwater data, and are dashed where approximated using data from previous sampling rounds.

3.2 SURFACE WATER

Results from the Spring 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-1 through QS-5) and runoff collection pond (QP-1), the chloropyridine analyses yielded the following results:

PARAMETER[1]	QS-1	QS-2	QS-3	QS-4	QS-5	QP-1
pyridine	ND	ND	ND	ND	ND	ND
2,6-Dichloropyridine	ND	ND	27	ND	ND	14
2-Chloropyridine	ND	29	140	210	ND	26
3-Chloropyridine	ND	ND	ND	ND	ND	ND
p-Fluoroanaline	ND	ND	ND	ND	ND	ND

Notes:
[1] = Concentrations reported in micrograms per liter (µg/L)

These chloropyridine concentrations are below historical averages.

The only VOC detection in any of the quarry samples was a trace of tetrachloroethene (estimated concentration of 1.2 ug/L) in the runoff pond sample (QP-1). At this very low level, the result may or may not be real. Since this compound was not detected in any of the quarry seep samples or in any nearby well samples, its potential presence in the runoff pond would be unrelated to the Arch Chemicals site.

3.2.2 Quarry Discharge Ditch

Chloropyridine results for samples collected from the quarry discharge ditch are presented below:

PARAMETER[1]	QD-1	QD-2	QO-2
pyridine	ND	ND	ND
2,6-Dichloropyridine	ND	ND	ND
2-Chloropyridine	4J	4J	ND
3-Chloropyridine	ND	ND	ND
p-Fluoroanaline	ND	ND	ND

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

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 VOCs were detected in any of the three ditch samples.

3.2.3 Barge Canal

No chloropyridines or VOCs were detected in the surface water sample collected from the Erie Barge Canal (QO-2S1, located approximately 100 feet downstream of QO-2).

4.0 EXTRACTION SYSTEM PERFORMANCE AND MAINTENANCE

Table 6 is a summary of the system flow measurements for the seven extraction wells from December 2003 through May 2004. The total volume pumped during the six-month period is approximately 6 million gallons. Flow rates were adversely affected by severely cold conditions during January and February 2004, which resulted in numerous frozen lines. In addition, extraction well BR-6A is performing poorly and has not responded to rehabilitation efforts. A replacement for well BR-6A is planned for later this year.

During the period, pump and/or meter replacements were required in wells BR-5A, BR-7A, and PW-12.

Table 7 provides a calculation of mass removal rates since the previous groundwater monitoring event (i.e., from December 2003 through May 2004). Arch estimates that approximately 120 pounds of target VOCs and 450 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

During the Spring 2004 sampling event, 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, with the exception of a very small quantity (< 0.1 feet) of a heavy oil-like substance that was co-mingled with sediment in the bottom of well B-5. This material was first observed during the fall of 2003, during an evaluation of on-site monitoring wells. It is highly viscous, and does not contain significant quantities of the principal site-related VOCs (see Appendix C). A fingerprint screen was unable to identify the material as being similar to gasoline, kerosene, motor oil, or fuel oil. There was insufficient quantity of oil-like material in the well to allow for the analysis of chloropyridines or other semi-volatile organics. Based on the available information, Arch does not believe the observations in well B-5 are indicative of a current DNAPL issue at this location. Arch recommends cleaning out the accumulated sediment and oil-like substance from this well, and re-checking it in the future to confirm that no DNAPL is present.

On May 14, 2004, Arch submitted the Preliminary Design for Phase I Remediation (On-Site Extraction Wells, Monitoring Wells, and Well Abandonment) to the NYSDEC for review. Arch received approval for the extraction well design and locations via e-mail from NYSDEC on August 9, 2004 (electronic message from James Craft to Gayle Taylor (Arch) and Jeffrey Brandow (MACTEC)). In this same e-mail, well abandonment plans were not approved by NYSDEC, but could be resubmitted by Arch for further discussion on a case-by-case basis. Arch will finalize the design and proceed with extraction well installation this fall.

On June 7, 2004, Arch provided the NYSDEC with a draft Work Plan for a Vapor Intrusion Investigation at the Rochester facility and surrounding properties. Arch is awaiting review comments from the NYSDEC and the NYSDOH before proceeding with the investigation.

6.0 NEXT MONITORING EVENT

Arch has proposed collecting another round of samples from the quarry seeps and the quarry's discharge to the surface ditch (sample QD-1) in late summer of this year.

The next regular monitoring event will occur in November 2004 and will include groundwater, surface water, and seep sampling.

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

Figures

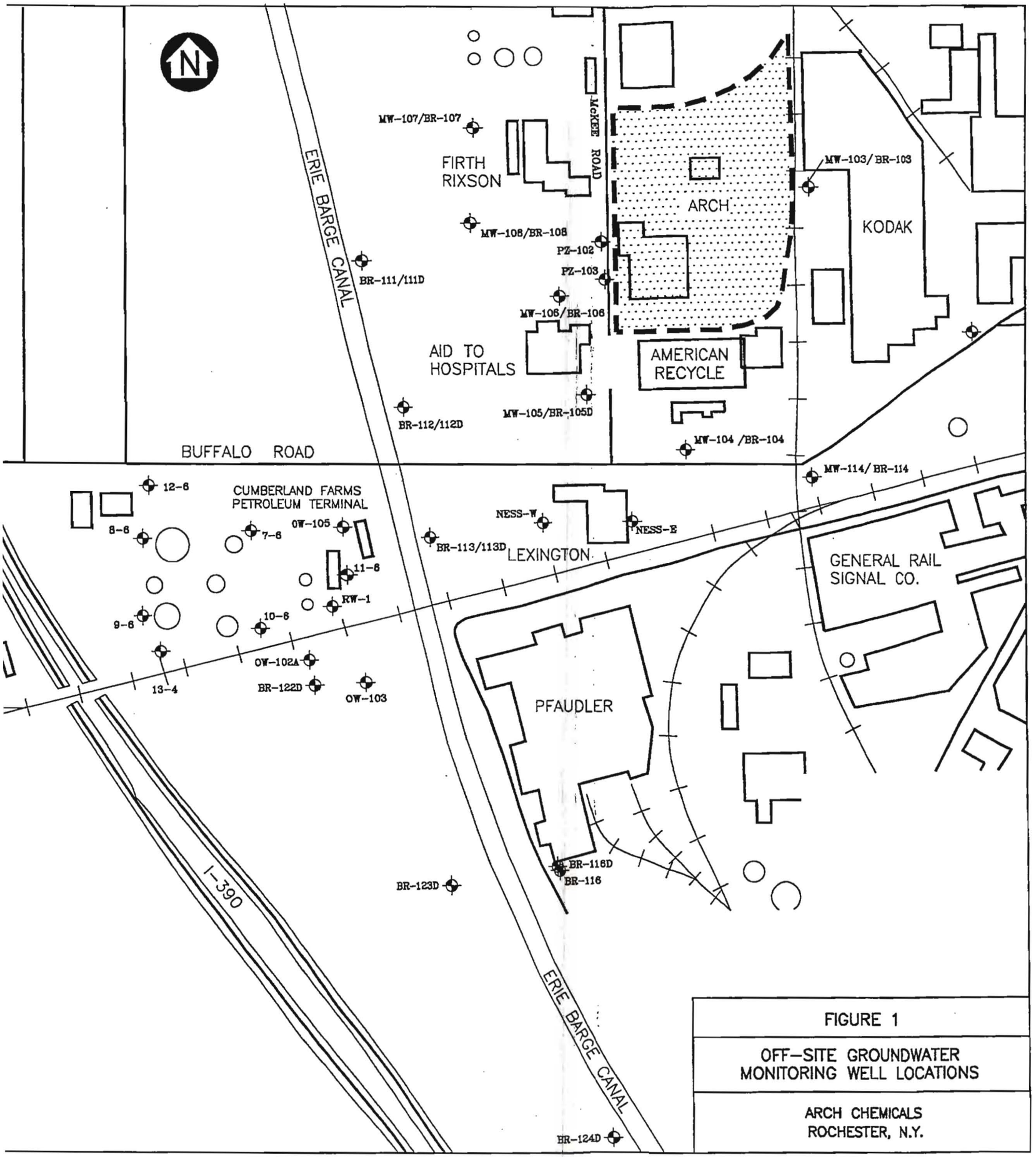
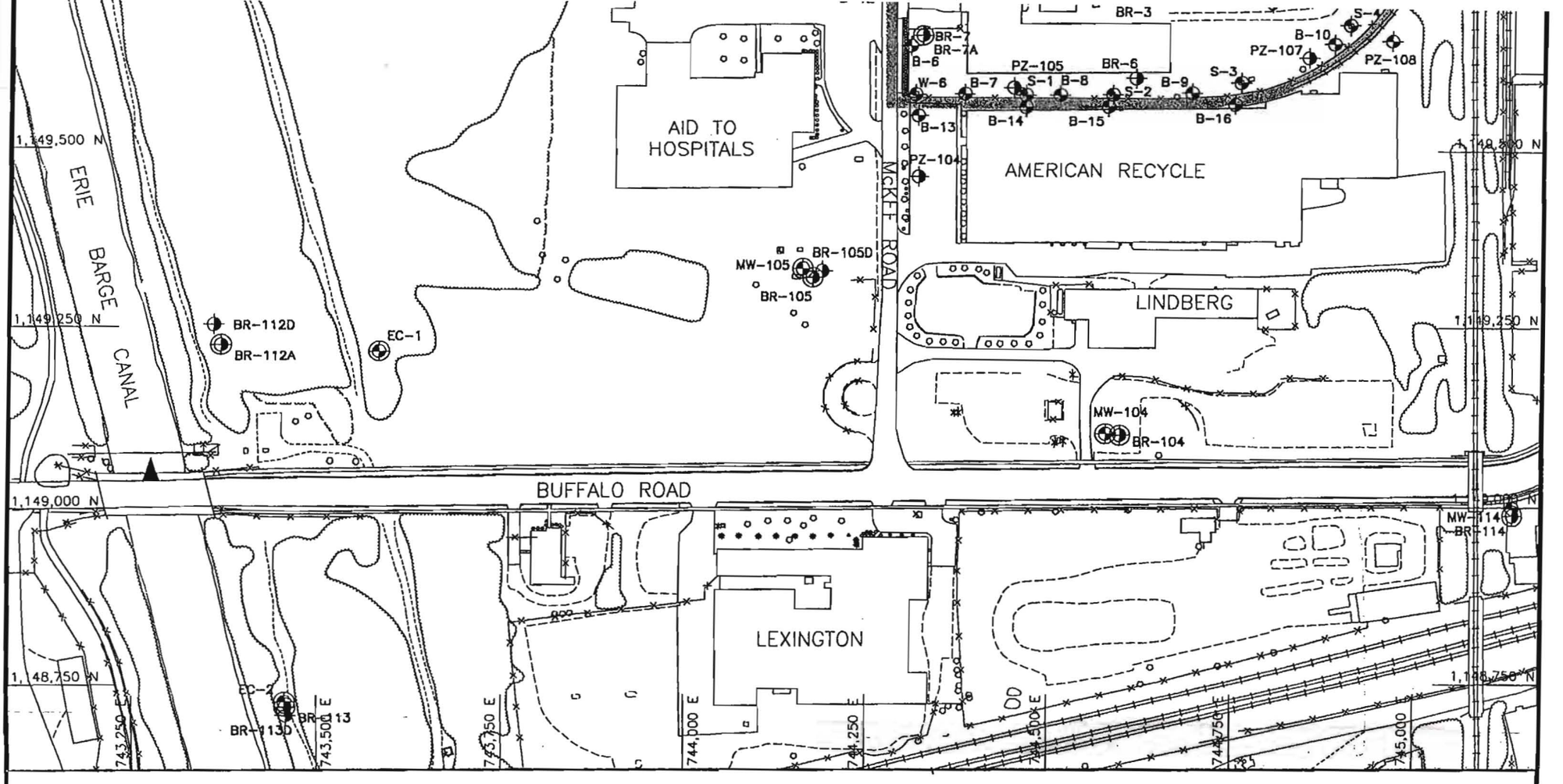


FIGURE 1

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'

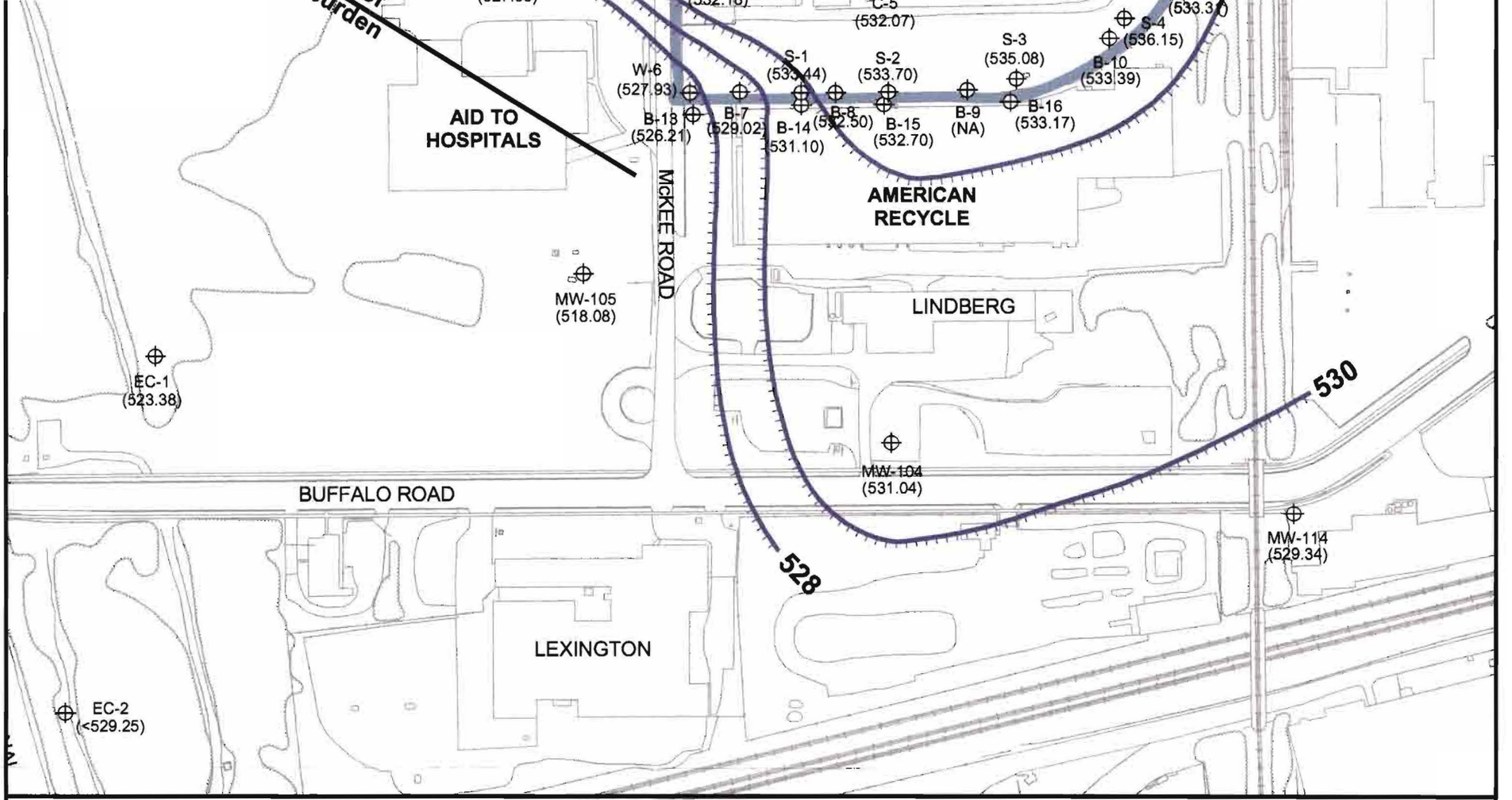
NOTE:

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 (529.65) Piezometric Elevation at Well or Piezometer

NOTES:

1. Water Levels Measured on June 1, 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
Spring 2004
Overburden Groundwater
Interpreted Piezometric Contours

Arch Chemicals
Rochester, NY
MACTEC, Inc.

Document: P:\Projects\Arch\Rochester\GIS\MapDocuments\Arch_OvbGW_Fig3.mxd PDF: P:\Projects\Arch\Rochester\GIS\Figures\Monitoring_Spring2004\Figure3.pdf 07/16/2004 12:27 PM brpeters

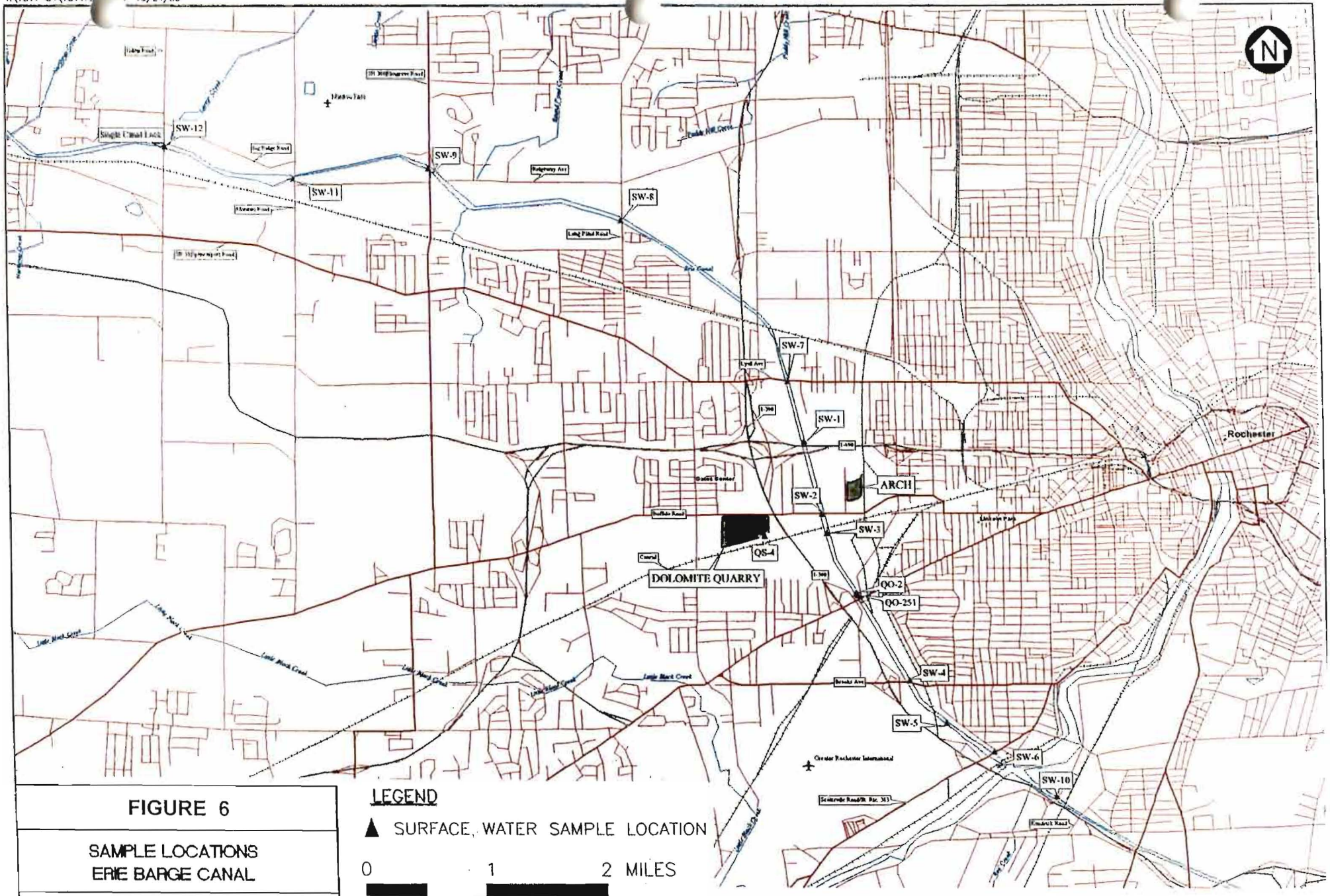


FIGURE 6

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

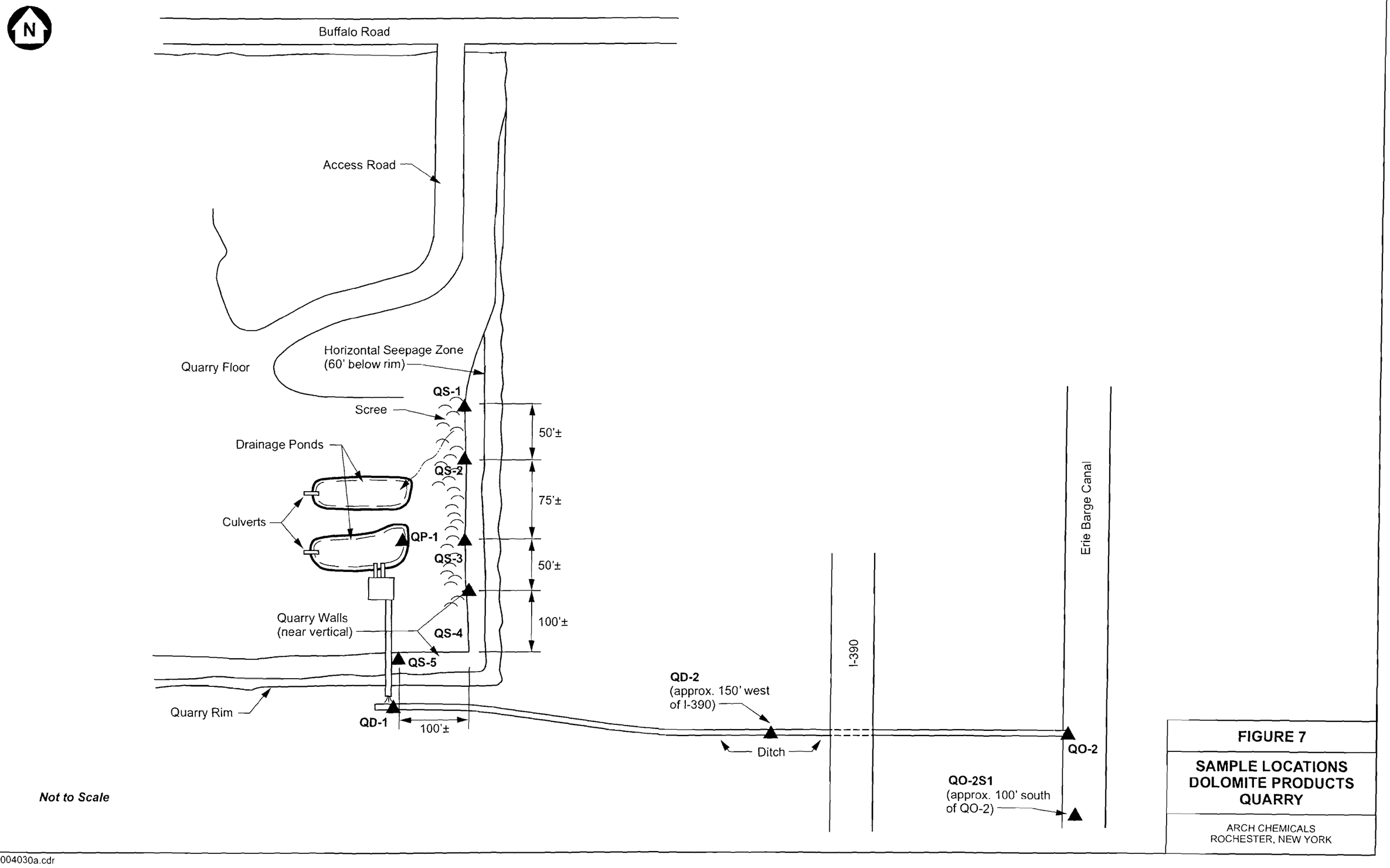
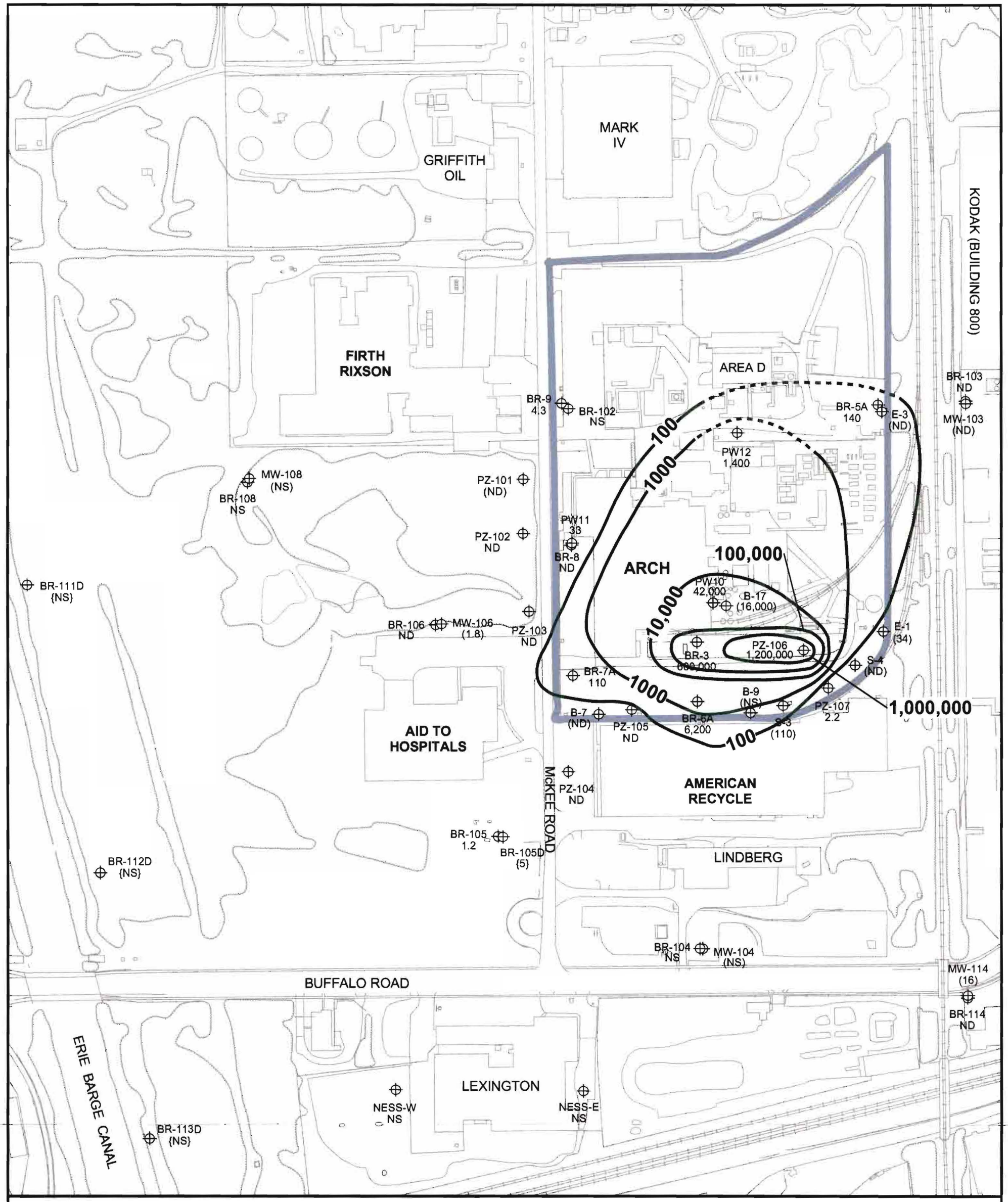


FIGURE 7

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

NOTES:

1. Samples Collected in June, 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.

0 100 200 Feet

N

Prepared by BRP | Checked by NMB

Figure 9
Spring 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_Spring2004\Figure9.pdf 08/10/2004 11:09 AM brpeters

Tables

TABLE 1
SPRING 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	6/9/2004	Sample	X	X
	BR-108	6/14/2004	Sample	X	
	MW-106	6/9/2004	Sample	X	X
	PZ-101	6/15/2004	Sample	X	X
	PZ-102	6/15/2004	Sample	X	X
	PZ-103	6/15/2004	Sample	X	X
AMERICAN RECYCLE MANUF. (58 MCKEE ROAD)	PZ-104	6/15/2004	Sample	X	X
ARCH ROCHESTER	B-17	6/3/2004	Sample	X	X
	B-7	6/10/2004	Sample	X	X
	BR-3	6/3/2004	Sample	X	X
	BR-5A	6/4/2004	Sample	X	X
	BR-6A	6/4/2004	Sample	X	X
	BR-7A	6/4/2004	Sample	X	X
	BR-8	6/10/2004	Duplicate	X	X
	BR-8	6/10/2004	Sample	X	X
	BR-9	6/4/2004	Sample	X	X
	E-1	6/10/2004	Sample	X	X
	E-3	6/4/2004	Sample	X	X
	PW10	6/4/2004	Sample	X	X
	PW11	6/4/2004	Sample	X	X
	PW12	6/4/2004	Sample	X	X
	PZ-105	6/3/2004	Sample	X	X
	PZ-106	6/3/2004	Sample	X	X
	PZ-107	6/3/2004	Sample	X	X
	S-3	6/10/2004	Sample	X	X
	S-4	6/10/2004	Sample	X	X
DOLOMITE PRODUCTS, INC.	BR-117D	6/8/2004	Sample	X	
	BR-118D	6/8/2004	Sample	X	
	QD-1	6/9/2004	Sample	X	X
	QD-2	6/9/2004	Sample	X	X
	QP-1	6/9/2004	Sample	X	X
	QS-1	6/9/2004	Sample	X	X
	QS-2	6/9/2004	Sample	X	X
	QS-3	6/9/2004	Sample	X	X
	QS-4	6/9/2004	Sample	X	X
	QS-5	6/9/2004	Sample	X	X
EASTMAN KODAK (FORMERLY GERBER PROPERTY)	BR-103	6/3/2004	Sample	X	X
	MW-103	6/3/2004	Sample	X	X
ERIE BARGE CANAL	BR-112D	6/14/2004	Sample	X	
	BR-113D	6/14/2004	Sample	X	
	BR-122D	6/8/2004	Sample	X	
	BR-123D	6/8/2004	Sample	X	
	QO-2	6/9/2004	Sample	X	X
	QO-2S1	6/9/2004	Sample	X	X
JACKSON WELDING	BR-114	6/14/2004	Sample	X	X
	MW-114	6/14/2004	Sample	X	X
LEXINGTON MACHINING	NESS-E	6/9/2004	Sample	X	
	NESS-W	6/9/2004	Sample	X	

TABLE 1
SPRING 2004 GROUNDWATER SAMPLING AND ANALYTICAL PROGRAM

ARCH CHEMICALS, INC
ROCHESTER, NEW YORK

			ANALYSIS	PYRIDINES[1]	VOCs[2]
SITE / AREA	WELL / POINT	DATE	QC TYPE		
PFAUDLER, INC.	BR-116	6/8/2004	Sample	X	
	BR-116D	6/8/2004	Sample	X	
RG & E RIGHT OF WAY	BR-104	6/3/2004	Sample	X	
	BR-105	6/9/2004	Sample	X	X
	BR-105D	6/9/2004	Sample	X	X
	MW-104	6/3/2004	Sample	X	

Notes:

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

TABLE 2
SPRING 2004 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	B-17		B-7		BR-103		BR-104		BR-105		BR-105D		BR-106		BR-108		BR-112D		BR-113D	
SAMPLE DATE:	06/03/04		06/10/04		06/03/04		06/03/04		06/09/04		06/09/04		06/09/04		06/14/04		06/14/04		06/14/04	
QC TYPE:	N		N		N		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
PARAMETER																				
2,6-Dichloropyridine	10000	U	510		9	U	9	U	100	U	500	U	500	U	10	U	9	U	9	U
2-Chloropyridine	46000	J	860		9	U	9	U	700		1800		2100		10	U	16		24	
3-Chloropyridine	10000	U	500	U	9	U	9	U	100	U	500	U	500	U	10	U	9	U	9	U
4-Chloropyridine	10000	U	500	U	9	U	9	U	100	U	500	U	500	U	10	U	9	U	9	U
p-Fluoroaniline	10000	U	500	U	9	U	9	U	100	U	500	UJ	500	U	10	U	9	U	9	U
Pyridine	3700	J	1200	U	24	U	24	U	250	U	1200	U	1200	U	25	U	24	U	24	U

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

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

TABLE 2
SPRING 2004 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-114		BR-116		BR-116D		BR-117D		BR-118D		BR-122D		BR-123D		BR-3		BR-5A		BR-6A	
SAMPLE DATE:	06/14/04		06/08/04		06/08/04		06/08/04		06/08/04		06/08/04		06/08/04		06/03/04		06/04/04		06/04/04	
QC TYPE:	N		N		N		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
PARAMETER																				
2,6-Dichloropyridine	38	U	10	U	10	U	10	U	10	U	48	U	48	U	25000	U	160	J	5000	U
2-Chloropyridine	130		10	U	10	U	21		100		110		160		110000		440	J	16000	
3-Chloropyridine	38	U	10	U	10	U	10	U	10	U	48	U	48	U	25000	U	50	U	5000	U
4-Chloropyridine	38	U	10	U	10	U	10	U	10	U	48	U	48	U	25000	U	50	U	5000	U
p-Fluoroaniline	38	U	10	U	10	U	10	U	10	U	48	U	48	U	25000	U	50	U	5000	U
Pyridine	94	U	24	U	24	U	24	U	24	U	120	U	120	U	62000	U	35	J	12000	U

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

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

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Prepared by: NMB Checked by: JEB

TABLE 2
SPRING 2004 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-7A		BR-8		BR-8		BR-9		E-1		E-3		MW-103		MW-104		MW-106		MW-114	
SAMPLE DATE:	06/04/04		06/10/04		06/10/04		06/04/04		06/10/04		06/04/04		06/03/04		06/03/04		06/09/04		06/14/04	
QC TYPE:	N		D		N		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
PARAMETER																				
2,6-Dichloropyridine	1600		100		110		48	U	23000		10	U	9	U	9	U	1400		9	U
2-Chloropyridine	5600		210		250		180		45000		8	J	9	U	9	U	5800		9	U
3-Chloropyridine	1000	U	38	U	100	U	48	U	5000	U	10	U	9	U	9	U	500	U	9	U
4-Chloropyridine	1000	U	38	U	100	U	48	U	5000	U	10	U	9	U	9	U	500	U	9	U
p-Fluoroaniline	1000	U	38	U	100	U	48	U	5000	U	10	U	9	U	9	U	500	U	9	U
Pyridine	2500	U	94	U	250	U	120	U	12000	U	1	J	24	U	2	J	1200	U	24	U

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

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

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Prepared by: NMB Checked by: JEB

TABLE 2
SPRING 2004 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	NESS-E		NESS-W		PW10		PW11		PW12		PZ-101		PZ-102		PZ-103		PZ-104		PZ-105	
SAMPLE DATE:	06/09/04		06/09/04		06/04/04		06/04/04		06/04/04		06/15/04		06/15/04		06/15/04		06/15/04		06/03/04	
QC TYPE:	N		N		N		N		N		N		N		N		N		N	
BY SW-846 Method 8270C (µg/L)																				
PARAMETER																				
2,6-Dichloropyridine	47	U	9	U	6700		420		500	U	100	U	430		740	J	500	U	6200	U
2-Chloropyridine	320		7	J	79000		3300		840		100	U	1100		2300	J	2400		3300	J
3-Chloropyridine	47	U	9	U	5000	U	250	U	500	U	100	U	200	U	500	UJ	500	U	6200	U
4-Chloropyridine	47	U	9	U	5000	U	250	U	500	U	100	U	200	U	500	U	500	U	6200	U
p-Fluoroaniline	47	U	9	U	5000	U	250	U	500	U	100	U	200	U	500	UJ	500	U	6200	U
Pyridine	120	U	24	U	3800	J	620	U	1200	U	250	U	500	U	1200	U	1200	U	16000	U

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

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

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TABLE 2
SPRING 2004 GROUNDWATER MONITORING RESULTS
CHLOROPYRIDINES

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	PZ-106		PZ-107		S-3		S-4	
SAMPLE DATE:	06/03/04		06/03/04		06/10/04		06/10/04	
QC TYPE:	N		N		N		N	
BY SW-846 Method 8270C (µg/L)								
PARAMETER								
2,6-Dichloropyridine	18000		500	U	3700		62	
2-Chloropyridine	61000		2700	J	8700		9	
3-Chloropyridine	4000	U	500	U	100	U	9	U
4-Chloropyridine	4000	U	500	U	100	U	9	U
p-Fluoroaniline	4000	U	500	U	100	U	9	U
Pyridine	10000	U	1200	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.

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Prepared by: NMB Checked by: JEB

TABLE 3
SPRING 2004 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	B-17	B-7	BR-103	BR-105	BR-105D	BR-106	BR-114	BR-3	BR-5A	BR-6A	BR-7A
SAMPLE DATE:	06/03/04	06/10/04	06/03/04	06/09/04	06/09/04	06/09/04	06/14/04	06/03/04	06/04/04	06/04/04	06/04/04
QC TYPE:	N	N	N	N	N	N	N	N	N	N	N
VOLATILE ORGANIC COMPOUNDS											
BY SW-846 Method 8260/5ML (µg/L)											
1,1,1-Trichloroethane	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
1,1,2,2-Tetrachloroethane	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
1,1,2-Trichloroethane	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
1,1-Dichloroethane	500 U	5 U	5 U	1.1 J	6.1	5 U	5 U	5000 U	5 U	120 U	6.9 J
1,1-Dichloroethene	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
1,2-Dichloroethane	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
1,2-Dichloroethene (total)	1000 U	10 U	9.1 J	77	7.5 J	2.3 J	10 U	10000 U	20	250 U	24
1,2-Dichloropropane	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
2-Butanone	2500 U	25 U	25 U	25 U	25 U	25 U	25 U	25000 U	25 U	620 U	50 U
2-Hexanone	2500 U	25 U	25 U	25 U	25 U	25 U	25 U	25000 U	25 U	620 U	50 U
4-Methyl-2-pentanone	2500 U	25 U	25 U	25 U	25 U	25 U	25 U	25000 U	25 U	620 U	50 U
Acetone	2500 U	25 U	25 U	25 U	25 U	25 U	25 U	25000 U	25 U	620 U	50 U
Benzene	500 U	1.2 J	5 U	2.4 J	8.1	39	4.8 J	5000 U	14	120 U	28
Bromodichloromethane	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
Bromoform	500 U	5 U	5 U	5 U	5 U	5 U	5 U	16000	5 U	47 J	10 U
Bromomethane	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
Carbon disulfide	1400	5 U	5 U	5 U	2.2 J	5 U	5 U	49000	5 U	120 U	10 U
Carbon tetrachloride	1500	5 U	5 U	5 U	5 U	5 U	5 U	160000	5 U	2900	9.3 J
Chlorobenzene	500 U	15	5 U	5.4 U	5 U	240	5 U	5000 U	13	120 U	200
Chloroethane	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
Chloroform	13000	5 U	5 U	5 U	5	5 U	5 U	340000	39	3000	64
Chloromethane	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
cis-1,3-Dichloropropene	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
Dibromochloromethane	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
Ethylbenzene	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
Methylene chloride	750	5 U	5 U	5 U	5 U	5 U	5 U	96000	75	150	32
Styrene	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
Tetrachloroethene	650	5 U	5 U	5 U	5 U	5 U	5 U	3700 J	5 U	190	5.1 J
Toluene	180 J	5 U	2.4 J	5 U	5 U	6.1	5 U	11000	9	120 U	13
Total Xylenes	1500 U	15 U	15 U	15 U	15 U	15 U	15 U	15000 U	15 U	380 U	30 U
trans-1,3-Dichloropropene	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5000 U	5 U	120 U	10 U
Trichloroethene	500 U	5 U	5 U	1.2 J	5 U	5 U	5 U	5000 U	23	120 U	10 U
Vinyl acetate	2500 U	25 U	25 U	25 U	25 U	25 U	25 U	25000 U	25 U	620 U	50 U
Vinyl chloride	500 U	5 U	6.2	19	5 U	5 U	5 U	5000 U	7.1	120 U	34

Notes:

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

J = Estimated value.

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

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Prepared by: NMB Checked by: JEB

TABLE 3
SPRING 2004 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	BR-8	BR-8	BR-9	E-1	E-3	MW-103	MW-106	MW-114	PW10	PW11	PW12
SAMPLE DATE:	06/10/04	06/10/04	06/04/04	06/10/04	06/04/04	06/03/04	06/09/04	06/14/04	06/04/04	06/04/04	06/04/04
QC TYPE:	D	N	N	N	N	N	N	N	N	N	N
VOLATILE ORGANIC COMPOUNDS BY SW-846 Method 8260/5ML (µg/L)											
1,1,1-Trichloroethane	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
1,1,2,2-Tetrachloroethane	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
1,1,2-Trichloroethane	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
1,1-Dichloroethane	5 U	5 U	13 J	25 U	5 U	5 UJ	5 U	5 U	250 U	11	25 U
1,1-Dichloroethene	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
1,2-Dichloroethane	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
1,2-Dichloroethene (total)	10 U	10 U	410	50 U	10 U	10 UJ	2.2 J	10 U	73 J	120	50 U
1,2-Dichloropropane	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
2-Butanone	25 U	25 U	100 U	120 U	25 U	25 UJ	25 U	25 U	1200 U	50 U	120 U
2-Hexanone	25 U	25 U	100 U	120 U	25 U	25 UJ	25 U	25 U	1200 U	50 U	120 U
4-Methyl-2-pentanone	25 U	25 U	100 U	120 U	25 U	25 UJ	25 U	25 U	1200 U	50 U	120 U
Acetone	25 U	25 U	100 U	260	25 U	25 UJ	25 U	25 U	1200 U	50 U	120 U
Benzene	5 U	5 U	110	25 U	5 U	5 UJ	37	5 U	53 J	32	98
Bromodichloromethane	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
Bromoform	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	2500	10 U	21 J
Bromomethane	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
Carbon disulfide	5 U	5 U	20 U	11 J	5 U	5 UJ	5 U	5 U	3200	10 U	25 U
Carbon tetrachloride	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	17000	10 U	340
Chlorobenzene	21	20	24 U	32	5 U	5 UJ	210	5 U	340	110	450
Chloroethane	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
Chloroform	5 U	5 U	4.3 J	9.1 J	5 U	5 UJ	5 U	6.2	19000	22	670
Chloromethane	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
cis-1,3-Dichloropropene	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
Dibromochloromethane	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	240 J	10 U	25 U
Ethylbenzene	5 U	5 U	11 J	25 U	5 U	5 UJ	5 U	5 U	250 U	3.5 J	38
Methylene chloride	5 U	5 U	20 U	18 J	5 U	5 UJ	5 U	5 U	4400	11	360
Styrene	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
Tetrachloroethene	5 U	5 U	20 U	6.6 J	5 U	5 UJ	5 U	3.4 J	1800	10 U	38
Toluene	5 U	5 U	20 U	25 U	5 U	5 UJ	5.3	5 U	490	8.3 J	520
Total Xylenes	15 U	15 U	60 U	75 U	15 U	15 UJ	15 U	15 U	750 U	30 U	230
trans-1,3-Dichloropropene	5 U	5 U	20 U	25 U	5 U	5 UJ	5 U	5 U	250 U	10 U	25 U
Trichloroethene	5 U	5 U	20 U	25 U	5 U	5 UJ	1.8 J	6.4	250 U	10 U	25 U
Vinyl acetate	25 U	25 U	100 U	120 U	25 U	25 UJ	25 U	25 U	1200 U	50 U	120 U
Vinyl chloride	5 U	5 U	180	25 U	5 U	5 UJ	5 U	5 U	250 U	130	25 U

Notes:

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

J = Estimated value.

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

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Prepared by: NMB Checked by: JEB

TABLE 3
SPRING 2004 GROUNDWATER MONITORING RESULTS
VOLATILE ORGANIC COMPOUNDS

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

LOCATION:	PZ-101	PZ-102	PZ-103	PZ-104	PZ-105	PZ-106	PZ-107	S-3	S-4
SAMPLE DATE:	06/15/04	06/15/04	06/15/04	06/15/04	06/03/04	06/03/04	06/03/04	06/10/04	06/10/04
QC TYPE:	N	N	N	N	N	N	N	N	N
VOLATILE ORGANIC COMPOUNDS									
BY SW-846 Method 8260/5ML (µg/L)									
1,1,1-Trichloroethane	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	1 J	5 U
1,1-Dichloroethene	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	10 U	20 U	50 U	10 U	10 U	50000 U	3.2 J	12	10 U
1,2-Dichloropropane	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
2-Butanone	25 U	50 U	120 U	25 U	25 U	120000 U	25 U	25 U	25 U
2-Hexanone	25 U	50 U	120 U	25 U	25 U	120000 U	25 U	25 U	25 U
4-Methyl-2-pentanone	25 U	50 U	120 U	25 U	25 U	120000 U	25 U	25 U	25 U
Acetone	25 U	50 U	120 U	25 U	25 U	120000 U	25 U	25 U	25 U
Benzene	5 U	18	39	2.1 J	5 U	25000 U	2.9 J	5.5	5 U
Bromodichloromethane	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
Bromoform	5 U	10 U	25 U	5 U	5 U	15000 J	5 U	5 U	5 U
Bromomethane	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
Carbon disulfide	5 U	10 U	25 U	5 U	5 U	150000	5 U	4 J	5 U
Carbon tetrachloride	5 U	10 U	25 U	5 U	5 U	130000	5 U	8.4	5 U
Chlorobenzene	4.6 J	350	630 J	3.3 J	5 U	25000 U	1.4 J	60	5 U
Chloroethane	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
Chloroform	5 U	10 U	25 U	5 U	5 U	990000	5 U	84	5 U
Chloromethane	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
Dibromochloromethane	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
Ethylbenzene	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
Methylene chloride	5 U	10 U	25 U	5 U	5 U	53000	5 U	5 U	5 U
Styrene	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
Tetrachloroethene	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	18	5 U
Toluene	5 U	10 U	34	5 U	5 U	25000 U	5 U	8.2	5 U
Total Xylenes	15 U	30 U	75 U	15 U	15 U	75000 U	15 U	15 U	15 U
trans-1,3-Dichloropropene	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	5 U	5 U
Trichloroethene	5 U	10 U	25 U	5 U	5 U	25000 U	2.2 J	1.8 J	5 U
Vinyl acetate	25 U	50 U	120 U	25 U	25 U	120000 U	25 U	25 U	25 U
Vinyl chloride	5 U	10 U	25 U	5 U	5 U	25000 U	5 U	8.6	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

TABLE 4
COMPARISON OF SPRING 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	JUN-2004 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	JUN-2004 RESULT
ON-SITE WELLS/LOCATIONS								
B-17	7	28,000,000	200,000	50,000	7	345,000	70,000	16,000
B-7	6	9,100	3,500	1,400	6	91	58	ND
BR-3	7	6,500,000	150,000	110,000	7	920,000	520,000	**600,000**
BR-5A	10	1,700	450	**640**	10	9,400	86	**140**
BR-6A	10	144,500	37,000	16,000	10	26,000	7,300	6,200
BR-7A	10	510,000	21,000	7,200	10	3,000	320	110
BR-8	7	57,000	12,000	360	7	6,900	4.3	ND
BR-9	8	720	400	180	8	160	61	4.3
E-1	8	171,680	40,000	**68,000**	8	5,300	520	34
E-3	7	600	61	9	7	12,000	200	ND
PW10	9	160,000	76,000	**90,000**	9	120,000	40,000	**42,000**
PW11	7	27,000	5,800	3,700	8	30,000	8,900	33
PW12	10	15,000	3,700	840	10	120,000	5,400	1,400
PZ-105	6	190,000	27,000	3,300	5	9,700	1,700	ND
PZ-106	7	120,000	30,000	**79,000**	7	1,359,000	630,000	**1,200,000**
PZ-107	10	11,000	2,300	**2,700**	10	12,000	620	2.2
S-3	8	18,240	7,300	**12,000**	8	2,500	570	110
S-4	8	3,200	910	71	8	870	110	ND
OFF-SITE WELLS/LOCATIONS								
BR-103	6	400	11	ND	6	1	0.45	ND
BR-104	7	3,100	7.4	ND	5	9	ND	NS
BR-105	10	24,000	2,000	700	10	310	4.5	1.2
BR-105D	10	10,000	2,300	1,800	10	230	8.2	5
BR-106	10	21,000	9,700	2,100	11	6,300	330	ND
BR-108	7	1,700	7.6	ND	4	ND	ND	NS
BR-112D	7	310	46	16	3	4.3	0.43	NS
BR-113D	7	490	91	24	NS	2.8	NS	NS
BR-114	7	521	230	130	7	5	3.5	ND
BR-116	5	12	ND	ND	NS	84	NS	NS

TABLE 4
COMPARISON OF SPRING 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	JUN-2004 RESULT	# EVENTS IN PRIOR 5 YRS	HISTORIC MAXIMUM	5-YEAR MEAN	JUN-2004 RESULT
OFF-SITE WELLS/LOCATIONS								
BR-116D	5	710	110	ND	NS	120	NS	NS
BR-117D	5	80	20	**21**	NS	1.9	NS	NS
BR-118D	5	330	99	**100**	NS	6.6	NS	NS
BR-122D	5	650	190	110	NS	ND	NS	NS
BR-123D	5	860	410	160	NS	4	NS	NS
MW-103	6	82	4.3	ND	6	ND	120	ND
MW-104	6	180	1.9	**2**	4	1	ND	NS
MW-106	10	130,000	15,000	7,200	10	453	46	1.8
MW-114	7	18	0.29	ND	7	19	12	**16**
MW-16	3	360	250	NS	NA	NA	NA	NS
NESS-E	7	5,000	520	320	5	700	ND	NS
NESS-W	7	2,100	330	7	5	89	0.22	NS
PZ-101	9	27,000	1,300	ND	8	6.1	0.96	ND
PZ-102	9	58,000	7,800	1,500	8	10,000	2.7	ND
PZ-103	9	73,000	27,000	740	9	44,300	8,800	ND
PZ-104	9	9,100	4,100	2,400	8	40	1.4	ND
QO-2	15	380	48	ND	9	ND	ND	ND
QO-2S1	14	27	0.036	ND	5	ND	ND	ND
QS-4	15	3,400	740	210	9	ND	ND	ND

Note:

1) Number of samples and mean reflect 5-year sampling period from June 1999 through November 2003.
   Historic maximum based on all available results from March 1990 through January 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

TABLE 5
SPRING 2004 CANAL/QUARRY MONITORING RESULTS

ARCH CHEMICAL, INC.
ROCHESTER, NEW YORK

WELL / POINT	QD-1		QD-2		QO-2		QO-2S1		QP-1	
DATE	6/9/2004		6/9/2004		6/9/2004		6/9/2004		6/9/2004	
QC	N		N		N		N		N	
VOLATILE ORGANIC COMPOUNDS										
BY SW-846 Method 8260/5ML (µg/L)										
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	1.2	J
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	9	U	10	U	12	U	10	U	14	
2-Chloropyridine	4	J	4	J	12	U	10	U	26	
3-Chloropyridine	9	U	10	U	12	U	10	U	10	U
4-Chloropyridine	9	U	10	U	12	U	10	U	10	U
p-Fluoroaniline	9	U	10	U	12	U	10	U	10	U
Pyridine	24	U	26	U	29	U	24	U	24	U

Notes:

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

J = Estimated value.

NA = Not analyzed

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Prepared by: NMB Checked by: JEB

TABLE 5
SPRING 2004 CANAL/QUARRY MONITORING RESULTS

ARCH CHEMICAL, INC.
ROCHESTER, NEW YORK

WELL / POINT	QS-1		QS-2		QS-3		QS-4		QS-5	
DATE	6/9/2004		6/9/2004		6/9/2004		6/9/2004		6/9/2004	
QC	N		N		N		N		N	
VOLATILE ORGANIC COMPOUNDS										
BY SW-846 Method 8260/5ML (µg/L)										
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	10	U	10	U	27		39	U	10	U
2-Chloropyridine	10	U	29		140		210		10	U
3-Chloropyridine	10	U	10	U	9	U	39	U	10	U
4-Chloropyridine	10	U	10	U	9	U	39	U	10	U
p-Fluoroaniline	10	U	10	U	9	U	39	U	10	U
Pyridine	25	U	25	U	24	U	97	U	24	U

Notes:

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

J = Estimated value.

NA = Not analyzed

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Prepared by: NMB Checked by: JEB

TABLE 6
EXTRACTION WELL WEEKLY FLOW MEASUREMENTS - DECEMBER 2003 THROUGH MAY 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.]
Dec. '03								
12/06/03	56,244	11,355	84,088	53,437	19,710	20,854	35,671	281,359
12/13/03	53,374	9,915	76,333	43,738	18,390	22,448	37,233	261,431
12/20/03	54,907	1,095	83,105	44,506	18,590	22,472	38,074	262,749
12/27/03	52,958	8,213	75,116	40,580	17,160	23,710	36,493	254,230
							Total [Gal.]	1,059,769
Jan. '04								
01/04/04	28,552	2,507	36,602	23,133	9,743	14,092	21,580	136,209
01/11/04	49,031	3,273	55,515	49,089	15,910	28,659	37,628	239,105
01/18/04	54,312	7	8,685	50,873	15,770	27,551	37,300	194,498
01/25/04	43,896	1,392	45,803	46,141	4,230	9,900	19,227	170,589
							Total [Gal.]	740,401
Feb. '04								
02/01/04	48,149	2,967	64,980	48,253	8,655	2,237	0	175,241
02/08/04	50,743	665	91,609	53,431	10,705	876	13,199	221,228
02/15/04	48,900	94	87,177	47,399	8,060	8,942	34,681	235,253
02/22/04	41,853	3,564	60,577	50,711	6,354	7,486	31,451	201,996
							Total [Gal.]	833,718
Mar. '04								
03/01/04	49,148	1,472	71,167	45,302	21,186	12,041	34,568	234,884
03/08/04	70,115	0	65,403	48,763	21,290	19,368	33,788	258,727
03/15/04	57,850	0	57,276	60,638	21,420	25,292	33,838	256,314
03/22/04	51,253	0	58,680	58,897	20,405	12,579	34,453	236,267
03/29/04	2,103	4,433	68,658	49,097	21,115	2,456	32,219	180,081
							Total [Gal.]	1,166,273
Apr. '04								
04/05/04	40,315	10,208	61,304	49,884	20,990	23,451	29,848	236,000
04/12/04	58,917	5,769	55,845	49,399	20,870	33,101	26,735 *	250,636
04/19/04	57,200	3,076	48,729	49,307	15,320	30,494	23,622	227,748
04/26/04	39,276	936	52,403	37,788	14,410	15,214	21,985	182,012
							Total [Gal.]	896,396
May '04								
05/03/04	55,777	118	75,962	52,675	15,970	26,652	33,379	260,533
05/10/04	52,362	0	64,977	54,617	21,260	33,440	37,189	263,845
05/17/04	56,406	126	73,195	55,519	17,144	33,024	37,304	272,718
05/24/04	55,418	981	34,462	53,100	14,694	24,956	37,989	221,600
05/31/04	64,637	6,851	54,389	50,050	14,232	15,375	34,632	240,166
							Total [Gal.]	1,258,862
Total 6 Mo. Removal (Gal.)	1,293,696	79,017	1,612,040	1,266,327	413,583	496,670	794,086	5,955,419

Notes:
1) Performance was adversely affected by frozen lines in January and February
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: DEC 2003 - MAY 2004

ARCH ROCHESTER
SPRING 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	1,294,000	0.086	1.0	0.9	11.0
BR-6A	79,000	10	12	6	8
BR-7A	1,612,000	0.091	8.6	1	115
BR-9	1,266,000	0.005	0.16	0.1	1.7
PW-10	414,000	28	84	95	291
PW-11	497,000	0.41	2.7	1.7	11
PW-12	794,000	1.7	1.4	11	9.1
Totals:	5,956,000			117	447

Note: VOC and pyridine concentrations used in this table are an average of the analytical results from the Fall 2003 and Spring 2004 sampling events for each well

Prepared by: NMB Checked by: JEB

TABLE 8
2004 SAMPLING SCHEDULE
ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

ARCH ROCHESTER MONITORING PROGRAM						2004 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-104	OB	BUFFALO RD	annual monitoring, PYR	trend monitoring	1				1	0
	BR-104	BR	BUFFALO RD	annual monitoring, PYR	trend monitoring	1				1	0
	BR-105	BR	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	BR-105D	BR deep	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	MW-106	OB	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	BR-106	BR	AID-HOSP	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	BR-108	BR	AID-HOSP	annual monitoring, PYR	trend monitoring	1				1	0
	BR-112D	BR deep	NYSDOT	annual monitoring, PYR	trend monitoring	1				1	0
	BR-113D	BR deep	NYSDOT	annual monitoring, PYR	trend monitoring	1				1	0
	MW-114	OB	JACKSON	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-114	BR	JACKSON	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-116	BR	PFAUDLER	annual monitoring, PYR	trend monitoring	1				1	0
	BR-116D	BR deep	PFAUDLER	annual monitoring, PYR	trend monitoring	1				1	0
	BR-117D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	BR-118D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	BR-122D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	BR-123D	BR deep	QUARRY	annual monitoring, PYR	trend monitoring	1				1	0
	NESS-E	BR deep	NESS	annual monitoring, PYR	trend monitoring	1				1	0
	NESS-W	BR deep	NESS	annual monitoring, PYR	trend monitoring	1				1	0
	PZ-101	BR	McKee Rd	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PZ-102	BR	McKee Rd	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PZ-103	BR	McKee Rd	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	PZ-104	BR	ALH	semi-annual monitoring, VOCs & PYR	perimeter sentinel/trend monitoring	1	1	1	1	2	2
	MW-16	BR	Gen'l Circuits	annual monitoring, PYR	trend monitoring			1		1	0
ON-SITE 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	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	PZ-105	BR	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-3	BR	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-8	BR	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	BR-9	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	BR-5A	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	BR-6A	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	BR-7A	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	B-17	OB	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	B-7	OB	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	S-3	OB	ON-SITE	semi-annual monitoring, VOCs & PYR	continue until replaced by trench	1	1	1	1	2	2
	S-4	OB	ON-SITE	semi-annual monitoring, VOCs & PYR	continue until replaced by trench	1	1	1	1	2	2
	E-1	OB	ON-SITE	semi-annual monitoring, VOCs & PYR	continue until replaced by trench	1	1	1	1	2	2
	E-3	OB	ON-SITE	annual monitoring, VOCs & PYR	trend monitoring	1	1			1	1
	PW10	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	PW11	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
	PW12	pumping well	ON-SITE	semi-annual monitoring, VOCs & PYR	mass removal/trend monitoring	1	1	1	1	2	2
QUARRY/CANAL MONITORING	QS-1	quarry seep	QUARRY	temporary monitoring	risk evaluation/SPDES Permit	1	1	1		2	1
	QS-2	quarry seep	QUARRY	temporary monitoring	risk evaluation/SPDES Permit	1	1	1		2	1
	QS-3	quarry seep	QUARRY	temporary monitoring	risk evaluation/SPDES Permit	1	1	1		2	1
	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		2	1
	QD-1	quarry outfall	DITCH	temporary monitoring	risk evaluation/SPDES Permit	1	1	1		2	1
	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		2	1
	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		2	1
TOTAL SAMPLES						53	40	30	22	83	62

Revised: 06/15/04 (added temp. quarry monitoring)

Prepared by: NMB Checked by: JEB

Appendix A

Groundwater Field Sampling Data Sheets

1.0 INTRODUCTION

This report describes the sampling of the following points:

- Fourty-three (43) groundwater samples
- One (1) barge canal sample
- Three (3) quarry outfall sample
- Six (6) quarry seep/pond sample

These activities were in support of the Phase II Remediation Investigation being conducted at the Arch Chemical facility in Rochester, New York. The samples were collected from June 1-16, 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 (QS1-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 LAW ASSOCIATES
SPRING 2004
RI SAMPLING/ROCHESTER NY FACILITY

Sample Point	Water Level Date	Water Level Time	Water Level (ft)*	Water Elevation (ft)**	Bottom Of Well (ft)*	Field Measurements Date	Field Measurements Time	pH (STD) (Units)	Spec. Cond. (umhos)	Temp (°C)	Turb. (NTU)	Other Field Measurements	
B-17	06/03/2004	1307	6.18	N/A	16.23	06/03/2004	1330	9.31	10100	15.4	8.61	EH(mv)= -180	DO(ppm)= 1.00
B-7	06/10/2004	1107	12.53	N/A	20.90	06/10/2004	1130	7.27	1718	13.1	11.90	EH(mv)= -84	DO(ppm)= .94
BR-103	06/03/2004	1235	4.45	N/A	N/A	06/03/2004	1300	7.14	1203	14.0	3.82	EH(mv)= 90	DO(ppm)= .35
BR-104	06/03/2004	1105	6.96	N/A	N/A	06/03/2004	1135	8.73	401	13.6	46.30	EH(mv)= 112	DO(ppm)= 4.87
BR-105	06/09/2004	1138	22.42	N/A	44.60	06/09/2004	1200	6.76	2350	16.3	0.98	EH(mv)= -85	DO(ppm)= .90
BR-105D	06/09/2004	1110	24.60	N/A	79.50	06/09/2004	1135	6.94	10910	17.5	1.38	EH(mv)= -308	DO(ppm)= .87
BR-106	06/09/2004	1227	22.96	N/A	43.22	06/09/2004	1320	6.96	3265	15.7	40.10	EH(mv)= -168	DO(ppm)= 1.12
BR-108	06/14/2004	939	27.44	N/A	29.75	06/14/2004	1245	6.88	867	14.7	348.00	EH(mv)= -75	DO(ppm)= 1.32
BR-112D	06/14/2004	1109	36.34	N/A	72.26	06/14/2004	1140	7.10	1314	14.5	0.71	EH(mv)= -125	DO(ppm)= .30
BR-113D	06/14/2004	1157	31.35	N/A	79.25	06/14/2004	1220	6.93	2768	12.6	0.95	EH(mv)= -281	DO(ppm)= .10
BR-114	06/14/2004	958	13.02	N/A	36.93	06/14/2004	1020	7.10	1391	16.3	41.10	EH(mv)= -139	DO(ppm)= .65
BR-116	06/08/2004	1335	26.78	N/A	N/A	06/08/2004	1358	6.76	2520	17.9	4.90	EH(mv)= -87	DO(ppm)= .29
BR-116D	06/08/2004	1402	35.46	N/A	N/A	06/08/2004	1429	8.97	580	17.1	157.00	EH(mv)= 7	DO(ppm)= .39
BR-117D	06/08/2004	1037	48.85	N/A	N/A	06/08/2004	1111	9.51	506	12.8	14.00	EH(mv)= 13	DO(ppm)= .71
BR-118D	06/08/2004	1121	48.04	N/A	N/A	06/08/2004	1152	7.03	3340	12.9	5.10	EH(mv)= -270	DO(ppm)= .30
BR-122D	06/08/2004	1214	44.36	N/A	N/A	06/08/2004	1246	6.85	1870	14.6	6.31	EH(mv)= -275	DO(ppm)= .18
BR-123D	06/08/2004	1257	44.96	N/A	N/A	06/08/2004	1321	8.16	1354	13.6	40.10	EH(mv)= -221	DO(ppm)= .30
BR-3	06/03/2004	1143	9.92	N/A	23.25	06/03/2004	1205	6.33	12910	13.3	3.41	EH(mv)= -100	DO(ppm)= .95
BR-5A		0	0.00	N/A	N/A	06/04/2004	1207	7.02	1500	14.0	1.20	EH(mv)= -66	
BR-6A		0	0.00	N/A	N/A	06/04/2004	1103	9.13	4706	17.5	10.71	EH(mv)= -84	
BR-7A		0	0.00	N/A	N/A	06/04/2004	1241	N/A	2796	16.6	11.60	EH(mv)= -127	
BR-8	06/10/2004	1011	8.42	N/A	31.74	06/10/2004	1035	7.45	2696	12.5	7.94	EH(mv)= -231	DO(ppm)= .95
BR-9		0	0.00	N/A	N/A	06/04/2004	1227	6.90	2965	17.1	27.80	EH(mv)= -84	
E-1	06/10/2004	1253	2.00	N/A	N/A	06/10/2004	1315	8.99	16100	15.5	30.60	EH(mv)= -201	DO(ppm)= .81
E-3	06/03/2004	1028	7.58	N/A	12.05	06/04/2004	1143	6.89	1677	16.4	5.53	EH(mv)= 13	
MW-103	06/03/2004	1155	1.75	N/A	N/A	06/03/2004	1220	7.27	487	17.8	3.27	EH(mv)= 141	DO(ppm)= 1.35
MW-104	06/03/2004	1010	6.50	N/A	17.75	06/03/2004	1100	6.99	803	13.9	207.00	EH(mv)= 90	DO(ppm)= .45
MW-106	06/09/2004	1230	9.18	N/A	19.35	06/09/2004	1300	6.84	2679	14.2	26.70	EH(mv)= -150	DO(ppm)= .90
MW-114	06/14/2004	1025	10.77	N/A	15.76	06/14/2004	1050	7.81	2718	16.1	4.11	EH(mv)= -28	DO(ppm)= .80
NESS-E	06/09/2004	1020	27.58	N/A	74.52	06/09/2004	1050	6.78	3723	14.3	53.60	EH(mv)= 20	DO(ppm)= 1.01
NESS-W	06/09/2004	925	31.28	N/A	77.23	06/09/2004	1000	7.45	2532	15.6	4.21	EH(mv)= -127	DO(ppm)= 1.97
PW-10		0	0.00	N/A	N/A	06/04/2004	1117	8.86	8269	17.4	49.00	EH(mv)= -114	

SG - Specific Gravity
EH - Redox
DO - Dissolved Oxygen

* From Top of Riser
** Elevation Above Sea Level

Sampling (ry Table
HARDING LAWSON ASSOCIATES
SPRING 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-11		0	0.00	N/A	N/A	06/04/2004	1007	7.02	5114	15.6	12.10	EH(mv)= 35	
PW-12(BR-101)		0	0.00	N/A	N/A	06/04/2004	1130	7.18	5681	16.0	1.78	EH(mv)= -132	
PZ-101	06/15/2004	1146	12.22	N/A	21.69	06/15/2004	1215	7.13	1794	19.1	1.61	EH(mv)= -24	DO(ppm)= .90
PZ-102	06/15/2004	1115	11.66	N/A	32.60	06/15/2004	1139	7.44	4154	15.4	0.79	EH(mv)= -91	DO(ppm)= .90
PZ-103	06/15/2004	1036	11.07	N/A	32.52	06/15/2004	1102	7.93	4506	15.9	0.79	EH(mv)= -182	DO(ppm)= 1.48
PZ-104	06/15/2004	959	12.12	N/A	23.93	06/15/2004	1026	7.32	2051	15.7	4.11	EH(mv)= -111	DO(ppm)= .91
PZ-105	06/03/2004	1049	8.27	N/A	32.86	06/03/2004	1115	7.05	758	15.6	71.89	EH(mv)= 43	DO(ppm)= .91
PZ-106	06/03/2004	1228	9.37	N/A	27.90	06/03/2004	1250	5.50	10200	17.1	6.85	EH(mv)= 56	DO(ppm)= 1.01
PZ-107	06/03/2004	1340	5.30	N/A	27.90	06/03/2004	1405	7.01	3197	12.6	0.31	EH(mv)= -120	DO(ppm)= .85
QD-1		0	0.00	N/A	N/A	06/09/2004	1140	7.89	1780	19.3	N/A	EH(mv)= 162	DO(ppm)= 3.86
QD-2		0	0.00	N/A	N/A	06/09/2004	1205	8.30	1760	20.9	N/A	EH(mv)= 164	DO(ppm)= 5.20
QO-2		0	0.00	N/A	N/A	06/09/2004	1225	8.02	1640	20.2	N/A	EH(mv)= 149	DO(ppm)= 3.10
QO-2S1		0	0.00	N/A	N/A	06/09/2004	1245	8.05	507	22.8	N/A	EH(mv)= 146	DO(ppm)= 3.73
QP-1		0	0.00	N/A	N/A	06/09/2004	1025	8.10	1258	18.6	N/A	EH(mv)= 166	DO(ppm)= 4.73
QS-1		0	0.00	N/A	N/A	06/09/2004	1050	8.20	1520	20.9	N/A	EH(mv)= 169	DO(ppm)= 3.43
QS-2		0	0.00	N/A	N/A	06/09/2004	1100	8.12	1265	20.2	N/A	EH(mv)= 163	DO(ppm)= 4.48
QS-3		0	0.00	N/A	N/A	06/09/2004	1110	8.05	1428	18.5	N/A	EH(mv)= 129	DO(ppm)= 4.12
QS-4		0	0.00	N/A	N/A	06/09/2004	1000	7.94	1228	15.9	N/A	EH(mv)= 166	DO(ppm)= 6.33
QS-5		0	0.00	N/A	N/A	06/09/2004	1015	8.36	1770	18.7	N/A	EH(mv)= 162	DO(ppm)= 4.33
S-3	06/10/2004	1151	2.03	N/A	N/A	06/10/2004	1215	7.73	3167	13.6	1.19	EH(mv)= -236	DO(ppm)= .90
S-4	06/10/2004	1222	0.65	N/A	N/A	06/10/2004	1245	7.97	283	13.6	10.16	EH(mv)= -180	DO(ppm)= .98

SG - Specific Gravity
EH - Redox
DO - Dissolved Oxygen

* From Top of Riser
** Elevation Above Sea Level

Groundwater Evaluation Report
HARDING LAWSON ASSOC.
JUNE 2004
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
B-1	06/01/2004	1425	0.00	8.15	N/A	NO NAPL OBSERVED
B-10	06/01/2004	1241	0.00	5.41	N/A	NO NAPL OBSERVED
B-11	06/01/2004	1214	0.00	2.69	N/A	
B-13	06/01/2004	1520	0.00	10.86	N/A	
B-14	06/01/2004	1526	0.00	6.85	N/A	
B-15	06/01/2004	1528	0.00	2.59	N/A	
B-16	06/01/2004	1531	0.00	3.04	N/A	
B-17	06/01/2004	1153	0.00	5.90	N/A	NO NAPL OBSERVED
B-2	06/01/2004	1415	0.00	8.95	N/A	NO NAPL OBSERVED
B-3	06/01/2004	1400	0.00	4.85	N/A	NO NAPL OBSERVED
B-4	06/01/2004	1434	0.00	10.99	N/A	NO NAPL OBSERVED
B-5	06/01/2004	1446	0.00	8.54	N/A	BLACK TAR LIKE MATERIAL ON TIP OF INTERFACE PROBE
B-7	06/01/2004	1510	0.00	12.09	N/A	NO NAPL OBSERVED
B-8	06/01/2004	1256	0.00	6.38	N/A	NO NAPL OBSERVED
B-9	06/01/2004	0	0.00	N/A	N/A	BROKEN AT SURFACE AND BURIED UNDER ROCKS
BR-1	06/01/2004	1020	0.00	7.50	N/A	NO NAPL OBSERVED
BR-102	06/01/2004	1357	0.00	21.21	N/A	NO NAPL OBSERVED
BR-103	06/01/2004	1220	0.00	6.00	N/A	BROKEN CAP AND FLUSHMOUNT COVER
BR-104	06/01/2004	1250	0.00	5.40	N/A	
BR-105	06/01/2004	1415	0.00	22.05	N/A	
BR-105D	06/01/2004	1410	0.00	25.04	N/A	
BR-106	06/01/2004	1425	0.00	22.42	N/A	
BR-107	06/01/2004	0	0.00	N/A	N/A	DESTROYED
BR-108	06/01/2004	1450	0.00	26.98	N/A	
BR-111	06/01/2004	1322	0.00	28.71	N/A	
BR-111D	06/01/2004	1320	0.00	28.89	N/A	
BR-112A	06/01/2004	1345	0.00	27.11	N/A	
BR-112D	06/01/2004	1340	0.00	36.30	N/A	
BR-113	06/01/2004	1310	0.00	31.24	N/A	
BR-113D	06/01/2004	1305	0.00	31.33	N/A	
BR-114	06/01/2004	1235	0.00	12.65	N/A	
BR-116	06/01/2004	1205	0.00	26.67	N/A	
BR-116D	06/01/2004	1205	0.00	35.15	N/A	
BR-117	06/01/2004	1100	0.00	22.90	N/A	

Groundwater Evaluation Report
HARDING LAWSON ASSOC.
JUNE 2004
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
BR-117D	06/01/2004	1055	0.00	48.03	N/A	
BR-118	06/01/2004	1110	0.00	35.96	N/A	
BR-118D	06/01/2004	1108	0.00	47.17	N/A	
BR-119D	06/01/2004	1115	0.00	64.94	N/A	
BR-120D	06/01/2004	1030	0.00	56.07	N/A	
BR-121D	06/01/2004	1040	0.00	53.07	N/A	
BR-122D	06/01/2004	1150	0.00	43.99	N/A	
BR-123D	06/01/2004	1140	0.00	44.65	N/A	
BR-124D	06/01/2004	1135	0.00	30.36	N/A	
BR-2	06/01/2004	1140	0.00	6.07	N/A	NO NAPL OBSERVED
BR-2A	06/01/2004	1135	0.00	7.05	N/A	NO NAPL OBSERVED
BR-2D	06/01/2004	1130	0.00	0.05	N/A	NO NAPL OBSERVED
BR-3	06/01/2004	1236	0.00	9.85	N/A	NO NAPL OBSERVED
BR-3D	06/01/2004	1230	0.00	65.80	N/A	NO NAPL OBSERVED
BR-4	06/01/2004	1206	0.00	6.36	N/A	NO NAPL OBSERVED
BR-5	06/01/2004	1112	0.00	14.23	N/A	NO NAPL OBSERVED
BR-5A	06/01/2004	1110	0.00	12.79	N/A	0.00=FLOW RATE
BR-6	06/01/2004	1250	0.00	11.52	N/A	
BR-6A	06/01/2004	1255	0.00	8.78	N/A	0.00GPM = FLOW RATE
BR-7	06/01/2004	1503	0.00	27.96	N/A	
BR-7A	06/01/2004	1500	0.00	N/A	N/A	DRY AT 23.57 / FLOW METER BROKEN
BR-8	06/01/2004	1442	0.00	8.07	N/A	NO NAPL OBSERVED
BR-9	06/01/2004	1405	0.00	27.86	N/A	5.61 GPM=FLOW RATE
C-1	06/01/2004	0	0.00	N/A	N/A	DESTROYED
C-2A	06/01/2004	1143	0.00	6.19	N/A	NO NAPL OBSERVED
C-3	06/01/2004	1125	0.00	5.57	N/A	NO NAPL OBSERVED;RISER BROKE AT GROUND SURFACE
C-4	06/01/2004	0	0.00	N/A	N/A	BUILDING IN THIS AREA/WELL NO LONGER EXISTS
C-5	06/01/2004	1233	0.00	7.56	N/A	NO NAPL OBSERVED
E-1	06/01/2004	1339	0.00	2.00	N/A	NO NAPL OBSERVED
E-2	06/01/2004	1212	0.00	4.10	N/A	NO NAPL OBSERVED
E-3	06/01/2004	1102	0.00	7.42	N/A	NO NAPL OBSERVED
E-4	06/01/2004	1045	0.00	N/A	N/A	DRY AT 2.83
E-5	06/01/2004	1055	0.00	5.91	N/A	NO NAPL OBSERVED
EC-1	06/01/2004	1400	0.00	16.61	N/A	

Groundwater Evaluation Report
HARDING LAWSON ASSOC.
JUNE 2004
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
EC-2	06/01/2004	1312	0.00	N/A	N/A	DRY AT 12.75
ERIE CANAL	06/01/2004	1350	0.00	33.20	N/A	
MW-103	06/01/2004	1225	0.00	1.39	N/A	
MW-104	06/03/2004	1010	0.00	6.50	N/A	
MW-105	06/01/2004	1405	0.00	18.83	N/A	
MW-106	06/01/2004	1420	0.00	8.38	N/A	
MW-107	06/01/2004	0	0.00	N/A	N/A	DESTROYED
MW-108	06/01/2004	1448	0.00	10.31	N/A	
MW-114	06/01/2004	1230	0.00	10.35	N/A	
MW-2	06/01/2004	0	0.00	N/A	N/A	BURIED
MW-3	06/01/2004	1455	0.00	5.42	N/A	
MW-G6	06/01/2004	1505	0.00	3.28	N/A	
MW-G7	06/01/2004	1520	0.00	3.42	N/A	
MW-G8	06/01/2004	1510	0.00	6.54	N/A	
MW-G9	06/01/2004	1515	0.00	7.32	N/A	
N-1	06/01/2004	1017	0.00	N/A	N/A	DAMAGED CASING/BAILER STUCK IN WELL
N-2	06/01/2004	1013	0.00	3.44	N/A	NO NAPL OBSERVED
N-3	06/01/2004	1006	0.00	5.53	N/A	NO NAPL OBSERVED
NESS-E	06/01/2004	1255	0.00	27.99	N/A	
NESS-W	06/01/2004	1300	0.00	31.09	N/A	
PW-10	06/01/2004	1157	0.00	15.63	N/A	
PW-11	06/01/2004	1454	0.00	17.92	N/A	
PW-12(BR-101)	06/01/2004	1121	0.00	16.65	N/A	5.74GPM=FLOW RATE
PZ-101	06/01/2004	1440	0.00	11.26	N/A	
PZ-102	06/01/2004	1435	0.00	11.10	N/A	
PZ-103	06/01/2004	1430	0.00	10.24	N/A	
PZ-104	06/01/2004	1523	0.00	16.71	N/A	
PZ-105	06/01/2004	1300	0.00	7.37	N/A	NO NAPL OBSERVED
PZ-106	06/01/2004	1221	0.00	10.34	N/A	NO NAPL OBSERVED
PZ-107	06/01/2004	1245	0.00	5.08	N/A	NO NAPL OBSERVED
PZ-108	06/01/2004	0	0.00	N/A	N/A	WELL BURIED
S-1	06/01/2004	1311	0.00	4.05	N/A	NO NAPL OBSERVED
S-2	06/01/2004	1318	0.00	3.45	N/A	NO NAPL OBSERVED
S-3	06/01/2004	1325	0.00	2.11	N/A	NO NAPL OBSERVED

Date: 06/16/04
Time: 16:07

Groundwater Elevation Report
HARDING LAWSON ASSOC.
JUNE 2004
ARCH-ROCHESTER WATER LEVEL MEASUREMENTS

Sample Point	Date	Time	Casing Elevation	Depth to Water	GW Elv.	Comments
S-4	06/01/2004	1333	0.00	0.63	N/A	NO NAPL OBSERVED
W-1	06/01/2004	1420	0.00	N/A	N/A	UNABLE TO OBTAIN MEASUREMENT/OBSTRUCTION
W-2	06/01/2004	1410	0.00	7.27	N/A	NO NAPL OBSERVED
W-3	06/01/2004	1432	0.00	4.44	N/A	NO NAPL OBSERVED
W-4	06/01/2004	1440	0.00	1.62	N/A	NO NAPL OBSERVED
W-5	06/01/2004	1457	0.00	6.35	N/A	NO NAPL OBSERVED
W-6	06/01/2004	1508	0.00	11.06	N/A	NO NAPL OBSERVED

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL | Sample Point ID: B-17

Field Personnel: P.LITTLE / K.SCOTT CS. TP | Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-3-04 / 1307 | 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: 6-3-04 / 1310 | Date / Time Completed: 6-3-04 1330

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

Initial Water Level, Feet: 6.18 | Elevation. G/W MSL: ____

Well Total Depth, Feet: 16.23 | 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 AMBER Finish CLEAR AMBER

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1315	WL 6.20		14.9	9.24	9073	12.0	-100	1.28
1320	↓		15.3	9.24	10,000	9.38	-182	1.17
1325	↓		15.3	9.30	10,000	9.06	-180	1.06
1330	↓		15.4	9.31	10,100	8.61	-180	1.00

SAMPLED AT 1330/6-3-04

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** B-17

Date/Time 6-3-04 / 1330 **Water Level @ Sampling, Feet:** 6.20

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273 MP-20

pH Serial #: 1200 **4.0 std.=** 4.0 **7.0 std.=** 7.0 **10.0 std. =** ____

Solutions: 4-2188, 7-2140 MP-20

Conductivity Serial #: 1200 1410 **umhos/cm=** 1410 ____ **umhos/cm=** ____

Solutions: 1410 - 2915

GENERAL INFORMATION:

Weather conditions @ time of sampling: cloud 65°

Sample Characteristics: Clear Amber

COMMENTS AND OBSERVATIONS:

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

Date: 6/3/04 **By:** M Lutz **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: B-7

Field Personnel: P.LITTLE / K.SCOTT CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-10-04 / 1107

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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-10-04 / 1110

Date / Time Completed: 6-10-04 1130

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 12.53

Elevation. G/W MSL:

Well Total Depth, Feet: 20.90

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: SL TURBID ORANGE PARTICLES

Start ORANGE PARTICLES Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1115	14.21		13.3	6.89	1744	108.1	-71	1.51
1120	14.25		13.2	6.82	1724	41.6	-84	1.17
1125	14.31		13.3	7.11	1721	17.7	-85	1.01
1130	14.36		13.1	7.21	1718	11.9	-84	.94

SAMPLED AT 1130/6-10-04

P.L. Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** B-7

Date/Time 6-10-04 / 1130 **Water Level @ Sampling, Feet:** 14.36

Method of Sampling: Peristaltic Pump / Bladder Pump **Dedicated:** Y / N

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273

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: cloud 55°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/10/04 **By:** Al Zita **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR 103

Field Personnel: P.LITTLE / K.SCHAFFER CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-03-04 / 1230

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

Prot. Casing/riser height: —

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

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: 6-03-04 1235

Date / Time Completed: 6-03-04 1305

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 4.45

Elevation. G/W MSL: ____

Well Total Depth, Feet: —

Method of Well Purge: BLADDER PUMP ~~PERISTALTIC PUMP~~

One (1) Riser Volume, Gal: —

Dedicated: Y / (N)

Total Volume Purged, Gal: 2.5

Purged To Dryness Y / (N)

Purge Observations: ____

Start CLEAR Finish CLEAR

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1245	FLOW 280	WL 4.68	|	14.2	7.14	1173	7.33	101	0.79
1250	|	4.70	|	13.9	7.12	1209	3.75	90	0.33
1255	|	4.70	↓	14.0	7.14	1199	3.77	91	0.37
1300	↓	4.70	2.5	14.0	7.14	1203	3.82	90	0.35

SAMPLED AT 1305 6-03-04

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FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-103

Date/Time 6-03-04 / 1305 Water Level @ Sampling, Feet: 4.70

Method of Sampling: PERISTALTIC PUMP / BLADDER PUMP Dedicated: Y / N

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 NTU std. = 1.0 NTU 1.0 NTU std. = ____ NTU

Solutions: L347273

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

Solutions: _____

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

Solutions: _____

GENERAL INFORMATION:

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

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS:

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

Date: 6 1031 04 By: [signature] Company: STR

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR 104

Field Personnel: P.Little / K.Stone CS. TP Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-03-04 / 1105 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

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

If prot.casing; depth to riser below: —

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

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

PURGE INFORMATION:

Date / Time Initiated: 6-03-04 / 1110 Date / Time Completed: 6-03-04 1140

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

Initial Water Level, Feet: 6.96 Elevation. G/W MSL:

Well Total Depth, Feet: — Method of Well Purge: BLADDER PUMP ~~Peristaltic Pump~~

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

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

Purge Observations: Start SL. TURBID Finish SL. TURBID

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1120	FLOW 250	WL 7.50		13.7	8.77	402	50.3	106	4.90
1125	↓	7.50	↓	13.5	8.75	402	50.0	109	4.87
1130	↓	↓	↓	13.5	8.73	402	46.8	111	4.85
1135	↓	↓	2.0	13.6	8.73	401	46.3	112	4.87

ml/min

SAMPLED AT 1140 6-03-04

B-1

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-104

Date/Time 6-03-04 1140 Water Level @ Sampling, Feet: 7.50

Method of Sampling: Peristaltic pump / Bladder pump Dedicated: Y / N

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 NTU std. = 1.0 NTU 1.0 NTU std. = ____NTU

Solutions: L347273

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

Solutions: _____

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

Solutions: _____

GENERAL INFORMATION:

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

Sample Characteristics: SL. TURBID

COMMENTS AND OBSERVATIONS:

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

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

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-165

Field Personnel: R.Little / K.Scarf CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-9-04 / 1138

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

Prot. Casing/riser height: —

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

If prot.casing; depth to riser below: —

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

% LEL: — / —

Vol. Organic Meter (Calibration/Reading):

Volatiles (ppm) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-9-04 / 1140

Date / Time Completed: 6-9-04 1200

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 22.42

Elevation. G/W MSL:

Well Total Depth, Feet: 44.60

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 Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1145	ml/min 200	WL 22.47		17.6	6.75	2310	1.41	-84	1.31
1150		22.47		17.4	6.78	2349	1.23	-83	1.15
1155		↓		~~16.8~~ 16.8	6.78	2349	1.09	-84	.98
1200		↓		16.3	6.76	2350	0.98	-85	.90

SAMPLED AT 1200/6-9-04
M Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BK-165

Date/Time 6-9-04 / 1200 Water Level @ Sampling, Feet: _____

Method of Sampling: Peristaltic Pump / Bladder Pump Dedicated: Y / N

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 NTU std. = 1.0 NTU 1.0 NTU std. = _____ NTU

Solutions: L347273

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: SUN 87°

Sample Characteristics: clear

COMMENTS AND OBSERVATIONS: _____

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

Date: 6/9/04 By: [signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-1050

Field Personnel: P.Little / K.Scarf CS. TP Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-9-04 / 1110 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: 6-9-04 / 1115 Date / Time Completed: 6-9-04 / 1135

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

Initial Water Level, Feet: 29.60 Elevation. G/W MSL:

Well Total Depth, Feet: 79.50 Method of Well Purge: BLADDER PUMP

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

Total Volume Purged, Gal: 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
1120	25.31		17.1	6.94	9672	12.3	-302	1.51
1125			17.6	6.97	10,960	1.97	-312	.96
1130			17.9	6.93	10,910	1.48	-308	.92
1135	26.21		17.5	6.94	10,910	1.38	-308	.87

SAMPLED AT 1135 / 6-9-04

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FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** BR-105D

Date/Time 6-9-04 / 1135 **Water Level @ Sampling, Feet:** 26.21

Method of Sampling: Peristaltic pump / Bladder pump **Dedicated:** Y (N)

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273

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: SUN 87°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/9/04 **By:** [signature] **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-166

Field Personnel: P.LITHE / K.SCHAFCS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-9-04 / 1227

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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-9-04 1255

Date / Time Completed: 6-9-04 13-20

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 22.96

Elevation. G/W MSL:

Well Total Depth, Feet: 43.22

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 SC TUBE Finish SC TUBE

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
1300	WL 23.10		15.4	6.95	3229	62.8	-158	2.06
1305	↓		16.1	6.95	3233	59.1	-167	1.86
1310			16.1	6.95	3236	56.4	-168	1.70
1315			15.7	6.96	3260	42.6	-168	1.31
1320	↓		15.7	6.96	3265	40.1	-168	1.12

SAMPLED AT 1320 / 6-9-04

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-106

Date/Time 6-9-04 / 1320 Water Level @ Sampling, Feet: 23.10

Method of Sampling: ~~Peristaltic pump~~ / Bladder pump Dedicated: Y (N)

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 NTU std. = 1.0 NTU 1.0 NTU std. = ____NTU

Solutions: L347273

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: Sun 85°

Sample Characteristics: clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/9/04 By: M Lutz Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-108

Field Personnel: P.Little / K.Schaefer CS. TP Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-14-04 / 939 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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-14-04 0940 Date / Time Completed: 6-14-04 0950

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

Initial Water Level, Feet: 27.44 Elevation. G/W MSL:

Well Total Depth, Feet: 29.75 Method of Well Purge: ~~BLADDER PUMP~~ ~~PERISTALTIC PUMP~~ SS BAILER

One (1) Riser Volume, Gal: 1.5 Dedicated: (Y) / N

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

Purge Observations: Start TURBID Finish TURBID

PURGE DATA: (if applicable)

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

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-108

Date/Time 6-14-04 1240 Water Level @ Sampling, Feet: 27.44

Method of Sampling: ~~Peristaltic Pump~~ / SS BAILER ~~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 ( )
1245	14.7	6.88	867	348	-75	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 4424 3925 NTU std. = 1.0 NTU 1.0 NTU std. = ____NTU

Solutions: L347273

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: SUN 85°

Sample Characteristics: TURBID Red

COMMENTS AND OBSERVATIONS:

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

Date: 6/14/04 By: [signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-1120

Field Personnel: P.Little / K.Scaf CS. TP Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-14-04 / 1109 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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-14-04 / 1115 Date / Time Completed: 6-14-04 / 1140

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

Initial Water Level, Feet: 36.34 Elevation. G/W MSL:

Well Total Depth, Feet: 72.26 Method of Well Purge: BLADDER PUMP ~~PERISTALTIC PUMP~~

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

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

Purge Observations: Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
	WL	PP/AM							
1120	36.40	200		13.1	7.15	1316	5.11	-97	1.01
1125				14.7	7.16	1317	2.79	-99	.96
1130				15.1	~~6.98~~ 6.98	1318	~~1.46~~ ~~95~~	-95	.57
1135	↓			14.5	7.09	1317	1.01	-125	.42
1140	↓			14.5	7.10	1314	.71	-125	.30

SAMPLE AT 1140 / 6-14-04

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-1120

Date/Time 6-14-04 1140 Water Level @ Sampling, Feet: 36.90

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 NTU std. = 1.0 NTU 1.0 NTU std. = ____ NTU

Solutions: L347273

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: SUN 80°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/14/04 By: M Lee Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-113D

Field Personnel: P. Little / K. Swaf CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time: 6-14-04 / 1157

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): 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-14-04 / 1200

Date / Time Completed: 6-14-04 / 1220

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 31.35

Elevation. G/W MSL:

Well Total Depth, Feet: 79.25

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

One (1) Riser Volume, Gal: —

Dedicated: Y / (N)

Total Volume Purged, Gal: 1.0

Purged To Dryness: Y / (N)

Purge Observations:

Start: Clear - BLACK TINT   Finish: Clear - BLACK TINT

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
	WL	ML/MIN							
1205	31.41	200		14.8	6.91	2429	1.28	-245	.25
1210	↓	↓		12.9	6.92	2467	1.17	-277	.17
1215	↓	↓		12.3	6.92	2467	1.10	-280	.13
1220	↓	↓		12.6	6.93	2768	0.95	-281	.10

SAMPLED AT 1220/6-14-04

[signature]

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FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** BR-113D

Date/Time 6-14-04 1 1220 **Water Level @ Sampling, Feet:** 31.41

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273

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: SUN 85°

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: 6 14 04 **By:** [signature] **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-114

Field Personnel: P.Little / K.Scarf CS. TP Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-14-04 / 0958 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

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

If prot.casing; depth to riser below: —

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

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

PURGE INFORMATION:

Date / Time Initiated: 6-14-04 / 1000 Date / Time Completed: 6-14-04 1020

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

Initial Water Level, Feet: 13.02 Elevation. G/W MSL:

Well Total Depth, Feet: 36.93 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
1005	wl 13.20		16.7	7.05	1305	87.5	-139	.97
1010 ~~1010~~	↓		16.4	7.15	1305	70.1	-138	.81
1015	↓		16.1	7.18	1376	68.7	-140	.77
1020	↓		16.3	7.10	1391	41.1	-139	.65

SAMPLED AT 1020/6-14-04

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-114

Date/Time 6-14-04 1020 Water Level @ Sampling, Feet: 13.20

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 NTU std. = 1.0 NTU 1.0 NTU std. = 1.0 NTU

Solutions: L347273

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

Solutions: 4-2188, 7-3117

Conductivity Serial #: 1201 100 umhos/cm= 100 umhos/cm=

Solutions: 100 - 3103

GENERAL INFORMATION:

Weather conditions @ time of sampling: SW 78°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/14/04 By: [signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-116

Field Personnel: P.Little / K.Sch CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-8-04 / ~~1340~~ 1335

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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-8-04 / 1340

Date / Time Completed: 6-8-04 / 1355

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 26.78

Elevation. G/W MSL:

Well Total Depth, Feet:

Method of Well Purge: BLADDER PUMP

One (1) Riser Volume, Gal: ~~≃1.0 gal~~

Dedicated: Y / (N)

Total Volume Purged, Gal: ≃ 1.0 gal.

Purged To Dryness Y / (N)

Purge Observations: LOW FLOW SAMPLING

Start CLEAR Finish CLEAR

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz) rate	W/L	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other D.O.
1345	250ml	26.80		17.90	6.86	2530	6.56	-65	0.87
1350	250ml	26.80		17.68	6.77	2520	5.04	-78	0.30
1355	250ml	26.80	≃1.0 gal	17.41	6.77	2520	4.91	-88	0.29

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FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-116

Date/Time 6-8-04 1357 Water Level @ Sampling, Feet: 26.80

Method of Sampling: Peristaltic pump / Bladder pump 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 (D.O.)
1358	17.49	6.76	~~350~~ 6.804	4.90	-87	0.29
			2520			

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 NTU std. = 1.0 NTU 1.0 NTU std. = ____ NTU

Solutions: L347273

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: SUN, 80'S, SW 10-15 mph

Sample Characteristics: CLEAR, NO ODOR

COMMENTS AND OBSERVATIONS:

WELL LABLED AFTER SAMPLING

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

Date: 6/8/04 By: C. Karp Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-116D

Field Personnel: P.Little / K.Schaefer CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-8-04 / 1402

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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-8-04 / 1405

Date / Time Completed: 6-8-04 / 1425

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 35.46

Elevation. G/W MSL:

Well Total Depth, Feet:

Method of Well Purge: BLADDER PUMP PERISTALTIC PUMP

One (1) Riser Volume, Gal:

Dedicated: Y / (N)

Total Volume Purged, Gal: ≃1.2 gal

Purged To Dryness Y / (N)

Purge Observations: LOW FLOW SAMPLING

Start @ TURBID Finish TURBID

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other D.O.
1410	250mL / 35.42		17.59	9.15	590	168.0	6	0.45
1415	" / "		17.46	8.97	580	178.0	7	0.36
1420	" / "	≃1.0	17.84	8.97	580	158.0	7	0.41
1425	" / "	≃1.2 gal	17.11	8.97	580	157.0	6	0.39

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-116D

Date/Time 6-8-04 1428 Water Level @ Sampling, Feet: 35.42

Method of Sampling: PERISTALTIC PUMP / BLADDER PUMP 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 (D.O.)
1429	17.11	8.97	580	157.0	7.0	0.39

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 NTU std. = 1.0 NTU 1.0 NTU std. = ____NTU

Solutions: L347273

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: SUN, 80's, SW 10-15 mph

Sample Characteristics: TURBID, NO ODOR

COMMENTS AND OBSERVATIONS:

WELL LABLED AFTER SAMPLING

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

Date: 6/8/04 By: C. Jaeger Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: BR-117D

Field Personnel: P.LITTLE / K.SCOTT CS. IP Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-8-04 / 1037 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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-8-04 1044 Date / Time Completed: 6-8-04 1105

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

Initial Water Level, Feet: 48.85 Elevation. G/W MSL:

Well Total Depth, Feet: Method of Well Purge: BLADDER PUMP ~~PERISTALTIC PUMP~~

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

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

Purge Observations: LOW FLOW SAMPLING Start SL TURBID Finish CLEAR

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz) DTW	WL	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other D.O.
1050	250mL	48.86		13.89	9.59	508	35.9	53	1.18
1055	250mL	48.86	≃0.5 gal	13.03	9.50	505	21.2	15	1.31
1100	250mL	48.86		12.87	9.49	505	17.3	14	0.74
1105	250mL	48.86	≃1.0 gal	12.91	9.49	506	14.1	14	0.70

FIELD OBSERVATIONS (continued)

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

Date/Time 6-8-04 1111O **Water Level @ Sampling, Feet:** 48.86

Method of Sampling: ~~Peristaltic pump~~ / Bladder pump **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 (D.O.)
1111	12.98	9.51	506	14.0	13	7.10

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** 1.0 **NTU**

Solutions: L347273

pH Serial #: 601347 **4.0 std.=** 4.00 **7.0 std.=** 7.00 **10.0 std. =**

Solutions: 4-2188, 7-3117

Conductivity Serial #: 601347 100 **umhos/cm=** 101 **umhos/cm=**

Solutions: 100-3103

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUN HOT 80'S, SW 10-15mph

Sample Characteristics: CLEAR, NO ODOR

COMMENTS AND OBSERVATIONS:

WELL WAS LABLED AND LOCKED AFTER SAMPLING.

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

Date: 6/8/04 **By:** C. Campos **Company:** STL

FIELD OBSERVATIONS

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

Field Personnel: P.Little / K.Sauf CS. TP Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-8-04 1121 Cond of seal: (Y) Good ( ) Cracked ( ) None ( ) Buried %

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

If prot.casing; depth to riser below: —

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

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

PURGE INFORMATION:

Date / Time Initiated: 6-8-04 1130 Date / Time Completed: 6-8-04 1145

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

Initial Water Level, Feet: 48.04 Elevation. G/W MSL:

Well Total Depth, Feet: Method of Well Purge: BLADDER PUMP ~~PERISTALTIC PUMP~~

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

Total Volume Purged, Gal: ≃ 1.2 gal Purged To Dryness Y / (N)

Purge Observations: LOW FLOW SAMPLING Start SL TURBID Finish CLEAR

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz) RATE	WL	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other D.O.
1135	300mL	48.19		13.99	7.06	3740	5.68	-256	0.62
1140	300 mL	48.20	≃1.0 gal	13.02	7.00	3350	5.17	-270	0.34
1145	300mL	48.20	≃1.2 gal	12.87	7.03	3340	5.14	-271	0.31

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** BR-118D

Date/Time 6-8-04 1150 **Water Level @ Sampling, Feet:** 48.20

Method of Sampling: ~~PERISTALTIC PUMP~~ / BLADDER PUMP **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 (D.O.)
1152	12.90	7.03	3340	5.10	-270	0.30

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273

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: SUN, 80'S, SW 10-15 mph

Sample Characteristics: CLEAR, NO ODOR

COMMENTS AND OBSERVATIONS:

WELL WAS LABLED AND LOCKED AFTER SAMPLING.

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

Date: 6/8/04 **By:** C. Campus **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-122D

Field Personnel: P.Little / K.Senf CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-8-04 / 1214

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

Prot. Casing/riser height: —

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

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: 6-8-04 / 1219

Date / Time Completed: 6-8-04 1240

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 44.36

Elevation. G/W MSL:

Well Total Depth, Feet:

Method of Well Purge: BLADDER PUMP ~~PERISTALTIC PUMP~~

One (1) Riser Volume, Gal:

Dedicated: Y / (N)

Total Volume Purged, Gal: ≈ 2.0 gal

Purged To Dryness Y / (N)

Purge Observations: LOW FLOW SAMPLING

Start SL TURBID Finish CLEAR

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	WL Ft.	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other D.O.
1225	350mL	44.37		14.22	7.09	1870	14.5	-255	0.63
1230	350mL	44.37	≈1.0	13.89	6.86	1830	10.69	-268	0.23
1235	350mL	44.37		14.35	6.85	1870	7.65	-274	0.19
1240	350mL	44.37	≈2.0	14.64	6.85	1870	6.89	-275	0.18

FIELD OBSERVATIONS (continued)

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

Date/Time 6-8-04 11245 **Water Level @ Sampling, Feet:** 44.37

Method of Sampling: PERISTALTIC PUMP / BLADDER PUMP **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 (D.O.)
1246	14.64	6.85	1870	6.31	-275	0.18

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273

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: SUN, 80'S, SW 10-15mpl

Sample Characteristics: CLEAR, STRONG SULFUR ODOR,

COMMENTS AND OBSERVATIONS:

WELL LARIED AND LID TAKEN FOR REPAIRS AFTER SAMPLING.

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

Date: 6/8/04 **By:** [signature] **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: RR-123D

Field Personnel: P.LITTLE / K.SCOTT CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-8-04 1125?

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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-8-04 1300

Date / Time Completed: 6-8-04 1315

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 44.96

Elevation. G/W MSL: ____

Well Total Depth, Feet: ____

Method of Well Purge: BLADDER PUMP PERISTALTIC PUMP

One (1) Riser Volume, Gal: ____

Dedicated: Y / (N)

Total Volume Purged, Gal: ≈1.5 gal

Purged To Dryness Y / (N)

Purge Observations: LOW FLOW SAMPLING

Start TURBID Finish SL TURBID

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz) WATER LEVEL	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other D.O.
1305	350mL 44.96		14.57	8.20	1351	51.9	-208	0.56
1310	350mL 44.96	≈1.0 gal	13.72	8.11	1355	41.3	-217	0.37
1315	350mL 44.96		13.55	8.15	1354	40.9	-228	0.29

FIELD OBSERVATIONS (continued)

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

Date/Time 6-8-04 1320 **Water Level @ Sampling, Feet:** 44.96

Method of Sampling: ~~PERISTALTIC PUMP~~ / BLADDER PUMP **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 (D.O.)
1321	13.65	8.16	1354	40.1	-221	0.30

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273

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: SUN, 80'S, SW 10-15 mpl

Sample Characteristics: SL TURBID, SLIGHT ODOR

COMMENTS AND OBSERVATIONS:

LOC REPLACED AND WELL LOCKED AFTER SAMPLING

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

Date: 6/8/04 **By:** C. Harper **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: BR-3

Field Personnel: P.Little / K.Sowe CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-3-04 / 1143

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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-3-04 / 1145

Date / Time Completed: 6-3-04 1205

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

Riser Diameter, Inches: 2 4.0

Initial Water Level, Feet: 9.92

Elevation. G/W MSL:

Well Total Depth, Feet: 23.25

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 / Yellow Tint

Finish Clear / Yellow Tint

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1150	WL 10.62		14.2	6.33	10,180	70.0	-75	1.51
1155	11.00		13.4	6.39	12,730	18.3	-90	1.11
1200	11.31		13.9	6.33	12,820	6.64	-100	1.01
1205	11.47		13.3	6.33	12,910	3.41	-100	0.95

SAMPLED AT 1205 / 6-3-04

pl Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-3

Date/Time 6-3-04 1205 Water Level @ Sampling, Feet: 11.47

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 NTU std. = 1.0 NTU 1.0 NTU std. = ____ NTU

Solutions: L347273

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

Solutions: _____

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

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: cloudy 65°

Sample Characteristics: clear yellow tint

COMMENTS AND OBSERVATIONS:

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

Date: 6/3/04 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Chemical Sample Point ID: BR-SA

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

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-4-04 / 1205 Water Level @ Sampling, Feet: 17.80 ~~DRY~~

Method of Sampling: In Situ Pump 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 TO	14.0	7.02	1500	1.20	-66	

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: Sun 70°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/4/04 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Chemical Sample Point ID: BR-6A

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

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-4-04 / 1100 Water Level @ Sampling, Feet: 9.09

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1103	17.5	9.13	4706	10.71	-84	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 4424 NTU std. = 1.0 NTU 10 NTU std. = 10 NTU

Solutions: L347273

pH Serial #: 6d347 4.0 std.= 4.00 7.0 std.= 7.00 10.0 std. = _____

Solutions: 4.00 2188, 7-3117

Conductivity Serial #: 6d347 100 umhos/cm= 100 _____ umhos/cm= _____

Solutions: 100-3103

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sun 70°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS: UNPreserved VOA

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

Date: 6/4/04 By: [signature] Company: STL

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

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-4-04 1240 Water Level @ Sampling, Feet: 31.57 ~~DTW~~

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1241	16.6	6.95	2796	11.6	-127	

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: Sun 70°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS: _____

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

Date: 6/4/04 By: [signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: ~~BR-8~~ PL BR-8

Field Personnel: P.Little / K.Scott CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-10-04 / 1011

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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-10-04 1015

Date / Time Completed: 6-10-04 1035

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 8.42

Elevation. G/W MSL: ____

Well Total Depth, Feet: 31.74

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
1020	WL 8.56		13.1	7.34	2721	8.19	-193	1.11
1025	8.62		12.5	7.42	2713	12.1	-229	1.06
1030	↓		12.4	7.46	2703	6.91	-231	.98
1035	↓		12.5	7.45	2696	7.94	-231	.95

SAMPLED AT 1035/6-10-04 Field Dup

PL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID BR-8

Date/Time 6-10-04 1035 Water Level @ Sampling, Feet: 8.62

Method of Sampling: Peristaltic pump / ~~Bladder pump~~ Dedicated: (Y) N

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 NTU std. = 1.0 NTU 1.0 NTU std. = 1.0 NTU

Solutions: L347273

pH Serial #: 601347 4.0 std.= 4.00 7.0 std.= 7.00 10.0 std. =

Solutions: 4-2188, 7-3117

Conductivity Serial #: 601347 100 umhos/cm= 100 umhos/cm=

Solutions: 100-3103

GENERAL INFORMATION:

Weather conditions @ time of sampling: cloudy 55°

Sample Characteristics: clear

COMMENTS AND OBSERVATIONS: Field Dup

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

Date: 6/10/04 By: M Zitt Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Chemical

Sample Point ID: BR-9

Field Personnel: P. Little, T Palmer

Sample Matrix: GW

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-4-04 / 1225

Water Level @ Sampling, Feet: 31.69 NA

Method of Sampling: Insitu Pump

Dedicated: (Y) / N

Multi-phased/ layered: ( ) Yes (X) No

If YES: ( ) light ( ) heavy

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1227	17.1	6.90	2955	27.8	-87	

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: Sun 70°

Sample Characteristics: Clear with white specks

COMMENTS AND OBSERVATIONS:

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

Date: 6/4/04 By: Paul Little Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: E-1

Field Personnel: P.LITTLE / K.SCOTT CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-10-04 / 1253

Cond of seal: ( ) Good ( ) Cracked VAULT ____ %
( ) 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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-10-04 1255

Date / Time Completed: 6-10-04 1315

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

Riser Diameter, Inches: —

Initial Water Level, Feet: 2.0

Elevation. G/W MSL:

Well Total Depth, Feet: —

Method of Well Purge: ~~BLADDER PUMP~~ PERISTALTIC PUMP

One (1) Riser Volume, Gal: —

Dedicated: (Y) / N

Total Volume Purged, Gal: 2.0

Purged To Dryness Y / (N)

Purge Observations:

Start TURBID BLACK Finish SL TURBID BLACK TINT

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1300	2.0		15.2	8.77	15,690	69.7	-200	1.31
1305	↓		15.5	8.83	15,720	49.2	-201	1.15
1310			15.5	8.98	15,890	41.5	-202	.90
1315	↓		15.5	8.99	16,100	30.6	-201	.81

SAMPLED AT 1315 / 6-10-04

pl Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** E-1

Date/Time 6-10-04 1315 **Water Level @ Sampling, Feet:** _____

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** _____ **NTU**

Solutions: L347273

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: Clouds 55°

Sample Characteristics: 6 SL. TURB BLACK TINT

COMMENTS AND OBSERVATIONS: _____

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

Date: 6/10/04 **By:** _____ **Company:** STR

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: E-3

Field Personnel: P.Little / K.Scarf CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

6-3-04 PL

Date/Time 6 - 3 - 04 / 1028

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

Prot. Casing/riser height: —

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

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: 6-3-04 / 1030

Date / Time Completed: 6-3-04 1043

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 7.58

Elevation. G/W MSL: ____

Well Total Depth, Feet: 12.05

Method of Well Purge: Peristaltic Pump

One (1) Riser Volume, Gal: ____

Dedicated: (Y) / N

Total Volume Purged, Gal: 1.0

Purged To Dryness (Y) / N

Purge Observations: ____

Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1035			14.2	7.04	1627	4.00	58	1.07
1040		1.0	13.8	7.11	1707	2.69	63	.95

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID E-3

Date/Time 6-4-04 / 1140 Water Level @ Sampling, Feet: 7.52

Method of Sampling: Peristaltic Pump / ~~Bennett Pump~~ 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 ( )
1143	16.4	6.89	1677	5.53	13	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 NTU std. = 1.0 NTU 1.0 NTU std. = ____ NTU

Solutions: L347273

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: Sun 70°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/4/04 By: [signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: MW 103

Field Personnel: P.Little / K.Schaf CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-03-04 / 1155

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

Prot. Casing/riser height: —

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

If prot.casing; depth to riser below: —

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

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

PURGE INFORMATION:

Date / Time Initiated: 6-03-04 / 1200

Date / Time Completed: 6-03-04 / 1225

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 1.75

Elevation. G/W MSL:

Well Total Depth, Feet:

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 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
1205	FLOW 180	WL 2.30		18.1	7.28	475	3.95	138	1.50
1210	↓	2.30		17.9	7.29	481	3.52	139	1.43
1215	↓	↓		17.9	7.29	483	3.40	140	1.39
1220	↓	↓		17.8	7.27	487	3.27	141	1.35

SAMPLED AT 1225 6-03-04

R1

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** MW 103

Date/Time 6-03-04 1 1225 **Water Level @ Sampling, Feet:** 2.30

Method of Sampling: Peristaltic Pump / Bladder Pump **Dedicated:** Y / N

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** 1.0 **NTU**

Solutions: L347273

pH Serial #: MP-20 1201 **4.0 std.=** 4.0 **7.0 std.=** 7.0 **10.0 std. =**

Solutions: 4-2188, 7-2140

Conductivity Serial #: 1201 1410 **umhos/cm=** 1410 **umhos/cm=**

Solutions: 1410-2915

GENERAL INFORMATION:

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

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6 1031 04 **By:** [signature] **Company:** STR

FIELD OBSERVATIONS

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

Field Personnel: P.Little / K.Senf CS. TP **Sample Matrix:** G/W

MONITORTING WELL INSPECTION:

LOCATED WITH METAL DETECTOR

Date/Time 6-03-04 / 1010

Cond of seal: ( ) Good ( ) Cracked ____ % ( ) None (X) Buried — WELL LOCATED 6' WEST OF BRIG

Prot. Casing/riser height: —

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

If prot.casing; depth to riser below: —

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

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

PURGE INFORMATION:

Date / Time Initiated: 6-03-04 / 1020 **Date / Time Completed:** 6-03-04 / 1100

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

Initial Water Level, Feet: 6.50 **Elevation. G/W MSL:**

Well Total Depth, Feet: 17.75 **Method of Well Purge:** BLADDER PUMP ~~Peristaltic Pump~~

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

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

Purge Observations: **Start** SL. TURBID **Finish** SL. TURBID

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz) FLOW	WL	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1045	280	9.00	↓	14.2	7.01	783	270	91	0.77
1050	280	8.90		13.9	7.02	795	215	91	0.47
1055	280	8.90	↓	13.9	7.00	800	211	90	0.45
1100	280	8.90	3.0	13.9	6.99	803	207	90	0.45

ml/MIN

SAMPLED AT 1100 6-03-04

Field Form
Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** MW 104

Date/Time 6-03-04 1100 **Water Level @ Sampling, Feet:** 8.90

Method of Sampling: Peristaltic Pump / Bladder Pump **Dedicated:** Y / N

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: ~~4434~~ 3925 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** 1.0 **NTU**

Solutions: L347273

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

Solutions: 4-2108, 7-3117

Conductivity Serial #: 600750 100 **umhos/cm=** 100 **umhos/cm=**

Solutions: 100-3103

GENERAL INFORMATION:

Weather conditions @ time of sampling: Cloudy, 60°F

Sample Characteristics: SL. Turbid

COMMENTS AND OBSERVATIONS:

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

Date: 6/03/04 **By:** [signature] **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: MW-106

Field Personnel: P.Little / K.Scarf CS. JP Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-9-04 / 1230 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: 6-9-04 / 1235 Date / Time Completed: 6-9-04 1300

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

Initial Water Level, Feet: 9.18 Elevation. G/W MSL: ____

Well Total Depth, Feet: 19.35 Method of Well Purge: ~~Peristaltic Pump~~ BLADDER PUMP

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

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

Purge Observations: ____ Start SL TURBID Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1240	WL 9.56		13.4	6.78	2156	75.4	-60	1.75
1245	10.01		13.6	6.80	2494	42.3	-105	1.36
1250			14.3	6.85	2569	33.2	-147	1.10
1255	10.17		14.6	6.84	2648	28.4	-150	.96
1300	10.22		14.2	6.84	2679	26.7	-150	.90

SAMPLED AT 1300 / 6-9-04

[signature]

Field Form
Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID MW-106

Date/Time 6-9-04 / 1300 Water Level @ Sampling, Feet: 10.22

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 NTU std. = 1.0 NTU 1.0 NTU std. = ____NTU

Solutions: L347273

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: Sun 80°

Sample Characteristics: clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/9/04 By: M Tate Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: MW-114

Field Personnel: P.Little / K.Sowe CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-14-04 / 1025

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: 6- -04 1030

Date / Time Completed: 6- -04 1050

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 10.77

Elevation. G/W MSL:

Well Total Depth, Feet: 15.76

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 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
1035	WL 11.54		16.1	6.77	2777	9.13	-48	1.11
1040	11.71		16.7	7.81	2753	5.09	-30	.91
1045	11.84		16.3	7.82	2721	6.70	-29	.82
1050	11.90		16.1	7.81	2718	4.11	-28	.80

SAMPLED AT 1050/6-14-04

YL Lee

Field Form
Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID MW-114

Date/Time 6-14-04 / 1050 Water Level @ Sampling, Feet: 11.90

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 NTU std. = 1.0 NTU 1.0 NTU std. = ____ NTU

Solutions: L347273

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: SUN 78°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/14/04 By: [signature] Company: STL

FIELD OBSERVATIONS

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

Field Personnel: P. Little / K. Sove CS. TP **Sample Matrix:** G/W

MONITORTING WELL INSPECTION:

Date/Time 6-9-04 / 1020 **Cond of seal:** (X) Good ( ) Cracked ____ % ( ) None ( ) Buried

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

If prot.casing; depth to riser below: —

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

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

PURGE INFORMATION:

Date / Time Initiated: 6-9-04 / 1030 **Date / Time Completed:** 6-9-04 / 1050

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

Initial Water Level, Feet: 27.58 **Elevation. G/W MSL:**

Well Total Depth, Feet: 74.52 **Method of Well Purge:** ~~Peristaltic Pump~~ BLADDER PUMP

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

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

Purge Observations: **Start** Clear **Finish** Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1035	WL 27.80		15.9	6.62	3731	64.2	35	1.98
1040			14.0	6.86	3711	56.1	29	1.59
1045	29.10		14.3	6.75	3725	56.0	20	1.37
1050	↓		14.3	6.78	3723	53.6	20	1.01

SAMPLED AT 1050 / 6-9-04

P. Little

Field Form
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03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID NES-F

Date/Time 6-9-04 / 1050 Water Level @ Sampling, Feet: 29.10

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 NTU std. = 1.0 NTU 1.0 NTU std. = ____NTU

Solutions: L347273

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: SUN 87°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/9/04 By: [signature] Company: STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: NEW-W

Field Personnel: P.Little / K.Scarf CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-9-04 / 925

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: 6-9-04 / 0940

Date / Time Completed: 6-9-04 / 1000

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

Riser Diameter, Inches: 4.0

Initial Water Level, Feet: 31.28

Elevation. G/W MSL:

Well Total Depth, Feet: 77.23

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

One (1) Riser Volume, Gal: —

Dedicated: Y / (N)

Total Volume Purged, Gal: 2.0

Purged To Dryness Y / (N)

Purge Observations:

Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
0945	31.32		15.1	7.35	2635	7.30	-105	5.11
0950	↓		15.7	7.42	2569	4.96	-120	4.55
0955			15.6	7.64	2558	4.71	-125	2.17 ~~2.17A~~
1000			15.6	7.45	2532	4.21	-127	1.97

SAMPLED AT 1000/6-9-04

RL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: POINT ID NFSS-W

Date/Time 6-9-04 11000 Water Level @ Sampling, Feet: 31.32

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 NTU std. = 1.0 NTU 1.0 NTU std. = 1.0 NTU

Solutions: L347273

pH Serial #: 60347 4.0 std.= 4.00 7.0 std.= 7.00 10.0 std. =

Solutions: 4-2188, 7-3117

Conductivity Serial #: 60347 100 umhos/cm= 100 umhos/cm=

Solutions: 100- 3103

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUN 85°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/9/04 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Chemical Sample Point ID: PW-10

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

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-4-04 / 1115 Water Level @ Sampling, Feet: 17.31 ~~DRY~~

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1117	17.4	8.86	8269	49.0	-114	

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 NTU std. = 1.0 NTU 1.0 NTU std. = 1.0 NTU

Solutions: L347273

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

Solutions: 4-2188, 7-2140

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

Solutions: 1410-2915

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sun 70°

Sample Characteristics: Amber Strong odor

COMMENTS AND OBSERVATIONS: ~~Unpreserved~~ Unpreserved VOA vial

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

Date: 6/4/04 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Chemical Sample Point ID: PW-11

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

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-4-04 1005 Water Level @ Sampling, Feet: 19.78 ~~DTW~~

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1007	15.6	7.02	5114	12.1	35	

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: Sun 65°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/4/04 By: P. Little Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Chemical Sample Point ID: PW-12

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

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-4-04 / 1125 Water Level @ Sampling, Feet: 7.78 ~~DTW~~

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

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (ORP)	Other ( )
1130	16.0	7.18	5681	1.78	-132	

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: Sun 70°

Sample Characteristics: clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/4/04 By: R Little Company: SJC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: PZ 101

Field Personnel: P.Little / K.Senf CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-15-04 / 1146

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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-15-04 / 1150

Date / Time Completed: 6-15-04

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 12.22

Elevation. G/W MSL:

Well Total Depth, Feet: 21.69

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 Finish CLEAR

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other DO	Other ORP
1155	12.41 ~150 mL		19.0	7.13	2345	7.11	1.21	-31
1200	12.68		18.5	7.11	1796	3.05	1.01	-29
1205	12.68		19.7	7.11	1796	1.60	.91	-19
1210	12.68		19.9	7.11	1796	1.58	.89	-21

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** PZ 101

Date/Time 6-15-04 1212 **Water Level @ Sampling, Feet:** 12.68

Method of Sampling: Peristaltic Pump / Bladder Pump **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 (DO)	Other (ORP)
1215	18	7.13	1794	1.61	0.90	-24
	19.1					

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273

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: SUN/CLOUDS 70's, SW 05 mph

Sample Characteristics: CLEAR, NO ODOR

COMMENTS AND OBSERVATIONS: ____

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

Date: 6/15/04 **By:** C. Campisi **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: PZ 102

Field Personnel: P.Little / K.Scarf CS. TP Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-15-04 1115 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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-15-04 1117 Date / Time Completed: 6-15-04 1135

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

Initial Water Level, Feet: 11.66 Elevation. G/W MSL:

Well Total Depth, Feet: 32.00 Method of Well Purge: BLADDER PUMP / PERISTALTIC PUMP

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

Total Volume Purged, Gal: ≃10 Purged To Dryness Y (N)

Purge Observations: Start SLTURBID Finish CLEAR

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz) (WL ft) (ml/min)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other DO	Other ORP
1120	12.18 200 ml/m		15.5	7.43	3495	2.20	1.31	-93
1125	| |		13.3	7.39	4107	1.27	1.03	-113
1130	| |		13.1	7.41	4152	0.80	0.90	-104
1135	↓ ↓		15.4	7.44	4151	0.77	0.91	-98

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** PZ 102

Date/Time 6-15-04 1137 **Water Level @ Sampling, Feet:** 12.18

Method of Sampling: Peristaltic Pump / Bladder Pump **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 (DO)	Other (ORP)
1139	15.4	7.44	4154	0.79	0.90	-91

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273

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: SUN/CLOUDS, 70'S,

Sample Characteristics: CLEAR, NO ODOR

COMMENTS AND OBSERVATIONS:

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

Date: 6/15/04 **By:** C. Campos **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: PZ 103

Field Personnel: P.Little / K.Senf CS. TP Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-15-04 / 1036 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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-15-04 1037 Date / Time Completed: 6-15-04 1055

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

Initial Water Level, Feet: 11.07 Elevation. G/W MSL:

Well Total Depth, Feet: 32.52 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 Finish CLEAR

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other DO	Other ORP
1040	1181	200mL		17.94	7.95	4456	3.91	2.23	-176
1045	"	"		15.6	7.94	4502	1.39	1.91	-183
1050	"	"		15.0	7.94	4508	0.99	1.51	-185
1055	"	"		16.1	7.93	4505	0.81	1.98	-182

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** PZ 103

Date/Time 6-15-04 1100 **Water Level @ Sampling, Feet:** 11.81

Method of Sampling: Peristaltic pump / Bladder pump **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 (DO)	Other (ORP)
1102	15.9	7.93	4506	0.79	1.48	-182

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273

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: SUN/CLOUDS, 70's, SW 0-5 mph

Sample Characteristics: CLEAR, NO ODOR

COMMENTS AND OBSERVATIONS: ____

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

Date: 6/15/04 **By:** C Cooper **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: PZ 104

Field Personnel: P.Little / K.Scarf CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-15-04 / 0959

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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-15-04 / 1002

Date / Time Completed: 6-15-04

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 12.12

Elevation. G/W MSL:

Well Total Depth, Feet: 23.93

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 Finish CLEAR

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)		Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other DO	Other ORP
1005	12.18	≃200mL		16.9	7.27	2064	21.8	1.31	-107
1010	12.18	≃200mL		16.1	7.31	2054	14.5	1.09	-116
1015	1	1		16.1	7.31	2056	8.74	.91	-116
1020	1	1		15.7	7.32	2056	4.35	.91	-102

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** PZ 104

Date/Time 6-15-04 1025 **Water Level @ Sampling, Feet:** 12.18

Method of Sampling: Peristaltic pump / Bladder pump **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 (DO)	Other (ORP)
1026	15.7	7.32	2051	4.11	.91	-111

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** 1.0 **NTU**

Solutions: L347273

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

Solutions: 4.0 - 2188, 7.0 - 2140

Conductivity Serial #: 1201 1410 **umhos/cm=** 1410 **umhos/cm=**

Solutions: 1410 - 2915

GENERAL INFORMATION:

Weather conditions @ time of sampling: CLOUDS / SUN, 70's, SW - 0-5 mpl

Sample Characteristics: CLEAR, NO ODOR

COMMENTS AND OBSERVATIONS:

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

Date: 6/15/04 **By:** C Campos **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL Sample Point ID: P2-105

Field Personnel: P.LITTLE / K.SCHAFF CS. TP Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-3-04 / 1049 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: 6-3-04 / 1050 Date / Time Completed: 6-3-04 1115

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

Initial Water Level, Feet: 8.27 Elevation. G/W MSL: ____

Well Total Depth, Feet: 32.66 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 BECK TINT Finish SLT TURBID BLACK TINT

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1055	WC 9.43		15.2	7.25	773	62.8	54	1.06
1100	10.81		15.1	7.00	768	81.5	43	.98
1105	11.41		15.3	7.01	762	78.0	43	.95
1110	11.96		15.3	7.06	760	70.7	42	.90
1115	12.51		15.6	7.05	758	71.9	43	.91

SAMPLED AT 1115 / 6-3-04

PL Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** P2-105

Date/Time 6-03-04 1115 **Water Level @ Sampling, Feet:** 12.51

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: ~~3925~~ 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** 1.0 **NTU**

Solutions: L347273

pH Serial #: 601347 **4.0 std.=** 4.00 **7.0 std.=** 7.00 **10.0 std. =**

Solutions: 4-2188, 7-3117

Conductivity Serial #: 601347 100 **umhos/cm=** 100 **umhos/cm=**

Solutions: 100-3103

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUN / Cloud 60°

Sample Characteristics: SL. TURBID BLACK TINT

COMMENTS AND OBSERVATIONS:

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

Date: 6/7/04 **By:** [signature] **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: PZ-106

Field Personnel: P.Little / K.Schaefer CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-3-04 / 1228

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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-3-04 / 1230

Date / Time Completed: 6-3-04 1250

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

Riser Diameter, Inches: 2.0

Initial Water Level, Feet: 9.37

Elevation. G/W MSL:

Well Total Depth, Feet: 27.90

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 Yellow TINT

Finish Clear Yellow TINT

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1235	WL 10.20		17.7	5.60	9979	23.30	55	1.27
1240	11.10		16.6	5.74	9990	19.5	56	1.15
1245	12.31		17.0	5.54	10,100	11.5	55	1.10
1250	12.68		17.1	5.50	10,200	6.85	56	1.01

P. SAMPLED AT 1250 6-3-04

M Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** P2-106

Date/Time 6-3-04 / 1250 **Water Level @ Sampling, Feet:** 12.68

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

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273

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

Solutions: ____

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

Solutions: ____

GENERAL INFORMATION:

Weather conditions @ time of sampling: Cloudy 65°

Sample Characteristics: Clear Yellow Tint

COMMENTS AND OBSERVATIONS:

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

Date: 6/3/04 **By:** [signature] **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL | Sample Point ID: P2-107

Field Personnel: P.Little / K.Sauf CS. TP | Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time: 6-3-04 / 1340

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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-3-04 / 1345 | Date / Time Completed: 6-3-04 / 1405

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

Initial Water Level, Feet: 5.30 | Elevation. G/W MSL: ______

Well Total Depth, Feet: 27.90 | 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 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
1350	WL 5.31		14.3	6.94	3292	0.67	-133	1.06
1355	↓		12.8	6.95	3278	1.01	-125	.93
1400	↓		12.9	6.98	3239	.98	-120	.90
1405	↓		12.6	7.01	3197	.31	-120	.85

SAMPLED AT 1405 / 6-3-04

P. Little

Field Form
Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** P2-107

Date/Time 6-3-04 / 1405 **Water Level @ Sampling, Feet:** 5.31

Method of Sampling: Peristaltic Pump / ~~Bennett pump~~ **Dedicated:** (Y) / N

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** 1.0 **NTU**

Solutions: L347273

pH Serial #: 1200 **4.0 std.=** 4.0 **7.0 std.=** 7.0 **10.0 std. =**

Solutions: 4.0 - 2188, 7.0 - 2140

Conductivity Serial #: MP-20 / 1200 1410 **umhos/cm=** 1410 **umhos/cm=**

Solutions: 1410 - 2915

GENERAL INFORMATION:

Weather conditions @ time of sampling: cloudy 60°

Sample Characteristics: clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/3/04 **By:** [signature] **Company:** STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: QD-1

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

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-09-04 / 1135 Water Level @ Sampling, Feet: N/A

Method of Sampling: DIPPER Dedicated: Y / N

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (DO)	Other (ORP)
1140	19.3	7.89	1780		3.86	162

INSTRUMENT CHECK DATA:

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

Solutions: _____

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

Solutions: _____

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

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUNNY, 80°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: QUARRY DITCH - FLOW FROM PIPE AT TOP OF QUARRY WALL

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

Date: 6/09/04 By: [signature] Company: STC

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: QD - 2

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

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-09-04 1200 Water Level @ Sampling, Feet: N/A

Method of Sampling: DIPPER Dedicated: Y / (N)

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (DO)	Other (ORP)
1205	20.9	8.30	1760		5.20	164

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: HAZY, 80°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: DITCH ALONG 390 AT LIGHT POLE BASE BEFORE EXIT 19 ~ 50 PACES TO WHERE DITCH GOES UNDER 390

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

Date: 6/09/04 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: QO-2

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

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-09-04 1220 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 (DO)	Other (ORP)
1225	20.2	8.02	1640		3.10	149

INSTRUMENT CHECK DATA:

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

Solutions: _____

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

Solutions: _____

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

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sunny, 85°F

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/09/04 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: QO-251

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

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-09-04 / 1240 Water Level @ Sampling, Feet: N/A

Method of Sampling: DIPPER Dedicated: (Y) / N

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (DO)	Other (ORP)
1245	22.8	8.05	507		3.73	146

INSTRUMENT CHECK DATA:

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

Solutions: _____

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

Solutions: _____

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

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: Sunny, 85°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS:

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

Date: 6/09/04 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: QP-1

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

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-09-04 1020 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 (DO)	Other (ORP)
1025	18.6	8.10	1258		4.73	166

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: HAZY, 75°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: QUARRY POND (EAST SIDE OF POND)

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

Date: 6/09/04 By: [signature] Company: STC

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: QS-1

Field Personnel: RS/CS Sample Matrix: SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-09-04 1030 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 (DO)	Other (ORP)
1050	20.9	8.20	1520		3.43	169

INSTRUMENT CHECK DATA:

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

Solutions: _____

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

Solutions: _____

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

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUNNY, 80°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: MANUAL GRAB FROM FLOW AT TALUS PILE NEAR BASE OF WALL (EAST) QS-1

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

Date: 6/09/04 By: _____ Company: SR

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: QS-2

Field Personnel: RS/CS Sample Matrix: SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-09-04 1040 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 (DO)	Other (ORP)
1100	20.2	8.12	1265		4.48	163

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: HAZY, 75°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: SAMPLED NE OF POND ~50' SOUTH OF QS-1

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

Date: 6/09/04 By: _____ Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: QS-3

Field Personnel: RS/CS Sample Matrix: SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-09-04 / 1100 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 (DO)	Other (ORP)
1110	18.5	8.05	1428		4.12	129

INSTRUMENT CHECK DATA:

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

Solutions: _____

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

Solutions: _____

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

Solutions: _____

GENERAL INFORMATION:

Weather conditions @ time of sampling: SUNNY, 80°F

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: QS-3 SAMPLED DIRECTLY ~~AT~~ EAST OF POND ~75' SOUTH OF QS-2 ~50' NORTH OF QS-4

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

Date: 6/09/04 By: _____ Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: GS-4

Field Personnel: RS/CS Sample Matrix: SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-09-04 / 0955 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 (DO)	Other (ORP)
1000	15.9	7.94	1228		6.33	166

INSTRUMENT CHECK DATA:

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

Solutions: _____

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

Solutions: 4-2188, 7-3117

Conductivity Serial #: 600750 100 umhos/cm= 100 _____ umhos/cm= _____

Solutions: 100 - 3103

GENERAL INFORMATION:

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

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: EAST WALL BEHIND PUMP HOUSE

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

Date: 6/09/04 By: [signature] Company: STL

LeachField Form
Revision 0
March 15,2002

FIELD OBSERVATIONS

Facility: ARCH Sample Point ID: QS-5

Field Personnel: RS/CS Sample Matrix: SEEP

(X) Grab ( ) Composite

SAMPLING INFORMATION:

Date/Time 6-09-04 1005 Water Level @ Sampling, Feet: N/A

Method of Sampling: S/S PAIC Dedicated: (Y) N RS

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

SAMPLING DATA:

Time	Temp. (°C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other (DO)	Other (ORP)
1015	18.7	8.36	1770		4.33	162

INSTRUMENT CHECK DATA:

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

Solutions: _____

pH Serial #: MP-20 1201 4.0 std.= 4.0 7.0 std.= 7.0 10.0 std. = _____

Solutions: 4.0 - 2188, 7.0 - 2140

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

Solutions: 1410 - 2915

GENERAL INFORMATION:

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

Sample Characteristics: CLEAR

COMMENTS AND OBSERVATIONS: SOUTH WALL ~100' FROM SE CORNER

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

Date: 6/09/04 By: [signature] Company: STC

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL

Sample Point ID: S-3

Field Personnel: P.Little / K.Stone CS. TP

Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-10-04 / 1151

Cond of seal: ( ) Good ( ) Cracked (VAULT) ____ %
( ) 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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-10-04 1155

Date / Time Completed: 6-10-04 1215

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

Riser Diameter, Inches: —

Initial Water Level, Feet: 2.03

Elevation. G/W MSL: ____

Well Total Depth, Feet: —

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

One (1) Riser Volume, Gal: ____

Dedicated: (Y) / N

Total Volume Purged, Gal: 2.0

Purged To Dryness Y / (N)

Purge Observations: ____

Start clear Finish clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1200	2.05		13.6	7.64	3214	6.27	-229	1.21
1205	↓		13.6	7.65	3200	4.84	-236	1.09
1210			13.6	7.71	3179	2.36	-236	.97
1215			13.6	7.73	3167	1.19	-236	.90

SAMPLED AT 1215 / 6-10-04

pl Little

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** 5-3

Date/Time 6-10-04 1215 **Water Level @ Sampling, Feet:** 2.05

Method of Sampling: Peristaltic pump / Bladder pump **Dedicated:** Y / N

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 / 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** ____ **NTU**

Solutions: L347273

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: cloud 55°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

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

Date: 6/10/04 **By:** [signature] **Company:** STL

FIELD OBSERVATIONS

Facility: ARCH CHEMICAL
Sample Point ID: S-4

Field Personnel: P. Little / K. Sanf CS. TP
Sample Matrix: G/W

MONITORTING WELL INSPECTION:

Date/Time 6-10-04 / 1222
Cond of seal: ( ) Good ( ) Cracked ____ % (VAULT)
( ) 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) 0 / 0

PURGE INFORMATION:

Date / Time Initiated: 6-10-04 / 1225
Date / Time Completed: 6-10-04 / 1245

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

Initial Water Level, Feet: 0.65
Elevation. G/W MSL: ____

Well Total Depth, Feet: —
Method of Well Purge: ~~Bladder Pump~~ Peristaltic Pump

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

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

Purge Observations: ____
Start Clear Finish Clear

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other ORP	Other DO
1230	.15		13.5	8.06	295	20.6	-181	2.17
1235	↓		13.6	7.87	284	18.1	-179	1.95
1240	↓		13.6	7.93	283	16.7	-180	1.18
1245	↓		13.6	7.97	283	10.16	-180	.98

Sampled at 1245 / 6-10-04

P. Little

Field Form
Revision 0
03/14/02

FIELD OBSERVATIONS (continued)

SAMPLING INFORMATION: **POINT ID** S-4

Date/Time 6-10-04 / 1245 **Water Level @ Sampling, Feet:** 0.65

Method of Sampling: Peristaltic Pump / ~~Bladder Pump~~ **Dedicated:** Y / N

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

SAMPLING DATA:

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

INSTRUMENT CHECK DATA:

Turbidity Serial #: 3925 4424 **NTU std. =** 1.0 **NTU** 1.0 **NTU std. =** 1.0 **NTU**

Solutions: L347273

pH Serial #: HO-20 1200/1201 **4.0 std.=** 4.0 **7.0 std.=** 7.0 **10.0 std. =**

Solutions: 4-2188, 7-2140, 10-3181

Conductivity Serial #: ↘ 1410 **umhos/cm=** 1410 **umhos/cm=**

Solutions: 100-2940, 1410-2915

GENERAL INFORMATION:

Weather conditions @ time of sampling: Cloudy LT RAIN 55°

Sample Characteristics: Clear

COMMENTS AND OBSERVATIONS:

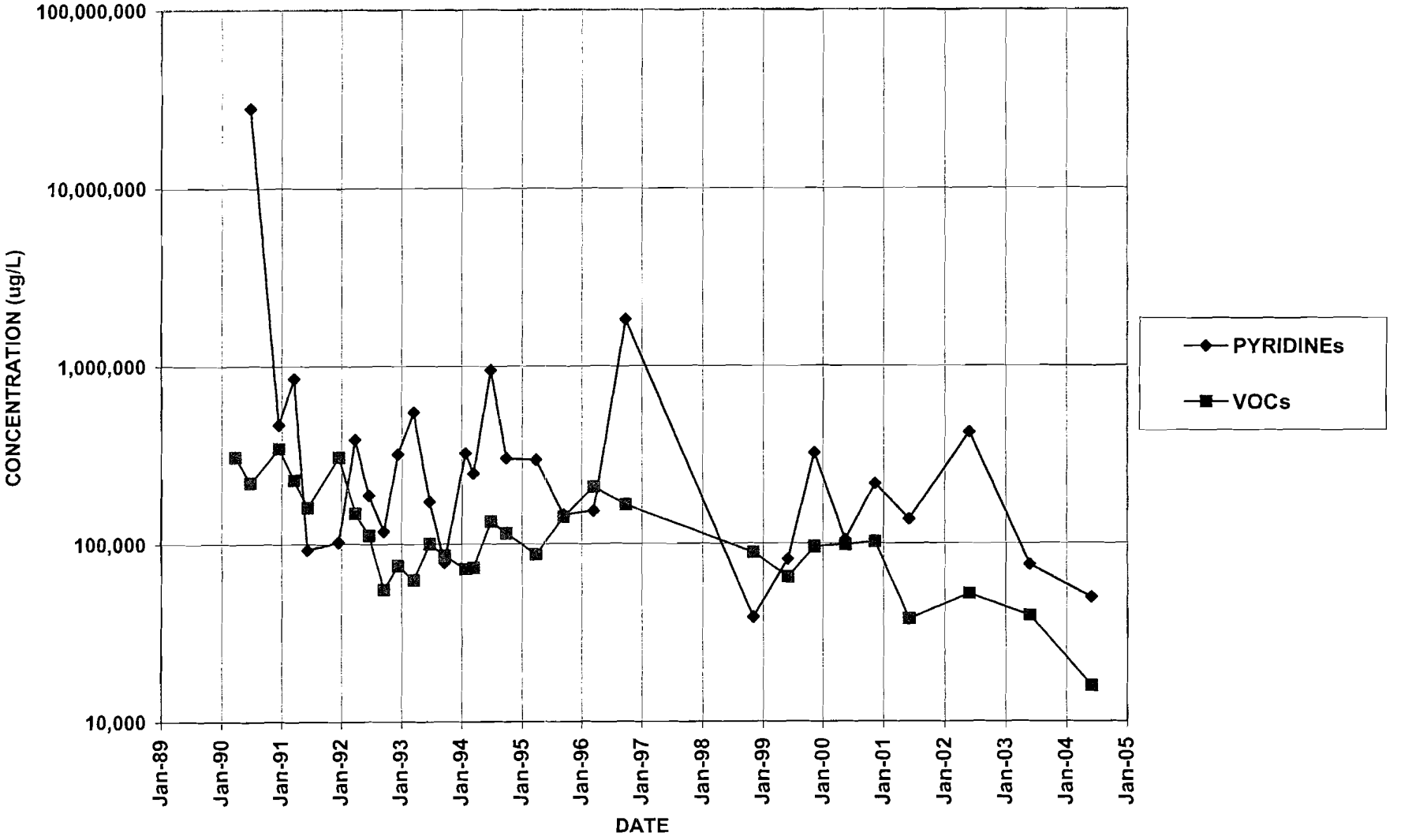
I certify that sampling procedures were in accordance with all applicable EPA, State and Site-Specific protocals.

Date: 6/10/04 **By:** [signature] **Company:** STL

Appendix B

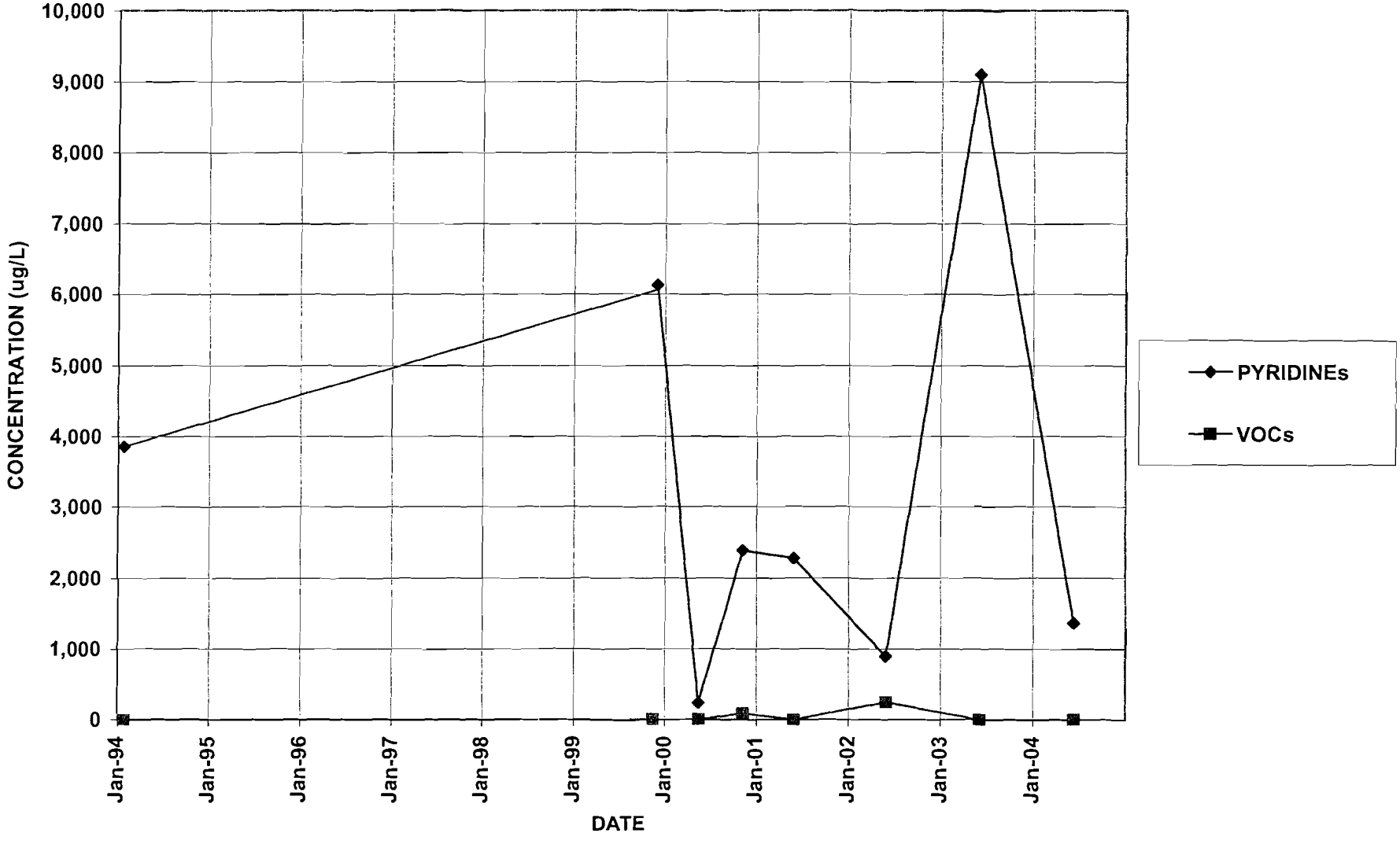
Well Trend Data

B-17



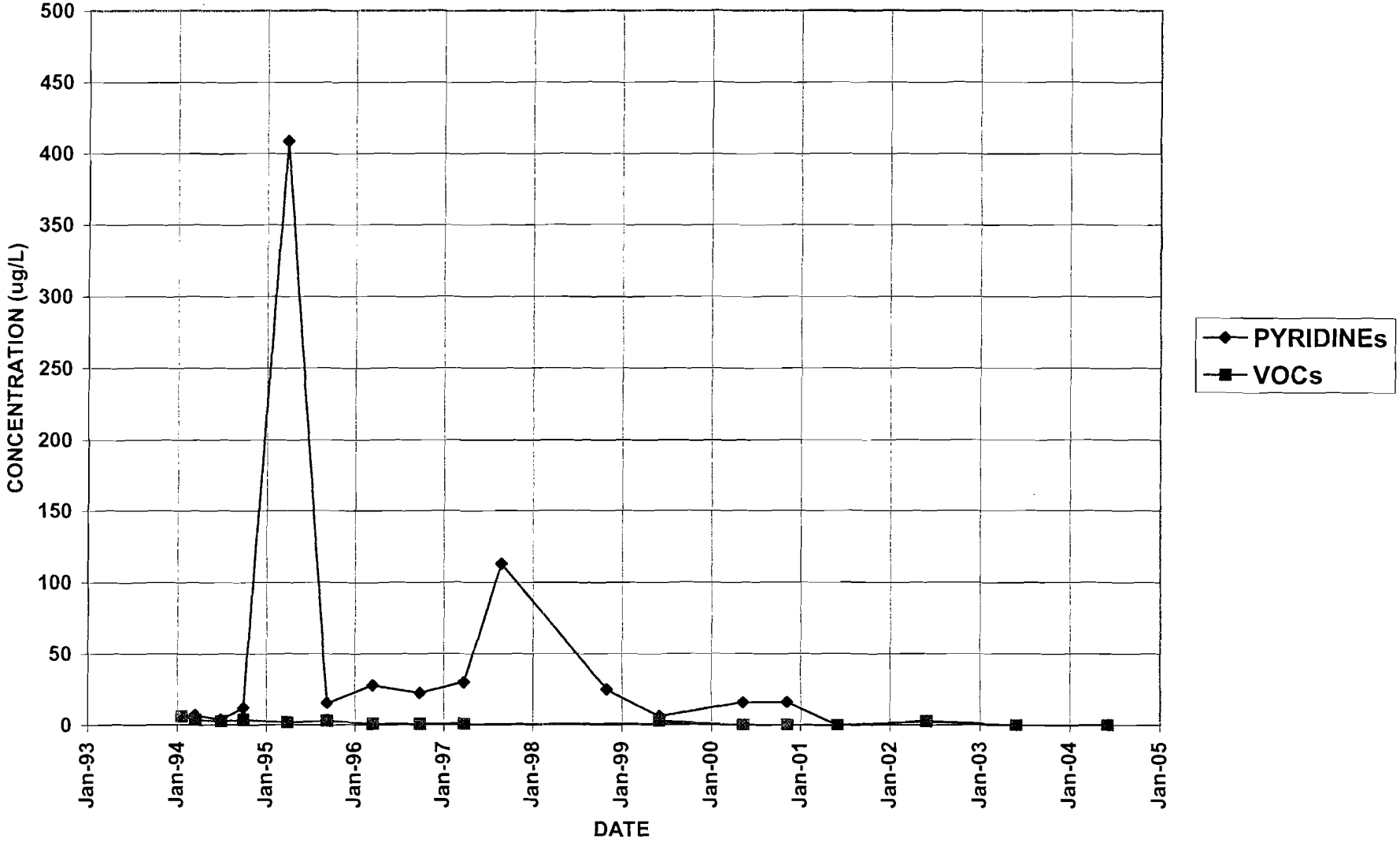
Prepared by: nmb
Reviewed by: jrb

B-7



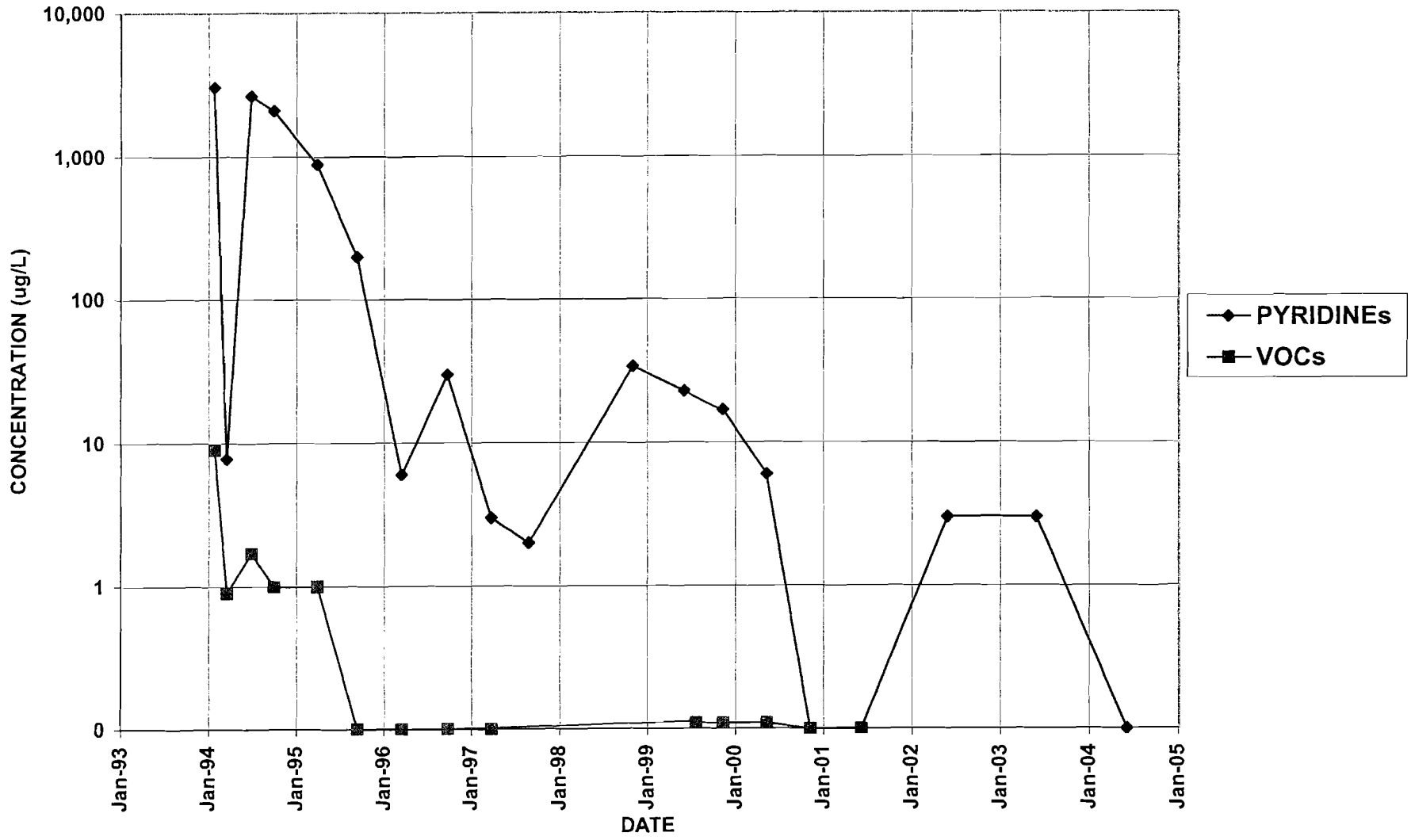
Prepared by: nmb
Reviewed by: jrb

BR-103

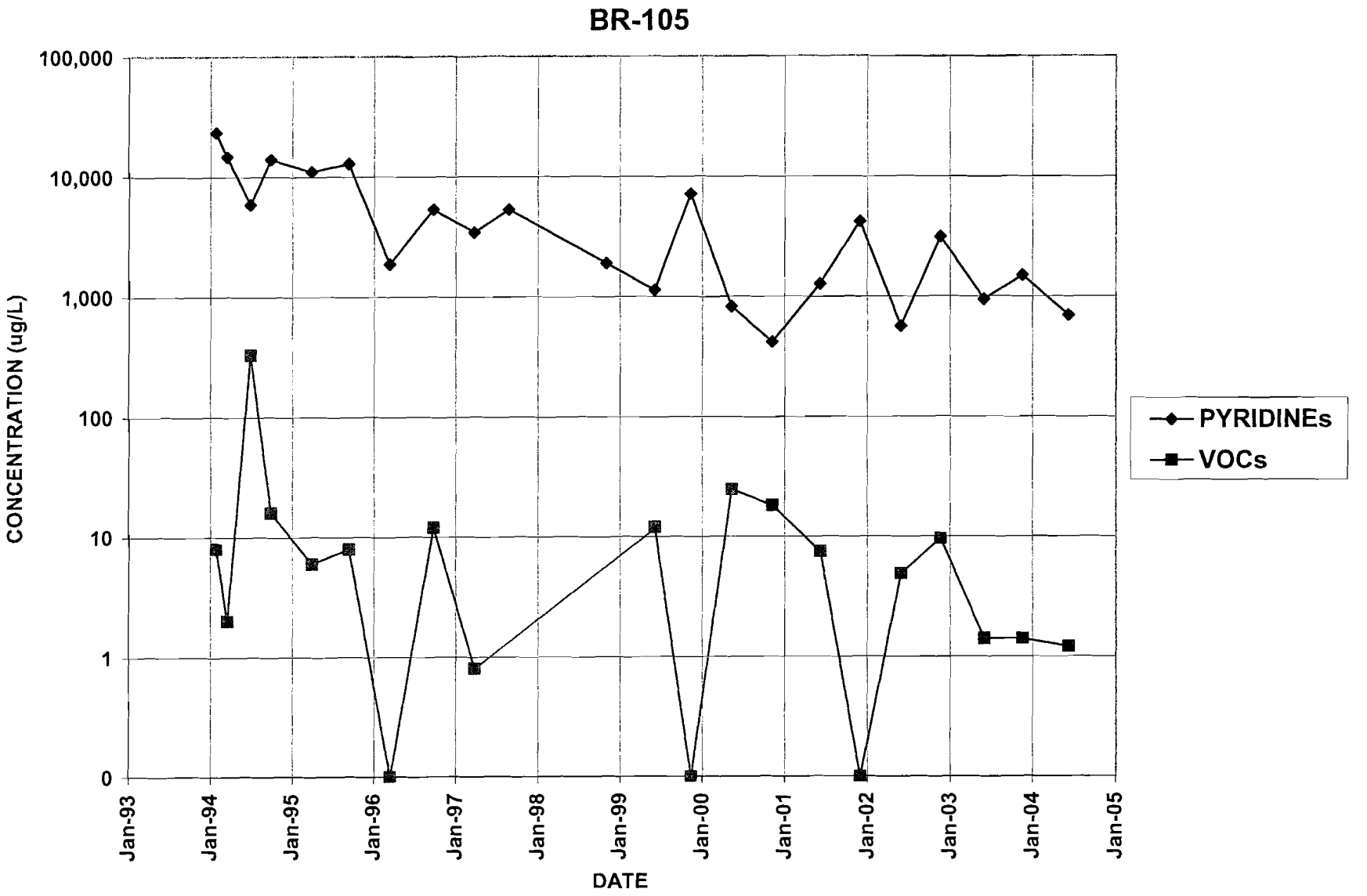


Prepared by: nmb
Reviewed by: jrb

BR-104

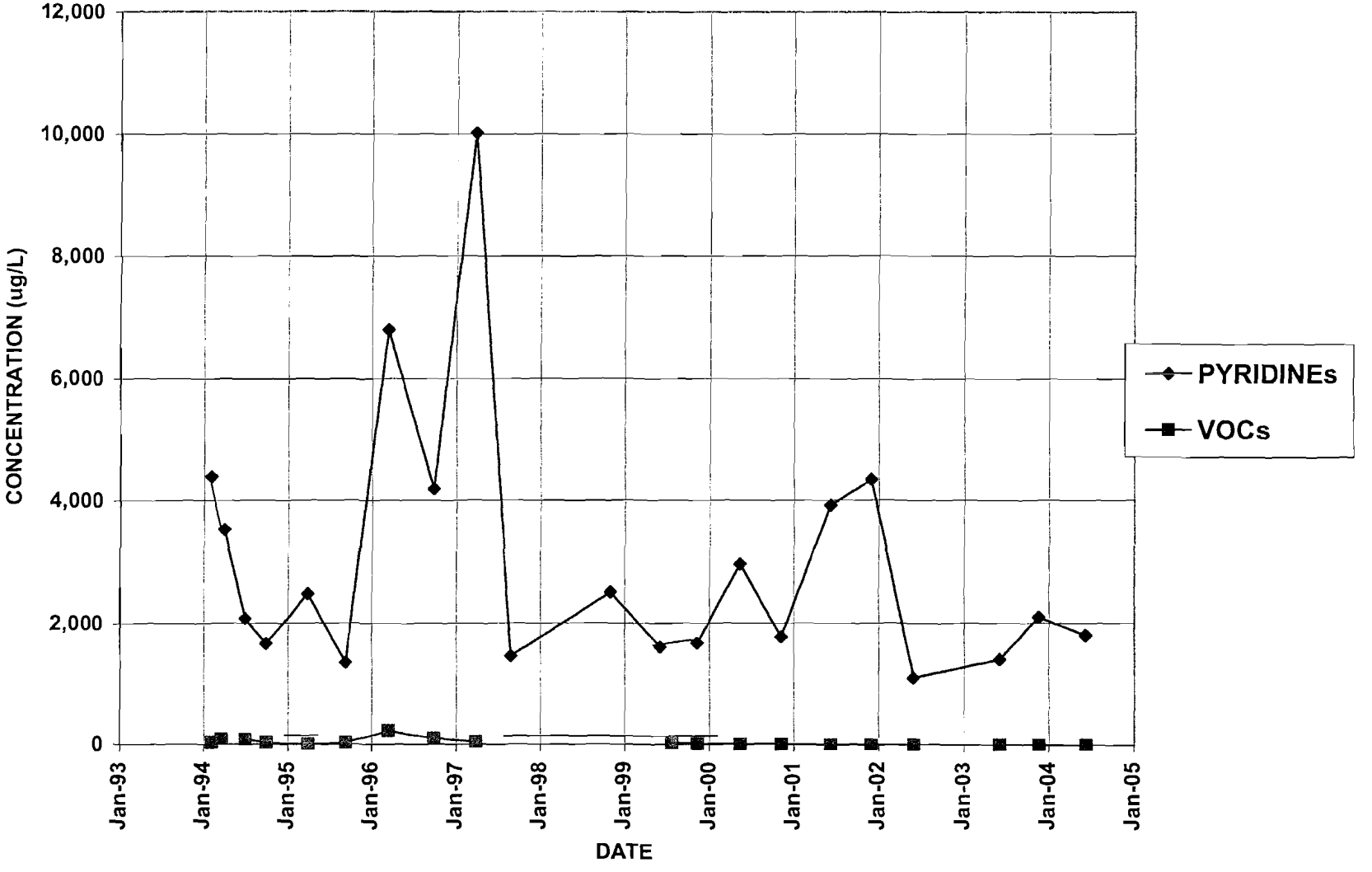


Prepared by: nmb
Reviewed by: jrb



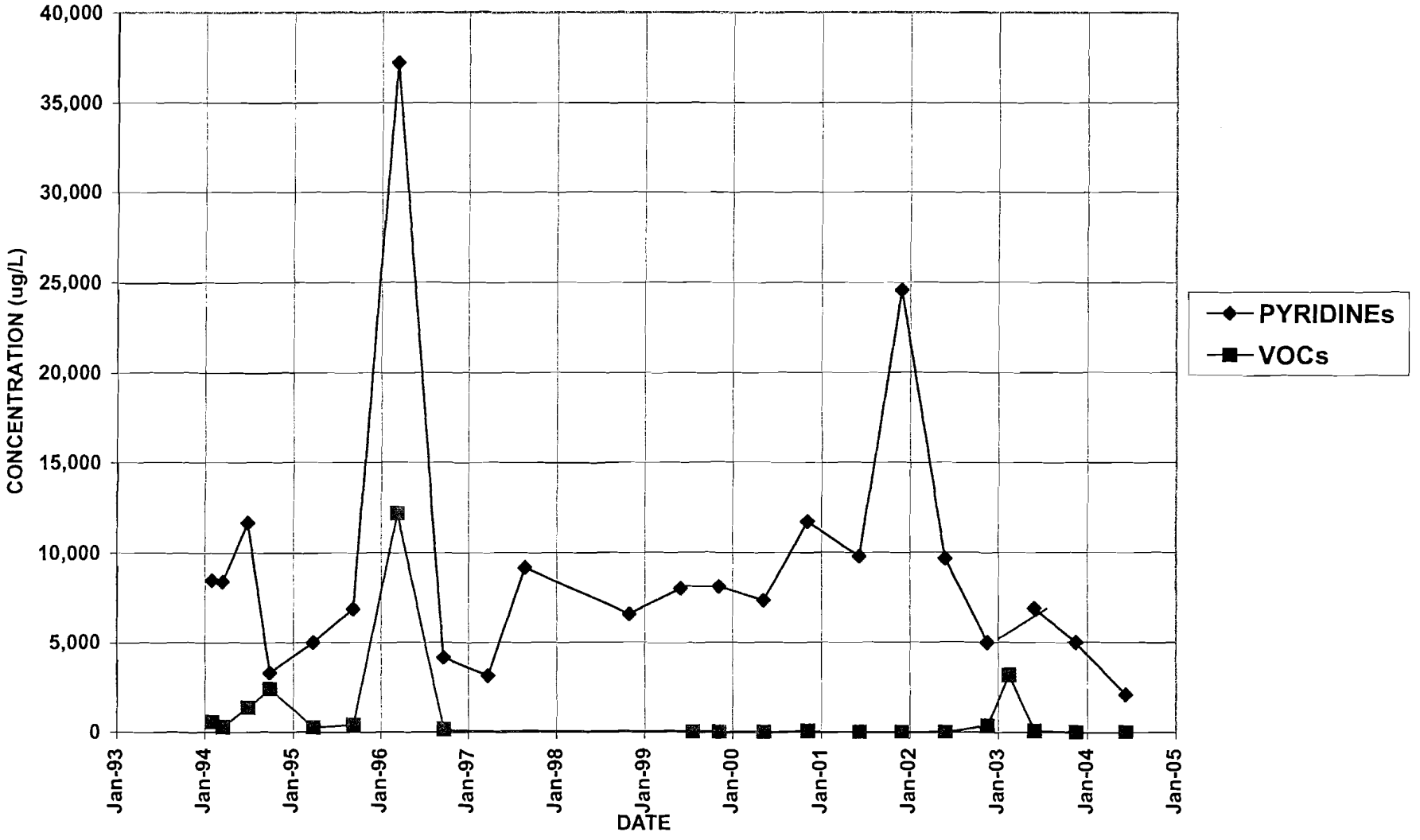
Prepared by: nmb
Reviewed by: jrb

BR-105D



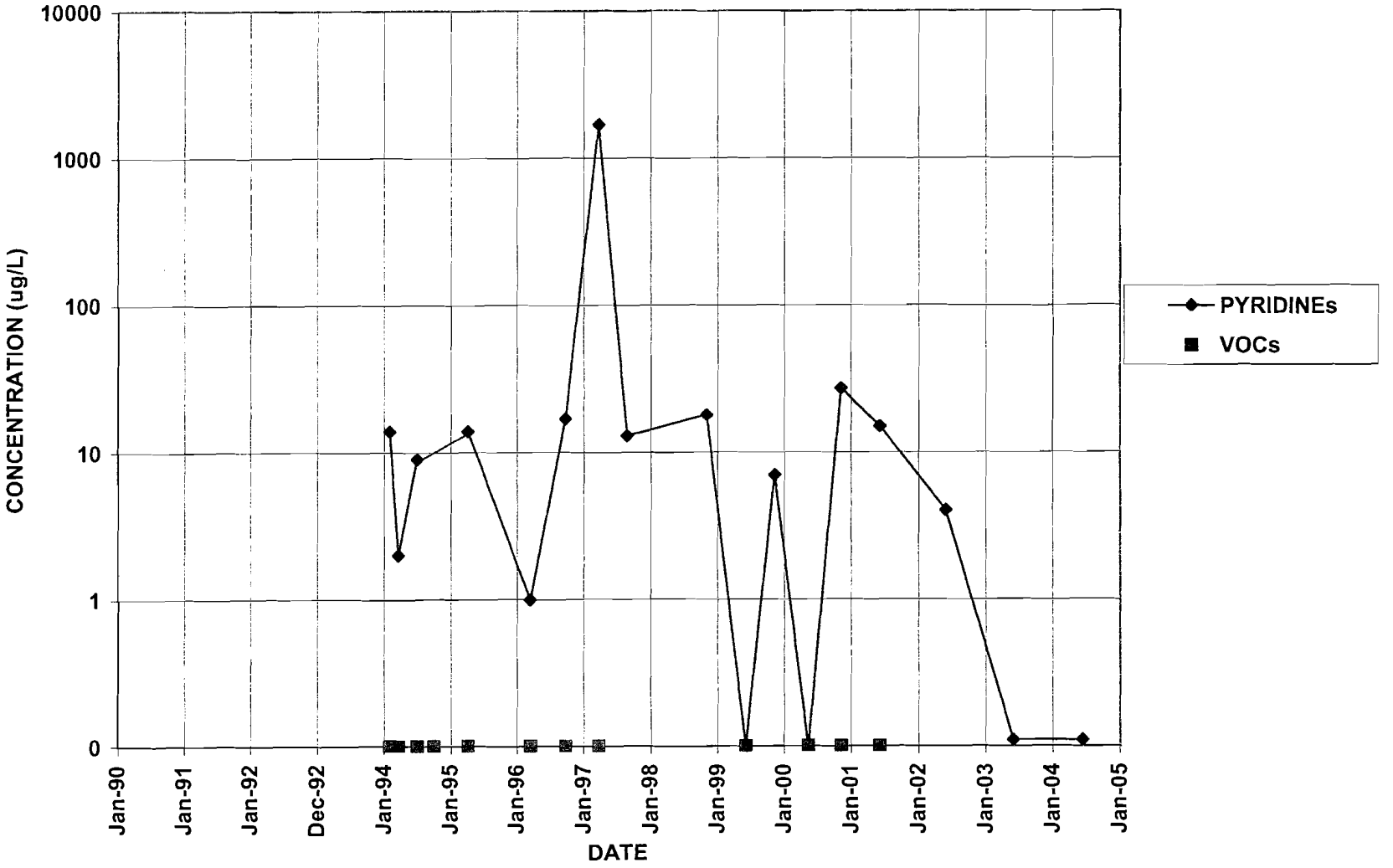
Prepared by: nmb
Reviewed by: jrb

BR-106



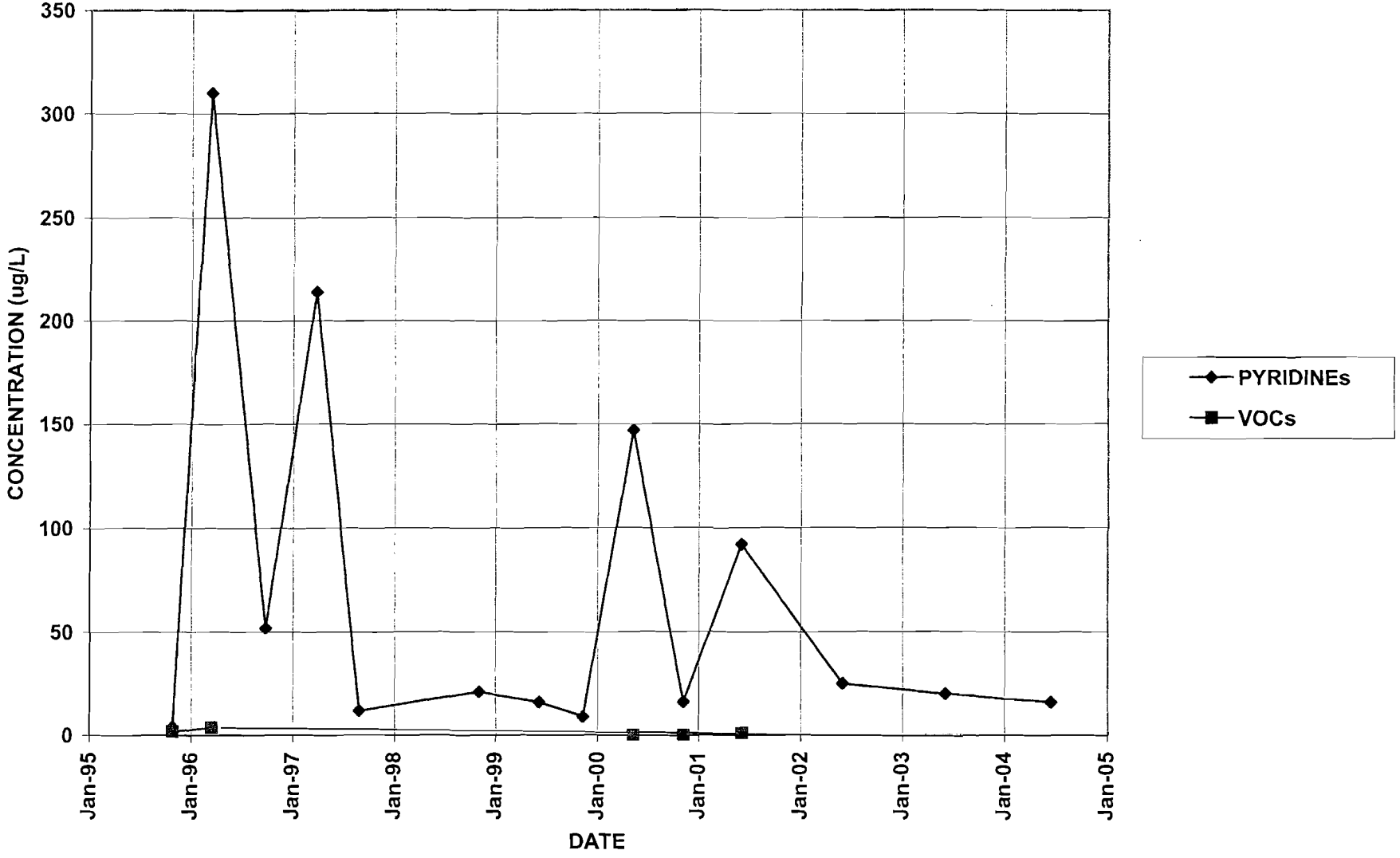
Prepared by: nmb
Reviewed by: jrb

BR-108



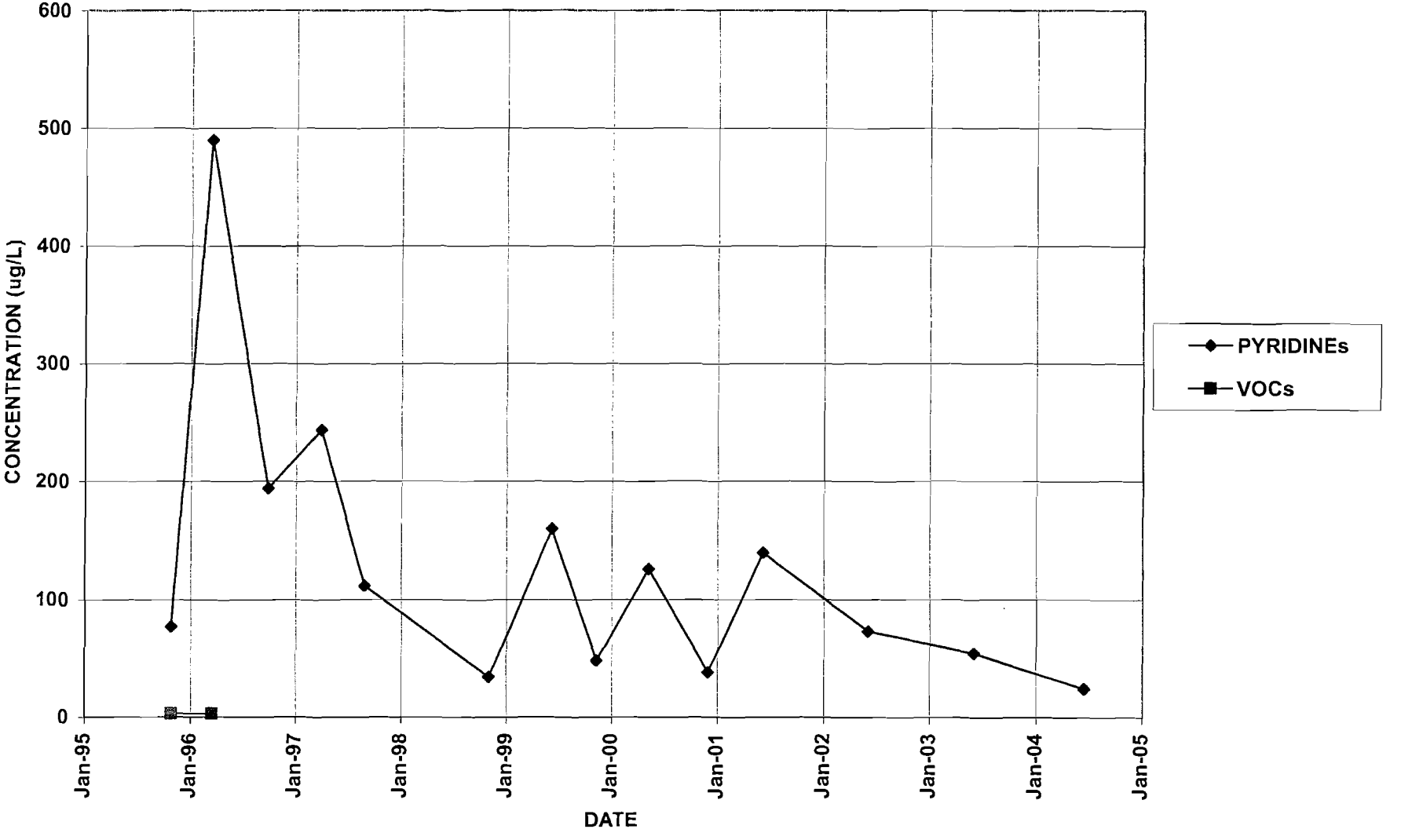
Prepared by: nmb
Reviewed by: jrb

BR-112D



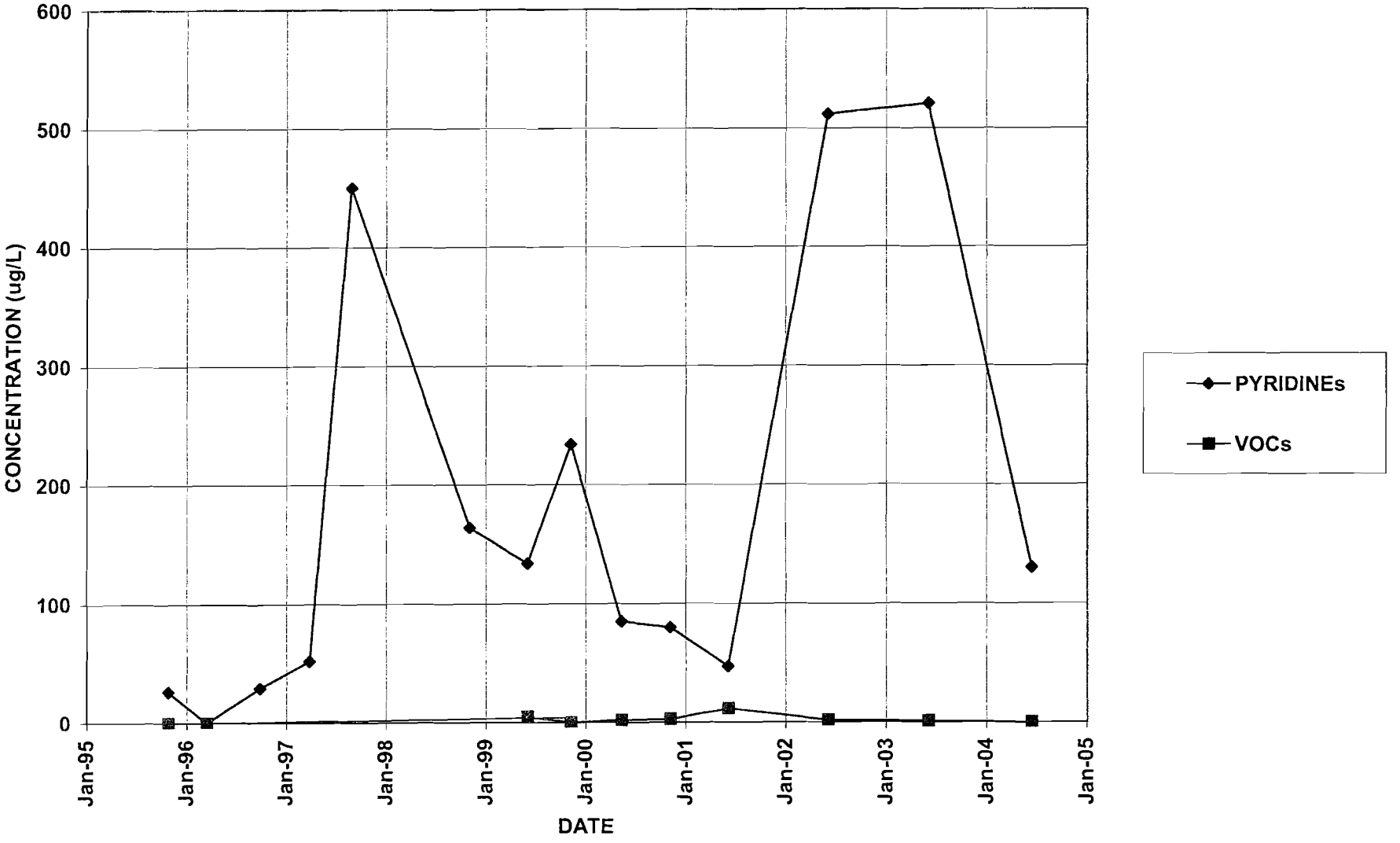
Prepared by: nmb
Reviewed by: jrb

BR-113D



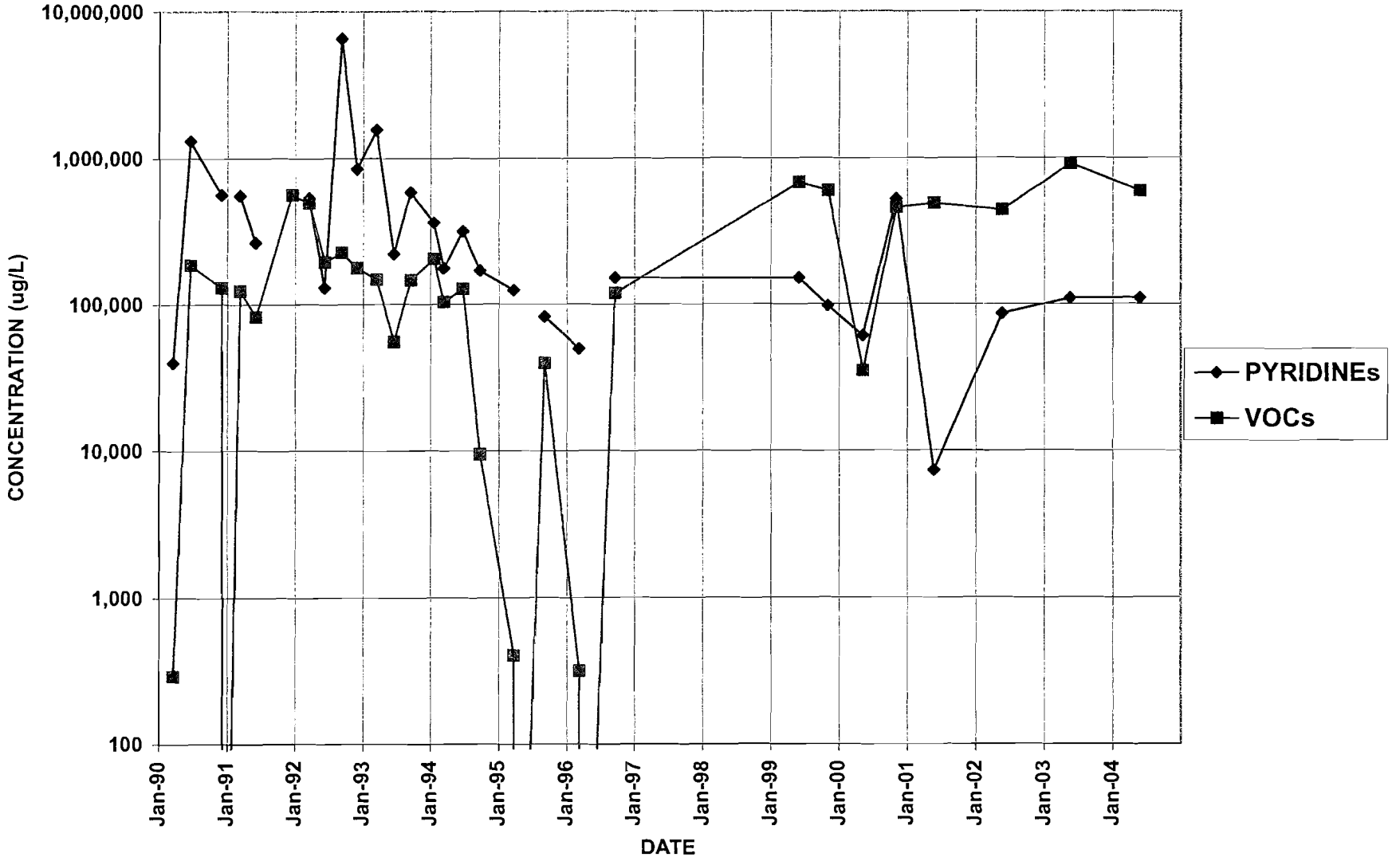
Prepared by: nmb
Reviewed by: jrb

BR-114



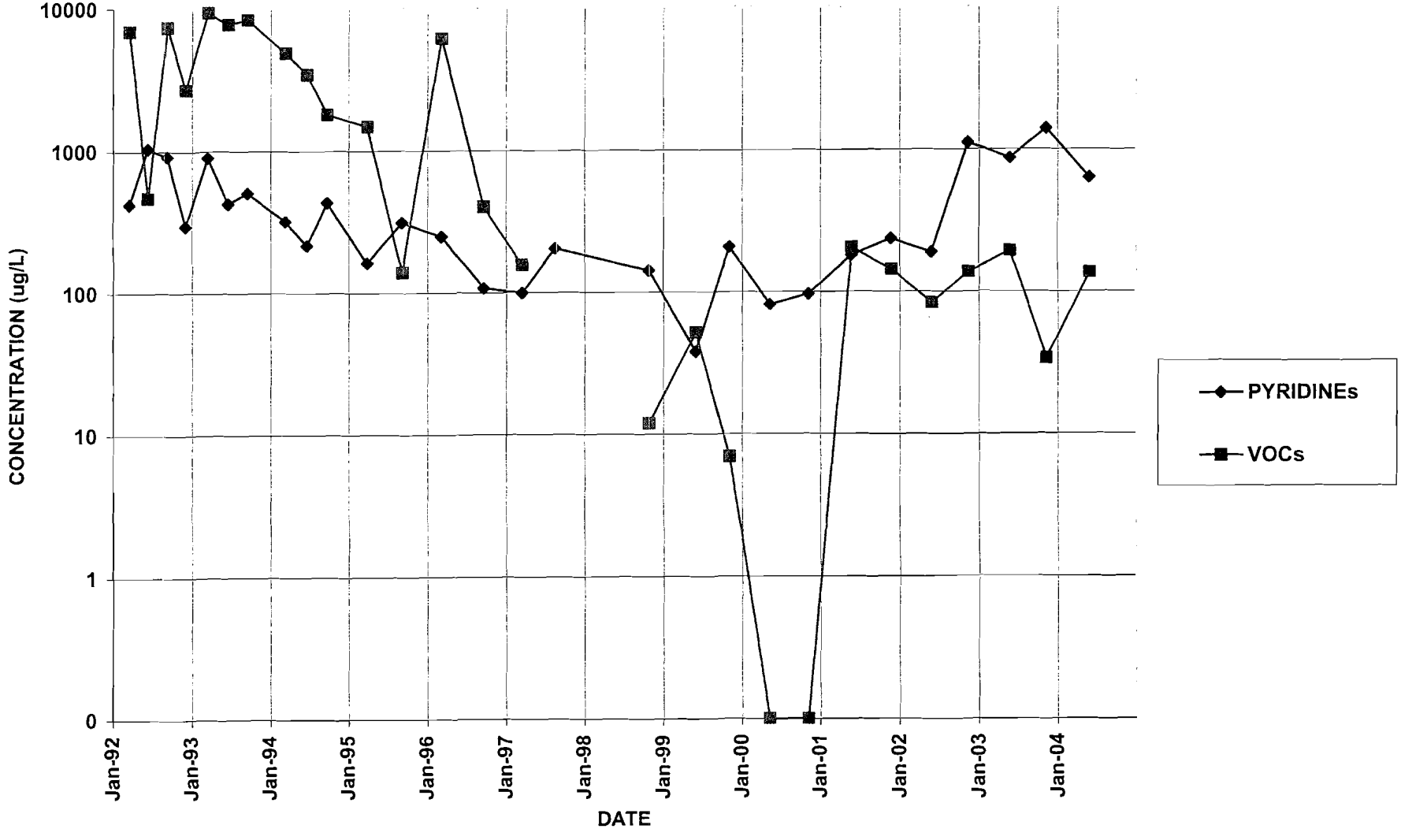
Prepared by: nmb
Reviewed by: jrb

BR-3



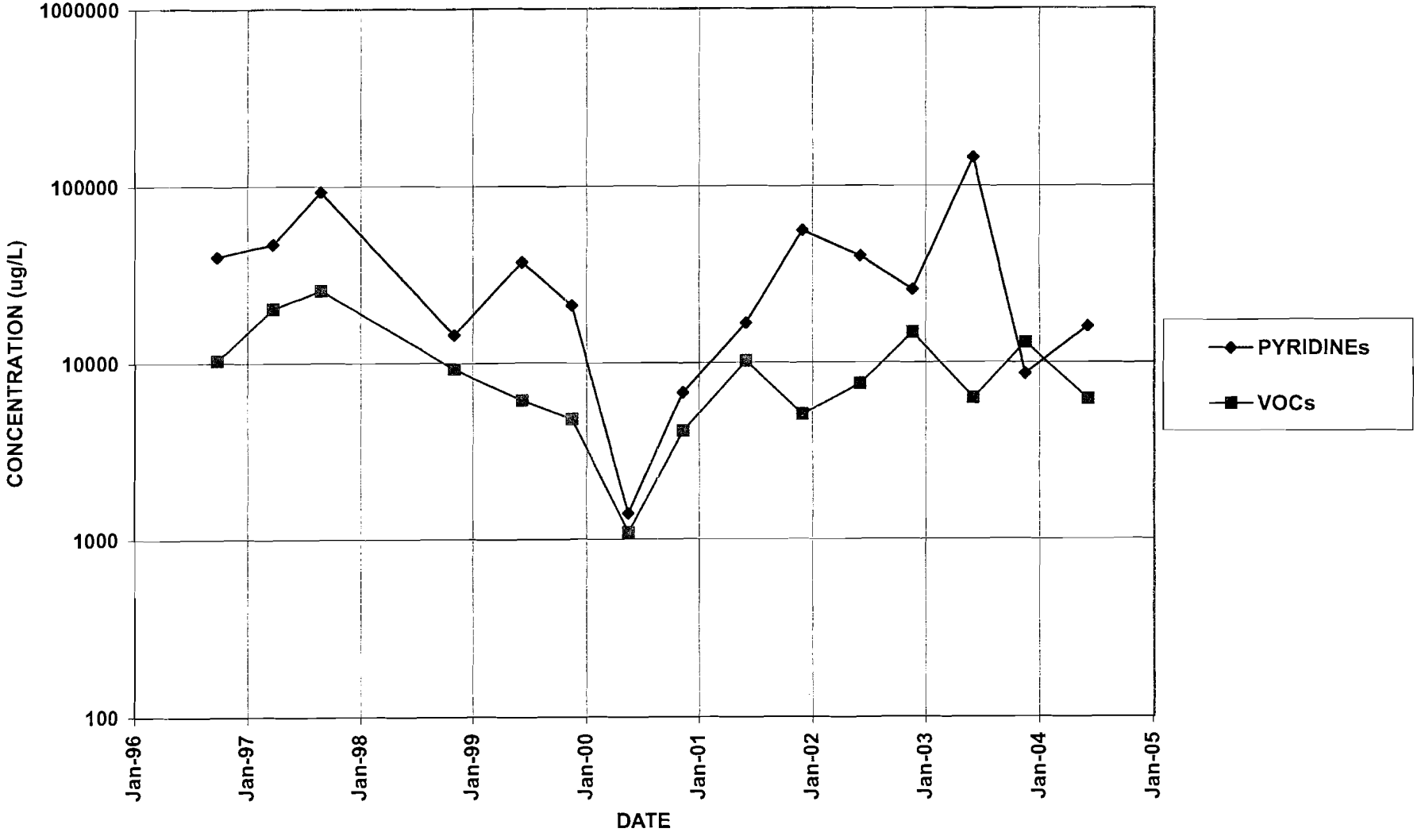
Prepared by: nmb
Reviewed by: jrb

BR-5A



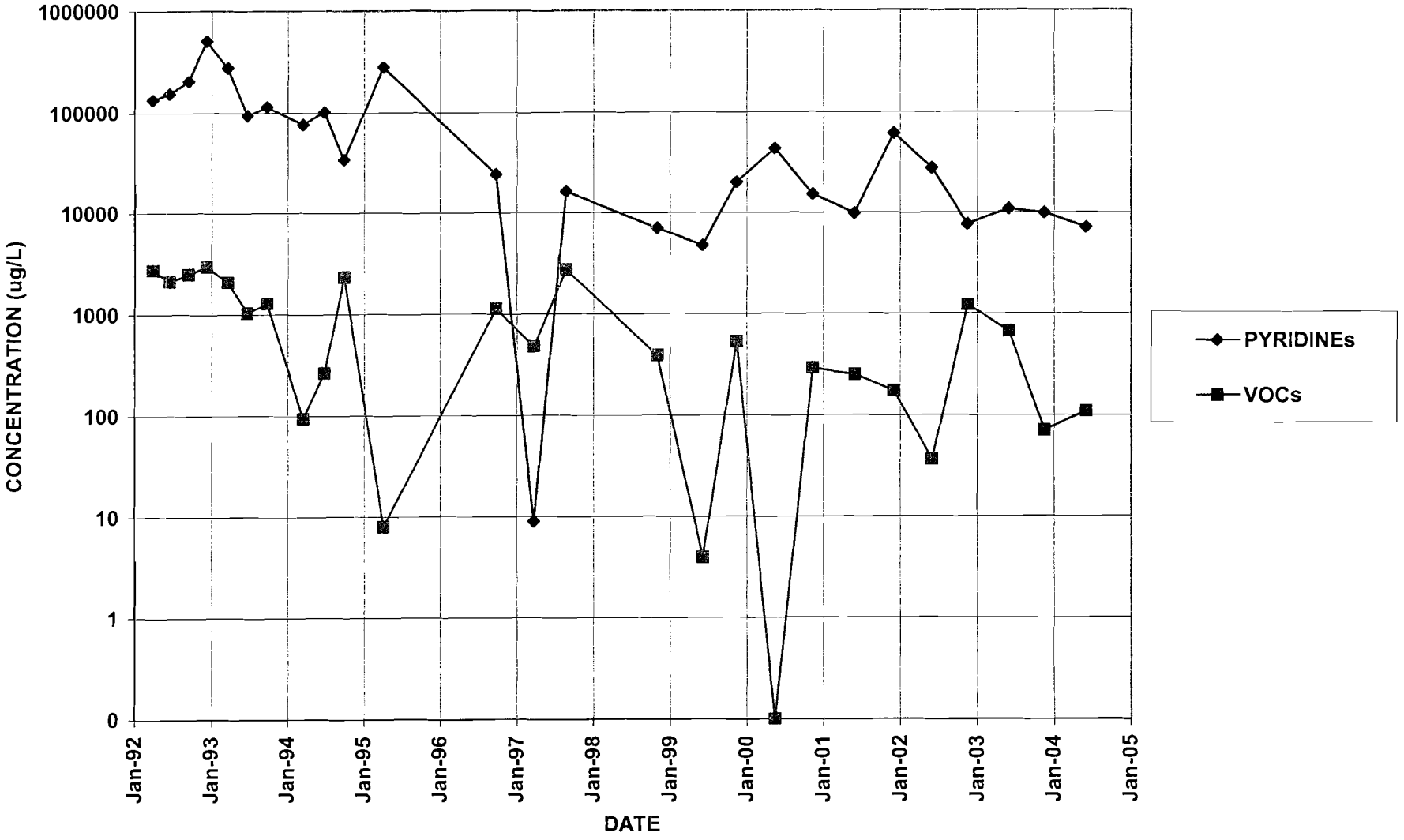
Prepared by: nmb
Reviewed by: jrb

BR-6A



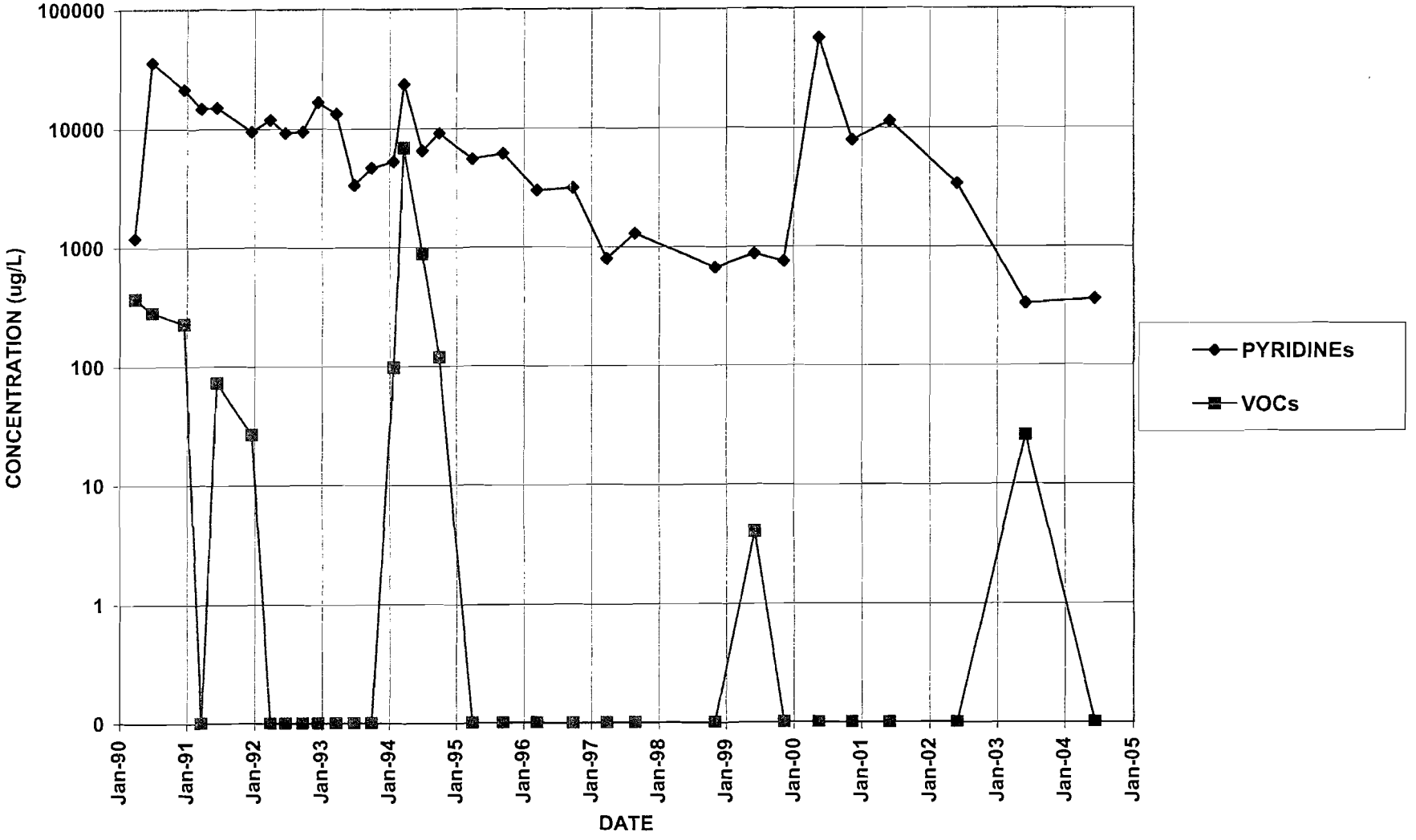
Prepared by: nmb
Reviewed by: jrb

BR-7A



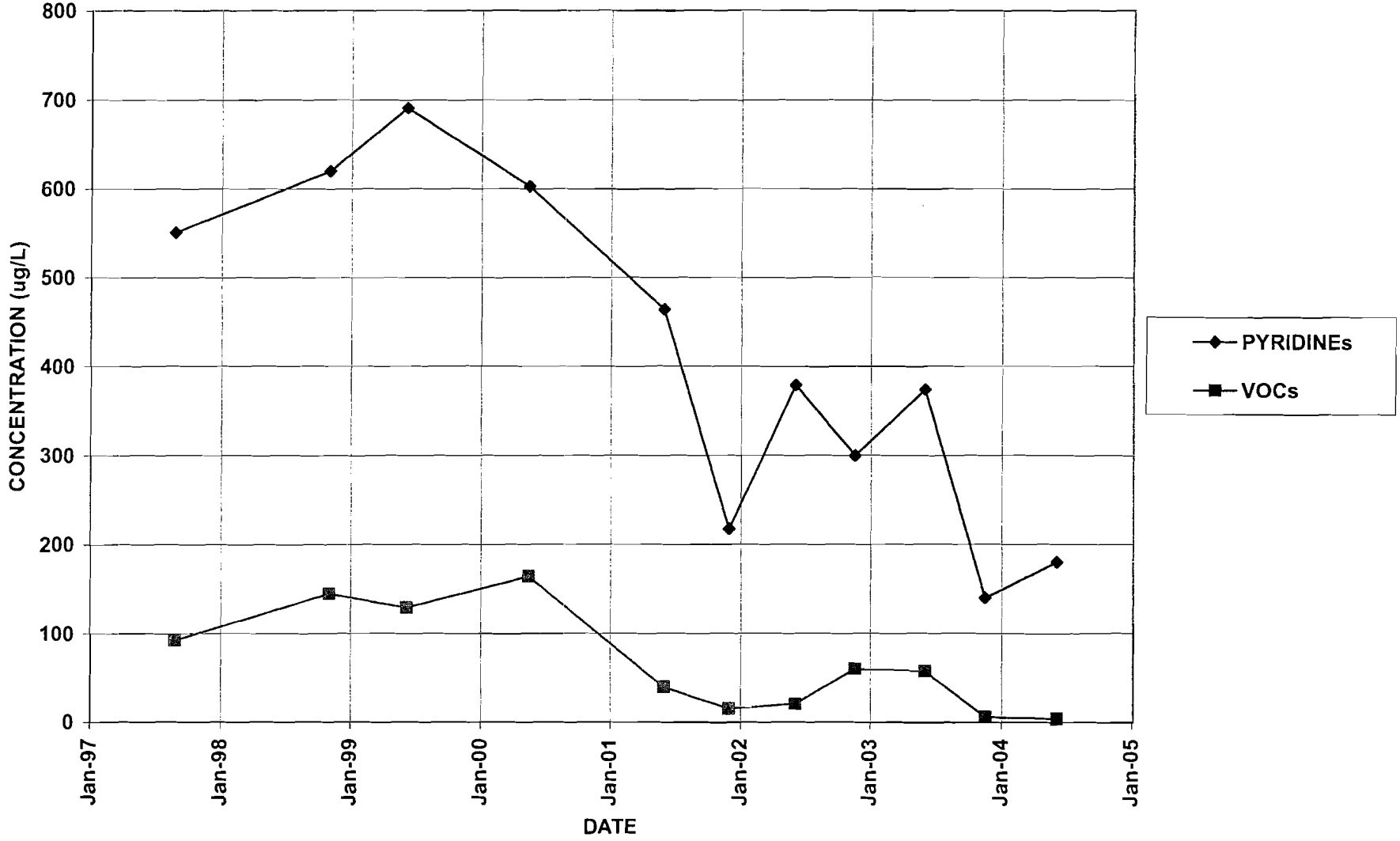
Prepared by: nmb
Reviewed by: jrb

BR-8



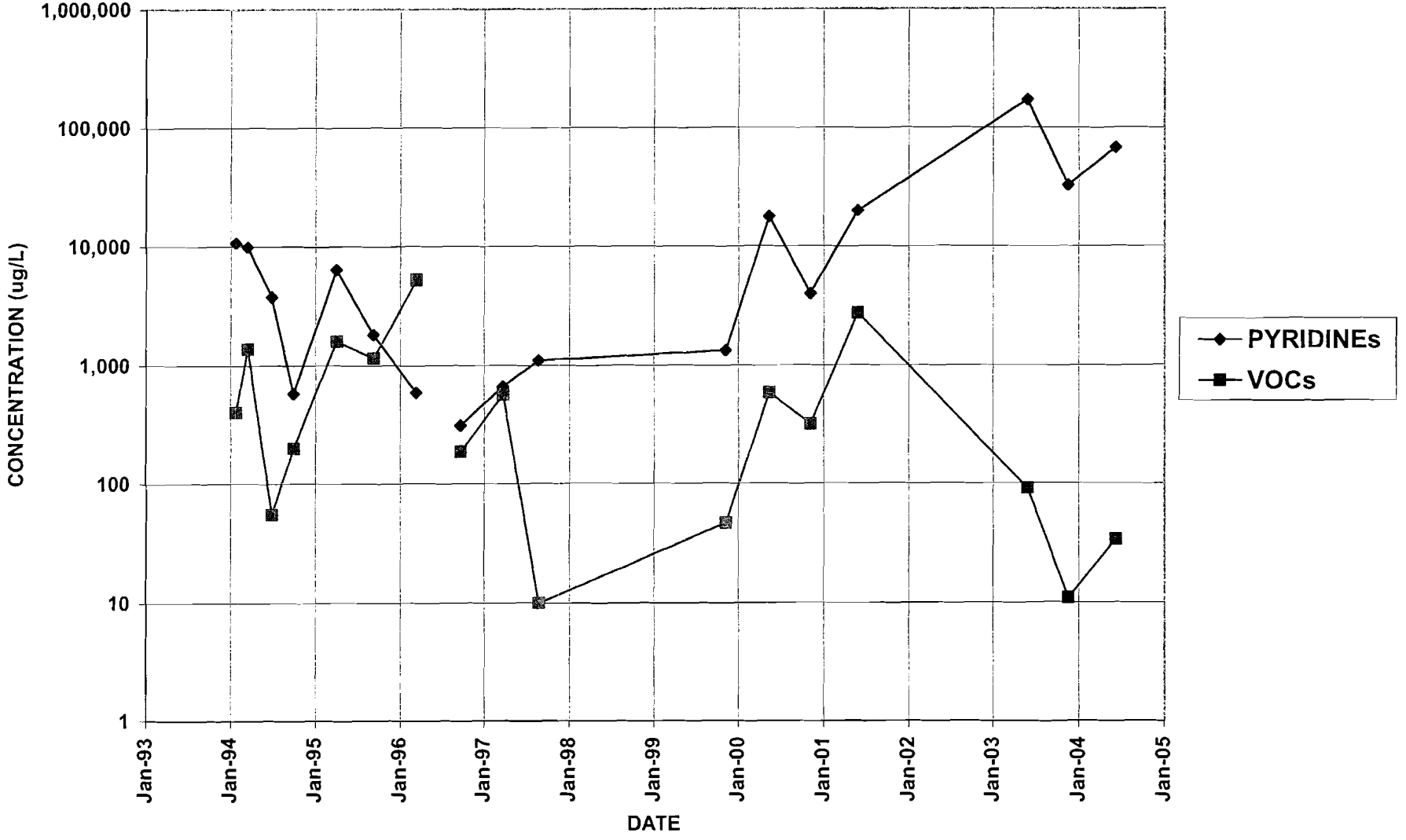
Prepared by: nmb
Reviewed by: jrb

BR-9



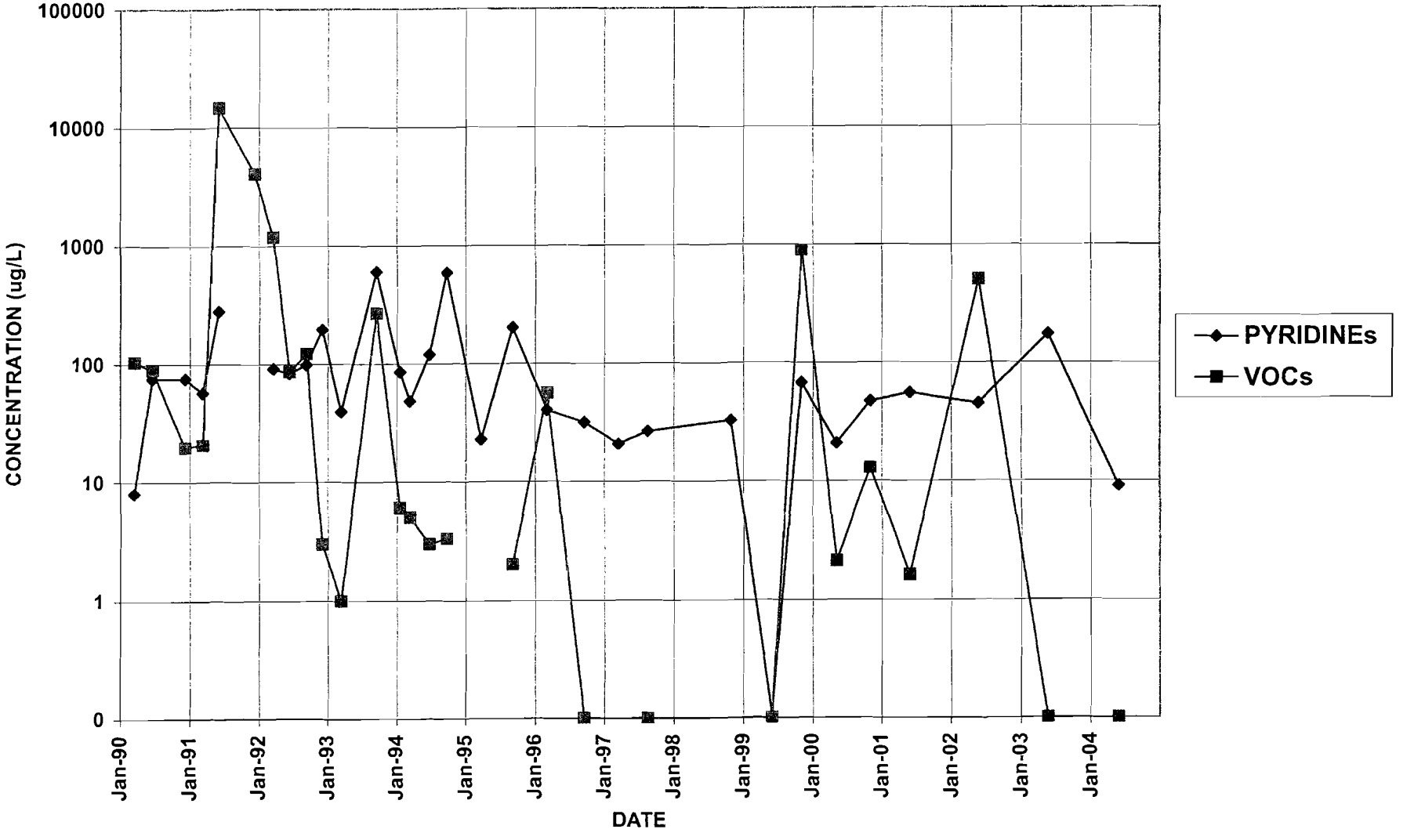
Prepared by: nmb
Reviewed by: jrb

E-1



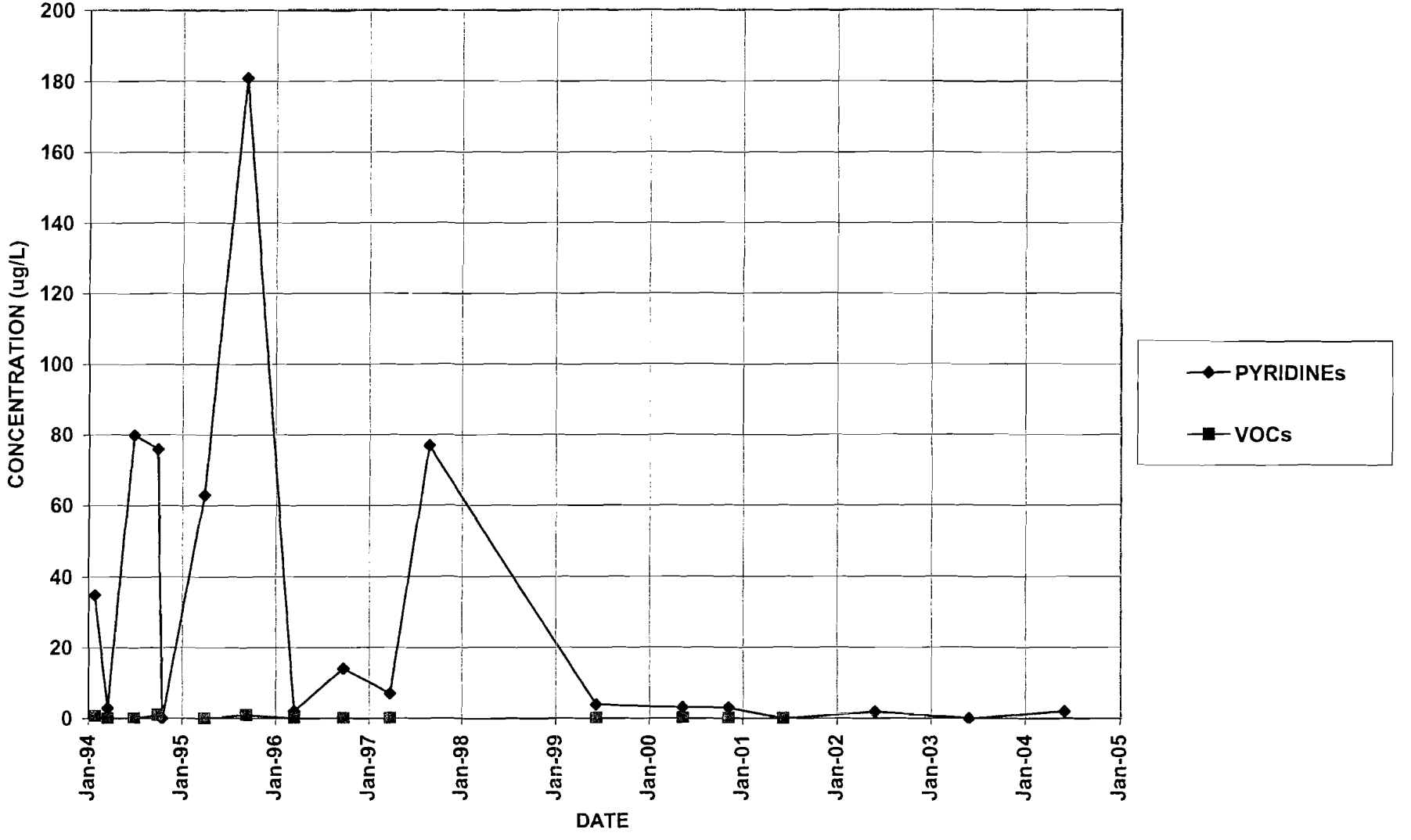
Prepared by: nmb
Reviewed by: jrb

E-3



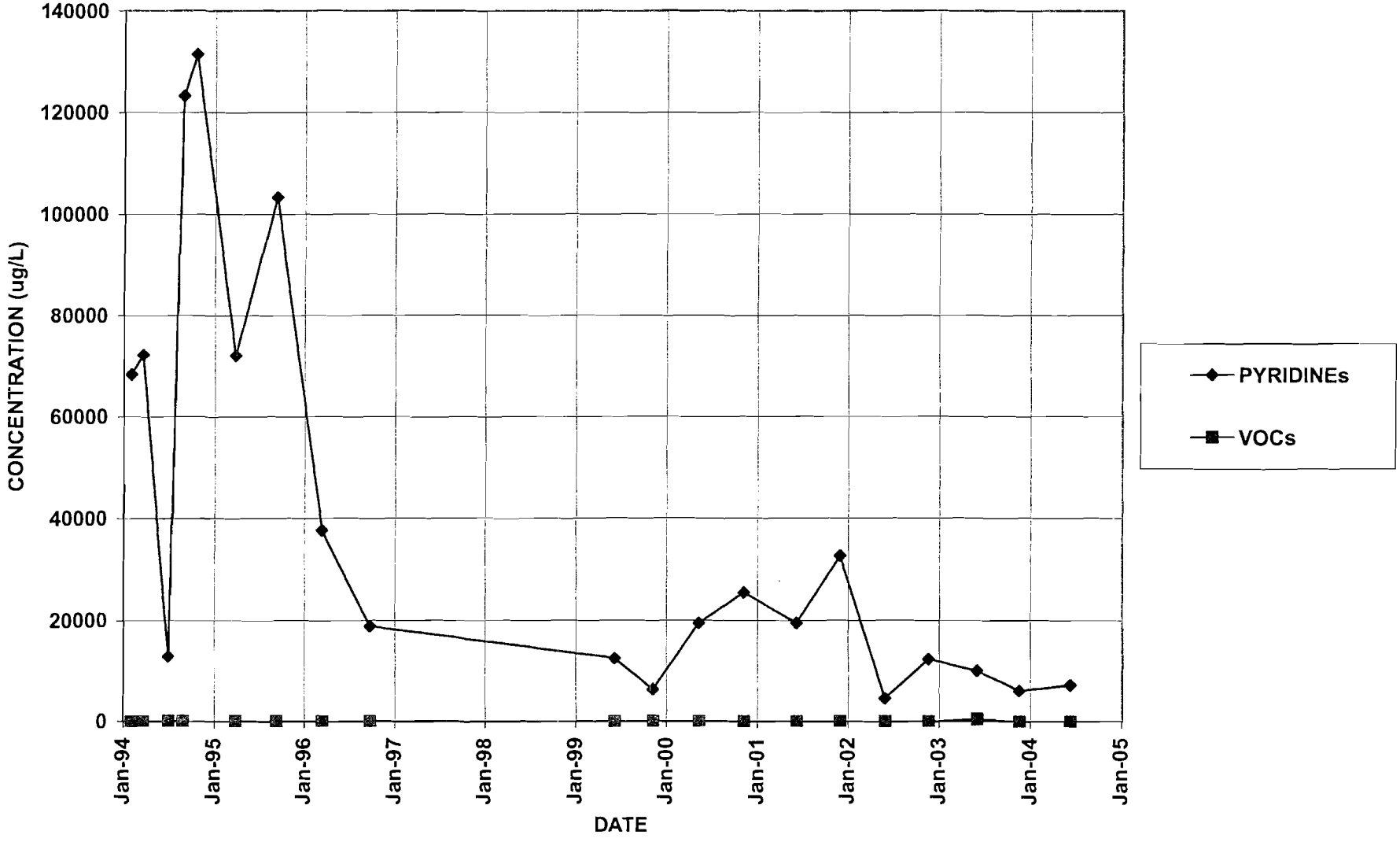
Prepared by: nmb
Reviewed by: jrb

MW-104



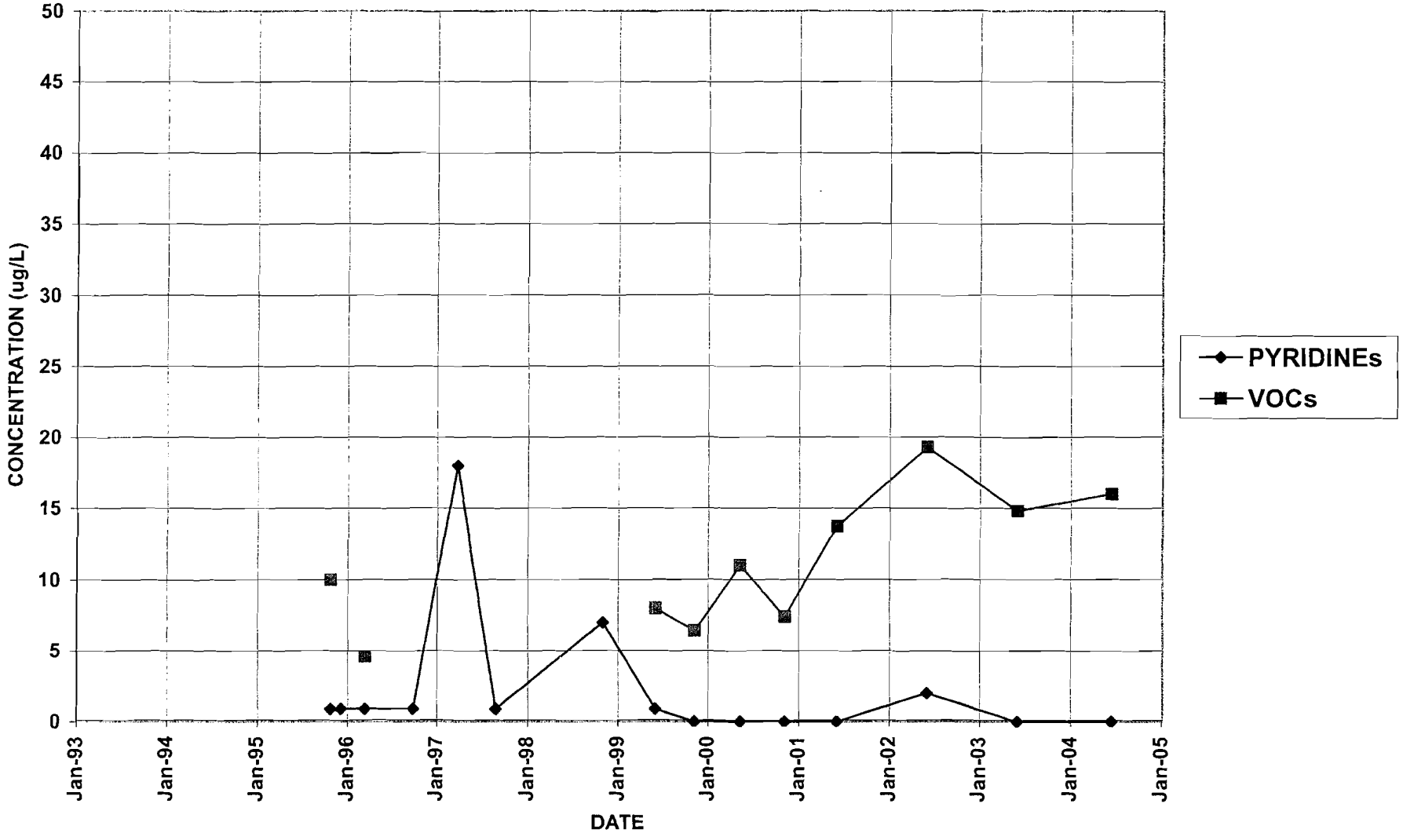
Prepared by: nmb
Reviewed by: jrb

MW-106



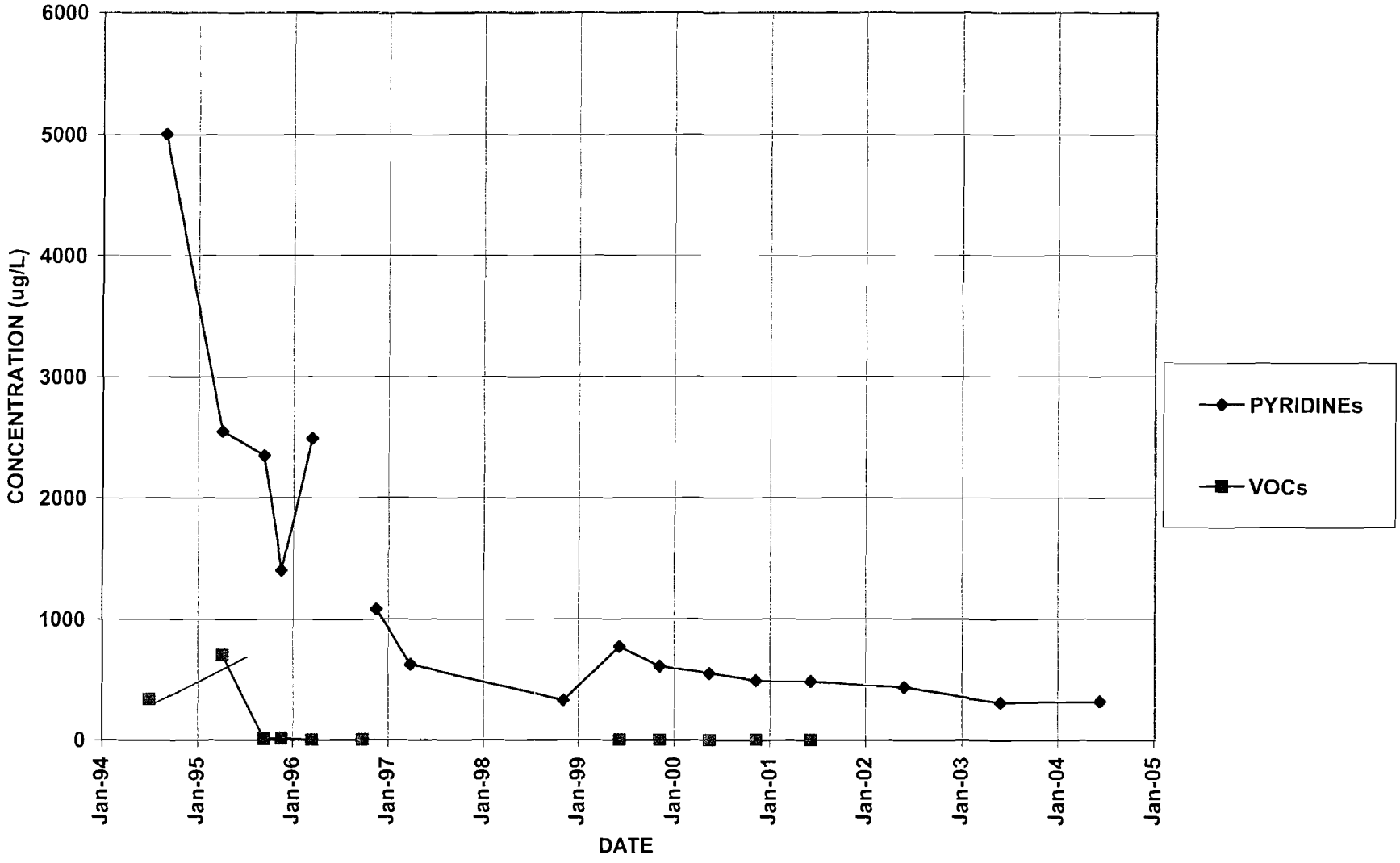
Prepared by: nmb
Reviewed by: jrb

MW-114

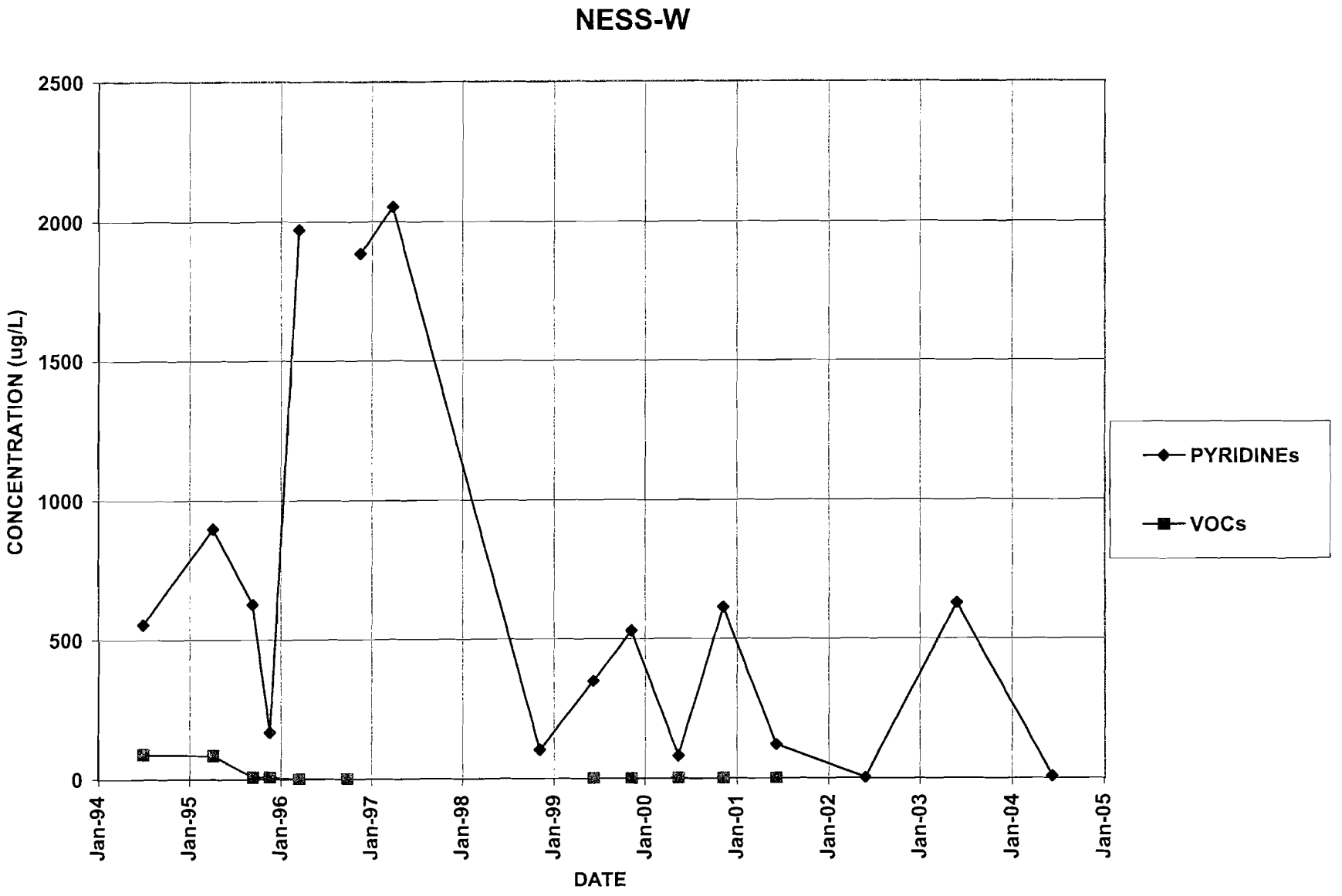


Prepared by: nmb
Reviewed by: jrb

NESS-E

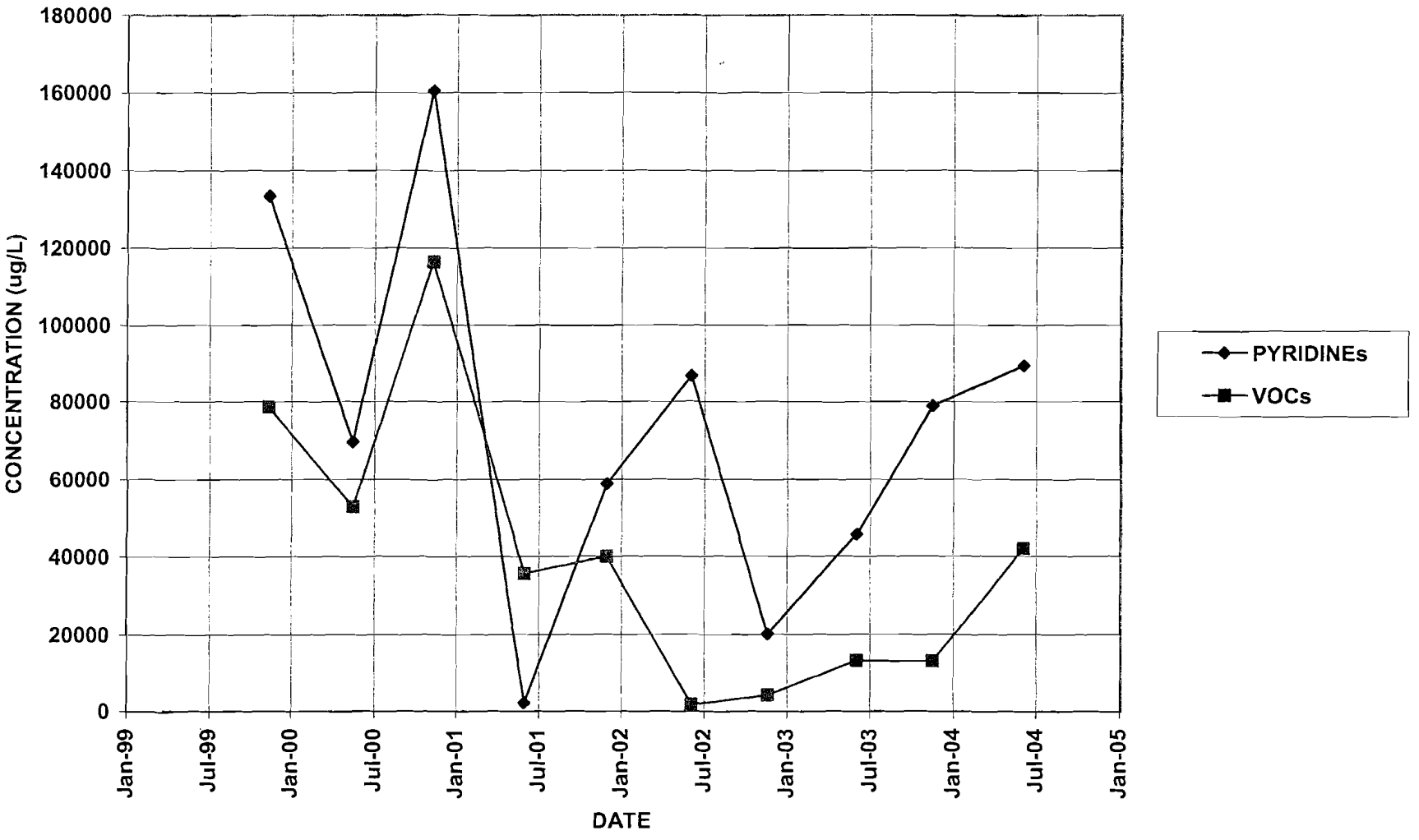


Prepared by: nmb
Reviewed by: jrb



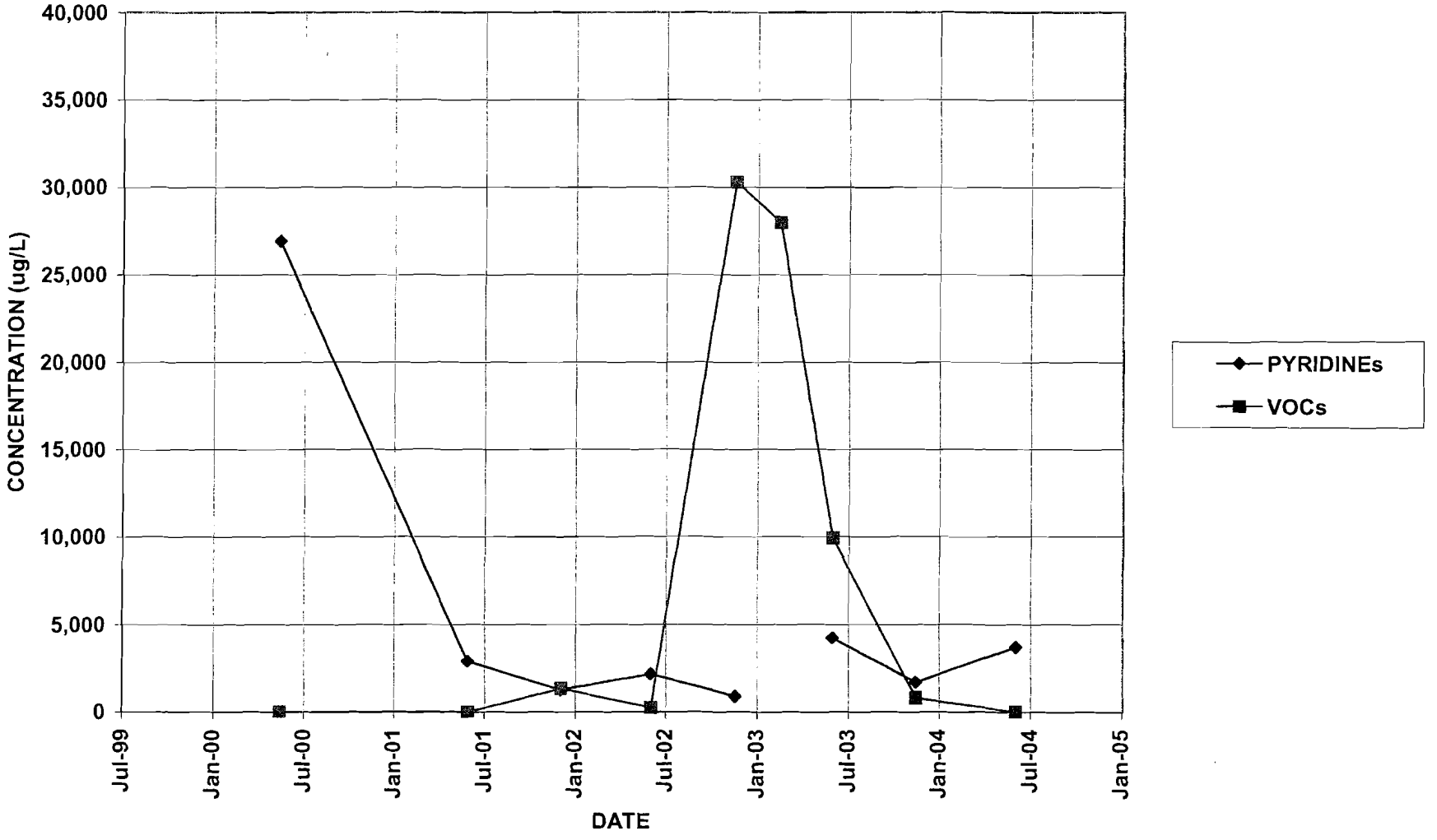
Prepared by: nmb
Reviewed by: jrb

PW10



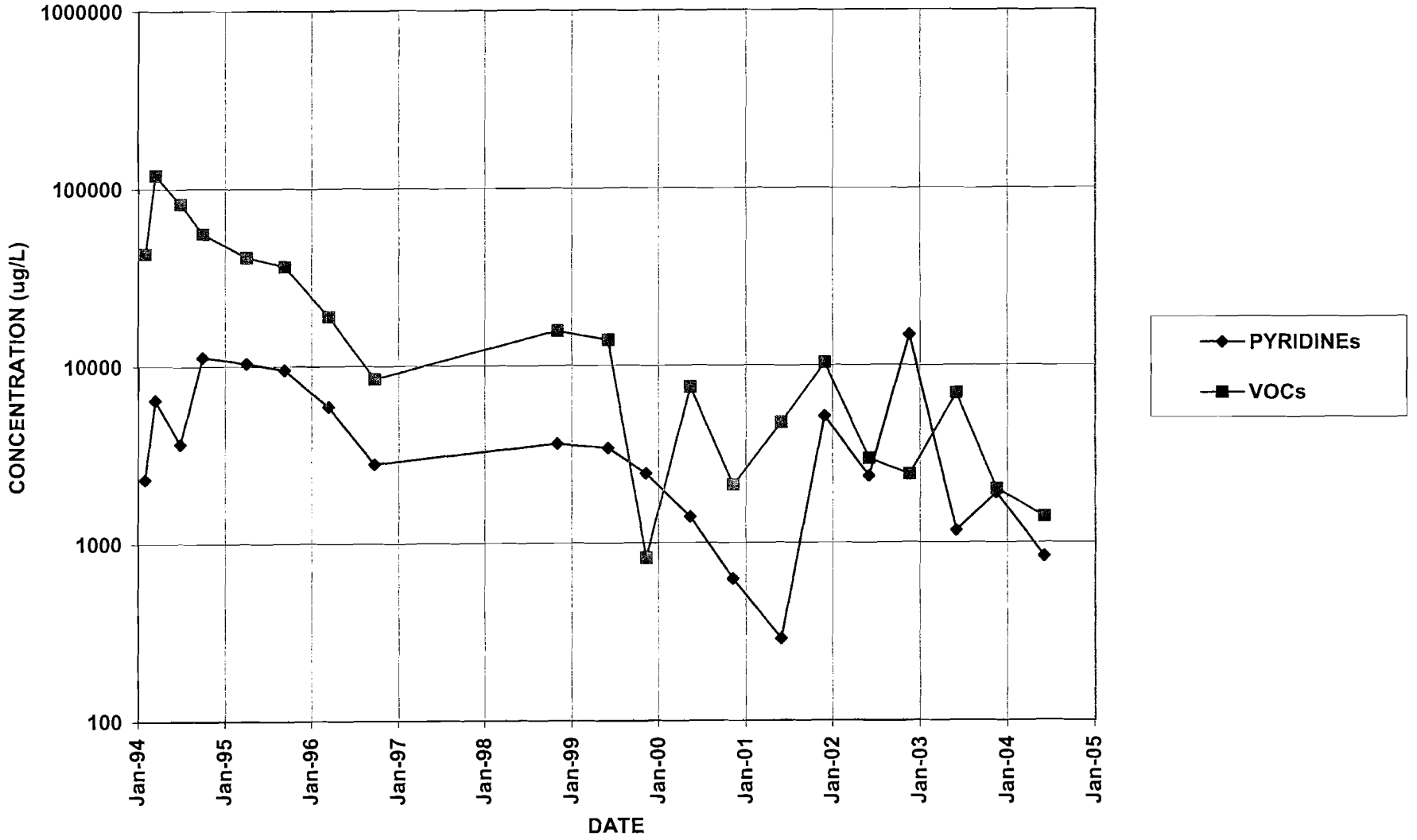
Prepared by: nmb
Reviewed by: jrb

PW11



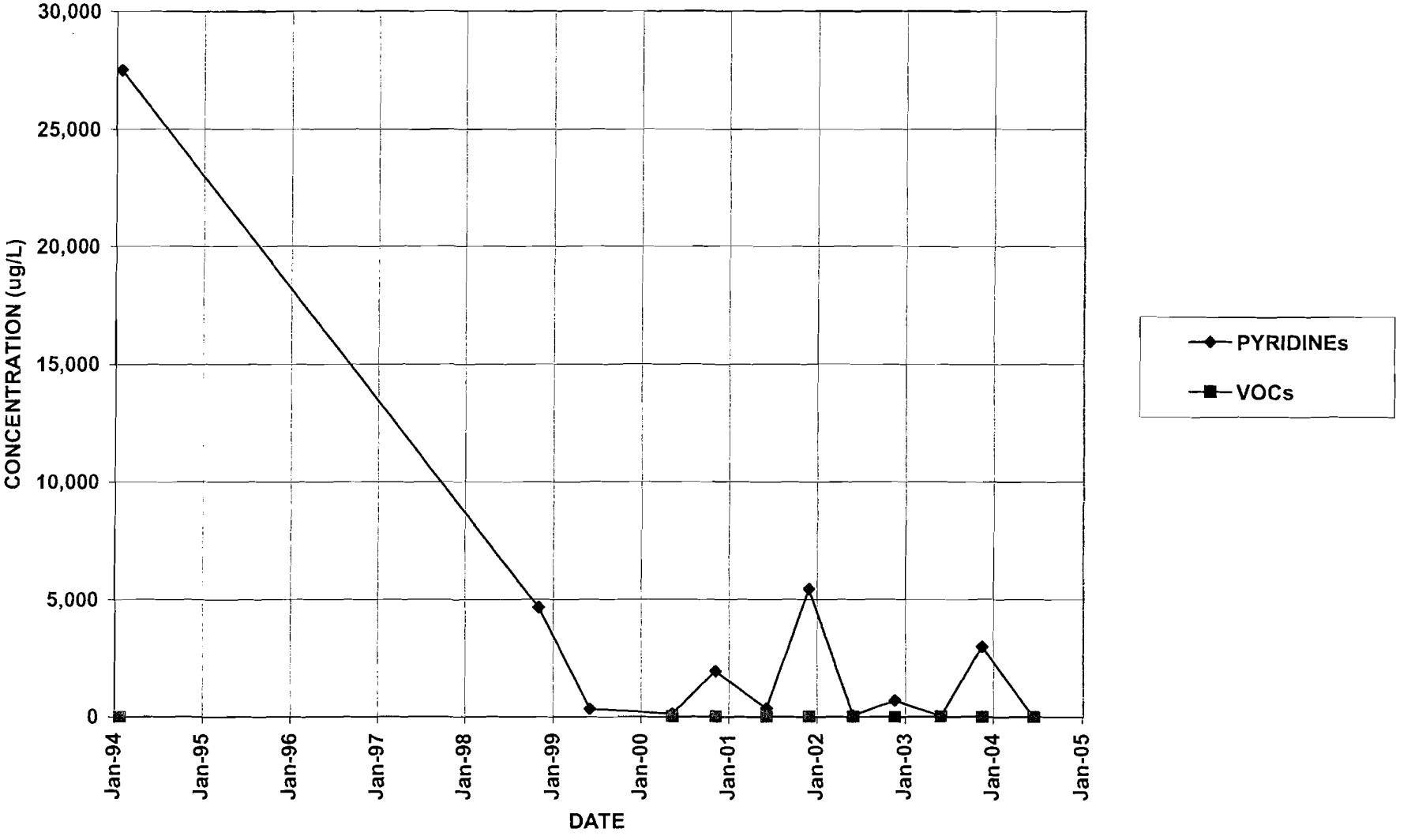
Prepared by: nmb
Reviewed by: jrb

PW12 (Formerly BR-101)



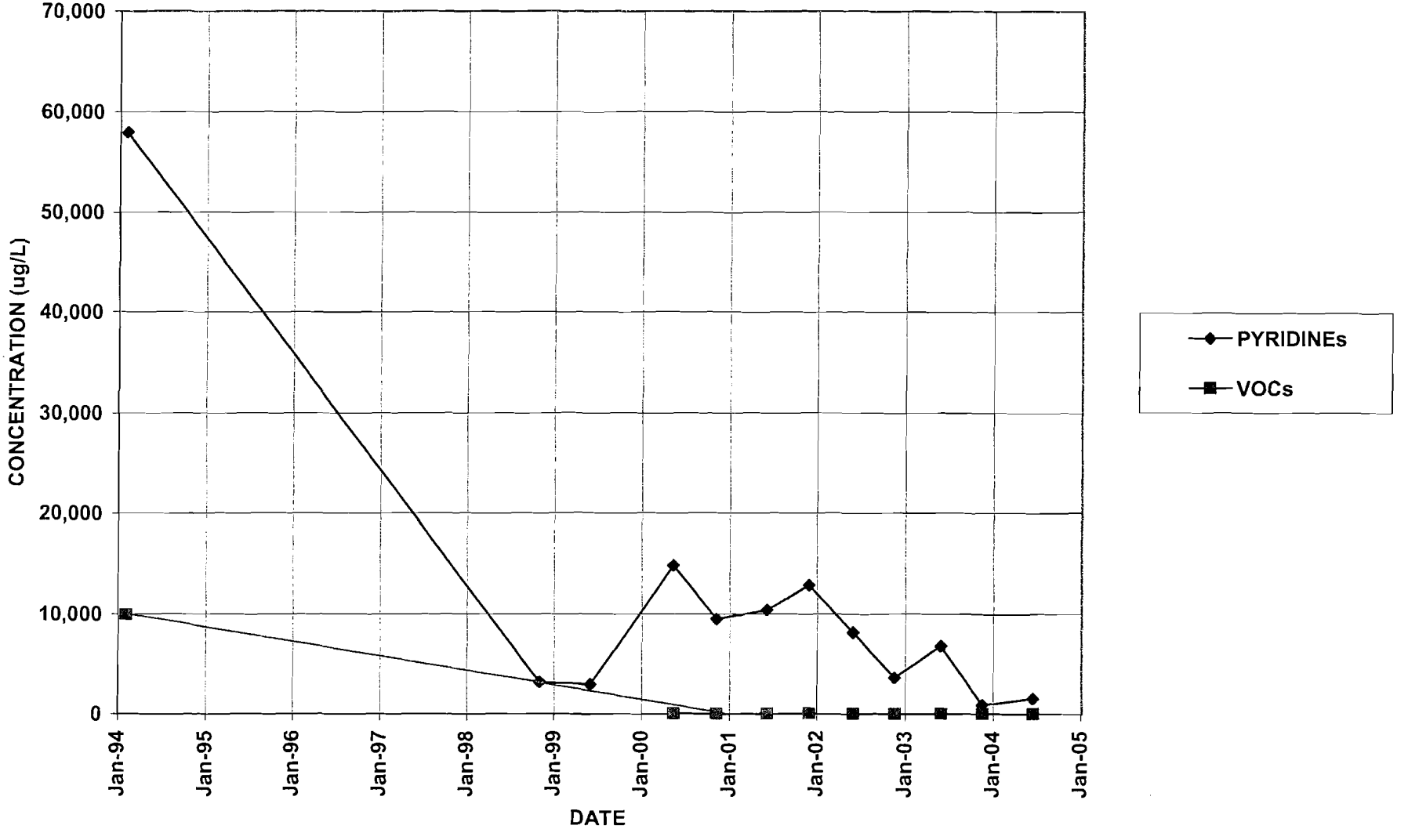
Prepared by: nmb
Reviewed by: jrb

PZ-101



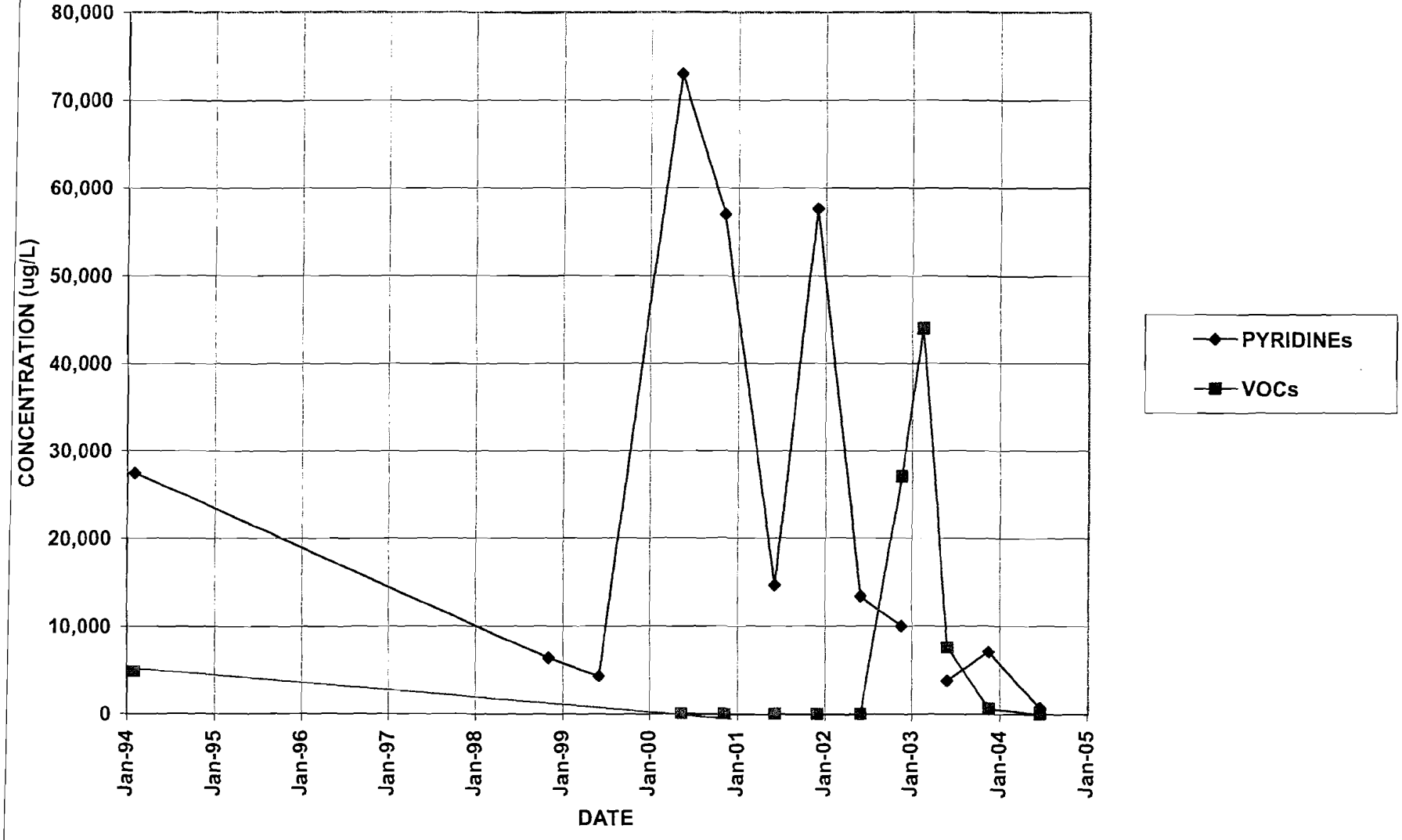
Prepared by: nmb
Reviewed by: jrb

PZ-102



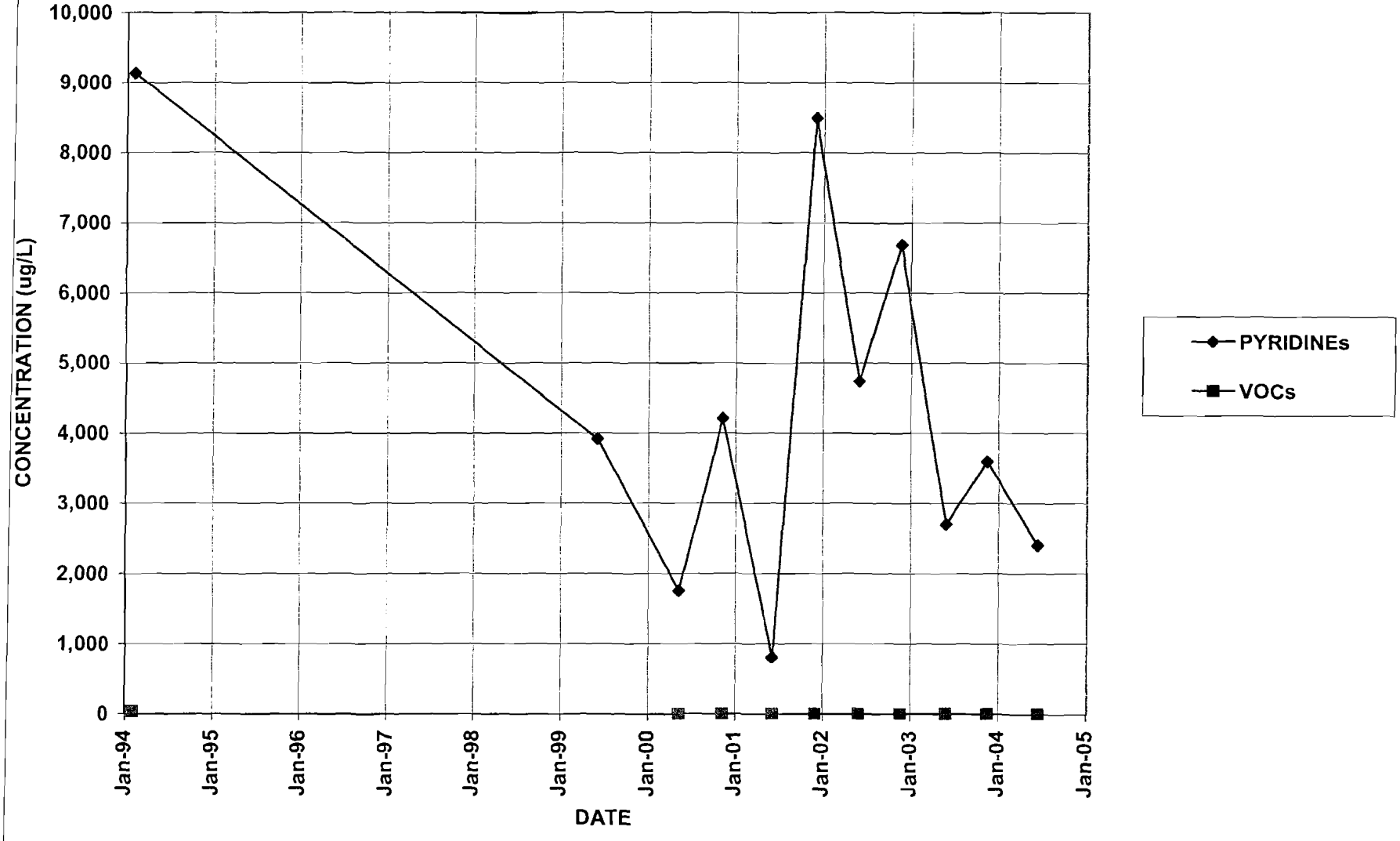
Prepared by: nmb
Reviewed by: jrb

PZ-103



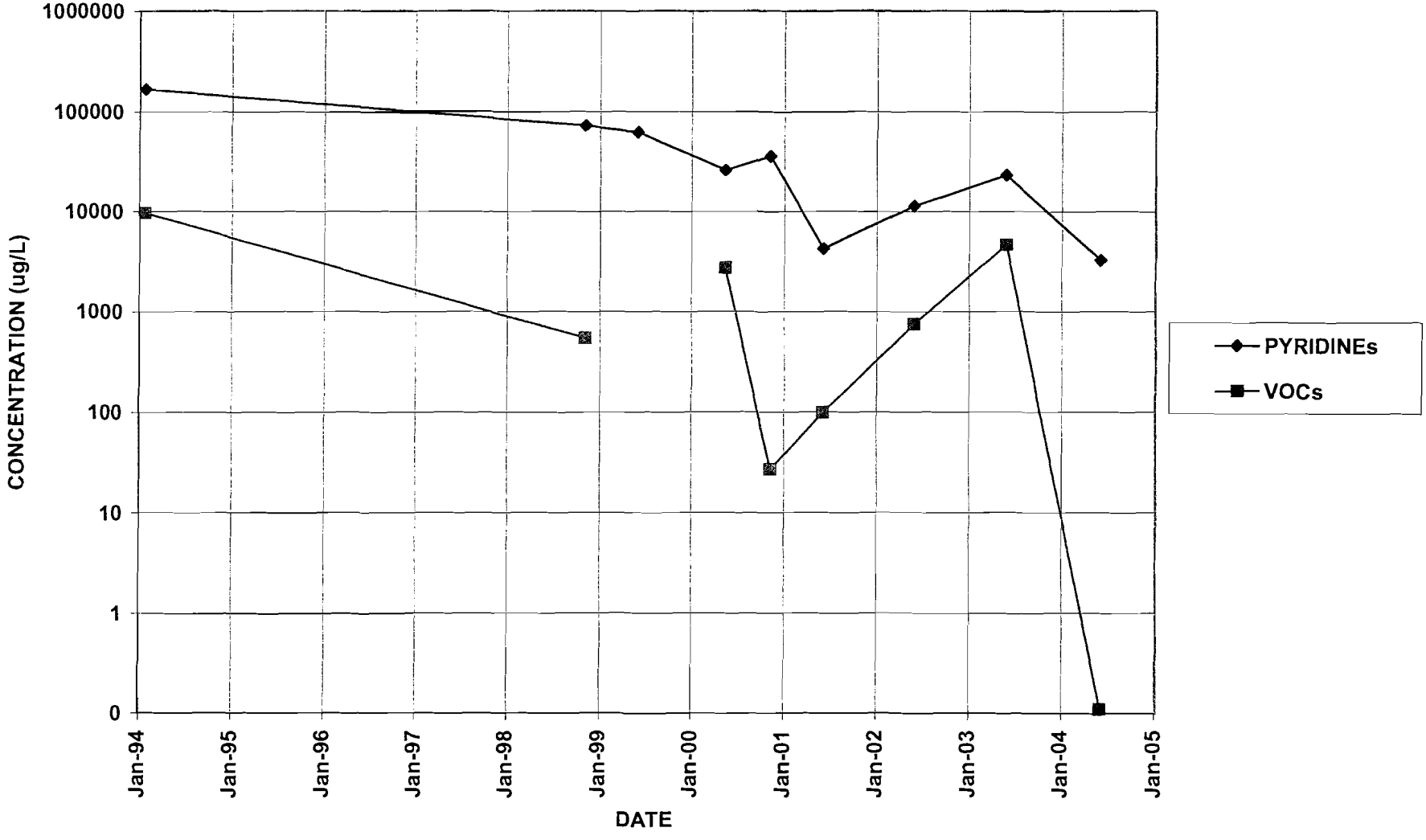
Prepared by: nmb
Reviewed by: jrb

PZ-104



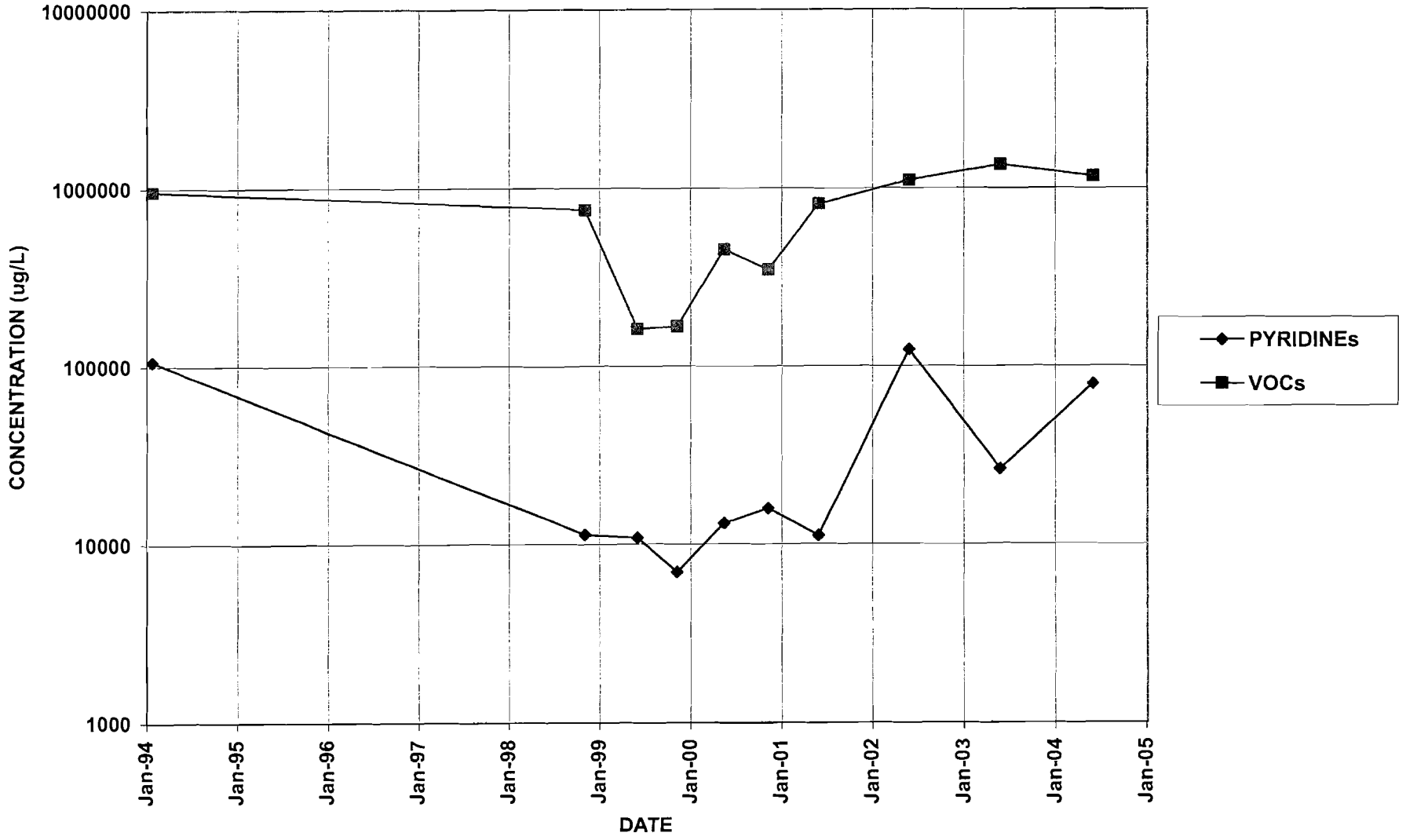
Prepared by: nmb
Reviewed by: jrb

PZ-105



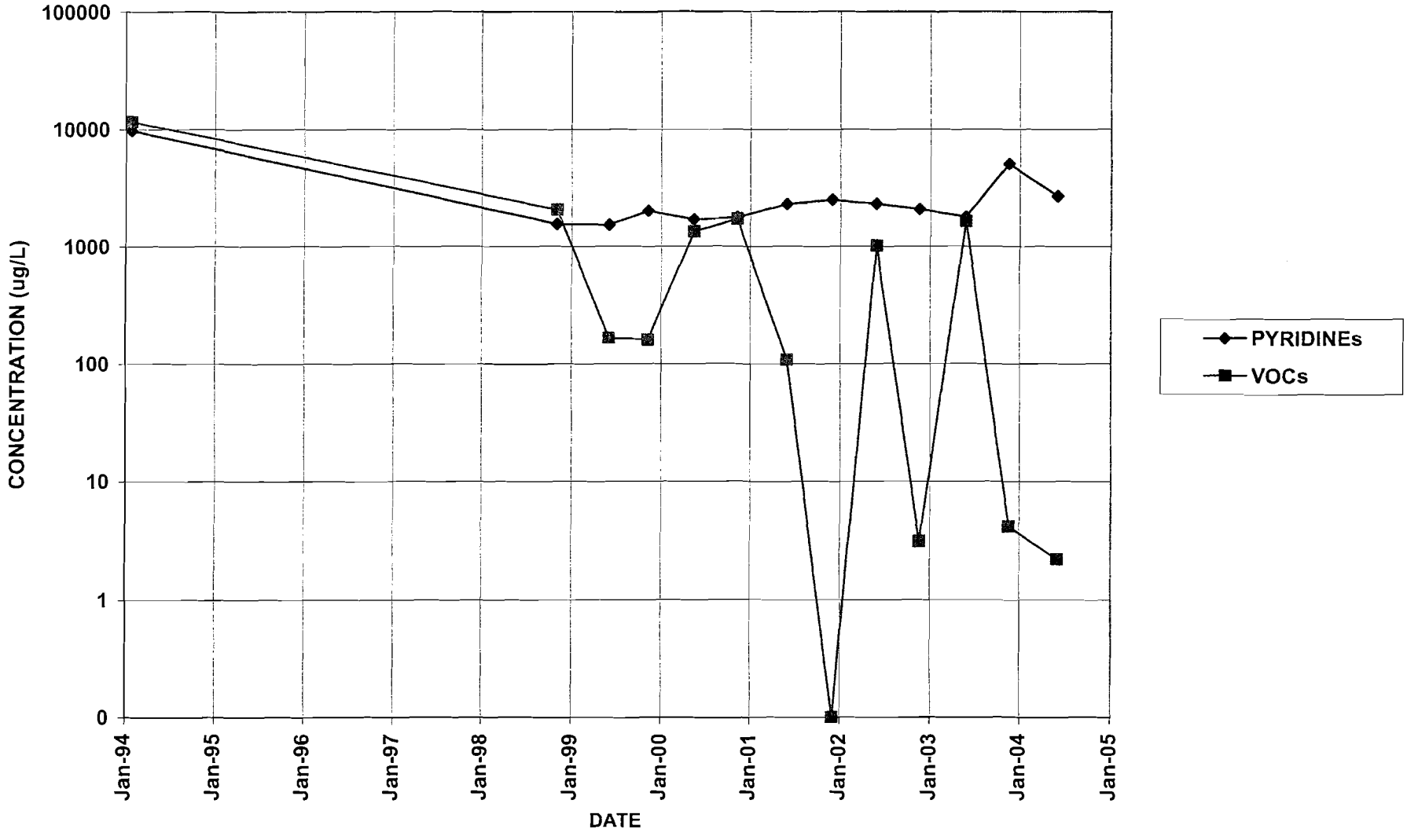
Prepared by: nmb
Reviewed by: jrb

PZ-106



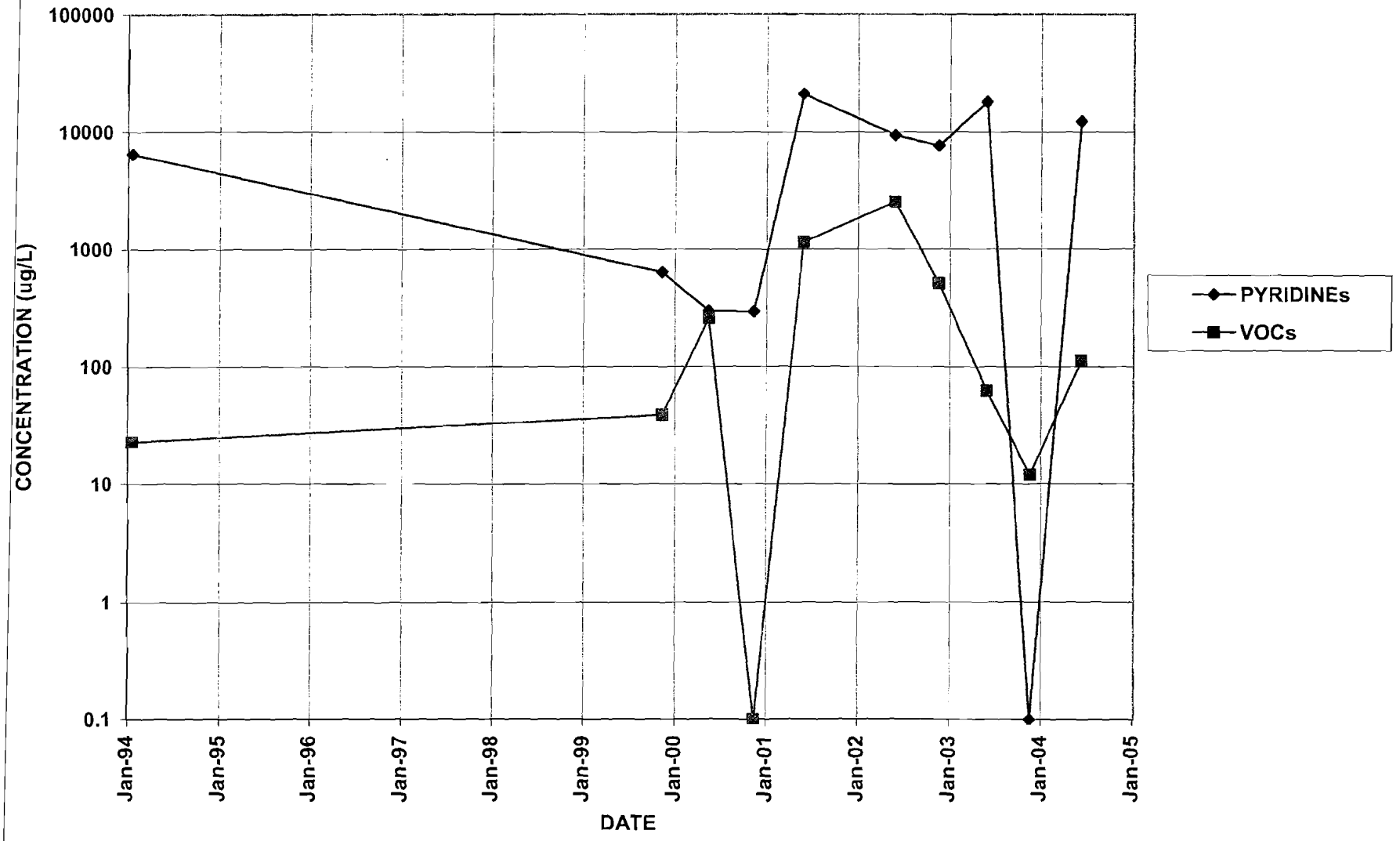
Prepared by: nmb
Reviewed by: jrb

PZ-107



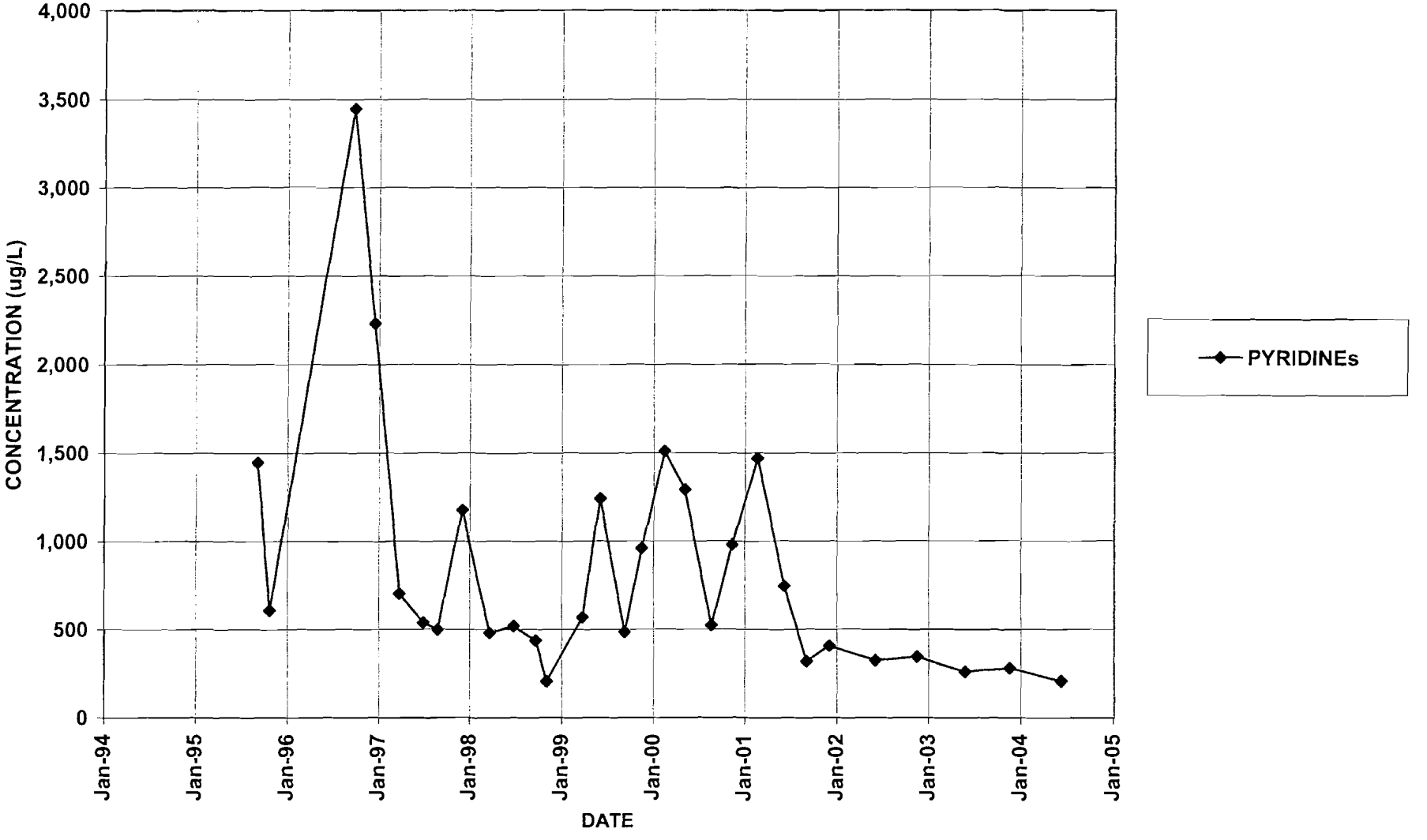
Prepared by: nmb
Reviewed by: jrb

S-3



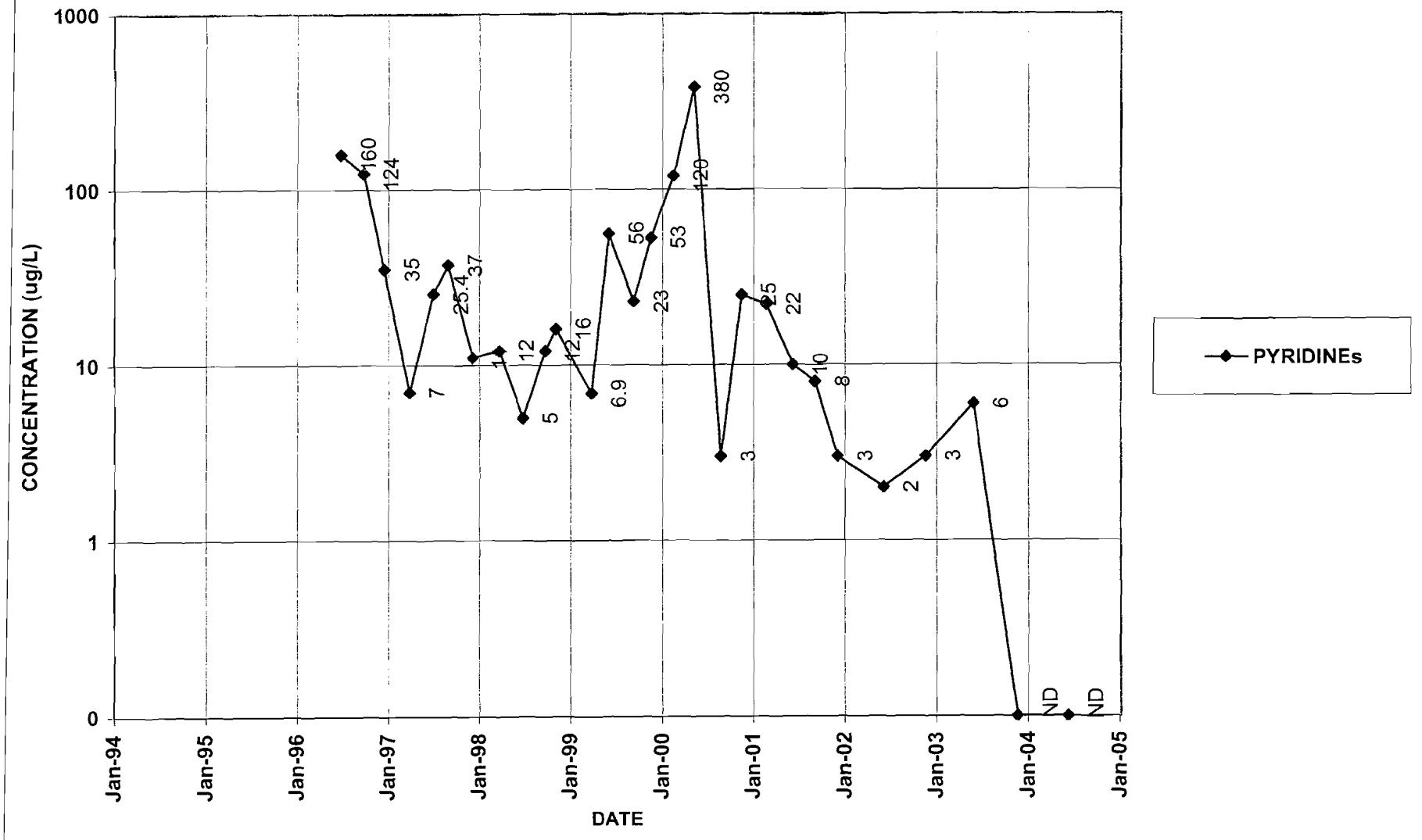
Prepared by: nmb
Reviewed by: jrb

QS-4 (QUARRY SEEP)



Prepared by: nmb
Reviewed by: jrb

QO-2 (QUARRY OUTFALL)



Prepared by: nmb
Reviewed by: jrb

Appendix C

Well B-5 Oil-like Material Analysis

validated 1/13/04

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

ANALYTICAL REPORT

Job#: A03-B436

STL Project#: NY9A8493
Site Name: OLIN ROCHEST
Task: Arch Chemical Site

Ms. Jayme Connolly
Mactec Engineering & Consult
511 Congress St.
Portland, ME 04112

STL Buffalo

Brian J. Fischer
Project Manager

12/22/2003

STL Buffalo
Current Certifications

STATE	Program	Cert # / Lab ID
A2LA (ISO 17025)	SDWA, CWA, RCRA	0732-01
Arizona	SDWA, CWA, RCRA	AZ0525
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP SDWA, CWA, RCRA	01169CA
Canada	GENERAL	SCC 1007-15/10B
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA	10026
North Carolina	CWA	411
North Dakota	SDWA, CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Oregon	NELAP,SDWA, CWA, RCRA	NY200001
Pennsylvania	NELAP, SDWA, CWA, Env. Lab Reg.	68-281
South Carolina	RCRA	91013
Tennessee	SDWA	2970
USDA	FOREIGN SOIL PERMIT	S-4650
Virginia	SDWA	278
Washington	CWA	C254
West Virginia	CWA	252
Wisconsin	CWA	998310390
Wyoming UST	UST	NA

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A3B43601	B-5 sludge	11/17/2003	13:30	11/24/2003	15:30

METHODS SUMMARY

Job#: A03-B436

STL Project#: NY9A8493
Site Name: OLIN_ROCHEST

PARAMETER	ANALYTICAL METHOD
SOIL - METHOD 8260 - TCL VOLATILE ORGANICS	SW8463 8260

References:

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A03-B436

STL Project#: NY9A8493
Site Name: OLIN ROCHEST

General Comments

The enclosed data have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A03-B436
Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

GC/MS Volatile Data

No deviations from protocol were encountered during the analytical procedures.

****

Dilution Log W/Code Information
For Job A03-B436

6\18

Client Sample ID	Lab Sample ID	Parameter (Inorganic)/Method (Organic)	Dilution	Code
B-5 sludge	A3B43601	8260	10.00	004
B-5 sludgeDL	A3B43601DL	8260	100.00	008

Dilution Code Definition:

002 - sample matrix effects
003 - excessive foaming
004 - high levels of non-target compounds
005 - sample matrix resulted in method non-compliance for an Internal Standard
006 - sample matrix resulted in method non-compliance for Surrogate
007 - nature of the TCLP matrix
008 - high concentration of target analyte(s)
009 - sample turbidity
010 - sample color
011 - insufficient volume for lower dilution
012 - sample viscosity
013 - other

DATA COMMENT PAGE

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
1	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
K	Indicates the post digestion spike recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
M	Indicates duplicate injection results exceeded quality control limits.
W	Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
*	Indicates analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Sample Data Package

Date: 12/22/2
Time: 14:13:04

MACTEC - ARC.. CHEMICAL SITE
Arch Chemical Site
SOIL - METHOD 8260 - TCL VOLATILE ORGANICS

Rept: AN0326

Client ID	B-5 sludge	B-5 sludgeDL			
Job No / Lab ID	A03-B436 / A3B43601	A03-B436 / A3B43601DL			
Sample Date	11/17/2003	11/17/2003			

Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/KG	ND	31000	~~ND~~	310000	NA		NA	
Benzene	UG/KG	3100 J	6100	ND	61000	NA		NA	
Bromodichloromethane	UG/KG	ND	6100	ND	61000	NA		NA	
Bromoform	UG/KG	1700 J	6100	ND	61000	NA		NA	
Bromomethane	UG/KG	ND	6100	ND	61000	NA		NA	
2-Butanone	UG/KG	ND	31000	ND	310000	NA		NA	
Carbon Disulfide	UG/KG	ND	6100	ND	61000	NA		NA	
Carbon Tetrachloride	UG/KG	ND	6100	ND	61000	NA		NA	
Chlorobenzene	UG/KG	130000	6100	110000 D	61000	NA		NA	
Chloroethane	UG/KG	ND	6100	ND	61000	NA		NA	
Chloroform	UG/KG	2300 J	6100	ND	61000	NA		NA	
Chloromethane	UG/KG	15000	6100	ND	61000	NA		NA	
Dibromochloromethane	UG/KG	ND	6100	ND	61000	NA		NA	
1,1-Dichloroethane	UG/KG	ND	6100	ND	61000	NA		NA	
1,2-Dichloroethane	UG/KG	ND	6100	ND R	61000	NA		NA	
1,1-Dichloroethene	UG/KG	ND	6100	ND	61000	NA		NA	
cis-1,2-Dichloroethene	UG/KG	ND	6100	ND	61000	NA		NA	
trans-1,2-Dichloroethene	UG/KG	ND	6100	ND	61000	NA		NA	
1,2-Dichloropropane	UG/KG	ND	6100	ND	61000	NA		NA	
cis-1,3-Dichloropropene	UG/KG	ND	6100	ND	61000	NA		NA	
trans-1,3-Dichloropropene	UG/KG	ND	6100	ND	61000	NA		NA	
Ethylbenzene	UG/KG	6400	6100	ND	61000	NA		NA	
2-Hexanone	UG/KG	ND	31000	ND	310000	NA		NA	
Methylene chloride	UG/KG	ND	6100	ND	61000	NA		NA	
4-Methyl-2-pentanone	UG/KG	ND	31000	ND	310000	NA		NA	
Styrene	UG/KG	ND	6100	ND	61000	NA		NA	
1,1,2,2-Tetrachloroethane	UG/KG	ND	6100	ND	61000	NA		NA	
Tetrachloroethene	UG/KG	6700	6100	~~ND~~	61000	NA		NA	
Toluene	UG/KG	~~980000 E~~ R	6100	2200000 D ✓	61000	NA		NA	
1,1,1-Trichloroethane	UG/KG	8300	6100	~~ND~~	61000	NA		NA	
1,1,2-Trichloroethane	UG/KG	ND	6100	ND	61000	NA		NA	
Trichloroethene	UG/KG	ND	6100	ND	61000	NA		NA	
Vinyl acetate	UG/KG	ND	31000	ND R	310000	NA		NA	
Vinyl chloride	UG/KG	ND	12000	ND	120000	NA		NA	
Total Xylenes	UG/KG	6300 J	18000	~~ND~~	180000	NA		NA	
IS/SURROGATE(S)									
Chlorobenzene-D5	%	108	50-200	104	50-200	NA		NA	
1,4-Difluorobenzene	%	107	50-200	104	50-200	NA		NA	
1,4-Dichlorobenzene-D4	%	105	50-200	100	50-200	NA		NA	
Toluene-D8	%	93	71-125	95	71-125	NA		NA	
p-Bromofluorobenzene	%	89	68-124	90	68-124	NA		NA	
1,2-Dichloroethane-D4	%	99	61-136	102	61-136	NA		NA	

9\18 ✓

11/13/04 BLD

NA = Not Applicable ND = Not Detected

STL Buffalo

Chronology and QC Summary Package

Client ID		VBLK10							
Job No	Lab ID	A03-B436	A3B43602						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/KG	ND	3100	NA		NA		NA	
Benzene	UG/KG	ND	620	NA		NA		NA	
Bromodichloromethane	UG/KG	ND	620	NA		NA		NA	
Bromoform	UG/KG	ND	620	NA		NA		NA	
Bromomethane	UG/KG	ND	620	NA		NA		NA	
2-Butanone	UG/KG	ND	3100	NA		NA		NA	
Carbon Disulfide	UG/KG	ND	620	NA		NA		NA	
Carbon Tetrachloride	UG/KG	ND	620	NA		NA		NA	
Chlorobenzene	UG/KG	ND	620	NA		NA		NA	
Chloroethane	UG/KG	ND	620	NA		NA		NA	
Chloroform	UG/KG	ND	620	NA		NA		NA	
Chloromethane	UG/KG	ND	620	NA		NA		NA	
Dibromochloromethane	UG/KG	ND	620	NA		NA		NA	
1,1-Dichloroethane	UG/KG	ND	620	NA		NA		NA	
1,2-Dichloroethane	UG/KG	ND	620	NA		NA		NA	
1,1-Dichloroethene	UG/KG	ND	620	NA		NA		NA	
cis-1,2-Dichloroethene	UG/KG	ND	620	NA		NA		NA	
trans-1,2-Dichloroethene	UG/KG	ND	620	NA		NA		NA	
1,2-Dichloropropane	UG/KG	ND	620	NA		NA		NA	
cis-1,3-Dichloropropene	UG/KG	ND	620	NA		NA		NA	
trans-1,3-Dichloropropene	UG/KG	ND	620	NA		NA		NA	
Ethylbenzene	UG/KG	ND	620	NA		NA		NA	
2-Hexanone	UG/KG	ND	3100	NA		NA		NA	
Methylene chloride	UG/KG	ND	620	NA		NA		NA	
4-Methyl-2-pentanone	UG/KG	ND	3100	NA		NA		NA	
Styrene	UG/KG	ND	620	NA		NA		NA	
1,1,2,2-Tetrachloroethane	UG/KG	ND	620	NA		NA		NA	
Tetrachloroethene	UG/KG	ND	620	NA		NA		NA	
Toluene	UG/KG	ND	620	NA		NA		NA	
1,1,1-Trichloroethane	UG/KG	ND	620	NA		NA		NA	
1,1,2-Trichloroethane	UG/KG	ND	620	NA		NA		NA	
Trichloroethene	UG/KG	ND	620	NA		NA		NA	
Vinyl acetate	UG/KG	ND	3100	NA		NA		NA	
Vinyl chloride	UG/KG	ND	1200	NA		NA		NA	
Total Xylenes	UG/KG	ND	1900	NA		NA		NA	
IS/SURROGATE(S)									
Chlorobenzene-D5	%	98	50-200	NA		NA		NA	
1,4-Difluorobenzene	%	97	50-200	NA		NA		NA	
1,4-Dichlorobenzene-D4	%	93	50-200	NA		NA		NA	
Toluene-D8	%	94	71-125	NA		NA		NA	
p-Bromofluorobenzene	%	85	68-124	NA		NA		NA	
1,2-Dichloroethane-D4	%	104	61-136	NA		NA		NA	

11\18

NA = Not Applicable ND = Not Detected

Client ID		MSB10							
Job No	Lab ID	A03-B436	A3843603						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/KG	38000	3100	NA		NA		NA	
Benzene	UG/KG	6700	620	NA		NA		NA	
Bromodichloromethane	UG/KG	6600	620	NA		NA		NA	
Bromoform	UG/KG	6900	620	NA		NA		NA	
Bromomethane	UG/KG	4700	620	NA		NA		NA	
2-Butanone	UG/KG	39000	3100	NA		NA		NA	
Carbon Disulfide	UG/KG	6600	620	NA		NA		NA	
Carbon Tetrachloride	UG/KG	6800	620	NA		NA		NA	
Chlorobenzene	UG/KG	6400	620	NA		NA		NA	
Chloroethane	UG/KG	6100	620	NA		NA		NA	
Chloroform	UG/KG	6600	620	NA		NA		NA	
Chloromethane	UG/KG	5300	620	NA		NA		NA	
Dibromochloromethane	UG/KG	6600	620	NA		NA		NA	
1,1-Dichloroethane	UG/KG	6600	620	NA		NA		NA	
1,2-Dichloroethane	UG/KG	6800	620	NA		NA		NA	
1,1-Dichloroethene	UG/KG	6700	620	NA		NA		NA	
cis-1,2-Dichloroethene	UG/KG	6600	620	NA		NA		NA	
trans-1,2-Dichloroethene	UG/KG	6600	620	NA		NA		NA	
1,2-Dichloropropane	UG/KG	6500	620	NA		NA		NA	
cis-1,3-Dichloropropene	UG/KG	6600	620	NA		NA		NA	
trans-1,3-Dichloropropene	UG/KG	6600	620	NA		NA		NA	
Ethylbenzene	UG/KG	6600	620	NA		NA		NA	
2-Hexanone	UG/KG	39000	3100	NA		NA		NA	
Methylene chloride	UG/KG	6500	620	NA		NA		NA	
4-Methyl-2-pentanone	UG/KG	39000	3100	NA		NA		NA	
Styrene	UG/KG	6500	620	NA		NA		NA	
1,1,2,2-Tetrachloroethane	UG/KG	6900	620	NA		NA		NA	
Tetrachloroethene	UG/KG	6400	620	NA		NA		NA	
Toluene	UG/KG	6500	620	NA		NA		NA	
1,1,1-Trichloroethane	UG/KG	6800	620	NA		NA		NA	
1,1,2-Trichloroethane	UG/KG	6500	620	NA		NA		NA	
Trichloroethene	UG/KG	6700	620	NA		NA		NA	
Vinyl acetate	UG/KG	38000	3100	NA		NA		NA	
Vinyl chloride	UG/KG	6100	1200	NA		NA		NA	
Total Xylenes	UG/KG	19000	1900	NA		NA		NA	
===IS/SURROGATE(S)===									
Chlorobenzene-D5	%	113	50-200	NA		NA		NA	
1,4-Difluorobenzene	%	113	50-200	NA		NA		NA	
1,4-Dichlorobenzene-D4	%	110	50-200	NA		NA		NA	
Toluene-D8	%	97	71-125	NA		NA		NA	
p-Bromofluorobenzene	%	90	68-124	NA		NA		NA	
1,2-Dichloroethane-D4	%	99	61-136	NA		NA		NA	

12\18

NA = Not Applicable ND = Not Detected

Client Sample ID: VBLK10 MSB10
Lab Sample ID: A3B43602 A3B43603

Analyte	Units of Measure	Concentration Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
SOIL - METHOD 8260 - TCL VOLATILE ORGANI					
1,1-Dichloroethene	UG/KG	6722	6250	108	65-146
Trichloroethene	UG/KG	6687	6250	107	74-127
Benzene	UG/KG	6705	6250	107	74-128
Toluene	UG/KG	6481	6250	104	74-123
Chlorobenzene	UG/KG	6388	6250	102	76-124

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

SOIL - METHOD 8260 - TCL VOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	B-5 sludge A03-B436 A3B43601	B-5 sludgeDL A03-B436 A3B43601DL			
Sample Date	11/17/2003 13:30	11/17/2003 13:30			
Received Date	11/24/2003 15:30	11/24/2003 15:30			
Extraction Date					
Analysis Date	11/26/2003 14:43	11/26/2003 19:31			
Extraction HT Met?	-	-			
Analytical HT Met?	YES	YES			
Sample Matrix	SOTHER	SOTHER			
Dilution Factor	10.0	100.0			
Sample wt/vol	4.07 GRAMS	4.07 GRAMS			
% Dry	100.00	100.00			

14\18

NA = Not Applicable

SOIL - METHOD 8260 - TCL VOLATILE ORGANICS

Client Sample ID	MSB10				
Job No & Lab Sample ID	A03-8436 A3B43603				
Sample Date					
Received Date					
Extraction Date					
Analysis Date	11/26/2003 17:07				
Extraction HT Met?	-				
Analytical HT Met?	-				
Sample Matrix	SOIL MED				
Dilution Factor	1.0				
Sample wt/vol	4.0 GRAMS				
% Dry	100.00				

15\18

NA = Not Applicable

SOIL - METHOD 8260 - TCL VOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	VBLK10 A03-B436 A3B43602				
Sample Date					
Received Date					
Extraction Date					
Analysis Date	11/26/2003 11:40				
Extraction HT Met?	-				
Analytical HT Met?	-				
Sample Matrix	SOIL MED				
Dilution Factor	1.0				
Sample wt/vol	4.0 GRAMS				
% Dry	100.00				

NA = Not Applicable

Chain of Custody

Chain of Custody Record

SEVERN TRENT SERVICES — **Severn Trent Laboratories, Inc.**

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
ARCH Chemical	BJF		112288
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Project Name and Location (State)	**Carrier/Waybill Number**		
ARCH			
Contract/Purchase Order/Quote No.			
WYQA8493.1			

Analysis (Attach list if more space is needed)

8260 VOA 4oz GC

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis	Special Instructions/ Conditions of Receipt
B-5 SLUDGE	11-17-03	1330					X						1	Test Bottom Layer (Black)

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other_____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	11-24-03	1530	1. Received By	11/24/03	15:30
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

20°C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

1818

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

ANALYTICAL REPORT

Job#: A04-0341

STL Project#: NY9A8493
Site Name: OLIN ROCHEST
Task: Arch Chemical Site

Ms. Jayme Connolly
Mactec Engineering & Consult
511 Congress St.
Portland, ME 04112

STL Buffalo .

Brian J. Fischer
Project Manager

01/27/2004

STL Buffalo
Current Certifications

STATE	Program	Cert # / Lab ID
A2LA (ISO 17025)	SDWA, CWA, RCRA	0732-01
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP CWA, RCRA	01169CA
Canada	GENERAL	SCC 1007-15/10B
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP CWA, RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA	10026
North Carolina	CWA	411
North Dakota	SDWA, CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Pennsylvania	Env. Lab Reg.	68-281
South Carolina	RCRA	91013
Tennessee	SDWA	2970
USDA	FOREIGN SOIL PERMIT	S-4650
Virginia	SDWA	278
Washington	CWA, RCRA	C254
West Virginia	CWA	252
Wisconsin	CWA, RCRA	998310390
Wyoming UST	UST	NA

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A3B43601	B-5 sludge	11/17/2003	13:30	01/14/2004	10:25

METHODS SUMMARY

Job#: A04-0341

STL Project#: NY9A8493
Site Name: OLIN ROCHEST

PARAMETER	ANALYTICAL METHOD
METHOD 310.13 - PETROLEUM PRODUCTS	NYSDOH 31013

References:

NYSDOH "Compendium of Methods", New York State Department of Health, Wadsworth Center for Laboratories and Research.

NON-CONFORMANCE SUMMARY

Job#: A04-0341

STL Project#: NY9A8493
Site Name: OLIN ROCHEST

General Comments

The enclosed data have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A04-0341
Sample Cooler(s) were received at the following temperature(s); 2.0 °C
** Sample was previously housed under job #A03-B436.

GC Extractable Data

For method 310-13 Petroleum Products, sample B-5 sludge is reported as ND (Non-Detect) for 6 common products. The sample, however, does exhibit a presence of unknown hydrocarbons in the routinely reported scan range.

****

DATA COMMENT PAGE

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
[1]	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
K	Indicates the post digestion spike recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
M	Indicates duplicate injection results exceeded quality control limits.
W	Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
*	Indicates analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Sample Data Package

Client ID		B-5 sludge							
Job No	Lab ID	A04-0341	A3B43601						
Sample Date		11/17/2003							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Kerosene	MG/KG	ND	2300	NA		NA		NA	
Gasoline	MG/KG	ND	2300	NA		NA		NA	
Motor Oil	MG/KG	ND	2300	NA		NA		NA	
Fuel Oil #2	MG/KG	ND	2300	NA		NA		NA	
Fuel Oil #4	MG/KG	ND	2300	NA		NA		NA	
Fuel Oil #6	MG/KG	ND	2300	NA		NA		NA	
Other-1	MG/KG	ND	23000	NA		NA		NA	

8/17

NA = Not Applicable ND = Not Detected

Chronology and QC Summary Package

Client ID Job No Sample Date	Lab ID	Method Blank A04-0341	A4B0473403						
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Kerosene	MG/KG	ND	3000	NA		NA		NA	
Gasoline	MG/KG	ND	3000	NA		NA		NA	
Motor Oil	MG/KG	ND	3000	NA		NA		NA	
Fuel Oil #2	MG/KG	ND	3000	NA		NA		NA	
Fuel Oil #4	MG/KG	ND	3000	NA		NA		NA	
Fuel Oil #6	MG/KG	ND	3000	NA		NA		NA	
Other-1	MG/KG	ND	30000	NA		NA		NA	

10/17

NA = Not Applicable ND = Not Detected

MACTEC - ARC... CHEMICAL SITE
Arch Chemical Site
METHOD 310.13 - PETROLEUM PRODUCTS

Client ID Job No Lab ID Sample Date		Matrix Spike Blank A04-0341 A4B0473401		Matrix Spike Blk Dup A04-0341 A4B0473402					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Kerosene	MG/KG	ND	3000	ND	3000	NA		NA	
Gasoline	MG/KG	ND	3000	ND	3000	NA		NA	
Motor Oil	MG/KG	ND	3000	ND	3000	NA		NA	
Fuel Oil #2	MG/KG	15000	3000	14000	3000	NA		NA	
Fuel Oil #4	MG/KG	ND	3000	ND	3000	NA		NA	
Fuel Oil #6	MG/KG	ND	3000	ND	3000	NA		NA	
Other-1	MG/KG	ND	30000	ND	30000	NA		NA	

11/17

NA = Not Applicable ND = Not Detected

Client Sample ID: Method Blank
Lab Sample ID: A4B0473403

Matrix Spike Blank
A4B0473401

Matrix Spike Blk Dup
A4B0473402

Analyte	Units of Measure	Concentration		Spike Amount		% Recovery			% RPD	QC LIMITS	
		Spike Blank	Spike Blank Dup	SB	SBD	SB	SBD	Avg		RPD	REC.
METHOD 310.13 - PETROLEUM PRODUCTS											
Fuel Oil #2	MG/KG	14850	14280	15000	15000	99	95	97	4	35.0	50-150

12/17

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

METHOD 310.13 - PETROLEUM PRODUCTS

Client Sample ID Job No & Lab Sample ID	B-5 sludge A04-0341 A3B43601				
Sample Date	11/17/2003 13:30				
Received Date	01/14/2004 10:25				
Extraction Date	01/14/2004 07:00				
Analysis Date	01/15/2004				
Extraction HT Met?	NO				
Analytical HT Met?	YES				
Sample Matrix	SOTHER				
Dilution Factor	1.0				
Sample wt/vol	0.13 GRAMS				
% Dry	100.00				

13/17

NA = Not Applicable

METHOD 310.13 - PETROLEUM PRODUCTS

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A04-0341 A4B0473401	Matrix Spike Blk Dup A04-0341 A4B0473402			
Sample Date					
Received Date					
Extraction Date	01/14/2004 07:00	01/14/2004 07:00			
Analysis Date	01/15/2004	01/15/2004			
Extraction HT Met?	-	-			
Analytical HT Met?	-	-			
Sample Matrix	SOIL LOW	SOIL LOW			
Dilution Factor	1.0	1.0			
Sample wt/vol	0.1 GRAMS	0.1 GRAMS			
% Dry	100.00	100.00			

14/17

NA = Not Applicable

METHOD 310.13 - PETROLEUM PRODUCTS

Client Sample ID Job No & Lab Sample ID	Method Blank A04-0341 A4B0473403				
Sample Date					
Received Date					
Extraction Date	01/14/2004 07:00				
Analysis Date	01/15/2004				
Extraction HT Met?	-				
Analytical HT Met?	-				
Sample Matrix	SOIL LOW				
Dilution Factor	1.0				
Sample wt/vol	0.1 GRAMS				
% Dry	100.00				

NA = Not Applicable

Chain of Custody

Cha[illegible] [illegible]f Custody Record

TRENT SERVICES **Severn Trent Laboratories, Inc.**

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
ARCH Chemical	BJF		112288

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 1

City	State	Zip Code	Site Contact	Lab Contact

Project Name and Location (State): ARCH

Carrier/Waybill Number:

Contract/Purchase Order/Quote No.: NY9AE493.1

Analysis (Attach list if more space is needed): 8260 VO4 4O2 GL

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		8260 VO4 4O2 GL	Special Instructions/Conditions of Receipt
B-5 SLUDGE	11-17-03	1330						X							1	TEST BOTTOM LAYER (BLACK)

Matrix: Air, Aqueous, Sed., Soil. Containers & Preservatives: Unpres., H2SO4, HNO3, HCl, NaOH, ZnAc/NaOH.

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: [signature]	11-24-03	1530	1. Received By: [signature] STL B,PRW	11/24/03	15:30
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments: 20°C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy