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

May 18, 2005

Mr. James Craft
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road
Avon, NY 14414-9519

RE: Supplemental Sampling Program at the Dolomite Products Quarry
Arch Chemicals Inc., Rochester Plant Site

Dear Jim:

Enclosed you will find a letter report from our consultant, MACTEC Engineering and Consulting, Inc., that summarizes the results of the supplemental seep and surface water sampling conducted by Arch Chemicals over the past year. This additional sampling was requested by the New York State Department of Environmental Conservation in response to Arch's request that the Department delete the requirement for a groundwater extraction well in the vicinity of the quarry.

The sampling program has confirmed that concentrations of Arch Chemicals site-related contaminants at the quarry are consistently below applicable risk-based levels. Further, chloropyridine concentrations in the seepwater at the quarry continue to exhibit a steady and significant downward trend, indicating that the actions being implemented by Arch at its facility are having the intended positive impact on downgradient groundwater quality.

Based on the results of the sampling that has been conducted at the quarry, Arch Chemicals concludes that the extraction well previously proposed for the quarry area is no longer justified, and we request that it be eliminated as a component of the site's approved remedial action plan.

If there is anything else you need to respond to this request, please let me know.

Sincerely,

Gayle M. Taylor

Gayle M. Taylor
Senior Associate Environmental Specialist
Arch Chemicals, Inc.

encl.

cc: Ron Skipp - Arch Chemicals

MACTEC

May 15, 2005

Ms. Gayle M. Taylor
Arch Chemicals, Inc.
P.O. Box 800, Lower River Road
Charleston, TN 37310

Subject: Supplemental Sampling Results from the Dolomite Products Quarry Arch Chemicals, Inc., Rochester New York

Dear Ms. Taylor:

This letter report describes the results of a supplemental sampling program conducted by MACTEC Engineering and Consulting, Inc., during 2004 and early 2005 at the Dolomite Products quarry in Gates, New York. The supplemental sampling was proposed to the New York State Department of Environmental Conservation (NYSDEC) by Arch Chemicals in June 2004 to support its contention that active remedial measures at or near the quarry were no longer necessary to prevent unacceptable potential exposure risks.

Background. Arch Chemicals owns and operates a chemical manufacturing facility on McKee Road in Rochester, New York. The Arch Chemicals site has been the subject of extensive environmental studies since the early 1980s, and the presence of impacted groundwater at the site has been well documented. Site-related chemicals have been detected in groundwater discharging through seeps into the Dolomite Products quarry, approximately 4,000 feet southwest of the Arch Chemicals site.

In March 2002, a Record of Decision (ROD) was issued by the NYSDEC for the Arch Chemicals Site. In addition to on-site remedial measures, the selected remedy for the site described in the ROD included the installation of a groundwater extraction well near the southeastern corner of the quarry to intercept impacted groundwater prior to its discharge into the quarry. This measure was included in the site remedy to reduce potential exposures to quarry workers and other potential receptors near the quarry's dewatering discharge to the Barge Canal, even though a risk assessment conducted as part of the Remedial Investigation and Feasibility Study (RI/FS) concluded that exposure risks at the quarry and the canal were below levels of concern.

In the time since the initial sampling of the quarry and canal during the RI/FS, concentrations of site-related chemicals measured at the quarry seeps have steadily declined. By the time the ROD was signed, the concentrations in the quarry seep had been reduced by approximately 90 percent compared to the values used in the original risk assessment. In addition, seepwater concentrations have declined by a further 50 percent in the time since the ROD was prepared, as shown in Figure 1.

MACTEC Engineering and Consulting, Inc.
511 Congress Street, P.O. Box 7050 • Portland, ME 04112-7050
207-775-5401 • Fax: 207-772-4762
Home Page: www.mactec.com

In February 2004, Arch Chemicals requested that MACTEC re-calculate exposure risks based on seepwater data collected in 2002 and 2003 (MACTEC, 2004). As expected, potential risks to quarry workers were found to be well below generally-accepted levels of concern. Specifically, the excess lifetime cancer risks were calculated at $2x10^{-8}$ and the non-cancer hazard index (HI) was several orders of magnitude below the 1.0 threshold. The potential exposure risks were again re-calculated in January 2005 to incorporate recently developed dose-response data for chloropyridines, and again the evaluation concluded that risks were well below acceptable levels (MACTEC, 2005).

Arch Chemicals has recommended to the NYSDEC that the proposed quarry extraction well be deleted from the approved site remediation plan. In response to this request, the NYSDEC asked Arch Chemicals to conduct a supplemental sampling program consisting of seep and surface water sampling in the vicinity of the quarry to confirm that concentrations of site-related chemicals were below levels of concern at additional potential exposure locations. Since June 2004, Arch has conducted four rounds of supplemental quarry sampling, and the results of that sampling are described in this report.

Supplemental Quarry Sampling Program. On June 1, 2004, Arch Chemicals proposed a sampling program at the quarry consisting of:

- An initial round of sampling consisting of four (4) seep samples, two (2) runoff pond samples, three (3) ditch samples (one at the quarry discharge point, one approximately half-way to the canal, and one at the discharge to the canal), and two (2) canal samples (one approximately 100-feet downstream of the ditch discharge, and one upstream of the discharge at the Buffalo Road bridge).

- A second round of sampling of the four seeps, plus a sample of the quarry discharge to the ditch, to occur in late summer (prior to the lowering of the canal).

- A third round of sampling in late November 2004, consisting of the same locations as the first round, but completed after the canal has been lowered.

- A fourth round during the winter (as weather permits), consisting of the four seeps plus the quarry discharge.

Arch proposed to analyze all samples for chloropyridines, the site-related contaminants that had routinely been detected in the quarry seep during regular monitoring. At the NYSDEC's request, Arch also agreed to analyze samples from the first and third supplemental rounds for volatile organic compounds (VOCs).

Mr. James Craft of the NYSDEC accompanied the sampling crew for the first round of the supplemental sampling program. Based on field observations, a field decision was made to add one additional seep sample (QS-1), and delete one of the two quarry runoff

pond samples. It should also be noted that the upstream canal sample at the Buffalo Road bridge was inadvertently overlooked by the sampling crew, and was not collected.

Following a review of the results from the initial round of supplemental sampling, Arch and the NYSDEC agreed that QS-1 did not need to be added to the subsequent sampling rounds, and that the single pond sample was adequate for the purposes of the supplemental sampling. The remainder of the program was implemented as proposed. Sampling locations are shown on Figure 2.

Sampling Results. The results of the supplemental sampling are provided in Tables 1 through 3, and are summarized below.

Chloropyridines. The supplemental sampling program confirmed that seep QS-4 on the eastern face of the quarry continues to exhibit the highest average concentrations of chloropyridines. Concentrations on the eastern quarry face decline further to the north, and were not detected in the furthest north sample, QS-1. Seep QS-5 (on the southern face of the quarry approximately 100 feet west of the eastern wall) contained trace to non-detectable levels of chloropyridines.

The concentration of chloropyridines in the quarry runoff pond indicate that impacted groundwater is blending with uncontaminated groundwater and runoff water. By the time accumulated water is discharged to the surface ditch at the rim of the quarry, chloropyridine concentrations have declined to levels generally below the analytical quantitation limit. Samples of the ditch water at the point it discharges to the canal, and samples from the canal itself, did not contain detectable levels of chloropyridines.

VOCs. Samples from the first and third rounds of supplemental sampling were analyzed for VOCs. All analytical results for VOCs were non-detect, with the exception of the quarry runoff pond sample in the June 2004 sampling round, which contained a trace quantity (estimated concentration of 1.2 ug/L) of tetrachloroethene. This compound was not detected in the November 2004 sample from the quarry runoff pond, and was not detected in any of the seep samples or nearby groundwater monitoring wells, so the initial detection is not believed to be related to the Arch Chemicals site.

Conclusions and Recommendations. The supplemental sampling program has confirmed that concentrations of site-related contaminants at the Dolomite Products quarry are consistently below generally-accepted risk levels. Chloropyridine concentrations in seepwater at the quarry have exhibited a steady decline since they were first detected, indicating that remedial measures being implemented at the Arch Chemicals plant site are having a positive effect on the downgradient water quality. Updated risk assessments have concluded that workers at the quarry are not adversely impacted by the low levels of chloropyridines that might be encountered during routine work activities.

On the basis of these findings, the installation of a groundwater extraction well in the vicinity of the quarry is not justified, and should be deleted from the site remedial action plan.

Should you have any questions regarding this sampling report, please do not hesitate to contact either of the undersigned at your convenience.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Jeffrey E. Brandow, P.E.
Project Manager / Principal Engineer

Nelson Breton, C.G.
Senior Geologist

attachments

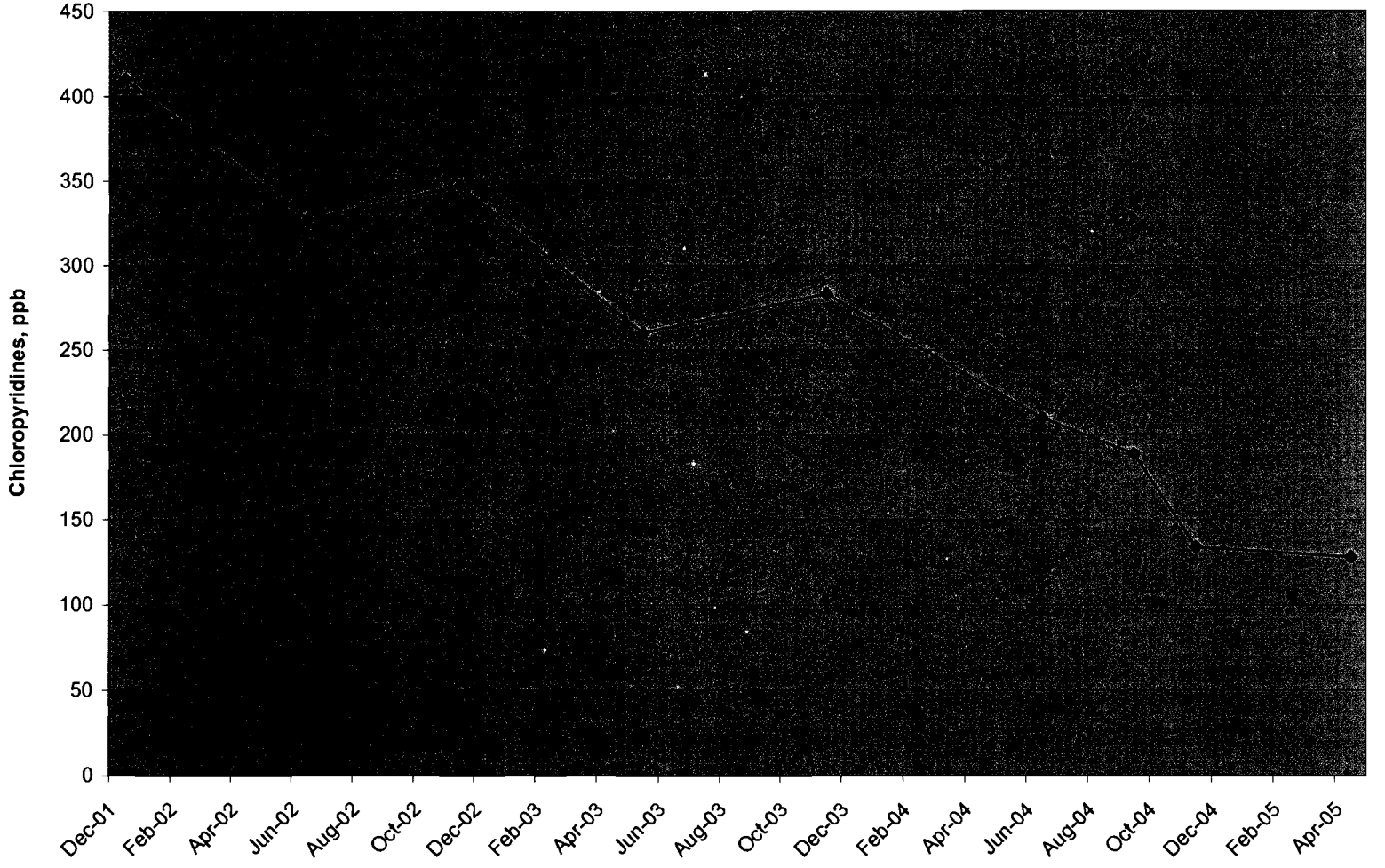
cc: R. Skipp, Arch Rochester

References:

1. MACTEC, 2004. "Updated Evaluation of Health Risks Associated with Potential Exposure to Quarry Seep", Memorandum from Jay Peters, Sr. Risk Assessor, to Jeff Brandow, Project Manager, 2/16/2004.

2. MACTEC, 2005. "Updated Evaluation of Health Risks Associated with Potential Exposure to Quarry Seep", Memorandum from Jay Peters, Sr. Risk Assessor, to Jeff Brandow, Project Manager, 1/17/2005.

Figure 1
Recent Chloropyridine Concentrations in Quarry Seep QS-4
at the Dolomite Products Quarry



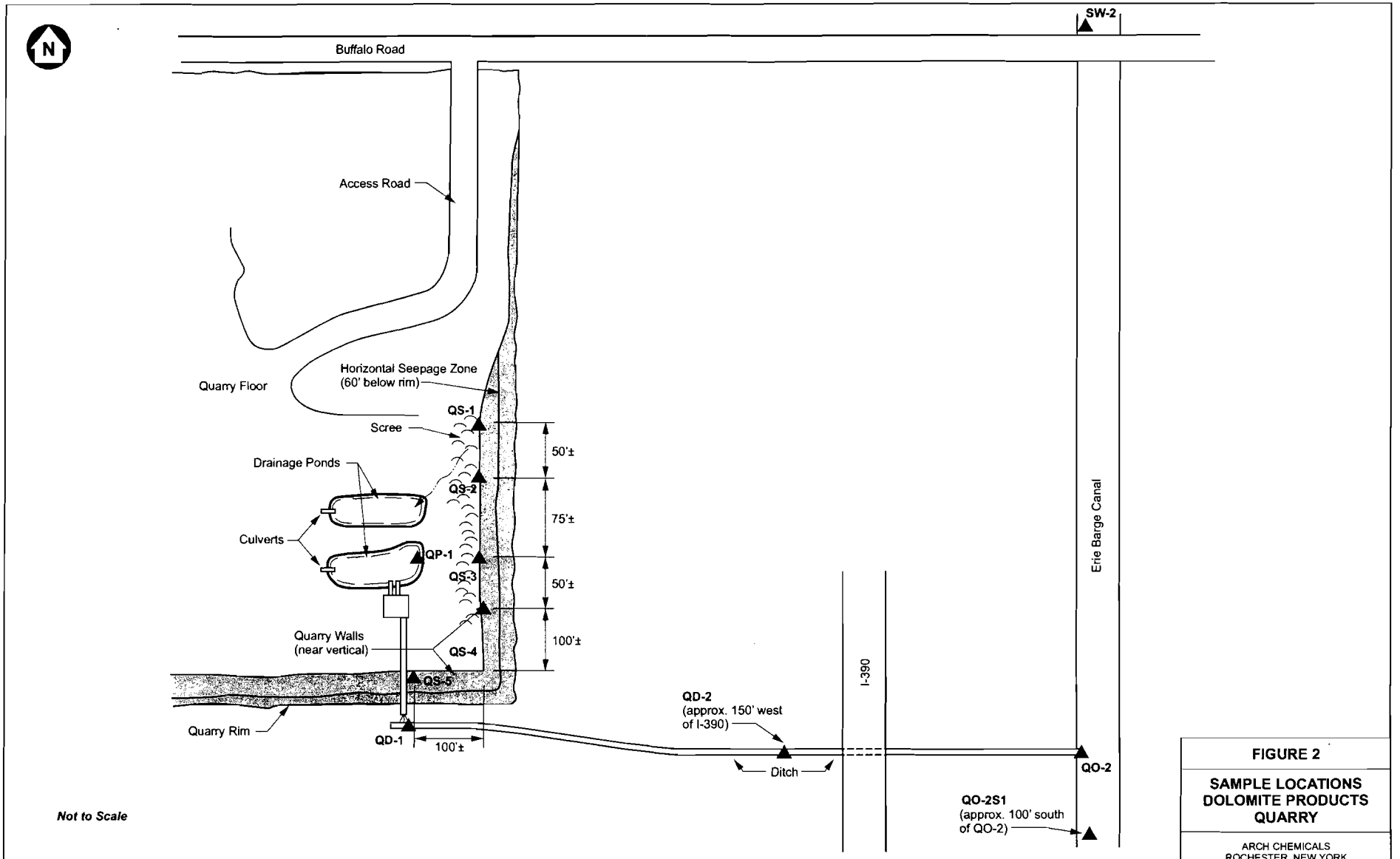


FIGURE 2

SAMPLE LOCATIONS
DOLOMITE PRODUCTS
QUARRY

ARCH CHEMICALS
ROCHESTER, NEW YORK

W2004030a.cdr

TABLE 1
2004 - 2005 QUARRY MONITORING RESULTS
(Chloropyridines)

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

SAMPLE LOCATION	QS-1				QS-2				QS-3				QS-4			
DATE	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)																
2,6-Dichloropyridine	10 U	NS	NS	NS	10 U	10 U	5 J	9 U	27	54	22	13	39 U	49	34	28
2-Chloropyridine	10 U	NS	NS	NS	29	30	5 J	7 J	140	220	68	56	210	140	100	100
3-Chloropyridine	10 U	NS	NS	NS	10 U	10 U	10 U	9 U	9 U	10 U	10 U	9 U	39 U	10 U	10 U	9 U
4-Chloropyridine	10 U	NS	NS	NS	10 U	10 U	10 U	9 U	9 U	10 U	10 U	9 U	39 U	10 U	10 U	9 U
p-Fluoroaniline	10 U	NS	NS	NS	10 U	10 U	10 U	9 U	9 U	10 U	10 U	9 U	39 U	10 U	10 U	9 U
Pyridine	25 U	NS	NS	NS	25 U	25 U	24 U	24 U	24 U	24 U	24 U	24 U	97 U	24 U	24 U	24 U

SAMPLE LOCATION	QS-5				QP-1				QD-1				QD-2			
DATE	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)																
2,6-Dichloropyridine	10 U	10 U	10 U	9 U	14	NS	NS	NS	9 U	10 U	9 U	9 U	10 U	NS	10 U	NS
2-Chloropyridine	10 U	8 J	10 U	9 U	26	NS	NS	NS	4 J	6 J	9 U	9 U	4 J	NS	10 U	NS
3-Chloropyridine	10 U	10 U	10 U	9 U	10 U	NS	NS	NS	9 U	10 U	9 U	9 U	10 U	NS	10 U	NS
4-Chloropyridine	10 U	10 U	10 U	9 U	10 U	NS	NS	NS	9 U	10 U	9 U	9 U	10 U	NS	10 U	NS
p-Fluoroaniline	10 U	10 U	10 U	9 U	10 U	NS	NS	NS	9 U	10 U	9 U	9 U	10 U	NS	10 U	NS
Pyridine	24 U	24 U	24 U	24 U	24 U	NS	NS	NS	24 U	25 U	24 U	24 U	26 U	NS	24 U	NS

SAMPLE LOCATION	QO-2				QO-2S1				SW-2			
DATE	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)												
2,6-Dichloropyridine	12 U	NS	10 U	NS	10 U	NS	9 U	NS	NS	NS	9 U	NS
2-Chloropyridine	12 U	NS	10 U	NS	10 U	NS	9 U	NS	NS	NS	9 U	NS
3-Chloropyridine	12 U	NS	10 U	NS	10 U	NS	9 U	NS	NS	NS	9 U	NS
4-Chloropyridine	12 U	NS	10 U	NS	10 U	NS	9 U	NS	NS	NS	9 U	NS
p-Fluoroaniline	12 U	NS	10 U	NS	10 U	NS	9 U	NS	NS	NS	9 U	NS
Pyridine	29 U	NS	24 U	NS	24 U	NS	24 U	NS	NS	NS	24 U	NS

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

TABLE 2
JUNE 2004 QUARRY MONITORING RESULTS
(Volatile Organic Compounds)

ARCH CHEMICALS, 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

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 2
JUNE 2004 QUARRY MONITORING RESULTS
(Volatile Organic Compounds)

ARCH CHEMICALS, 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

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 3
NOVEMBER 2004 QUARRY MONITORING RESULTS
(Volatile Organic Compounds)

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

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

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 3
NOVEMBER 2004 QUARRY MONITORING RESULTS
(Volatile Organic Compounds)

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

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

Notes:

U = Compound not detected; value represe

sample quantitation limit.

J = Estimated value.

NA = Not analyzed

C:\gmt\Roch\Consent Order Docs\Table3_Nov04VOCs

Prepared by: NMB Checked by: JEB

MACTEC

May 15, 2005

Ms. Gayle M. Taylor
Arch Chemicals, Inc.
P.O. Box 800, Lower River Road
Charleston, TN 37310

Subject: Supplemental Sampling Results from the Dolomite Products Quarry Arch Chemicals, Inc., Rochester New York

Dear Ms. Taylor:

This letter report describes the results of a supplemental sampling program conducted by MACTEC Engineering and Consulting, Inc., during 2004 and early 2005 at the Dolomite Products quarry in Gates, New York. The supplemental sampling was proposed to the New York State Department of Environmental Conservation (NYSDEC) by Arch Chemicals in June 2004 to support its contention that active remedial measures at or near the quarry were no longer necessary to prevent unacceptable potential exposure risks.

Background. Arch Chemicals owns and operates a chemical manufacturing facility on McKee Road in Rochester, New York. The Arch Chemicals site has been the subject of extensive environmental studies since the early 1980s, and the presence of impacted groundwater at the site has been well documented. Site-related chemicals have been detected in groundwater discharging through seeps into the Dolomite Products quarry, approximately 4,000 feet southwest of the Arch Chemicals site.

In March 2002, a Record of Decision (ROD) was issued by the NYSDEC for the Arch Chemicals Site. In addition to on-site remedial measures, the selected remedy for the site described in the ROD included the installation of a groundwater extraction well near the southeastern corner of the quarry to intercept impacted groundwater prior to its discharge into the quarry. This measure was included in the site remedy to reduce potential exposures to quarry workers and other potential receptors near the quarry's dewatering discharge to the Barge Canal, even though a risk assessment conducted as part of the Remedial Investigation and Feasibility Study (RI/FS) concluded that exposure risks at the quarry and the canal were below levels of concern.

In the time since the initial sampling of the quarry and canal during the RI/FS, concentrations of site-related chemicals measured at the quarry seeps have steadily declined. By the time the ROD was signed, the concentrations in the quarry seep had been reduced by approximately 90 percent compared to the values used in the original risk assessment. In addition, seepwater concentrations have declined by a further 50 percent in the time since the ROD was prepared, as shown in Figure 1.

MACTEC Engineering and Consulting, Inc.
511 Congress Street, P.O. Box 7050 • Portland, ME 04112-7050
207-775-5401 • Fax: 207-772-4762
Home Page: www.mactec.com

In February 2004, Arch Chemicals requested that MACTEC re-calculate exposure risks based on seepwater data collected in 2002 and 2003 (MACTEC, 2004). As expected, potential risks to quarry workers were found to be well below generally-accepted levels of concern. Specifically, the excess lifetime cancer risks were calculated at $2x10^{-8}$ and the non-cancer hazard index (HI) was several orders of magnitude below the 1.0 threshold. The potential exposure risks were again re-calculated in January 2005 to incorporate recently developed dose-response data for chloropyridines, and again the evaluation concluded that risks were well below acceptable levels (MACTEC, 2005).

Arch Chemicals has recommended to the NYSDEC that the proposed quarry extraction well be deleted from the approved site remediation plan. In response to this request, the NYSDEC asked Arch Chemicals to conduct a supplemental sampling program consisting of seep and surface water sampling in the vicinity of the quarry to confirm that concentrations of site-related chemicals were below levels of concern at additional potential exposure locations. Since June 2004, Arch has conducted four rounds of supplemental quarry sampling, and the results of that sampling are described in this report.

Supplemental Quarry Sampling Program. On June 1, 2004, Arch Chemicals proposed a sampling program at the quarry consisting of:

- An initial round of sampling consisting of four (4) seep samples, two (2) runoff pond samples, three (3) ditch samples (one at the quarry discharge point, one approximately half-way to the canal, and one at the discharge to the canal), and two (2) canal samples (one approximately 100-feet downstream of the ditch discharge, and one upstream of the discharge at the Buffalo Road bridge).

- A second round of sampling of the four seeps, plus a sample of the quarry discharge to the ditch, to occur in late summer (prior to the lowering of the canal).

- A third round of sampling in late November 2004, consisting of the same locations as the first round, but completed after the canal has been lowered.

- A fourth round during the winter (as weather permits), consisting of the four seeps plus the quarry discharge.

Arch proposed to analyze all samples for chloropyridines, the site-related contaminants that had routinely been detected in the quarry seep during regular monitoring. At the NYSDEC's request, Arch also agreed to analyze samples from the first and third supplemental rounds for volatile organic compounds (VOCs).

Mr. James Craft of the NYSDEC accompanied the sampling crew for the first round of the supplemental sampling program. Based on field observations, a field decision was made to add one additional seep sample (QS-1), and delete one of the two quarry runoff

pond samples. It should also be noted that the upstream canal sample at the Buffalo Road bridge was inadvertently overlooked by the sampling crew, and was not collected.

Following a review of the results from the initial round of supplemental sampling, Arch and the NYSDEC agreed that QS-1 did not need to be added to the subsequent sampling rounds, and that the single pond sample was adequate for the purposes of the supplemental sampling. The remainder of the program was implemented as proposed. Sampling locations are shown on Figure 2.

Sampling Results. The results of the supplemental sampling are provided in Tables 1 through 3, and are summarized below.

Chloropyridines. The supplemental sampling program confirmed that seep QS-4 on the eastern face of the quarry continues to exhibit the highest average concentrations of chloropyridines. Concentrations on the eastern quarry face decline further to the north, and were not detected in the furthest north sample, QS-1. Seep QS-5 (on the southern face of the quarry approximately 100 feet west of the eastern wall) contained trace to non-detectable levels of chloropyridines.

The concentration of chloropyridines in the quarry runoff pond indicate that impacted groundwater is blending with uncontaminated groundwater and runoff water. By the time accumulated water is discharged to the surface ditch at the rim of the quarry, chloropyridine concentrations have declined to levels generally below the analytical quantitation limit. Samples of the ditch water at the point it discharges to the canal, and samples from the canal itself, did not contain detectable levels of chloropyridines.

VOCs. Samples from the first and third rounds of supplemental sampling were analyzed for VOCs. All analytical results for VOCs were non-detect, with the exception of the quarry runoff pond sample in the June 2004 sampling round, which contained a trace quantity (estimated concentration of 1.2 ug/L) of tetrachloroethene. This compound was not detected in the November 2004 sample from the quarry runoff pond, and was not detected in any of the seep samples or nearby groundwater monitoring wells, so the initial detection is not believed to be related to the Arch Chemicals site.

Conclusions and Recommendations. The supplemental sampling program has confirmed that concentrations of site-related contaminants at the Dolomite Products quarry are consistently below generally-accepted risk levels. Chloropyridine concentrations in seepwater at the quarry have exhibited a steady decline since they were first detected, indicating that remedial measures being implemented at the Arch Chemicals plant site are having a positive effect on the downgradient water quality. Updated risk assessments have concluded that workers at the quarry are not adversely impacted by the low levels of chloropyridines that might be encountered during routine work activities.

On the basis of these findings, the installation of a groundwater extraction well in the vicinity of the quarry is not justified, and should be deleted from the site remedial action plan.

Should you have any questions regarding this sampling report, please do not hesitate to contact either of the undersigned at your convenience.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Jeffrey E. Brandow, P.E.
Project Manager / Principal Engineer

Nelson Breton, C.G.
Senior Geologist

attachments

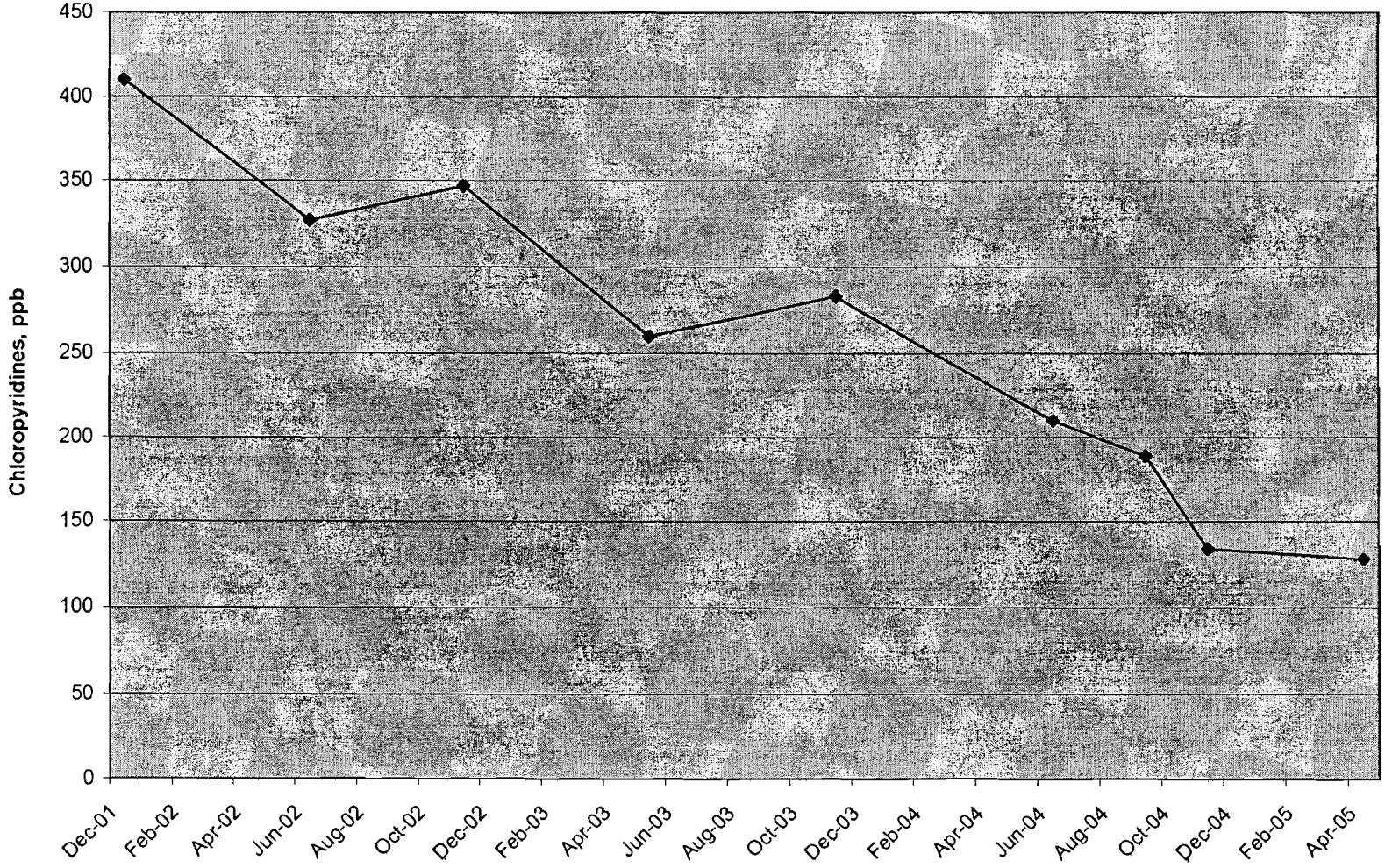
cc: R. Skipp, Arch Rochester

References:

1. MACTEC, 2004. "Updated Evaluation of Health Risks Associated with Potential Exposure to Quarry Seep", Memorandum from Jay Peters, Sr. Risk Assessor, to Jeff Brandow, Project Manager, 2/16/2004.

2. MACTEC, 2005. "Updated Evaluation of Health Risks Associated with Potential Exposure to Quarry Seep", Memorandum from Jay Peters, Sr. Risk Assessor, to Jeff Brandow, Project Manager, 1/17/2005.

Figure 1
Recent Chloropyridine Concentrations in Quarry Seep QS-4
at the Dolomite Products Quarry



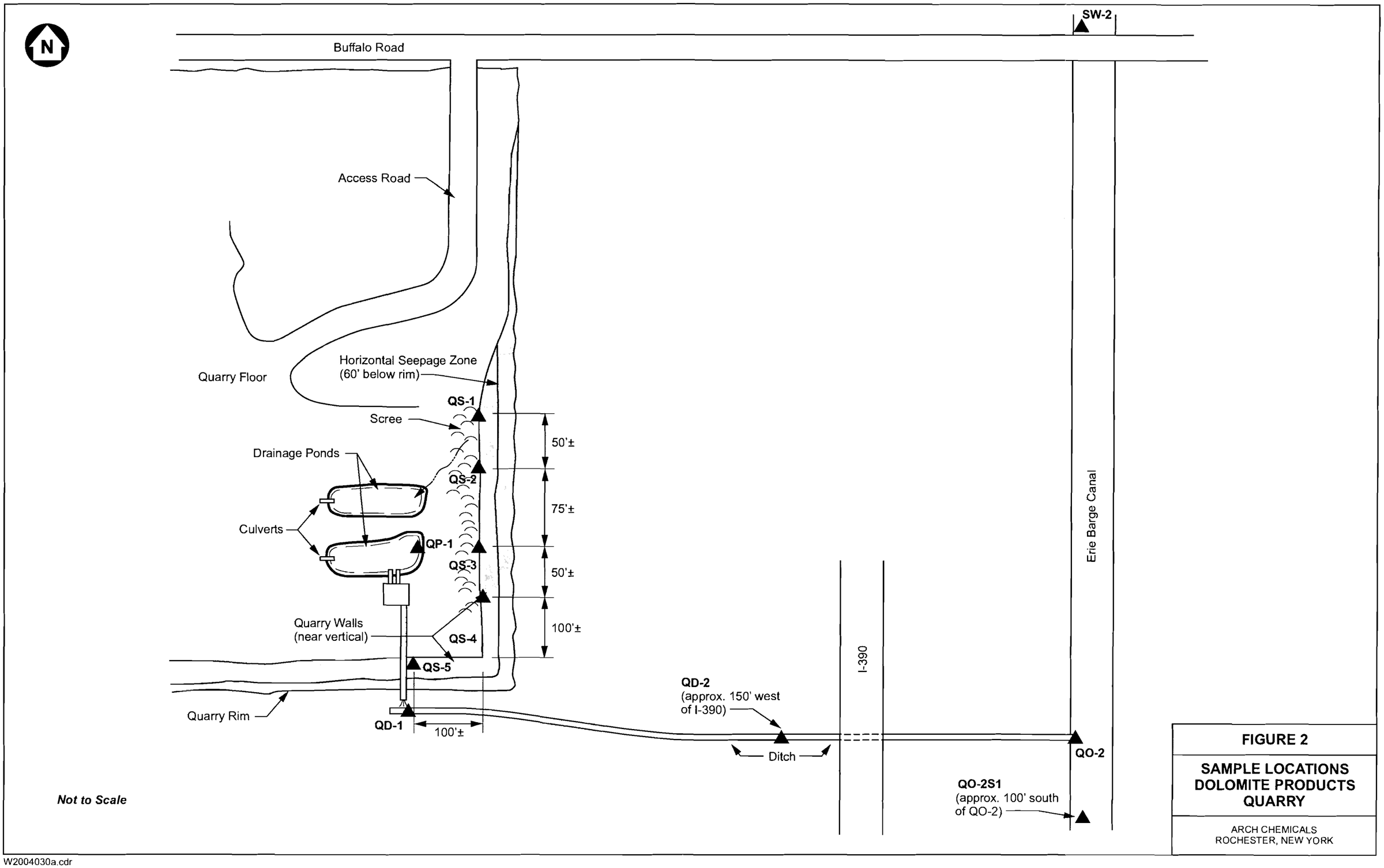


FIGURE 2

SAMPLE LOCATIONS
DOLOMITE PRODUCTS QUARRY

ARCH CHEMICALS
ROCHESTER, NEW YORK

W2004030a.cdr

TABLE 1
2004 - 2005 QUARRY MONITORING RESULTS
(Chloropyridines)

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

SAMPLE LOCATION	QS-1				QS-2				QS-3				QS-4			
DATE	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)																
2,6-Dichloropyridine	10 U	NS	NS	NS	10 U	10 U	5 J	9 U	27	54	22	13	39 U	49	34	28
2-Chloropyridine	10 U	NS	NS	NS	29	30	5 J	7 J	140	220	68	56	210	140	100	100
3-Chloropyridine	10 U	NS	NS	NS	10 U	10 U	10 U	9 U	9 U	10 U	10 U	9 U	39 U	10 U	10 U	9 U
4-Chloropyridine	10 U	NS	NS	NS	10 U	10 U	10 U	9 U	9 U	10 U	10 U	9 U	39 U	10 U	10 U	9 U
p-Fluoroaniline	10 U	NS	NS	NS	10 U	10 U	10 U	9 U	9 U	10 U	10 U	9 U	39 U	10 U	10 U	9 U
Pyridine	25 U	NS	NS	NS	25 U	25 U	24 U	24 U	24 U	24 U	24 U	24 U	97 U	24 U	24 U	24 U

SAMPLE LOCATION	QS-5				QP-1				QD-1				QD-2			
DATE	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)																
2,6-Dichloropyridine	10 U	10 U	10 U	9 U	14	NS	NS	NS	9 U	10 U	9 U	9 U	10 U	NS	10 U	NS
2-Chloropyridine	10 U	8 J	10 U	9 U	26	NS	NS	NS	4 J	6 J	9 U	9 U	4 J	NS	10 U	NS
3-Chloropyridine	10 U	10 U	10 U	9 U	10 U	NS	NS	NS	9 U	10 U	9 U	9 U	10 U	NS	10 U	NS
4-Chloropyridine	10 U	10 U	10 U	9 U	10 U	NS	NS	NS	9 U	10 U	9 U	9 U	10 U	NS	10 U	NS
p-Fluoroaniline	10 U	10 U	10 U	9 U	10 U	NS	NS	NS	9 U	10 U	9 U	9 U	10 U	NS	10 U	NS
Pyridine	24 U	24 U	24 U	24 U	24 U	NS	NS	NS	24 U	25 U	24 U	24 U	26 U	NS	24 U	NS

SAMPLE LOCATION	QO-2				QO-2S1				SW-2			
DATE	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005	6/9/2004	9/29/2004	11/30/2004	4/4/2005
SELECTED CHLOROPYRIDINES BY SW-846 Method 8270C (µg/L)												
2,6-Dichloropyridine	12 U	NS	10 U	NS	10 U	NS	9 U	NS	NS	NS	9 U	NS
2-Chloropyridine	12 U	NS	10 U	NS	10 U	NS	9 U	NS	NS	NS	9 U	NS
3-Chloropyridine	12 U	NS	10 U	NS	10 U	NS	9 U	NS	NS	NS	9 U	NS
4-Chloropyridine	12 U	NS	10 U	NS	10 U	NS	9 U	NS	NS	NS	9 U	NS
p-Fluoroaniline	12 U	NS	10 U	NS	10 U	NS	9 U	NS	NS	NS	9 U	NS
Pyridine	29 U	NS	24 U	NS	24 U	NS	24 U	NS	NS	NS	24 U	NS

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

TABLE 2
JUNE 2004 QUARRY MONITORING RESULTS
(Volatile Organic Compounds)

ARCH CHEMICALS, 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

Notes:

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

J = Estimated value.

NA = Not analyzed

TABLE 2
JUNE 2004 QUARRY MONITORING RESULTS
(Volatile Organic Compounds)

ARCH CHEMICALS, 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

Notes:

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

J = Estimated value.

NA = Not analyzed

TABLE 3
NOVEMBER 2004 QUARRY MONITORING RESULTS
(Volatile Organic Compounds)

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

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

Notes:

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

J = Estimated value.

NA = Not analyzed

P:\Projects\Arch\Rochester\archroch\Quarry Risk\Supplemental Sampling Rept\Table3_Nov04VOCs.xls Prepared by: NMB Checked by: JEB

TABLE 3
NOVEMBER 2004 QUARRY MONITORING RESULTS
(Volatile Organic Compounds)

ARCH CHEMICALS, INC.
ROCHESTER, NEW YORK

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

Notes:

U = Compound not detected; value represe

sample quantitation limit.

J = Estimated value.

NA = Not analyzed

Jim, FYI

MACTEC

March 1, 2005

Mr. Thomas Maguire
Maguire Properties, Inc.
770 Rock Beach Road
Rochester, NY 14617-1321

Subject: Sampling and Analysis of Monitoring Well MW-16 at the Former General Circuits Facility in Rochester, New York

Dear Mr. Maguire:

As you are aware, Arch Chemicals, Inc., conducts regular groundwater monitoring in the vicinity of its manufacturing plant on McKee Road in Rochester, New York, in accordance with an agreement with the New York State Department of Environmental Conservation. This groundwater monitoring program includes a monitoring well at the former General Circuits facility located at 95 Mt. Read Boulevard in Rochester. That well, known as MW-16, is currently sampled by Arch Chemicals once per year (in the fall), and tested for chloropyridine compounds.

In the access agreement signed by Arch Chemicals and Maguire Properties, you requested that Arch Chemicals provide a copy of the analytical results from any testing performed on your property. The enclosed table presents the analytical results from the groundwater sample collected from well MW-16 on November 17, 2004.

If you have any questions regarding the enclosed results, please call Ms. Gayle Taylor of Arch Chemicals at (423) 780-2175, or feel free to give me a call at (207) 775-5401.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Jeffrey E. Brandow, P.E.
Principal Engineer / Project Manager

encl.

cc: G. Taylor
R. Skipp

MACTEC Engineering and Consulting
511 Congress Street, P.O. Box 7050 • Portland, ME 04112-7050
207-775-5401 • Fax: 207-772-4762
Home Page: www.mactec.com

MAGUIRE PROPERTY (FORMER GENERAL CIRCUITS FACILITY)
PYRIDINES RESULTS FOR GROUNDWATER - NOV. 2004

PREPARED FOR ARCH CHEMICALS
ROCHESTER, NEW YORK

	WELL / POINT	MW-16	
	DATE	11/17/2004	
PARAMETER	UNITS		
2,6-Dichloropyridine	µg/L	9	J
2-Chloropyridine	µg/L	170	
3-Chloropyridine	µg/L	19	U
4-Chloropyridine	µg/L	19	U
p-Fluoroaniline	µg/L	19	U
Pyridine	µg/L	48	U

Notes:
µg/L = micrograms per liter (parts per billion)
U = compound not detected; number shown is the analytical detection limit
J = Estimated value below detection limit

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

February 17, 2005

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

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

Dear Mr. Craft:

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

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

Sincerely,

Gayle M. Taylor /jrb

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

encl.

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