April 15, 1999

Mr. Paul Kozol
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53590

Re: Monthly Monitoring Report for the Oconomowoc Groundwater Treatment Facility

Dear Mr. Kozol:

Attached is the Monthly Monitoring Report for March, 1999 for the above referenced project. Questions regarding these reports should be directed to James Chang of APL, Inc. at (414) 355-5800.

Thank you for your continued cooperation and assistance with this project.

Sincerely,

Dean Groleau

Dean Groleau, Plant Superintendent
APL, Inc.

cc: Arne Thomsen, USACE, St. Paul District
Steve Peterson, USACE, Omaha District
Tom Williams, USEPA
James Chang, APL, Inc.
Mike Boehlar, Black and Veatch
David Brodzinski, WDNR, Horicon

8222 W. Calumet Road, P. O. Box 23785, Milwaukee, WI 53223 (414) 355-5800 • Fax#: (414) 355-3099
Wisconsin Dept. of Natural Resources Certificate #241340550

MONTHLY MONITORING REPORT
FOR THE
OCONOMOWOC ELECTROPLATING
GROUNDWATER TREATMENT FACILITY

ASHIPPUN, WISCONSIN 53003

Prepared for:

U.S. ARMY CORPS OF ENGINEERS
ST. PAUL DISTRICT
HASTINGS, MINNESOTA
CONTRACT DACW37-98-C-0009

Prepared by:

APL, Inc.
8222 West Calumet Road
Milwaukee, WI 53223

April 15, 1999

1.0 Introduction

This report summarizes the monthly effluent monitoring results for the Oconomowoc Electroplating Groundwater Treatment Plant (OEGTP) for March, 1999. The OEGTP is located at the site of the former Oconomowoc Electroplating Company, in ASHIPPUN, WI.

Laboratory results of effluent sampling can be found in the Discharge Monitoring Report Form, sent under separate cover. The effluent sampling was conducted by Scott Harrison, Tony Goodman, and Dave Dugan of APL, Inc. Laboratory analysis was provided by APL, Inc., 8222 W. Calumet Road, Milwaukee WI 53223. All sampling and analyses were conducted in accordance with the Oconomowoc Electroplating Groundwater Treatment System's Chemical Data Acquisition Plan (CDAP). The parameters tested for, frequency of testing, sample type, and limits are set forth in the Final Discharge Limits, Table 1 of the Oconomowoc Electroplating Superfund Site Limits and Requirements for Discharge of Treated Groundwater, issued by the Wisconsin Department of Natural Resources (WDNR) on September 24, 1996. This report is submitted in accordance with the reporting requirements of the WDNR permit.

1.1 Site Background Review

The OEGTP is located at 2572 Oak Street in Ashippun, Wisconsin, in the NW 1/4 of the SE 1/4 of Section 30, Township 30 North, Range 17 East. The site consists of approximately 10 acres, which includes approximately 3.5 acres of the former electroplating facility. The site is bounded by Oak Street (Highway 'O') and Eva Street to the North, and Davey Creek and the Town of Ashippun's garage facilities to the South. The property directly across Oak Street is occupied by Thermogas, Inc. A residential area is located across Eva Street, and a wetlands surrounds Davey Creek.

The contact person is Arne Thomsen of the U.S. Army Corps of Engineers (USACE). Mr. Thomsen's phone number is (612) 438-3076, Fax (612) 438-2464. APL, Inc. is contracted by the USACE to operate and maintain the plant. The contact for the Treatment Plant is Dean Groleau who can be reached at (920) 474-3212, Fax (920) 474-4241. The contact for APL, Inc. is James Chang, who can be reached at (414) 355-5800, Fax (414) 355-3099.

1.2 Project Objectives

The objective of this project is to prevent the spreading of any plume of contamination that may exist at the site. Contaminated groundwater is pumped from five extraction wells, treated for cyanide, metals, suspended solids, and volatile organic compounds (VOC's). The treated water is then transferred to a groundwater effluent gallery, located south of Elm Street, near Davey Creek.

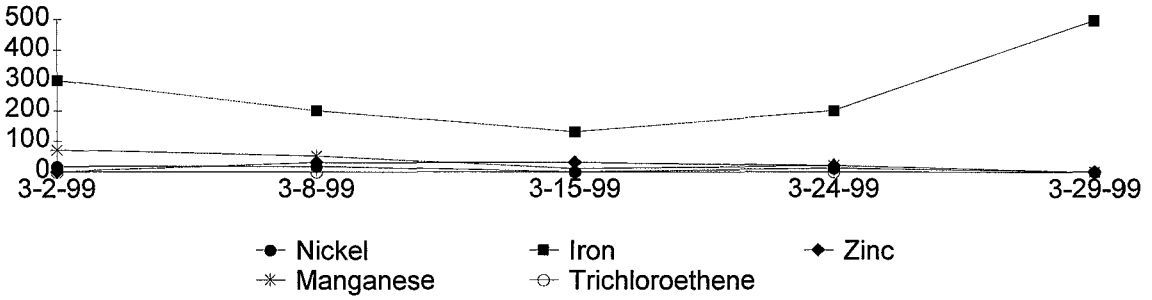
1.3 Effluent Monitoring

Weekly monitoring was conducted on March 2, 8, 15, 24, and 29. The weekly samples for March were tested by APL, Inc. The results of the effluent monitoring tests for the samples taken on March 15 and 24 showed that Trichloroethene equaled the limit of 0.5ug/l on the WDNR effluent discharge permit. On March 29, Paul Kozol, of the WDNR, authorized "Grab" type effluent samples could be taken in lieu of the "24-Hour Composite" type effluent samples because of operational problems experienced at that time. Mr. Kozol determined that "Grab" type samples were representative of plant operations for the short term. "The possible causes of the high levels are discussed in Section 2.0.

1.4 Monitoring Results

Results from weekly effluent monitoring can be found in the Discharge Monitoring Report Form, sent under a separate cover. Chart 1, below, shows the results of effluent monitoring for five important indicator parameters listed in the Monitoring Requirements of the Oconomowoc Electroplating Superfund Site Substantive WPDES Permit Requirements Summary (9/96). The March sampling results showed 0 exceedences in TCE.

Chart 1 - 5 Important Indicator Parameters



1.5 Monitoring Well Sampling

The third round of Monitor Well sampling was conducted on March 3, 4, and 16. Monitor Wells #03S and #05 were dry and #11B was nonexistent. Monitor Well #16S was located, accessed, and sampled on March 16. The results of the 9 Monitor Wells' analyses are enclosed with this report.

1.6 Extraction Well And Well Water Sampling

A round of Extraction Well and Well Water sampling was conducted on March 8 and 15. This was the first round of Extraction Well sampling conducted since the Treatment Plant start-up in September 1996. The Extraction Well sampling will be conducted on a quarterly basis during the Monitor Well sampling periods. The results of the Extraction Wells' analyses are enclosed with this report.

2.0 Plant Permit Exceedences

The possible cause for high level for Metals in the March samplings may be due to the daily backwashing of the Tertiary Filtration System (TF-600) that requires temporarily by-passing it during the Manual effluent backwashing. The operators attempt to reduce this by-passing time by pumping the Clarifier (C-400) to the Sludge Holding Tank (ST-820) and cleaning it out at the same time as the backwashing of TF-600. Some flow past TF-600 is unavoidable, with out shutting down the plant on a daily basis. Another possible source of Metals is the evident deterioration of the metal piping after the Sulfuric Acid Static Mixer (SM-401) to the NPDES

Monitor Station. New leaks have developed in the metal piping located between the Diffused Air Stripper (DAS-500) and the Granulated Activated Carbon Filters (GAC-650/651). The metal piping should be changed to PVC to reduce further damage to the pumps and lower the amount of uncontrolled Metals that are entering the effluent waste stream. On March 8, Paul Kozol, WDNR, authorized operating the Treatment Plant with TF-600 by-passed. The Treatment Plant can continue to operate as long as there are no exceedences of Metals in the effluent. The effluent is being evaluated on a week to week basis to determine if plant operations can continue. The reason for the by-passing of TF-600 was that the media has hardened below the diffuser heads and above the media up-lift system, preventing the media from being cleansed. The loose media needed to be removed, the hardened media needed to be broken up, and another acid wash needed to be performed. On March 24, TF-600 was refilled with sand and a dilute HCl acid solution was added and percolated with air overnight. The media did not free up and another acid cleansing was performed on March 26. The acid cleansing was continued into April due to the operational problems that developed on March 27. See the March Operations and Maintenance report for more information.

2.1 Treatment Plant Shut Downs

The Treatment Plant was shut down six times for a total of 195.5 hours in March, 1999. The shut downs were due to Scheduled Maintenance, Diffused Air Stripper Feed Pump (TP-520) failure, clogged piping in the Metals Package, and the Sulfuric Acid Static Mixer (SM-401) failure. Table 1 shows the summary of the plant down time for the month of March, 1999.

Table 1 - Plant Down Time Summary

Date(s)	Number Hours Shut Down	Reason
3/2-5	55.5	Scheduled Maintenance Shut Down
3/11	1	TP-520 Failure
3/12	0.75	Performed Maintenance On TF-600 & Static Mixer
3/21-22	20	CRT-211 Discharge Line Clogged
3/22-23	20.25	C-400 Discharge Line Clogged
3/27-31	98	SM-401 Leaking
TOTAL	**195.5**	

2.1.1. Shut Down Due To Scheduled Maintenance

On March 2, the Extraction Wells (EW's) were shut down to lower the Equalization Tank (EQT-100) level for cleaning out the piping from the EW's and throughout the Metals Package. On March 3, the Treatment Plant was shut down and a dilute inhibited HCl acid solution was added to the piping and allowed to react overnight. On March 4, the acid solution was flushed from the piping and the Treatment Plant was restarted. On March 2 & 3, the Metals Package was drained to the Sludge Holding Tank (ST-820) and cleaned out with the aid of a pressure washer. The Monitoring Wells (MW's) were sampled and their screens were acid cleaned in place using the dilute inhibited HCl acid solution. On March 5, the Treatment Plant was discovered shut down by the Treatment Plant's operator at the start of the day. The Treatment System Feed Pump (TFP-110) had failed and needed to be cleaned using the dilute inhibited HCl acid solution. The stand-by pump (TFP-111) was put in line and activated. TFP-110 was found to have failed due to the hardness/sludge build-up on its impeller. The pump's wet end was cleaned using a dilute inhibited HCl acid solution , rinsed, inspected, lubricated, reassembled, and kept in the stand-by position. The total down time for the scheduled maintenance was 55.5 hours.

2.1.2. Shut Down Due To TP-520 Failure

At the start of the work day, on March 11, the Treatment Plant operator had discovered that the Treatment Plant had shut down due to the failure of the Diffused Air Stripper Feed Pump (TP-520). The stand-by pump (TP-521) was put in line and activated. TP-520 was isolated, dismantled, and inspected. It was found to have failed due to the hardness/sludge build-up on its impeller. The pump's wet end was cleaned using a dilute inhibited HCl acid solution , rinsed, inspected, lubricated, reassembled, and kept in the stand-by position. The total down time was 1 hour.

2.1.3. Shut Down Due TF-600 Maintenance

On March 12, the Treatment System was shut down to remove the Tertiary Sand Filter (TF-600) discharge air valve. The TF-600 discharge air valve was removed and a blind flange was installed in it's place. While the TF-600 discharge air valve was being removed, the Sulfuric Acid Static Mixer (SM-401) injection quill was removed, cleaned, inspected, re-taped and Teflon pasted, and re-installed. The total down time was 0.75 hour. The TF-600 discharge air valve would not operate and needed to disassembled, inspected, cleaned, and reassembled. It was re-installed at a later date.

2.1.4. Shut Down Due To Clogged CRT-211 Discharge Line

On March 21, the Sunday operator had discovered that the Metals Package was over-flowing upon his arrival. The Treatment Plant superintendent authorized shutting down the Treatment Plant until Monday when there would be more help was available. On March 22, the discharge line elbow from the second stage of the Metals Package (CRT-211) was removed and augured out using a water hose jetter. The discharge line elbow was cleaned, re-installed, and the Treatment System was restarted. The total down time was 20 hours.

2.1.5. Shut Down Due To Clogged Clarifier Discharge Line

On March 22, the Treatment Plant operator discovered that the Clarifier (C-400) was on the verge of over-flowing. The discharge line had clogged and the Treatment Plant was shut down to work on it. The water hose jetter was used to unclog the piping but it could not be maneuvered through all of the pipe fittings. A dilute inhibited HCl acid solution was added to the piping and allowed to react overnight. On March 23, the dilute inhibited HCl acid solution was flushed out of the piping and the Treatment System was restarted. The acid cleaning was successful and the total down time was 20.25 hours.

2.1.6. Shut Down Due To SM-401 Failure

On Saturday, March 27, the Treatment Plant operator discovered that the Sulfuric Acid Static Mixer (SM-401) injection quill had failed and Sulfuric Acid was spraying about 20 feet out. The concrete floor is etched from SM-401 past the Tertiary Filter Holding Tank (TFT-601) and under the third stage of the Metals Package (RMT-301). The Extraction Wells (EW'S) were shut down and plastic sheeting was hung over the leak to reduce the spray zone. The Treatment Plant continued to operate until the Equalization Tank (EQT-100) level reached <25% and shut down the Treatment System automatically. The WDNR and USACE were notified of the incident. On Monday, March 29, SM-401 was removed, cleaned, and inspected. A hole in the injection quill port was discovered. The SM-401 supplier had agreed to replace the port under warranty (it was replaced in September 1998) and to supply some alternative options to be reviewed by the USACE. The SM-401 was shipped to the supplier on March 29 and was not returned by March 31. The total down time was 98 hours up to March 31, 1999. This incident will be concluded in April's Monthly Monitoring Report.

4.0 Summary

Groundwater Treatment Plant effluent monitoring was conducted on March 2, 8, 15, 24, and 29 of 1999. Monitoring Well sampling occurred on March 3, 4, and 16, 1999. Extraction Well and Water Well sampling occurred on March 8 and 15, 1999. The laboratory results of these samples show that all contaminants listed in the Requirements of the Oconomowoc Electroplating Superfund Site Substantive WPDES Permit Requirements Summary (9/96) comply with the permit. See Chart 1, Section 1.4 for important indicator parameters.

During the month of March, 1999, the plant was shut down six times for a total of 195.5 hours. See Table 1, Section 2.1 for shut down times. All equipment operation and maintenance related issues are detailed in a separate report, entitled "*Monthly Operation and Maintenance Report for the Oconomowoc Electroplating Groundwater Treatment Facility*". That report will be submitted by April 15, 1999.

OCONOMOWOC GROUNDWATER TREATMENT PLANT							
Weekly Sampling Results					Date:	3-2-99	
Parameter	Influent	After Metals Package	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l	
pH	7.4	12	NT	N/A	NT	Monitor	
TSS	NT	NT	NT	NT	NT	Monitor	mg/l
Arsenic	ND	ND	ND	NT	ND	5	
Barium	100	ND	3	NT	20	400	
Cadmium	ND	ND	ND	NT	ND	0.5	
Cadmium Total Recoverable	ND	ND	ND	NT	ND	Monitor	
Chromium +6	ND	NT	NT	NT	ND	Monitor	
Chromium Total	ND	ND	ND	NT	ND	10	
Copper	ND	ND	ND	NT	ND	Monitor	
Iron	1500	90	200	NT	300	Monitor	
Lead	1.4	1.5	ND	NT	ND	1.5	
Manganese	200	ND	ND	NT	70	Monitor	
Mercury	ND	ND	ND	NT	ND	0.2	
Nickel	61	15	22	NT	17	20	
Selenium	23	ND	14	NT	ND	10	
Silver	ND	ND	ND	NT	ND	10	
Thallium	ND	ND	ND	NT	ND	0.4	
Zinc	ND	ND	ND	NT	ND	Monitor	
Cyanide	ND	NT	NT	NT	ND	40	
Cyanide Free	ND	NT	NT	NT	ND	Monitor	
1,1-dichloroethane	45	NT	NT	NT	ND	85	
1,2-dichloroethane	ND	NT	NT	NT	ND	0.5	
1,1-dichloroethene	33	NT	NT	NT	ND	0.7	
1,2-dichloroethene cis	121	NT	NT	NT	ND	7	
1,2-dichloroethene trans	29	NT	NT	NT	ND	20	
Ethylbenzene	ND	NT	NT	NT	ND	140	
Methylene Chloride	ND	NT	NT	NT	ND	0.5	
Tetrachloroethene	ND	NT	NT	NT	ND	0.5	
Toluene	ND	NT	NT	NT	ND	68	
1,1,1-trichloroethane	674	NT	NT	NT	ND	40	
1,1,2-trichloroethane	ND	NT	NT	NT	ND	0.5	
TCE	1520	NT	NT	NT	0.2	0.5	
Vinyl Chloride	ND	NT	NT	NT	ND	0.2	
Xylene Total	ND	NT	NT	NT	ND	124	
COD	NT	NT	NT	NT	NT	Monitor	mg/l
Phosphorus total	NT	NT	NT	NT	NT	Monitor	mg/l
Nitrate + Nitrite	NT	NT	NT	NT	NT	Monitor	mg/l
Ammonia Nitrogen	NT	NT	NT	NT	NT	Monitor	mg/l

OCONOMOWOC GROUNDWATER TREATMENT PLANT							
Weekly Sampling Results					Date:	3-8-99	
Parameter	Influent	After Metals Package	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l	
pH	6.9	11	N/A	N/A	NT	Monitor	
TSS	3.5	NT	NT	NT	3	Monitor	mg/l
Arsenic	13	NT	NT	NT	ND	5	
Barium	120	NT	NT	NT	30	400	
Cadmium	ND	NT	NT	NT	ND	0.5	
Cadmium Total Recoverable	ND	NT	NT	NT	ND	Monitor	
Chromium +6	ND	NT	NT	NT	ND	Monitor	
Chromium Total	ND	NT	NT	NT	ND	10	
Copper	ND	NT	NT	NT	ND	Monitor	
Iron	1100	NT	NT	NT	180	Monitor	
Lead	ND	NT	NT	NT	ND	1.5	
Manganese	210	NT	NT	NT	50	Monitor	
Mercury	ND	NT	NT	NT	ND	0.2	
Nickel	65	NT	NT	NT	18	20	
Selenium	ND	NT	NT	NT	ND	10	
Silver	ND	NT	NT	NT	ND	10	
Thallium	ND	NT	NT	NT	ND	0.4	
Zinc	30	NT	NT	NT	30	Monitor	
Cyanide	ND	NT	NT	NT	ND	40	
Cyanide Free	ND	NT	NT	NT	ND	Monitor	
1,1-dichloroethane	14	NT	ND	NT	ND	85	
1,2-dichloroethane	ND	NT	ND	NT	ND	0.5	
1,1-dichloroethene	9.3	NT	ND	NT	ND	0.7	
1,2-dichloroethene cis	27	NT	ND	NT	ND	7	
1,2-dichloroethene trans	11	NT	ND	NT	ND	20	
Ethylbenzene	ND	NT	ND	NT	ND	140	
Methylene Chloride	ND	NT	ND	NT	ND	0.5	
Tetrachloroethene	6.8	NT	ND	NT	ND	0.5	
Toluene	ND	NT	ND	NT	ND	68	
1,1,1-trichloroethane	138	NT	ND	NT	0.6	40	
1,1,2-trichloroethane	ND	NT	ND	NT	ND	0.5	
TCE	332	NT	ND	NT	0.3	0.5	
Vinyl Chloride	ND	NT	ND	NT	ND	0.2	
Xylene Total	ND	NT	ND	NT	ND	124	
COD	23	NT	NT	NT	ND	Monitor	mg/l
Phosphorus total	NT	NT	NT	NT	ND	Monitor	mg/l
Nitrate + Nitrite	NT	NT	NT	NT	0.11	Monitor	mg/l
Ammonia Nitrogen	NT	NT	NT	NT	ND	Monitor	mg/l

OCONOMOWOC GROUNDWATER TREATMENT PLANT							
Weekly Sampling Results					Date:	3-15-99	
Parameter	Influent	After Metals Package	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l	
pH	7.1	11	N/A	N/A	8.4	Monitor	
TSS	NT	NT	NT	NT	NT	Monitor	mg/l
Arsenic	ND	NT	NT	NT	ND	5	
Barium	120	NT	NT	NT	30	400	
Cadmium	ND	NT	NT	NT	ND	0.5	
Cadmium Total Recoverable	ND	NT	NT	NT	ND	Monitor	
Chromium +6	ND	NT	NT	NT	ND	Monitor	
Chromium Total	ND	NT	NT	NT	ND	10	
Copper	ND	NT	NT	NT	ND	Monitor	
Iron	1100	NT	NT	NT	130	Monitor	
Lead	ND	NT	NT	NT	ND	1.5	
Manganese	200	NT	NT	NT	10	Monitor	
Mercury	0.4	NT	NT	NT	ND	0.2	
Nickel	44	NT	NT	NT	ND	20	
Selenium	32	NT	NT	NT	ND	10	
Silver	ND	NT	NT	NT	ND	10	
Thallium	ND	NT	NT	NT	ND	0.4	
Zinc	30	NT	NT	NT	30	Monitor	
Cyanide	ND	NT	NT	NT	ND	40	
Cyanide Free	ND	NT	NT	NT	ND	Monitor	
1,1-dichloroethane	34	NT	NT	NT	0.3	85	
1,2-dichloroethane	ND	NT	NT	NT	ND	0.5	
1,1-dichloroethene	29	NT	NT	NT	ND	0.7	
1,2-dichloroethene cis	88	NT	NT	NT	ND	7	
1,2-dichloroethene trans	25	NT	NT	NT	ND	20	
Ethylbenzene	ND	NT	NT	NT	ND	140	
Methylene Chloride	ND	NT	NT	NT	ND	0.5	
Tetrachloroethene	12	NT	NT	NT	ND	0.5	
Toluene	ND	NT	NT	NT	ND	68	
1,1,1-trichloroethane	395	NT	NT	NT	0.9	40	
1,1,2-trichloroethane	ND	NT	NT	NT	ND	0.5	
TCE	824	NT	NT	NT	0.5	0.5	
Vinyl Chloride	9.4	NT	NT	NT	ND	0.2	
Xylene Total	ND	NT	NT	NT	ND	124	
COD	NT	NT	NT	NT	NT	Monitor	mg/l
Phosphorus total	NT	NT	NT	NT	NT	Monitor	mg/l
Nitrate + Nitrite	NT	NT	NT	NT	NT	Monitor	mg/l
Ammonia Nitrogen	NT	NT	NT	NT	NT	Monitor	mg/l

OCONOMOWOC GROUNDWATER TREATMENT PLANT							
Weekly Sampling Results					Date:	3-24-99	
Parameter	Influent	After Metals Package	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l	
pH	7.6	11.2	N/A	N/A	8.2	Monitor	
TSS	NT	NT	NT	NT	NT	Monitor	mg/l
Arsenic	ND	NT	NT	NT	ND	5	
Barium	120	NT	NT	NT	50	400	
Cadmium	ND	NT	NT	NT	ND	0.5	
Cadmium Total Recoverable	ND	NT	NT	NT	ND	Monitor	
Chromium +6	ND	NT	NT	NT	ND	Monitor	
Chromium Total	ND	NT	NT	NT	ND	10	
Copper	ND	NT	NT	NT	ND	Monitor	
Iron	1100	NT	NT	NT	200	Monitor	
Lead	7.8	NT	NT	NT	ND	1.5	
Manganese	200	NT	NT	NT	20	Monitor	
Mercury	0.4	NT	NT	NT	ND	0.2	
Nickel	49	NT	NT	NT	12	20	
Selenium	10	NT	NT	NT	ND	10	
Silver	ND	NT	NT	NT	ND	10	
Thallium	ND	NT	NT	NT	ND	0.4	
Zinc	20	NT	NT	NT	20	Monitor	
Cyanide	ND	NT	NT	NT	ND	40	
Cyanide Free	ND	NT	NT	NT	ND	Monitor	
1,1-dichloroethane	34	NT	NT	NT	0.4	85	
1,2-dichloroethane	ND	NT	NT	NT	ND	0.5	
1,1-dichloroethene	23	NT	NT	NT	ND	0.7	
1,2-dichloroethene cis	65	NT	NT	NT	ND	7	
1,2-dichloroethene trans	25	NT	NT	NT	ND	20	
Ethylbenzene	ND	NT	NT	NT	ND	140	
Methylene Chloride	ND	NT	NT	NT	ND	0.5	
Tetrachloroethene	16	NT	NT	NT	ND	0.5	
Toluene	ND	NT	NT	NT	ND	68	
1,1,1-trichloroethane	346	NT	NT	NT	0.8	40	
1,1,2-trichloroethane	ND	NT	NT	NT	ND	0.5	
TCE	805	NT	NT	NT	0.5	0.5	
Vinyl Chloride	ND	NT	NT	NT	ND	0.2	
Xylene Total	ND	NT	NT	NT	ND	124	
COD	NT	NT	NT	NT	NT	Monitor	mg/l
Phosphorus total	NT	NT	NT	NT	NT	Monitor	mg/l
Nitrate + Nitrite	NT	NT	NT	NT	NT	Monitor	mg/l
Ammonia Nitrogen	NT	NT	NT	NT	NT	Monitor	mg/l

OCONOMOWOC GROUNDWATER TREATMENT PLANT							
Weekly Sampling Results					Date:	3-29-99	
Parameter	Influent	After Metals Package	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l	
pH	7.1	11	N/A	N/A	8.6	Monitor	
TSS	NT	NT	NT	NT	NT	Monitor	mg/l
Arsenic	ND	NT	NT	NT	ND	5	
Barium	100	NT	NT	NT	20	400	
Cadmium	ND	NT	NT	NT	ND	0.5	
Cadmium Total Recoverable	ND	NT	NT	NT	ND	Monitor	
Chromium +6	ND	NT	NT	NT	ND	Monitor	
Chromium Total	ND	NT	NT	NT	ND	10	
Copper	ND	NT	NT	NT	ND	Monitor	
Iron	1000	NT	NT	NT	500	Monitor	
Lead	ND	NT	NT	NT	ND	1.5	
Manganese	200	NT	NT	NT	ND	Monitor	
Mercury	ND	NT	NT	NT	ND	0.2	
Nickel	37	NT	NT	NT	ND	20	
Selenium	ND	NT	NT	NT	ND	10	
Silver	ND	NT	NT	NT	ND	10	
Thallium	ND	NT	NT	NT	ND	0.4	
Zinc	ND	NT	NT	NT	ND	Monitor	
Cyanide	ND	NT	NT	NT	ND	40	
Cyanide Free	ND	NT	NT	NT	ND	Monitor	
1,1-dichloroethane	31	NT	NT	NT	0.5	85	
1,2-dichloroethane	ND	NT	NT	NT	ND	0.5	
1,1-dichloroethene	30	NT	NT	NT	ND	0.7	
1,2-dichloroethene cis	64	NT	NT	NT	0.3	7	
1,2-dichloroethene trans	26	NT	NT	NT	ND	20	
Ethylbenzene	ND	NT	NT	NT	ND	140	
Methylene Chloride	ND	NT	NT	NT	ND	0.5	
Tetrachloroethene	16	NT	NT	NT	ND	0.5	
Toluene	ND	NT	NT	NT	ND	68	
1,1,1-trichloroethane	330	NT	NT	NT	1.2	40	
1,1,2-trichloroethane	ND	NT	NT	NT	ND	0.5	
TCE	826	NT	NT	NT	ND	0.5	
Vinyl Chloride	ND	NT	NT	NT	ND	0.2	
Xylene Total	ND	NT	NT	NT	ND	124	
COD	NT	NT	NT	NT	NT	Monitor	mg/l
Phosphorus total	NT	NT	NT	NT	NT	Monitor	mg/l
Nitrate + Nitrite	NT	NT	NT	NT	NT	Monitor	mg/l
Ammonia Nitrogen	NT	NT	NT	NT	NT	Monitor	mg/l

All Effluent Samples Were Grab Samples Authorized By Paul Kozol, WDNR.
The Grab Samples Were Determined To Be Representative Of Operations For The Short Term.

FLOW FROM EXTRACTION WELLS

YEAR: 1999

MONTH: MAR. DAY	FE-100 FLOW TOTALIZER	TOTAL DAY'S FLOW (GAL.)	DAILY FLOW MGD	
1	2,323,751.75	95.25	0.000	OFF
2	2,323,847.00	0.00	0.000	OFF
3	2,323,847.00	0.00	0.000	SHUT DOWN
4	2,323,847.00	14,048.25	0.014	SHUT DOWN
5	2,337,895.25	21,482.00	0.021	SHUT DOWN
6	2,359,377.25	29,839.25	0.030	
7	2,389,216.50	23,386.75	0.023	
8	2,412,603.25	30,084.00	0.030	
9	2,442,687.25	24,317.75	0.024	
10	2,467,005.00	21,618.50	0.022	
11	2,488,623.50	28,419.75	0.028	SHUT DOWN
12	2,517,043.25	21,445.25	0.021	SHUT DOWN
13	2,538,488.50	22,604.25	0.023	
14	2,561,092.75	30,685.00	0.031	
15	2,591,777.75	25,796.50	0.026	
16	2,617,574.25	23,781.00	0.024	
17	2,641,355.25	25,059.25	0.025	
18	2,666,414.50	23,681.25	0.024	
19	2,690,095.75	20,871.25	0.021	
20	2,710,967.00	27,626.00	0.028	
21	2,738,593.00	1,238.50	0.001	SHUT DOWN
22	2,739,831.50	631.50	0.001	SHUT DOWN
23	2,740,463.00	21,695.00	0.022	SHUT DOWN
24	2,762,158.00	30,880.75	0.031	
25	2,793,038.75	22,960.75	0.023	
26	2,815,999.50	21,357.75	0.021	
27	2,837,357.25	968.25	0.001	SHUT DOWN
28	2,838,325.50	3,685.75	0.004	SHUT DOWN
29	2,842,011.25	10.00	0.000	SHUT DOWN
30	2,842,021.25	3,740.25	0.004	SHUT DOWN
31	2,845,761.50	11,904.25	0.012	SHUT DOWN
APR. 1	2,857,665.75			SHUT DOWN
		TOTAL	0.534	
		AVERAGE	0.018	

FLOW FROM EQT-100

YEAR: 1999				
MONTH: MAR. DAY	FE-112 FLOW TOTALIZER	TOTAL DAY'S FLOW (GAL.)	DAILY FLOW MGD	
1	7,790,392.00	39,950.50	0.040	
2	7,830,342.50	22,497.50	0.022	SHUT DOWN
3	7,852,840.00	1,751.00	0.002	SHUT DOWN
4	7,854,591.00	16,397.50	0.016	SHUT DOWN
5	7,870,988.50	30,991.50	0.031	SHUT DOWN
6	7,901,980.00	38,032.00	0.038	
7	7,940,012.00	31,054.00	0.031	
8	7,971,066.00	41,333.50	0.041	
9	8,012,399.50	34,357.50	0.034	
10	8,046,757.00	31,972.50	0.032	
11	8,078,729.50	36,713.50	0.037	SHUT DOWN
12	8,115,443.00	28,577.50	0.029	SHUT DOWN
13	8,144,020.50	30,142.00	0.030	
14	8,174,162.50	41,738.50	0.042	
15	8,215,901.00	35,307.00	0.035	
16	8,251,208.00	32,664.50	0.033	
17	8,283,872.50	33,515.50	0.034	
18	8,317,388.00	32,257.00	0.032	
19	8,349,645.00	27,502.00	0.028	
20	8,377,147.00	36,477.00	0.036	
21	8,413,624.00	4,964.00	0.005	SHUT DOWN
22	8,418,588.00	6,031.00	0.006	SHUT DOWN
23	8,424,619.00	31,985.00	0.032	SHUT DOWN
24	8,456,604.00	46,114.00	0.046	
25	8,502,718.00	36,960.00	0.037	
26	8,539,678.00	30,312.00	0.030	
27	8,569,990.00	10,296.00	0.010	SHUT DOWN
28	8,580,286.00	7,361.00	0.007	SHUT DOWN
29	8,587,647.00	3,154.00	0.003	SHUT DOWN
30	8,590,801.00	3,528.00	0.004	SHUT DOWN
31	8,594,329.00	2,614.00	0.003	SHUT DOWN
APR. 1	8,596,943.00			SHUT DOWN
		TOTAL	0.807	
		AVERAGE	0.026	

EFFLUENT FLOW FROM PLANT

YEAR: 1999

MONTH: MAR. DAY	NPDES STATION TOTALIZER	TOTAL DAY'S FLOW (GAL.)	X2	DAILY FLOW MGD	
1	2,016,991.25	4,692.88	9,385.76	0.009	
2	2,021,684.13	7,981.39	15,962.78	0.016	SHUT DOWN
3	2,029,665.52	0.00	0.00	0.000	SHUT DOWN
4	2,029,665.52	0.00	0.00	0.000	SHUT DOWN
5	2,029,665.52	14,511.11	29,022.22	0.029	SHUT DOWN
6	2,044,176.63	18,059.37	36,118.74	0.036	
7	2,062,236.00	11,808.88	23,617.76	0.024	
8	2,074,044.88	15,588.62	31,177.24	0.031	
9	2,089,633.50	14,347.25	28,694.50	0.029	
10	2,103,980.75	13,432.00	26,864.00	0.027	
11	2,117,412.75	17,945.50	35,891.00	0.036	SHUT DOWN
12	2,135,358.25	13,768.50	27,537.00	0.028	SHUT DOWN
13	2,149,126.75	13,956.50	27,913.00	0.028	
14	2,163,083.25	19,835.50	39,671.00	0.040	
15	2,182,918.75	9,694.00	19,388.00	0.019	
16	2,192,612.75	19,154.50	38,309.00	0.038	
17	2,211,767.25	14,347.25	28,694.50	0.029	
18	2,226,114.50	16,669.25	33,338.50	0.033	
19	2,242,783.75	12,337.50	24,675.00	0.025	
20	2,255,121.25	17,192.25	34,384.50	0.034	
21	2,272,313.50	1,178.75	2,357.50	0.002	SHUT DOWN
22	2,273,492.25	2,220.50	4,441.00	0.004	SHUT DOWN
23	2,275,712.75	15,477.25	30,954.50	0.031	SHUT DOWN
24	2,291,190.00	18,031.75	36,063.50	0.036	
25	2,309,221.75	14,333.50	28,667.00	0.029	
26	2,323,555.25	14,945.25	29,890.50	0.030	
27	2,338,500.50	5,212.00	10,424.00	0.010	SHUT DOWN
28	2,343,712.50	2,610.50	5,221.00	0.005	SHUT DOWN
29	2,346,323.00	1,123.00	2,246.00	0.002	SHUT DOWN
30	2,347,446.00	0.00	0.00	0.000	SHUT DOWN
31	2,347,446.00	0.00	0.00	0.000	SHUT DOWN
APR. 1	2,347,446.00				SHUT DOWN
			TOTAL	0.661	
			AVERAGE	0.024	

OCONOMOWOC GROUNDWATER TREATMENT PLANT

EXTRACTION WELLS					Date:	(ug/l) March 1999	
Parameter	EW-1	EW-2	EW-3	EW-4	EW-5	WW-1	
pH	7.1	7.1	7.1	6.9	7.1	6.5	
Arsenic	ND	ND	ND	ND	ND	ND	
Barium	70	80	140	150	90	ND	
Cadmium	ND	ND	ND	ND	ND	ND	
Cadmium Total Recoverable	ND	ND	ND	ND	ND	ND	
Chromium +6	ND	ND	ND	ND	ND	ND	
Chromium Total	ND	9	ND	20	ND	ND	
Copper	20	80	70	170	90	ND	
Iron	570	1100	2000	550	1800	260	
Lead	9.5/16	30/ND	20/ND	37/ND	55/ND	4.4	RETESTED
Manganese	270	110	90	450	80	20	
Mercury	ND	ND	ND	ND	ND	0.3	
Nickel	65	30	20	185	33	ND	
Selenium	ND	62	57	21	43	29	
Silver	ND	ND	ND	ND	ND	ND	
Thallium	ND	ND	ND	ND	ND	ND	
Zinc	50	180	190	920	470	30	
Cyanide	ND	ND	ND	ND	ND	ND	
Cyanide Free	ND	ND	ND	ND	ND	ND	
1,1-dichloroethane	ND	3.4	9.6	32	103	ND	
1,2-dichloroethane	ND	ND	ND	ND	ND	ND	
1,1-dichloroethene	ND	ND	2.4	73	19	ND	
1,2-dichloroethene cis	0.7	15	25	125	129	ND	
1,2-dichloroethene trans	ND	6.4	1.4	87	9.6	ND	
Ethylbenzene	ND	ND	ND	ND	ND	ND	
Methylene Chloride	ND	ND	ND	ND	ND	ND	
Tetrachloroethene	ND	ND	ND	58	ND	ND	
Toluene	ND	ND	ND	ND	ND	ND	
1,1,1-trichloroethane	ND	0.7	4.3	1200	410	ND	
1,1,2-trichloroethane	ND	ND	ND	ND	ND	ND	
TCE	6.2	19	98	2350	1240	ND	
Vinyl Chloride	ND	ND	ND	ND	ND	ND	
Xylene Total	ND	ND	ND	ND	ND	ND	

OCONOMOWOC GROUNDWATER TREATMENT PLANT

MONITORING WELL					Date:	(ug/l) 3RD QTR.1999	
Parameter	MW02DP	MW03SP	MW05P	MW05DP	MW06P	MW11BP	
pH	6.93	DRY	7.02	7.35	7.43	COVERED	
Conductivity	972	NT	727	554	571	NT	uMHOS/CM
Arsenic	ND	NT	NT	ND	ND	NT	
Barium	80	NT	NT	80	60	NT	
Cadmium	ND	NT	NT	ND	ND	NT	
Cadmium Total Recoverable	ND	NT	NT	ND	ND	NT	
Chromium +6	ND	NT	NT	19	20	NT	
Chromium Total	ND	NT	NT	ND	ND	NT	
Copper	ND	NT	NT	ND	20	NT	
Iron	14000	NT	NT	2600	3600	NT	
Lead	ND	NT	NT	ND	ND	NT	
Manganese	70	NT	NT	100	1500	NT	
Mercury	ND	NT	NT	ND	ND	NT	
Nickel	15	NT	NT	ND	53	NT	
Selenium	11	NT	NT	ND	ND	NT	
Silver	ND	NT	NT	ND	ND	NT	
Thallium	ND	NT	NT	ND	ND	NT	
Zinc	40	NT	NT	20	70	NT	
Cyanide	ND	NT	NT	ND	ND	NT	
Cyanide Free	ND	NT	NT	ND	ND	NT	
Chlorobenzene	ND	NT	NT	ND	ND	NT	
Chloroethane	ND	NT	NT	ND	ND	NT	
1,1-dichloroethane	ND	NT	NT	58	ND	NT	
1,2-dichloroethane	ND	NT	NT	ND	ND	NT	
1,1-dichloroethene	ND	NT	NT	4.8	ND	NT	
1,2-dichloroethene cis	1.4	NT	NT	30	ND	NT	
1,2-dichloroethene trans	ND	NT	NT	ND	ND	NT	
Ethylbenzene	ND	NT	NT	ND	ND	NT	
4 Isopropyltoluene	ND	NT	NT	ND	ND	NT	
Methylene Chloride	ND	NT	NT	ND	ND	NT	
Tetrachloroethene	ND	NT	NT	ND	ND	NT	
Toluene	ND	NT	NT	ND	ND	NT	
1,1,1-trichloroethane	ND	NT	NT	ND	ND	NT	
1,1,2-trichloroethane	ND	NT	NT	ND	ND	NT	
TCE	0.4	NT	NT	738	ND	NT	
Vinyl Chloride	ND	NT	NT	ND	ND	NT	
Xylene Total	ND	NT	NT	ND	ND	NT	
Temperature (C)	10	NT	3.5	5.9	7.1	NT	

MW05P Was Too Dry To Sample.

OCONOMOWOC GROUNDWATER TREATMENT PLANT

MONITORING WELL					Date:	(ug/l) 3RD QTR.1999	
Parameter	MW12BP	MW12DP	MW13SP	MW14DP	MW15DP	MW16SP	
pH	8.07	7.41	7.53	7.16	7.46	8.05	
Conductivity	628	886	468	481	739	1316	uMHOS/CM
Arsenic	ND	ND	ND	ND	9.6	ND	
Barium	200	60	40	90	40	30	
Cadmium	ND	ND	ND	ND	ND	2.8	
Cadmium Total Recoverable	ND	ND	ND	ND	ND	2.6	
Chromium +6	40	170	21	ND	ND	ND	
Chromium Total	20	ND	70	ND	ND	10	
Copper	30	1600	10	ND	ND	10	
Iron	3900	2900	4500	ND	1500	20000	
Lead	ND	ND	ND	ND	ND	ND	
Manganese	200	100	300	200	80	200	
Mercury	ND	ND	ND	ND	ND	ND	
Nickel	32	31	75	ND	ND	37	
Selenium	ND	ND	ND	ND	ND	55	
Silver	ND	ND	ND	ND	ND	ND	
Thallium	ND	ND	ND	ND	ND	ND	
Zinc	40	ND	70	40	30	80	
Cyanide	ND	ND	ND	ND	ND	ND	
Cyanide Free	ND	ND	ND	ND	ND	ND	
Chlorobenzene	ND	ND	ND	4.8	ND	ND	
Chloroethane	ND	ND	ND	ND	ND	ND	
1,1-dichloroethane	ND	28	ND	ND	ND	ND	
1,2-dichloroethane	ND	ND	ND	ND	ND	ND	
1,1-dichloroethene	ND	6.9	ND	ND	ND	ND	
1,2-dichloroethene cis	ND	5.6	ND	3.4	ND	187	
1,2-dichloroethene trans	ND	1.5	ND	0.5	ND	3.6	
Ethylbenzene	ND	ND	ND	ND	ND	ND	
4-Isopropyltoluene	ND	ND	ND	ND	ND	ND	
Methylene Chloride	ND	ND	ND	ND	ND	ND	
Tetrachloroethene	ND	ND	ND	ND	ND	ND	
Toluene	ND	ND	ND	ND	ND	ND	
1,1,1-trichloroethane	ND	30	ND	ND	ND	ND	
1,1,2-trichloroethane	ND	ND	ND	ND	ND	ND	
TCE	ND	2.4	ND	26	0.8	ND	
Vinyl Chloride	ND	ND	ND	ND	ND	52	
Xylene Total	ND	ND	ND	ND	ND	ND	
Temperature (C)	5.6	4.3	4.4	10.7	7.7	6	

MONITOR WELL DEPTHS

OCONOMOWOC GROUNDWATER TREATMENT PLANT						
MONITORING WELLS		WATER LEVEL	FEET			
DATE	MW12BP	MW12DP	MW13SP	MW14DP	MW15DP	MW16SP
July 31, 1998	4.75	3.78	5.75	4.80	10.49	UNACCESS.
Aug. 31, 1998	5.64	4.48	6.38	4.80	11.64	UNACCESS.
Sept. 17, 1998	5.35	3.20	6.31	4.86	11.10	UNACCESS.
Oct. 7, 1998	4.75	3.65	5.79	4.75	10.60	UNACCESS.
Nov. 23, 1998	4.73	3.70	5.82	4.56	10.46	UNACCESS.
Dec. 15, 1998	4.10	3.00	5.85	4.70	9.95	UNACCESS.
Jan. 18, 1999	4.70	3.70	5.70	5.00	10.50	UNACCESS.
Feb. 3, 1999	3.50	2.48	4.85	3.00	9.27	UNACCESS.
Mar. 3-4, & 16, 1999	3.50	2.70	5.15	3.40	9.20	2.95

MONITOR WELL DEPTHS

OCONOMOWOC GROUNDWATER TREATMENT PLANT						
MONITORING WELLS		WATER LEVEL		FEET		
DATE	MW02DP	MW03SP	MW05P	MW05DP	MW06P	MW11BP
July 31, 1998	6.64	DRY	3.74	4.26	8.00	COVERED
Aug. 31, 1998	7.70	DRY	DRY	5.34	8.70	COVERED
Sept. 17, 1998	7.50	DRY	DRY	5.00	8.66	COVERED
Oct. 7, 1998	6.50	DRY	3.75	4.10	8.34	COVERED
Nov. 23, 1998	6.66	DRY	DRY	4.37	8.17	COVERED
Dec. 15, 1998	5.90	DRY	3.40	3.75	8.20	COVERED
Jan. 18, 1999	6.60	DRY	3.75	4.72	8.25	COVERED
Feb. 3, 1999	5.36	6.10	3.15	2.90	7.15	COVERED
Mar. 3-4, 1999	5.51	DRY	3.20	3.04	7.40	COVERED

APL Environmental
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990152**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 01-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: **14275**		QC Prep Batch Number: 990353					*Sample analyzed within*	*4*	*Day(s) from collection.*	
Client ID: **990301WA01P**	Sample Description:						*Collection:*	*3/1/99*	*Time:*	*13:10*
1,1,1,2-Tetrachloroethane	< 4	ug/l	4	13	ns	20		8260	srh	3/5/99
1,1,1-Trichloroethane	674	ug/l	4.6	15	40	20		8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	< 5.8	ug/l	5.8	18	0.02	20		8260	srh	3/5/99
1,1,2-Trichloroethane	< 5.8	ug/l	5.8	18	0.5	20		8260	srh	3/5/99
1,1-Dichloroethane	45	ug/l	3	9.5	85	20		8260	srh	3/5/99
1,1-Dichloroethene	33	ug/l	7.2	23	0.7	20		8260	srh	3/5/99
1,1-Dichloropropene	< 9.8	ug/l	9.8	31	ns	20		8260	srh	3/5/99
1,2,3-Trichlorobenzene	< 4.4	ug/l	4.4	14	ns	20		8260	srh	3/5/99
1,2,3-Trichloropropane	< 12	ug/l	12	38	ns	20		8260	srh	3/5/99
1,2,4-Trichlorobenzene	< 3.2	ug/l	3.2	10	14	20		8260	srh	3/5/99
1,2,4-Trimethylbenzene	< 5.8	ug/l	5.8	18	ns	20		8260	srh	3/5/99
1,2-Dibromoethane	< 4.8	ug/l	4.8	15	0.005	20		8260	srh	3/5/99
1,2-Dichlorobenzene	< 4	ug/l	4	13	60	20		8260	srh	3/5/99
1,2-Dichloroethane	< 3.8	ug/l	3.8	12	0.5	20		8260	srh	3/5/99
1,2-Dichloropropane	< 4.6	ug/l	4.6	15	0.5	20		8260	srh	3/5/99
1,3,5-Trimethylbenzene	< 4.6	ug/l	4.6	15	ns	20		8260	srh	3/5/99
1,3-Dichlorobenzene	< 3.8	ug/l	3.8	12	125	20		8260	srh	3/5/99
1,3-Dichloropropane	< 4.2	ug/l	4.2	13	ns	20		8260	srh	3/5/99
1,4-Dichlorobenzene	< 3	ug/l	3	9.5	15	20		8260	srh	3/5/99
12Dibromo-3-chloropropan	< 12	ug/l	12	38	0.02	20		8260	srh	3/5/99
2,2-Dichloropropane	< 8	ug/l	8	25	ns	20		8260	srh	3/5/99
2-Butanone (MEK)	< 28	ug/l	28	88	90	20		8260	srh	3/5/99
2-Chloroethyl Vinyl Ether	< 5.8	ug/l	5.8	18	ns	20		8260	srh	3/5/99
2-Chlorotoluene	< 3	ug/l	3	9.5	ns	20		8260	srh	3/5/99
4-Chlorotoluene	< 5	ug/l	5	16	ns	20		8260	srh	3/5/99
4-Methyl-2-Pentanone	< 17	ug/l	17	53	50	20		8260	srh	3/5/99
Acetone	< 31	ug/l	31	99	200	20		8260	srh	3/5/99
Benzene	< 3.8	ug/l	3.8	12	0.5	20		8260	srh	3/5/99
Bromobenzene	< 3.8	ug/l	3.8	12	ns	20		8260	srh	3/5/99
Bromochloromethane	< 6.8	ug/l	6.8	22	ns	20		8260	srh	3/5/99
Bromodichloromethane	< 5.2	ug/l	5.2	17	0.06	20		8260	srh	3/5/99
Bromoform	< 9.4	ug/l	9.4	30	0.44	20		8260	srh	3/5/99
Bromomethane	< 4.2	ug/l	4.2	13	1	20		8260	srh	3/5/99
Carbon tetrachloride	< 4.4	ug/l	4.4	14	0.5	20		8260	srh	3/5/99
Chlorobenzene	< 4	ug/l	4	13	20	20		8260	srh	3/5/99
Chloroethane	< 23	ug/l	23	74	80	20		8260	srh	3/5/99
Chloroform	< 5.4	ug/l	5.4	17	0.6	20		8260	srh	3/5/99
Chloromethane	< 15	ug/l	15	49	0.3	20		8260	srh	3/5/99
cis-1,2-Dichloroethene	121	ug/l	4	13	7	20		8260	srh	3/5/99
cis-1,3-Dichloropropene	< 4.8	ug/l	4.8	15	0.02	20		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990152
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 01-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	<4.2	ug/l	4.2	13	6	20		8260	srh	3/5/99
Dibromomethane	<7	ug/l	7	22	ns	20		8260	srh	3/5/99
Dichlorodifluoromethane	<7.2	ug/l	7.2	23	200	20		8260	srh	3/5/99
Ethylbenzene	<3.2	ug/l	3.2	10	140	20		8260	srh	3/5/99
Hexachlorobutadiene	<4.4	ug/l	4.4	14	ns	20		8260	srh	3/5/99
Isopropyl Ether	<6.4	ug/l	6.4	20	ns	20		8260	srh	3/5/99
Isopropylbenzene	<3.2	ug/l	3.2	10	ns	20		8260	srh	3/5/99
m&p-xylene	<7.2	ug/l	7.2	23	124	20		8260	srh	3/5/99
Methyl-t-butyl ether	<4.2	ug/l	4.2	13	12	20		8260	srh	3/5/99
Methylene chloride	<15	ug/l	15	48	0.5	20		8260	srh	3/5/99
n-Butylbenzene	<4.6	ug/l	4.6	15	ns	20		8260	srh	3/5/99
n-Propylbenzene	<5	ug/l	5	16	ns	20		8260	srh	3/5/99
Naphthalene	<9.2	ug/l	9.2	29	8	20		8260	srh	3/5/99
o-xylene	<3.6	ug/l	3.6	11	124	20		8260	srh	3/5/99
p-Isopropyltoluene	<3.6	ug/l	3.6	11	ns	20		8260	srh	3/5/99
sec-Butylbenzene	<6	ug/l	6	19	ns	20		8260	srh	3/5/99
Styrene	<4.2	ug/l	4.2	13	10	20		8260	srh	3/5/99
tert-Butylbenzene	<4	ug/l	4	13	ns	20		8260	srh	3/5/99
Tetrachloroethene	<5.8	ug/l	5.8	18	0.5	20		8260	srh	3/5/99
Toluene	<6.6	ug/l	6.6	21	68.6	20		8260	srh	3/5/99
trans-1,2-Dichloroethene	29	ug/l	3.2	10	20	20		8260	srh	3/5/99
trans-1,3-Dichloropropene	<4	ug/l	4	13	0.02	20		8260	srh	3/5/99
Trichloroethene	1520	ug/l	3.2	10	0.5	20		8260	srh	3/5/99
Trichlorofluoromethane	<6.8	ug/l	6.8	22	ns	20		8260	srh	3/5/99
Vinyl chloride	<4.2	ug/l	4.2	13	0.02	20		8260	srh	3/5/99

Sample Number: **14281** QC Prep Batch Number: 990353 *Sample analyzed within 4 Day(s) from collection.*
Client ID: **990301WA09P** Sample Description: *Collection: 3/1/99 Time: 14:00*

1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1	8260	srh	3/5/99
1,1,1-Trichloroethane	<0.2	ug/l	0.2	0.7	40	1	8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1	8260	srh	3/5/99
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1	8260	srh	3/5/99
1,1-Dichloroethane	<0.2	ug/l	0.2	0.5	85	1	8260	srh	3/5/99
1,1-Dichloroethene	<0.4	ug/l	0.4	1.1	0.7	1	8260	srh	3/5/99
1,1-Dichloropropene	<0.5	ug/l	0.5	1.6	ns	1	8260	srh	3/5/99
1,2,3-Trichlorobenzene	<0.2	ug/l	0.2	0.7	ns	1	8260	srh	3/5/99
1,2,3-Trichloropropane	<0.6	ug/l	0.6	1.9	ns	1	8260	srh	3/5/99
1,2,4-Trichlorobenzene	<0.2	ug/l	0.2	0.5	14	1	8260	srh	3/5/99
1,2,4-Trimethylbenzene	<0.3	ug/l	0.3	0.9	ns	1	8260	srh	3/5/99
1,2-Dibromoethane	<0.2	ug/l	0.2	0.8	0.005	1	8260	srh	3/5/99
1,2-Dichlorobenzene	<0.2	ug/l	0.2	0.6	60	1	8260	srh	3/5/99
1,2-Dichloroethane	<0.2	ug/l	0.2	0.6	0.5	1	8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990152
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 04-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
1,3,5-Trimethylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,3-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	125	1		8260	srh	3/5/99
1,3-Dichloropropane	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,4-Dichlorobenzene	< 0.2	ug/l	0.2	0.5	15	1		8260	srh	3/5/99
12Dibromo-3-chloropropan	< 0.6	ug/l	0.6	1.9	0.02	1		8260	srh	3/5/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	srh	3/5/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	srh	3/5/99
2-Chloroethyl Vinyl Ether	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
2-Chlorotoluene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
4-Chlorotoluene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
4-Methyl-2-Pentanone	< 0.8	ug/l	0.8	2.7	50	1		8260	srh	3/5/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	srh	3/5/99
Benzene	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
Bromobenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Bromochloromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Bromodichloromethane	< 0.3	ug/l	0.3	0.8	0.06	1		8260	srh	3/5/99
Bromoform	< 0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/5/99
Bromomethane	< 0.2	ug/l	0.2	0.7	1	1		8260	srh	3/5/99
Carbon tetrachloride	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
Chlorobenzene	< 0.2	ug/l	0.2	0.6	20	1		8260	srh	3/5/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	srh	3/5/99
Chloroform	0.7	ug/l	0.3	0.9	0.6	1	J	8260	srh	3/5/99
Chloromethane	< 0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/5/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.6	7	1		8260	srh	3/5/99
cis-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/5/99
Dibromochloromethane	< 0.2	ug/l	0.2	0.7	6	1		8260	srh	3/5/99
Dibromomethane	< 0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/5/99
Dichlorodifluoromethane	< 0.4	ug/l	0.4	1.1	200	1		8260	srh	3/5/99
Ethylbenzene	< 0.2	ug/l	0.2	0.5	140	1		8260	srh	3/5/99
Hexachlorobutadiene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
Isopropyl Ether	< 0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Isopropylbenzene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
m&p-xylene	< 0.4	ug/l	0.4	1.1	124	1		8260	srh	3/5/99
Methyl-t-butyl ether	< 0.2	ug/l	0.2	0.7	12	1		8260	srh	3/5/99
Methylene chloride	< 0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/5/99
n-Butylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
n-Propylbenzene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
Naphthalene	< 0.5	ug/l	0.5	1.5	8	1		8260	srh	3/5/99
o-xylene	< 0.2	ug/l	0.2	0.6	124	1		8260	srh	3/5/99
p-Isopropyltoluene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
sec-Butylbenzene	< 0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Styrene	< 0.2	ug/l	0.2	0.7	10	1		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990152**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 04-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Tetrachloroethene	< 0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
Toluene	< 0.3	ug/l	0.3	1	68.6	1		8260	srh	3/5/99
trans-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.5	20	1		8260	srh	3/5/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/5/99
Trichloroethene	0.2	ug/l	0.2	0.5	0.5	1	J	8260	srh	3/5/99
Trichlorofluoromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Vinyl chloride	< 0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/5/99

Sample Number: **14282** QC Prep Batch Number: 990353 *Sample analyzed within 4 Day(s) from collection.*
Client ID: **TRIP BLANK** Sample Description: *Collection: 3/1/99 Time:*

1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
1,1,1-Trichloroethane	< 0.2	ug/l	0.2	0.7	40	1		8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	< 0.3	ug/l	0.3	0.9	0.02	1		8260	srh	3/5/99
1,1,2-Trichloroethane	< 0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
1,1-Dichloroethane	< 0.2	ug/l	0.2	0.5	85	1		8260	srh	3/5/99
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.1	0.7	1		8260	srh	3/5/99
1,1-Dichloropropene	< 0.5	ug/l	0.5	1.6	ns	1		8260	srh	3/5/99
1,2,3-Trichlorobenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	srh	3/5/99
1,2,4-Trichlorobenzene	< 0.2	ug/l	0.2	0.5	14	1		8260	srh	3/5/99
1,2,4-Trimethylbenzene	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
1,2-Dibromoethane	< 0.2	ug/l	0.2	0.8	0.005	1		8260	srh	3/5/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	60	1		8260	srh	3/5/99
1,2-Dichloroethane	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
1,2-Dichloropropane	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
1,3,5-Trimethylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,3-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	125	1		8260	srh	3/5/99
1,3-Dichloropropane	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,4-Dichlorobenzene	< 0.2	ug/l	0.2	0.5	15	1		8260	srh	3/5/99
12Dibromo-3-chloropropan	< 0.6	ug/l	0.6	1.9	0.02	1		8260	srh	3/5/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	srh	3/5/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	srh	3/5/99
2-Chloroethyl Vinyl Ether	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
2-Chlorotoluene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
4-Chlorotoluene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
4-Methyl-2-Pentanone	< 0.8	ug/l	0.8	2.7	50	1		8260	srh	3/5/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	srh	3/5/99
Benzene	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
Bromobenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Bromochloromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Bromodichloromethane	< 0.3	ug/l	0.3	0.8	0.06	1		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990152**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 01-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	< 0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/5/99
Bromomethane	< 0.2	ug/l	0.2	0.7	1	1		8260	srh	3/5/99
Carbon tetrachloride	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
Chlorobenzene	< 0.2	ug/l	0.2	0.6	20	1		8260	srh	3/5/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	srh	3/5/99
Chloroform	< 0.3	ug/l	0.3	0.9	0.6	1		8260	srh	3/5/99
Chloromethane	< 0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/5/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.6	7	1		8260	srh	3/5/99
cis-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/5/99
Dibromochloromethane	< 0.2	ug/l	0.2	0.7	6	1		8260	srh	3/5/99
Dibromomethane	< 0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/5/99
Dichlorodifluoromethane	< 0.4	ug/l	0.4	1.1	200	1		8260	srh	3/5/99
Ethylbenzene	< 0.2	ug/l	0.2	0.5	140	1		8260	srh	3/5/99
Hexachlorobutadiene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
Isopropyl Ether	< 0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Isopropylbenzene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
m&p-xylene	< 0.4	ug/l	0.4	1.1	124	1		8260	srh	3/5/99
Methyl-t-butyl ether	< 0.2	ug/l	0.2	0.7	12	1		8260	srh	3/5/99
Methylene chloride	< 0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/5/99
n-Butylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
n-Propylbenzene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
Naphthalene	< 0.5	ug/l	0.5	1.5	8	1		8260	srh	3/5/99
o-xylene	< 0.2	ug/l	0.2	0.6	124	1		8260	srh	3/5/99
p-Isopropyltoluene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
sec-Butylbenzene	< 0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Styrene	< 0.2	ug/l	0.2	0.7	10	1		8260	srh	3/5/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Tetrachloroethene	< 0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
Toluene	< 0.3	ug/l	0.3	1	68.6	1		8260	srh	3/5/99
trans-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.5	20	1		8260	srh	3/5/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/5/99
Trichloroethene	< 0.2	ug/l	0.2	0.5	0.5	1		8260	srh	3/5/99
Trichlorofluoromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Vinyl chloride	< 0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER:	**990152**
DATE REPORTED:	06-Mar-99
DATE RECEIVED:	01-Mar-99
SAMPLE TEMP (C):	Rec On Ice
PROJECT ID:	
PROJECT NAME:	

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal

Approved By: James Chang Ph.D. **Date:** 3/6/99
James Chang, Ph.D. , Lab Director

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B *"e" = Estimate value, over calibration range .*
LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified
RQ : Run Qualifier; "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample, "B" = Showed in Blank sample.

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limit Guidance, April 1995.

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990151**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 03-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: **14270**	QC Prep Batch Number: 990353						*Sample analyzed within*	*2*	*Day(s) from collection.*	
Client ID: **990303MW06P** Sample Description:							*Collection:*	*3/3/99*	*Time:*	*14:50*
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
1,1,1-Trichloroethane	< 0.2	ug/l	0.2	0.7	40	1		8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	< 0.3	ug/l	0.3	0.9	0.02	1		8260	srh	3/5/99
1,1,2-Trichloroethane	< 0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
1,1-Dichloroethane	< 0.2	ug/l	0.2	0.5	85	1		8260	srh	3/5/99
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.1	0.7	1		8260	srh	3/5/99
1,1-Dichloropropene	< 0.5	ug/l	0.5	1.6	ns	1		8260	srh	3/5/99
1,2,3-Trichlorobenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	srh	3/5/99
1,2,4-Trichlorobenzene	< 0.2	ug/l	0.2	0.5	14	1		8260	srh	3/5/99
1,2,4-Trimethylbenzene	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
1,2-Dibromoethane	< 0.2	ug/l	0.2	0.8	0.005	1		8260	srh	3/5/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	60	1		8260	srh	3/5/99
1,2-Dichloroethane	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
1,2-Dichloropropane	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
1,3,5-Trimethylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,3-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	125	1		8260	srh	3/5/99
1,3-Dichloropropane	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,4-Dichlorobenzene	< 0.2	ug/l	0.2	0.5	15	1		8260	srh	3/5/99
12Dibromo-3-chloropropan	< 0.6	ug/l	0.6	1.9	0.02	1		8260	srh	3/5/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	srh	3/5/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	srh	3/5/99
2-Chloroethyl Vinyl Ether	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
2-Chlorotoluene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
4-Chlorotoluene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
4-Methyl-2-Pentanone	< 0.8	ug/l	0.8	2.7	50	1		8260	srh	3/5/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	srh	3/5/99
Benzene	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
Bromobenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Bromochloromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Bromodichloromethane	< 0.3	ug/l	0.3	0.8	0.06	1		8260	srh	3/5/99
Bromoform	< 0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/5/99
Bromomethane	< 0.2	ug/l	0.2	0.7	1	1		8260	srh	3/5/99
Carbon tetrachloride	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
Chlorobenzene	< 0.2	ug/l	0.2	0.6	20	1		8260	srh	3/5/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	srh	3/5/99
Chloroform	< 0.3	ug/l	0.3	0.9	0.6	1		8260	srh	3/5/99
Chloromethane	< 0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/5/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.6	7	1		8260	srh	3/5/99
cis-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/5/99

APL Environmental
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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990151**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 03-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	<0.2	ug/l	0.2	0.7	6	1		8260	srh	3/5/99
Dibromomethane	<0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/5/99
Dichlorodifluoromethane	<0.4	ug/l	0.4	1.1	200	1		8260	srh	3/5/99
Ethylbenzene	<0.2	ug/l	0.2	0.5	140	1		8260	srh	3/5/99
Hexachlorobutadiene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
Isopropyl Ether	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Isopropylbenzene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
m&p-xylene	<0.4	ug/l	0.4	1.1	124	1		8260	srh	3/5/99
Methyl-t-butyl ether	<0.2	ug/l	0.2	0.7	12	1		8260	srh	3/5/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/5/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	3/5/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	3/5/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	3/5/99
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	3/5/99
trans-1,2-Dichloroethene	<0.2	ug/l	0.2	0.5	20	1		8260	srh	3/5/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/5/99
Trichloroethene	<0.2	ug/l	0.2	0.5	0.5	1		8260	srh	3/5/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/5/99

Sample Number: **14271** QC Prep Batch Number: 990353 *Sample analyzed within 2 Day(s) from collection.*
Client ID: **990303MW013S** Sample Description: *Collection: 3/3/99 Time 14:55*

1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
1,1,1-Trichloroethane	<0.2	ug/l	0.2	0.7	40	1		8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1		8260	srh	3/5/99
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
1,1-Dichloroethane	<0.2	ug/l	0.2	0.5	85	1		8260	srh	3/5/99
1,1-Dichloroethene	<0.4	ug/l	0.4	1.1	0.7	1		8260	srh	3/5/99
1,1-Dichloropropene	<0.5	ug/l	0.5	1.6	ns	1		8260	srh	3/5/99
1,2,3-Trichlorobenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,2,3-Trichloropropane	<0.6	ug/l	0.6	1.9	ns	1		8260	srh	3/5/99
1,2,4-Trichlorobenzene	<0.2	ug/l	0.2	0.5	14	1		8260	srh	3/5/99
1,2,4-Trimethylbenzene	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
1,2-Dibromoethane	<0.2	ug/l	0.2	0.8	0.005	1		8260	srh	3/5/99
1,2-Dichlorobenzene	<0.2	ug/l	0.2	0.6	60	1		8260	srh	3/5/99
1,2-Dichloroethane	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990151**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 03-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
1,3,5-Trimethylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,3-Dichlorobenzene	<0.2	ug/l	0.2	0.6	125	1		8260	srh	3/5/99
1,3-Dichloropropane	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,4-Dichlorobenzene	<0.2	ug/l	0.2	0.5	15	1		8260	srh	3/5/99
12Dibromo-3-chloropropan	<0.6	ug/l	0.6	1.9	0.02	1		8260	srh	3/5/99
2,2-Dichloropropane	<0.4	ug/l	0.4	1.3	ns	1		8260	srh	3/5/99
2-Butanone (MEK)	<1.4	ug/l	1.4	4.4	90	1		8260	srh	3/5/99
2-Chloroethyl Vinyl Ether	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
2-Chlorotoluene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
4-Chlorotoluene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
4-Methyl-2-Pentanone	<0.8	ug/l	0.8	2.7	50	1		8260	srh	3/5/99
Acetone	<1.6	ug/l	1.6	4.9	200	1		8260	srh	3/5/99
Benzene	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
Bromobenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Bromochloromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Bromodichloromethane	<0.3	ug/l	0.3	0.8	0.06	1		8260	srh	3/5/99
Bromoform	<0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/5/99
Bromomethane	<0.2	ug/l	0.2	0.7	1	1		8260	srh	3/5/99
Carbon tetrachloride	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
Chlorobenzene	<0.2	ug/l	0.2	0.6	20	1		8260	srh	3/5/99
Chloroethane	<1.2	ug/l	1.2	3.7	80	1		8260	srh	3/5/99
Chloroform	<0.3	ug/l	0.3	0.9	0.6	1		8260	srh	3/5/99
Chloromethane	<0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/5/99
cis-1,2-Dichloroethene	<0.2	ug/l	0.2	0.6	7	1		8260	srh	3/5/99
cis-1,3-Dichloropropene	<0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/5/99
Dibromochloromethane	<0.2	ug/l	0.2	0.7	6	1		8260	srh	3/5/99
Dibromomethane	<0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/5/99
Dichlorodifluoromethane	<0.4	ug/l	0.4	1.1	200	1		8260	srh	3/5/99
Ethylbenzene	<0.2	ug/l	0.2	0.5	140	1		8260	srh	3/5/99
Hexachlorobutadiene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
Isopropyl Ether	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Isopropylbenzene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
m&p-xylene	<0.4	ug/l	0.4	1.1	124	1		8260	srh	3/5/99
Methyl-t-butyl ether	<0.2	ug/l	0.2	0.7	12	1		8260	srh	3/5/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/5/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	3/5/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	3/5/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990151**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 03-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	3/5/99
trans-1,2-Dichloroethene	<0.2	ug/l	0.2	0.5	20	1		8260	srh	3/5/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/5/99
Trichloroethene	<0.2	ug/l	0.2	0.5	0.5	1		8260	srh	3/5/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/5/99

Sample Number: **14272** QC Prep Batch Number: 990353 *Sample analyzed within 2 Day(s) from collection.*
Client ID: **990303MW014D** Sample Description: *Collection: 3/3/99 Time: 14:00*

1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
1,1,1-Trichloroethane	<0.2	ug/l	0.2	0.7	40	1		8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1		8260	srh	3/5/99
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
1,1-Dichloroethane	<0.2	ug/l	0.2	0.5	85	1		8260	srh	3/5/99
1,1-Dichloroethene	<0.4	ug/l	0.4	1.1	0.7	1		8260	srh	3/5/99
1,1-Dichloropropene	<0.5	ug/l	0.5	1.6	ns	1		8260	srh	3/5/99
1,2,3-Trichlorobenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,2,3-Trichloropropane	<0.6	ug/l	0.6	1.9	ns	1		8260	srh	3/5/99
1,2,4-Trichlorobenzene	<0.2	ug/l	0.2	0.5	14	1		8260	srh	3/5/99
1,2,4-Trimethylbenzene	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
1,2-Dibromoethane	<0.2	ug/l	0.2	0.8	0.005	1		8260	srh	3/5/99
1,2-Dichlorobenzene	<0.2	ug/l	0.2	0.6	60	1		8260	srh	3/5/99
1,2-Dichloroethane	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
1,2-Dichloropropane	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
1,3,5-Trimethylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,3-Dichlorobenzene	<0.2	ug/l	0.2	0.6	125	1		8260	srh	3/5/99
1,3-Dichloropropane	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,4-Dichlorobenzene	<0.2	ug/l	0.2	0.5	15	1		8260	srh	3/5/99
12Dibromo-3-chloropropan	<0.6	ug/l	0.6	1.9	0.02	1		8260	srh	3/5/99
2,2-Dichloropropane	<0.4	ug/l	0.4	1.3	ns	1		8260	srh	3/5/99
2-Butanone (MEK)	<1.4	ug/l	1.4	4.4	90	1		8260	srh	3/5/99
2-Chloroethyl Vinyl Ether	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
2-Chlorotoluene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
4-Chlorotoluene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
4-Methyl-2-Pentanone	<0.8	ug/l	0.8	2.7	50	1		8260	srh	3/5/99
Acetone	<1.6	ug/l	1.6	4.9	200	1		8260	srh	3/5/99
Benzene	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
Bromobenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Bromochloromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Bromodichloromethane	<0.3	ug/l	0.3	0.8	0.06	1		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990151**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 03-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	<0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/5/99
Bromomethane	<0.2	ug/l	0.2	0.7	1	1		8260	srh	3/5/99
Carbon tetrachloride	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
Chlorobenzene	4.8	ug/l	0.2	0.6	20	1		8260	srh	3/5/99
Chloroethane	<1.2	ug/l	1.2	3.7	80	1		8260	srh	3/5/99
Chloroform	<0.3	ug/l	0.3	0.9	0.6	1		8260	srh	3/5/99
Chloromethane	<0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/5/99
cis-1,2-Dichloroethene	3.4	ug/l	0.2	0.6	7	1		8260	srh	3/5/99
cis-1,3-Dichloropropene	<0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/5/99
Dibromochloromethane	<0.2	ug/l	0.2	0.7	6	1		8260	srh	3/5/99
Dibromomethane	<0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/5/99
Dichlorodifluoromethane	<0.4	ug/l	0.4	1.1	200	1		8260	srh	3/5/99
Ethylbenzene	<0.2	ug/l	0.2	0.5	140	1		8260	srh	3/5/99
Hexachlorobutadiene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
Isopropyl Ether	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Isopropylbenzene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
m&p-xylene	<0.4	ug/l	0.4	1.1	124	1		8260	srh	3/5/99
Methyl-t-butyl ether	0.7	ug/l	0.2	0.7	12	1		8260	srh	3/5/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/5/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	3/5/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	3/5/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	3/5/99
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	3/5/99
trans-1,2-Dichloroethene	0.5	ug/l	0.2	0.5	20	1	*J*	8260	srh	3/5/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/5/99
Trichloroethene	26	ug/l	0.2	0.5	0.5	1		8260	srh	3/5/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/5/99

Sample Number: **14273** QC Prep Batch Number: 990353 *Sample analyzed within 2 Day(s) from collection.*
Client ID: **990303MW015D** Sample Description: *Collection: 3/3/99 Time: 14:45*

1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1	8260	srh	3/5/99
1,1,1-Trichloroethane	<0.2	ug/l	0.2	0.7	40	1	8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1	8260	srh	3/5/99
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1	8260	srh	3/5/99
1,1-Dichloroethane	<0.2	ug/l	0.2	0.5	85	1	8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990151
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 03-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.1	0.7	1		8260	srh	3/5/99
1,1-Dichloropropene	< 0.5	ug/l	0.5	1.6	ns	1		8260	srh	3/5/99
1,2,3-Trichlorobenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	srh	3/5/99
1,2,4-Trichlorobenzene	< 0.2	ug/l	0.2	0.5	14	1		8260	srh	3/5/99
1,2,4-Trimethylbenzene	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
1,2-Dibromoethane	< 0.2	ug/l	0.2	0.8	0.005	1		8260	srh	3/5/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	60	1		8260	srh	3/5/99
1,2-Dichloroethane	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
1,2-Dichloropropane	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
1,3,5-Trimethylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,3-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	125	1		8260	srh	3/5/99
1,3-Dichloropropane	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,4-Dichlorobenzene	< 0.2	ug/l	0.2	0.5	15	1		8260	srh	3/5/99
12Dibromo-3-chloropropan	< 0.6	ug/l	0.6	1.9	0.02	1		8260	srh	3/5/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	srh	3/5/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	srh	3/5/99
2-Chloroethyl Vinyl Ether	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
2-Chlorotoluene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
4-Chlorotoluene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
4-Methyl-2-Pentanone	< 0.8	ug/l	0.8	2.7	50	1		8260	srh	3/5/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	srh	3/5/99
Benzene	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
Bromobenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Bromochloromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Bromodichloromethane	< 0.3	ug/l	0.3	0.8	0.06	1		8260	srh	3/5/99
Bromoform	< 0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/5/99
Bromomethane	< 0.2	ug/l	0.2	0.7	1	1		8260	srh	3/5/99
Carbon tetrachloride	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
Chlorobenzene	< 0.2	ug/l	0.2	0.6	20	1		8260	srh	3/5/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	srh	3/5/99
Chloroform	< 0.3	ug/l	0.3	0.9	0.6	1		8260	srh	3/5/99
Chloromethane	< 0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/5/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.6	7	1		8260	srh	3/5/99
cis-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/5/99
Dibromochloromethane	< 0.2	ug/l	0.2	0.7	6	1		8260	srh	3/5/99
Dibromomethane	< 0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/5/99
Dichlorodifluoromethane	< 0.4	ug/l	0.4	1.1	200	1		8260	srh	3/5/99
Ethylbenzene	< 0.2	ug/l	0.2	0.5	140	1		8260	srh	3/5/99
Hexachlorobutadiene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
Isopropyl Ether	< 0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Isopropylbenzene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
m&p-xylene	< 0.4	ug/l	0.4	1.1	124	1		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990151**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 03-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Methyl-t-butyl ether	<0.2	ug/l	0.2	0.7	12	1		8260	srh	3/5/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/5/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	3/5/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	3/5/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	3/5/99
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	3/5/99
trans-1,2-Dichloroethene	<0.2	ug/l	0.2	0.5	20	1		8260	srh	3/5/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/5/99
Trichloroethene	0.8	ug/l	0.2	0.5	0.5	1		8260	srh	3/5/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/5/99

Sample Number: **14274** QC Prep Batch Number: 990333 *Sample analyzed within 2 Day(s) from collection.*
Client ID: **TRIP BLANK** Sample Description: *Collection: 3/3/99 Time:*

1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1	8260	srh	3/5/99
1,1,1-Trichloroethane	<0.2	ug/l	0.2	0.7	40	1	8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1	8260	srh	3/5/99
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1	8260	srh	3/5/99
1,1-Dichloroethane	<0.2	ug/l	0.2	0.5	85	1	8260	srh	3/5/99
1,1-Dichloroethene	<0.4	ug/l	0.4	1.1	0.7	1	8260	srh	3/5/99
1,1-Dichloropropene	<0.5	ug/l	0.5	1.6	ns	1	8260	srh	3/5/99
1,2,3-Trichlorobenzene	<0.2	ug/l	0.2	0.7	ns	1	8260	srh	3/5/99
1,2,3-Trichloropropane	<0.6	ug/l	0.6	1.9	ns	1	8260	srh	3/5/99
1,2,4-Trichlorobenzene	<0.2	ug/l	0.2	0.5	14	1	8260	srh	3/5/99
1,2,4-Trimethylbenzene	<0.3	ug/l	0.3	0.9	ns	1	8260	srh	3/5/99
1,2-Dibromoethane	<0.2	ug/l	0.2	0.8	0.005	1	8260	srh	3/5/99
1,2-Dichlorobenzene	<0.2	ug/l	0.2	0.6	60	1	8260	srh	3/5/99
1,2-Dichloroethane	<0.2	ug/l	0.2	0.6	0.5	1	8260	srh	3/5/99
1,2-Dichloropropane	<0.2	ug/l	0.2	0.7	0.5	1	8260	srh	3/5/99
1,3,5-Trimethylbenzene	<0.2	ug/l	0.2	0.7	ns	1	8260	srh	3/5/99
1,3-Dichlorobenzene	<0.2	ug/l	0.2	0.6	125	1	8260	srh	3/5/99
1,3-Dichloropropane	<0.2	ug/l	0.2	0.7	ns	1	8260	srh	3/5/99
1,4-Dichlorobenzene	<0.2	ug/l	0.2	0.5	15	1	8260	srh	3/5/99
12Dibromo-3-chloropropan	<0.6	ug/l	0.6	1.9	0.02	1	8260	srh	3/5/99
2,2-Dichloropropane	<0.4	ug/l	0.4	1.3	ns	1	8260	srh	3/5/99
2-Butanone (MEK)	<1.4	ug/l	1.4	4.4	90	1	8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990151**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 03-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
2-Chloroethyl Vinyl Ether	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
2-Chlorotoluene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
4-Chlorotoluene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
4-Methyl-2-Pentanone	<0.8	ug/l	0.8	2.7	50	1		8260	srh	3/5/99
Acetone	<1.6	ug/l	1.6	4.9	200	1		8260	srh	3/5/99
Benzene	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
Bromobenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Bromochloromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Bromodichloromethane	<0.3	ug/l	0.3	0.8	0.06	1		8260	srh	3/5/99
Bromoform	<0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/5/99
Bromomethane	<0.2	ug/l	0.2	0.7	1	1		8260	srh	3/5/99
Carbon tetrachloride	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
Chlorobenzene	<0.2	ug/l	0.2	0.6	20	1		8260	srh	3/5/99
Chloroethane	<1.2	ug/l	1.2	3.7	80	1		8260	srh	3/5/99
Chloroform	<0.3	ug/l	0.3	0.9	0.6	1		8260	srh	3/5/99
Chloromethane	<0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/5/99
cis-1,2-Dichloroethene	<0.2	ug/l	0.2	0.6	7	1		8260	srh	3/5/99
cis-1,3-Dichloropropene	<0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/5/99
Dibromochloromethane	<0.2	ug/l	0.2	0.7	6	1		8260	srh	3/5/99
Dibromomethane	<0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/5/99
Dichlorodifluoromethane	<0.4	ug/l	0.4	1.1	200	1		8260	srh	3/5/99
Ethylbenzene	<0.2	ug/l	0.2	0.5	140	1		8260	srh	3/5/99
Hexachlorobutadiene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
Isopropyl Ether	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Isopropylbenzene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
m&p-xylene	<0.4	ug/l	0.4	1.1	124	1		8260	srh	3/5/99
Methyl-t-butyl ether	<0.2	ug/l	0.2	0.7	12	1		8260	srh	3/5/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/5/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	3/5/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	3/5/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	3/5/99
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	3/5/99
trans-1,2-Dichloroethene	<0.2	ug/l	0.2	0.5	20	1		8260	srh	3/5/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/5/99
Trichloroethene	<0.2	ug/l	0.2	0.5	0.5	1		8260	srh	3/5/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990151
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 03-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal

Approved By: James Chang (SMH) **Date:** 3/6/99
James Chang, Ph.D. , Lab Director

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B "e" = Estimate value, over calibration range .
LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified
RQ : Run Qualifier; "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample, "B" = Showed in Blank sample.

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limit Guidance, April 1995.

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990157
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 05-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: 14308			QC Prep Batch Number: 990353				*Sample analyzed within* 1 *Day(s) from collection.*			
Client ID: 990304MW02D Sample Description:							*Collection:* 3/4/99	*Time:* 13:30		
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
1,1,1-Trichloroethane	< 0.2	ug/l	0.2	0.7	40	1		8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	< 0.3	ug/l	0.3	0.9	0.02	1		8260	srh	3/5/99
1,1,2-Trichloroethane	< 0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
1,1-Dichloroethane	< 0.2	ug/l	0.2	0.5	85	1		8260	srh	3/5/99
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.1	0.7	1		8260	srh	3/5/99
1,1-Dichloropropene	< 0.5	ug/l	0.5	1.6	ns	1		8260	srh	3/5/99
1,2,3-Trichlorobenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	srh	3/5/99
1,2,4-Trichlorobenzene	< 0.2	ug/l	0.2	0.5	14	1		8260	srh	3/5/99
1,2,4-Trimethylbenzene	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
1,2-Dibromoethane	< 0.2	ug/l	0.2	0.8	0.005	1		8260	srh	3/5/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	60	1		8260	srh	3/5/99
1,2-Dichloroethane	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
1,2-Dichloropropane	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
1,3,5-Trimethylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,3-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	125	1		8260	srh	3/5/99
1,3-Dichloropropane	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,4-Dichlorobenzene	< 0.2	ug/l	0.2	0.5	15	1		8260	srh	3/5/99
12Dibromo-3-chloropropan	< 0.6	ug/l	0.6	1.9	0.02	1		8260	srh	3/5/99
2,2-Dichloropropane	<'0.4	ug/l	0.4	1.3	ns	1		8260	srh	3/5/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	srh	3/5/99
2-Chloroethyl Vinyl Ether	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
2-Chlorotoluene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
4-Chlorotoluene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
4-Methyl-2-Pentanone	< 0.8	ug/l	0.8	2.7	50	1		8260	srh	3/5/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	srh	3/5/99
Benzene	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
Bromobenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Bromochloromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Bromodichloromethane	< 0.3	ug/l	0.3	0.8	0.06	1		8260	srh	3/5/99
Bromoform	< 0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/5/99
Bromomethane	< 0.2	ug/l	0.2	0.7	1	1		8260	srh	3/5/99
Carbon tetrachloride	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
Chlorobenzene	< 0.2	ug/l	0.2	0.6	20	1		8260	srh	3/5/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	srh	3/5/99
Chloroform	< 0.3	ug/l	0.3	0.9	0.6	1		8260	srh	3/5/99
Chloromethane	< 0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/5/99
cis-1,2-Dichloroethene	1.4	ug/l	0.2	0.6	7	1		8260	srh	3/5/99
cis-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/5/99

APL Environmental
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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990157**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 05-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	<0.2	ug/l	0.2	0.7	6	1		8260	srh	3/5/99
Dibromomethane	<0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/5/99
Dichlorodifluoromethane	<0.4	ug/l	0.4	1.1	200	1		8260	srh	3/5/99
Ethylbenzene	<0.2	ug/l	0.2	0.5	140	1		8260	srh	3/5/99
Hexachlorobutadiene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
Isopropyl Ether	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Isopropylbenzene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
m&p-xylene	<0.4	ug/l	0.4	1.1	124	1		8260	srh	3/5/99
Methyl-t-butyl ether	<0.2	ug/l	0.2	0.7	12	1		8260	srh	3/5/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/5/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	3/5/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	3/5/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	3/5/99
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	3/5/99
trans-1,2-Dichloroethene	<0.2	ug/l	0.2	0.5	20	1		8260	srh	3/5/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/5/99
Trichloroethene	0.4	ug/l	0.2	0.5	0.5	1	J	8260	srh	3/5/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/5/99

Sample Number: **14309** QC Prep Batch Number: 990353 *Sample analyzed within 1 Day(s) from collection.*
Client ID: **990304MW12B** Sample Description: *Collection: 3/4/99 Time: 14:00*

1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
1,1,1-Trichloroethane	<0.2	ug/l	0.2	0.7	40	1		8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1		8260	srh	3/5/99
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
1,1-Dichloroethane	<0.2	ug/l	0.2	0.5	85	1		8260	srh	3/5/99
1,1-Dichloroethene	<0.4	ug/l	0.4	1.1	0.7	1		8260	srh	3/5/99
1,1-Dichloropropene	<0.5	ug/l	0.5	1.6	ns	1		8260	srh	3/5/99
1,2,3-Trichlorobenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,2,3-Trichloropropane	<0.6	ug/l	0.6	1.9	ns	1		8260	srh	3/5/99
1,2,4-Trichlorobenzene	<0.2	ug/l	0.2	0.5	14	1		8260	srh	3/5/99
1,2,4-Trimethylbenzene	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
1,2-Dibromoethane	<0.2	ug/l	0.2	0.8	0.005	1		8260	srh	3/5/99
1,2-Dichlorobenzene	<0.2	ug/l	0.2	0.6	60	1		8260	srh	3/5/99
1,2-Dichloroethane	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990157
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 05-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
1,3,5-Trimethylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,3-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	125	1		8260	srh	3/5/99
1,3-Dichloropropane	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
1,4-Dichlorobenzene	< 0.2	ug/l	0.2	0.5	15	1		8260	srh	3/5/99
12Dibromo-3-chloropropan	< 0.6	ug/l	0.6	1.9	0.02	1		8260	srh	3/5/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	srh	3/5/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	srh	3/5/99
2-Chloroethyl Vinyl Ether	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
2-Chlorotoluene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
4-Chlorotoluene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
4-Methyl-2-Pentanone	< 0.8	ug/l	0.8	2.7	50	1		8260	srh	3/5/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	srh	3/5/99
Benzene	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
Bromobenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Bromochloromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Bromodichloromethane	< 0.3	ug/l	0.3	0.8	0.06	1		8260	srh	3/5/99
Bromoform	< 0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/5/99
Bromomethane	< 0.2	ug/l	0.2	0.7	1	1		8260	srh	3/5/99
Carbon tetrachloride	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
Chlorobenzene	< 0.2	ug/l	0.2	0.6	20	1		8260	srh	3/5/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	srh	3/5/99
Chloroform	< 0.3	ug/l	0.3	0.9	0.6	1		8260	srh	3/5/99
Chloromethane	< 0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/5/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.6	7	1		8260	srh	3/5/99
cis-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/5/99
Dibromochloromethane	< 0.2	ug/l	0.2	0.7	6	1		8260	srh	3/5/99
Dibromomethane	< 0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/5/99
Dichlorodifluoromethane	< 0.4	ug/l	0.4	1.1	200	1		8260	srh	3/5/99
Ethylbenzene	< 0.2	ug/l	0.2	0.5	140	1		8260	srh	3/5/99
Hexachlorobutadiene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
Isopropyl Ether	< 0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Isopropylbenzene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
m&p-xylene	< 0.4	ug/l	0.4	1.1	124	1		8260	srh	3/5/99
Methyl-t-butyl ether	< 0.2	ug/l	0.2	0.7	12	1		8260	srh	3/5/99
Methylene chloride	< 0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/5/99
n-Butylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
n-Propylbenzene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
Naphthalene	< 0.5	ug/l	0.5	1.5	8	1		8260	srh	3/5/99
o-xylene	< 0.2	ug/l	0.2	0.6	124	1		8260	srh	3/5/99
p-Isopropyltoluene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
sec-Butylbenzene	< 0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Styrene	< 0.2	ug/l	0.2	0.7	10	1		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990157**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 05-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Tetrachloroethene	< 0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
Toluene	< 0.3	ug/l	0.3	1	68.6	1		8260	srh	3/5/99
trans-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.5	20	1		8260	srh	3/5/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/5/99
Trichloroethene	< 0.2	ug/l	0.2	0.5	0.5	1		8260	srh	3/5/99
Trichlorofluoromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Vinyl chloride	< 0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/5/99

Sample Number: **14310** QC Prep Batch Number: 990353 *Sample analyzed within 1 Day(s) from collection.*
Client ID: **990304MW12D** Sample Description: *Collection: 3/4/99 Time: 14:10*

1,1,1,2-Tetrachloroethane	< 1	ug/l	1	3.2	ns	5		8260	srh	3/5/99
1,1,1-Trichloroethane	30	ug/l	1.2	3.7	40	5		8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	< 1.5	ug/l	1.5	4.6	0.02	5		8260	srh	3/5/99
1,1,2-Trichloroethane	< 1.5	ug/l	1.5	4.6	0.5	5		8260	srh	3/5/99
1,1-Dichloroethane	28	ug/l	0.8	2.4	85	5		8260	srh	3/5/99
1,1-Dichloroethene	6.9	ug/l	1.8	5.7	0.7	5		8260	srh	3/5/99
1,1-Dichloropropene	< 2.5	ug/l	2.5	7.8	ns	5		8260	srh	3/5/99
1,2,3-Trichlorobenzene	< 1.1	ug/l	1.1	3.5	ns	5		8260	srh	3/5/99
1,2,3-Trichloropropane	< 3	ug/l	3	9.5	ns	5		8260	srh	3/5/99
1,2,4-Trichlorobenzene	< 0.8	ug/l	0.8	2.5	14	5		8260	srh	3/5/99
1,2,4-Trimethylbenzene	< 1.5	ug/l	1.5	4.6	ns	5		8260	srh	3/5/99
1,2-Dibromoethane	< 1.2	ug/l	1.2	3.8	0.005	5		8260	srh	3/5/99
1,2-Dichlorobenzene	< 1	ug/l	1	3.2	60	5		8260	srh	3/5/99
1,2-Dichloroethane	< 1	ug/l	1	3	0.5	5		8260	srh	3/5/99
1,2-Dichloropropane	< 1.2	ug/l	1.2	3.7	0.5	5		8260	srh	3/5/99
1,3,5-Trimethylbenzene	< 1.2	ug/l	1.2	3.7	ns	5		8260	srh	3/5/99
1,3-Dichlorobenzene	< 1	ug/l	1	3	125	5		8260	srh	3/5/99
1,3-Dichloropropane	< 1.1	ug/l	1.1	3.3	ns	5		8260	srh	3/5/99
1,4-Dichlorobenzene	< 0.8	ug/l	0.8	2.4	15	5		8260	srh	3/5/99
12Dibromo-3-chloropropan	< 3	ug/l	3	9.4	0.02	5		8260	srh	3/5/99
2,2-Dichloropropane	< 2	ug/l	2	6.4	ns	5		8260	srh	3/5/99
2-Butanone (MEK)	< 6.9	ug/l	6.9	22	90	5		8260	srh	3/5/99
2-Chloroethyl Vinyl Ether	< 1.5	ug/l	1.5	4.6	ns	5		8260	srh	3/5/99
2-Chlorotoluene	< 0.8	ug/l	0.8	2.4	ns	5		8260	srh	3/5/99
4-Chlorotoluene	< 1.3	ug/l	1.3	4	ns	5		8260	srh	3/5/99
4-Methyl-2-Pentanone	< 4.2	ug/l	4.2	13	50	5		8260	srh	3/5/99
Acetone	< 7.8	ug/l	7.8	25	200	5		8260	srh	3/5/99
Benzene	< 1	ug/l	1	3	0.5	5		8260	srh	3/5/99
Bromobenzene	< 1	ug/l	1	3	ns	5		8260	srh	3/5/99
Bromochloromethane	< 1.7	ug/l	1.7	5.4	ns	5		8260	srh	3/5/99
Bromodichloromethane	< 1.3	ug/l	1.3	4.1	0.06	5		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990157
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 05-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	< 2.4	ug/l	2.4	7.5	0.44	5		8260	srh	3/5/99
Bromomethane	< 1.1	ug/l	1.1	3.3	1	5		8260	srh	3/5/99
Carbon tetrachloride	< 1.1	ug/l	1.1	3.5	0.5	5		8260	srh	3/5/99
Chlorobenzene	< 1	ug/l	1	3.2	20	5		8260	srh	3/5/99
Chloroethane	< 5.8	ug/l	5.8	18	80	5		8260	srh	3/5/99
Chloroform	< 1.4	ug/l	1.4	4.3	0.6	5		8260	srh	3/5/99
Chloromethane	< 3.9	ug/l	3.9	12	0.3	5		8260	srh	3/5/99
cis-1,2-Dichloroethene	5.6	ug/l	1	3.2	7	5		8260	srh	3/5/99
cis-1,3-Dichloropropene	< 1.2	ug/l	1.2	3.8	0.02	5		8260	srh	3/5/99
Dibromochloromethane	< 1.1	ug/l	1.1	3.3	6	5		8260	srh	3/5/99
Dibromomethane	< 1.8	ug/l	1.8	5.6	ns	5		8260	srh	3/5/99
Dichlorodifluoromethane	< 1.8	ug/l	1.8	5.7	200	5		8260	srh	3/5/99
Ethylbenzene	< 0.8	ug/l	0.8	2.5	140	5		8260	srh	3/5/99
Hexachlorobutadiene	< 1.1	ug/l	1.1	3.5	ns	5		8260	srh	3/5/99
Isopropyl Ether	< 1.6	ug/l	1.6	5.1	ns	5		8260	srh	3/5/99
Isopropylbenzene	< 0.8	ug/l	0.8	2.5	ns	5		8260	srh	3/5/99
m&p-xylene	< 1.8	ug/l	1.8	5.7	124	5		8260	srh	3/5/99
Methyl-t-butyl ether	< 1.1	ug/l	1.1	3.3	12	5		8260	srh	3/5/99
Methylene chloride	< 3.8	ug/l	3.8	12	0.5	5		8260	srh	3/5/99
n-Butylbenzene	< 1.2	ug/l	1.2	3.7	ns	5		8260	srh	3/5/99
n-Propylbenzene	< 1.3	ug/l	1.3	4	ns	5		8260	srh	3/5/99
Naphthalene	< 2.3	ug/l	2.3	7.3	8	5		8260	srh	3/5/99
o-xylene	< 0.9	ug/l	0.9	2.9	124	5		8260	srh	3/5/99
p-Isopropyltoluene	< 0.9	ug/l	0.9	2.9	ns	5		8260	srh	3/5/99
sec-Butylbenzene	< 1.5	ug/l	1.5	4.8	ns	5		8260	srh	3/5/99
Styrene	< 1.1	ug/l	1.1	3.3	10	5		8260	srh	3/5/99
tert-Butylbenzene	< 1	ug/l	1	3.2	ns	5		8260	srh	3/5/99
Tetrachloroethene	< 1.5	ug/l	1.5	4.6	0.5	5		8260	srh	3/5/99
Toluene	< 1.7	ug/l	1.7	5.2	68.6	5		8260	srh	3/5/99
trans-1,2-Dichloroethene	1.5	ug/l	0.8	2.5	20	5	*J*	8260	srh	3/5/99
trans-1,3-Dichloropropene	< 1	ug/l	1	3.2	0.02	5		8260	srh	3/5/99
Trichloroethene	2.4	ug/l	0.8	2.5	0.5	5	*J*	8260	srh	3/5/99
Trichlorofluoromethane	< 1.7	ug/l	1.7	5.4	ns	5		8260	srh	3/5/99
Vinyl chloride	< 1.1	ug/l	1.1	3.3	0.02	5		8260	srh	3/5/99

Sample Number: **14311** QC Prep Batch Number: 990353 *Sample analyzed within 1 Day(s) from collection.*
Client ID: **990304MW5DP** Sample Description: *Collection: 3/4/99 Time: 15:15*

1,1,1,2-Tetrachloroethane	< 2	ug/l	2	6.4	ns	10		8260	srh	3/5/99
1,1,1-Trichloroethane	< 2.3	ug/l	2.3	7.3	40	10		8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	< 2.9	ug/l	2.9	9.2	0.02	10		8260	srh	3/5/99
1,1,2-Trichloroethane	< 2.9	ug/l	2.9	9.2	0.5	10		8260	srh	3/5/99
1,1-Dichloroethane	58	ug/l	1.5	4.8	85	10		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990157**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 05-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,1-Dichloroethene	4.8	ug/l	3.6	11	0.7	10	J	8260	srh	3/5/99
1,1-Dichloropropene	< 4.9	ug/l	4.9	16	ns	10		8260	srh	3/5/99
1,2,3-Trichlorobenzene	< 2.2	ug/l	2.2	7	ns	10		8260	srh	3/5/99
1,2,3-Trichloropropane	< 6	ug/l	6	19	ns	10		8260	srh	3/5/99
1,2,4-Trichlorobenzene	< 1.6	ug/l	1.6	5.1	14	10		8260	srh	3/5/99
1,2,4-Trimethylbenzene	< 2.9	ug/l	2.9	9.2	ns	10		8260	srh	3/5/99
1,2-Dibromoethane	< 2.4	ug/l	2.4	7.6	0.005	10		8260	srh	3/5/99
1,2-Dichlorobenzene	< 2	ug/l	2	6.4	60	10		8260	srh	3/5/99
1,2-Dichloroethane	< 1.9	ug/l	1.9	6	0.5	10		8260	srh	3/5/99
1,2-Dichloropropane	< 2.3	ug/l	2.3	7.3	0.5	10		8260	srh	3/5/99
1,3,5-Trimethylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	srh	3/5/99
1,3-Dichlorobenzene	< 1.9	ug/l	1.9	6	125	10		8260	srh	3/5/99
1,3-Dichloropropane	< 2.1	ug/l	2.1	6.7	ns	10		8260	srh	3/5/99
1,4-Dichlorobenzene	< 1.5	ug/l	1.5	4.8	15	10		8260	srh	3/5/99
12Dibromo-3-chloropropan	< 5.9	ug/l	5.9	19	0.02	10		8260	srh	3/5/99
2,2-Dichloropropane	< 4	ug/l	4	13	ns	10		8260	srh	3/5/99
2-Butanone (MEK)	< 14	ug/l	14	44	90	10		8260	srh	3/5/99
2-Chloroethyl Vinyl Ether	< 2.9	ug/l	2.9	9.2	ns	10		8260	srh	3/5/99
2-Chlorotoluene	< 1.5	ug/l	1.5	4.8	ns	10		8260	srh	3/5/99
4-Chlorotoluene	< 2.5	ug/l	2.5	8	ns	10		8260	srh	3/5/99
4-Methyl-2-Pentanone	< 8.4	ug/l	8.4	27	50	10		8260	srh	3/5/99
Acetone	< 16	ug/l	16	49	200	10		8260	srh	3/5/99
Benzene	< 1.9	ug/l	1.9	6	0.5	10		8260	srh	3/5/99
Bromobenzene	< 1.9	ug/l	1.9	6	ns	10		8260	srh	3/5/99
Bromochloromethane	< 3.4	ug/l	3.4	11	ns	10		8260	srh	3/5/99
Bromodichloromethane	< 2.6	ug/l	2.6	8.3	0.06	10		8260	srh	3/5/99
Bromoform	< 4.7	ug/l	4.7	15	0.44	10		8260	srh	3/5/99
Bromomethane	< 2.1	ug/l	2.1	6.7	1	10		8260	srh	3/5/99
Carbon tetrachloride	< 2.2	ug/l	2.2	7	0.5	10		8260	srh	3/5/99
Chlorobenzene	< 2	ug/l	2	6.4	20	10		8260	srh	3/5/99
Chloroethane	< 12	ug/l	12	37	80	10		8260	srh	3/5/99
Chloroform	< 2.7	ug/l	2.7	8.6	0.6	10		8260	srh	3/5/99
Chloromethane	< 7.7	ug/l	7.7	24	0.3	10		8260	srh	3/5/99
cis-1,2-Dichloroethene	30	ug/l	2	6.4	7	10		8260	srh	3/5/99
cis-1,3-Dichloropropene	< 2.4	ug/l	2.4	7.6	0.02	10		8260	srh	3/5/99
Dibromochloromethane	< 2.1	ug/l	2.1	6.7	6	10		8260	srh	3/5/99
Dibromomethane	< 3.5	ug/l	3.5	11	ns	10		8260	srh	3/5/99
Dichlorodifluoromethane	< 3.6	ug/l	3.6	11	200	10		8260	srh	3/5/99
Ethylbenzene	< 1.6	ug/l	1.6	5.1	140	10		8260	srh	3/5/99
Hexachlorobutadiene	< 2.2	ug/l	2.2	7	ns	10		8260	srh	3/5/99
Isopropyl Ether	< 3.2	ug/l	3.2	10	ns	10		8260	srh	3/5/99
Isopropylbenzene	< 1.6	ug/l	1.6	5.1	ns	10		8260	srh	3/5/99
m&p-xylene	< 3.6	ug/l	3.6	11	124	10		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990157**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 05-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Methyl-t-butyl ether	<2.1	ug/l	2.1	6.7	12	10		8260	srh	3/5/99
Methylene chloride	<7.6	ug/l	7.6	24	0.5	10		8260	srh	3/5/99
n-Butylbenzene	<2.3	ug/l	2.3	7.3	ns	10		8260	srh	3/5/99
n-Propylbenzene	<2.5	ug/l	2.5	8	ns	10		8260	srh	3/5/99
Naphthalene	<4.6	ug/l	4.6	15	8	10		8260	srh	3/5/99
o-xylene	<1.8	ug/l	1.8	5.7	124	10		8260	srh	3/5/99
p-Isopropyltoluene	<1.8	ug/l	1.8	5.7	ns	10		8260	srh	3/5/99
sec-Butylbenzene	<3	ug/l	3	9.5	ns	10		8260	srh	3/5/99
Styrene	<2.1	ug/l	2.1	6.7	10	10		8260	srh	3/5/99
tert-Butylbenzene	<2	ug/l	2	6.4	ns	10		8260	srh	3/5/99
Tetrachloroethene	<2.9	ug/l	2.9	9.2	0.5	10		8260	srh	3/5/99
Toluene	<3.3	ug/l	3.3	10	68.6	10		8260	srh	3/5/99
trans-1,2-Dichloroethene	<1.6	ug/l	1.6	5.1	20	10		8260	srh	3/5/99
trans-1,3-Dichloropropene	<2	ug/l	2	6.4	0.02	10		8260	srh	3/5/99
Trichloroethene	738	ug/l	1.6	5.1	0.5	10		8260	srh	3/5/99
Trichlorofluoromethane	<3.4	ug/l	3.4	11	ns	10		8260	srh	3/5/99
Vinyl chloride	<2.1	ug/l	2.1	6.7	0.02	10		8260	srh	3/5/99

Sample Number: **14312** QC Prep Batch Number: 990353 *Sample analyzed within 1 Day(s) from collection.*
Client ID: **trip blank** Sample Description: *Collection: 3/4/99 Time:*

1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1	8260	srh	3/5/99
1,1,1-Trichloroethane	<0.2	ug/l	0.2	0.7	40	1	8260	srh	3/5/99
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1	8260	srh	3/5/99
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1	8260	srh	3/5/99
1,1-Dichloroethane	<0.2	ug/l	0.2	0.5	85	1	8260	srh	3/5/99
1,1-Dichloroethene	<0.4	ug/l	0.4	1.1	0.7	1	8260	srh	3/5/99
1,1-Dichloropropene	<0.5	ug/l	0.5	1.6	ns	1	8260	srh	3/5/99
1,2,3-Trichlorobenzene	<0.2	ug/l	0.2	0.7	ns	1	8260	srh	3/5/99
1,2,3-Trichloropropane	<0.6	ug/l	0.6	1.9	ns	1	8260	srh	3/5/99
1,2,4-Trichlorobenzene	<0.2	ug/l	0.2	0.5	14	1	8260	srh	3/5/99
1,2,4-Trimethylbenzene	<0.3	ug/l	0.3	0.9	ns	1	8260	srh	3/5/99
1,2-Dibromoethane	<0.2	ug/l	0.2	0.8	0.005	1	8260	srh	3/5/99
1,2-Dichlorobenzene	<0.2	ug/l	0.2	0.6	60	1	8260	srh	3/5/99
1,2-Dichloroethane	<0.2	ug/l	0.2	0.6	0.5	1	8260	srh	3/5/99
1,2-Dichloropropane	<0.2	ug/l	0.2	0.7	0.5	1	8260	srh	3/5/99
1,3,5-Trimethylbenzene	<0.2	ug/l	0.2	0.7	ns	1	8260	srh	3/5/99
1,3-Dichlorobenzene	<0.2	ug/l	0.2	0.6	125	1	8260	srh	3/5/99
1,3-Dichloropropane	<0.2	ug/l	0.2	0.7	ns	1	8260	srh	3/5/99
1,4-Dichlorobenzene	<0.2	ug/l	0.2	0.5	15	1	8260	srh	3/5/99
12Dibromo-3-chloropropan	<0.6	ug/l	0.6	1.9	0.02	1	8260	srh	3/5/99
2,2-Dichloropropane	<0.4	ug/l	0.4	1.3	ns	1	8260	srh	3/5/99
2-Butanone (MEK)	<1.4	ug/l	1.4	4.4	90	1	8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990157**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 05-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
2-Chloroethyl Vinyl Ether	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/5/99
2-Chlorotoluene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
4-Chlorotoluene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
4-Methyl-2-Pentanone	<0.8	ug/l	0.8	2.7	50	1		8260	srh	3/5/99
Acetone	<1.6	ug/l	1.6	4.9	200	1		8260	srh	3/5/99
Benzene	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/5/99
Bromobenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Bromochloromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Bromodichloromethane	<0.3	ug/l	0.3	0.8	0.06	1		8260	srh	3/5/99
Bromoform	<0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/5/99
Bromomethane	<0.2	ug/l	0.2	0.7	1	1		8260	srh	3/5/99
Carbon tetrachloride	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/5/99
Chlorobenzene	<0.2	ug/l	0.2	0.6	20	1		8260	srh	3/5/99
Chloroethane	<1.2	ug/l	1.2	3.7	80	1		8260	srh	3/5/99
Chloroform	<0.3	ug/l	0.3	0.9	0.6	1		8260	srh	3/5/99
Chloromethane	<0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/5/99
cis-1,2-Dichloroethene	<0.2	ug/l	0.2	0.6	7	1		8260	srh	3/5/99
cis-1,3-Dichloropropene	<0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/5/99
Dibromochloromethane	<0.2	ug/l	0.2	0.7	6	1		8260	srh	3/5/99
Dibromomethane	<0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/5/99
Dichlorodifluoromethane	<0.4	ug/l	0.4	1.1	200	1		8260	srh	3/5/99
Ethylbenzene	<0.2	ug/l	0.2	0.5	140	1		8260	srh	3/5/99
Hexachlorobutadiene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
Isopropyl Ether	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Isopropylbenzene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/5/99
m&p-xylene	<0.4	ug/l	0.4	1.1	124	1		8260	srh	3/5/99
Methyl-t-butyl ether	<0.2	ug/l	0.2	0.7	12	1		8260	srh	3/5/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/5/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/5/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/5/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	3/5/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	3/5/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	3/5/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	3/5/99
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/5/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/5/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	3/5/99
trans-1,2-Dichloroethene	<0.2	ug/l	0.2	0.5	20	1		8260	srh	3/5/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/5/99
Trichloroethene	<0.2	ug/l	0.2	0.5	0.5	1		8260	srh	3/5/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/5/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/5/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990157**
DATE REPORTED: 06-Mar-99
DATE RECEIVED: 05-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal

Approved By: James Chang /smk **Date:** 3/6/99
James Chang, Ph.D. , Lab Director

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B *"e" = Estimate value, over calibration range .*
LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified
RQ : Run Qualifier; "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample, "B" = Showed in Blank sample.

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limit Guidance, April 1995.

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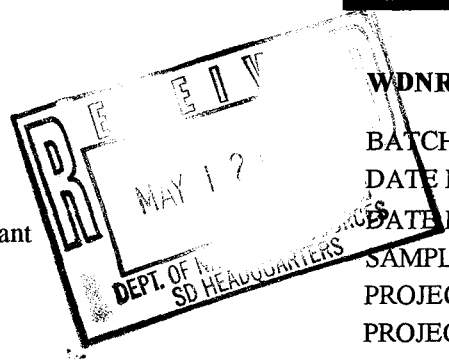
ORGANIC REPORT



WDNR# 241340550

BATCH NUMBER: 990220
DATE REPORTED: 05-Apr-99
DATE RECEIVED: 29-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME: weekly sampling

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: 14549			QC Prep Batch Number:	990611			*Sample analyzed within*	*2 Day(s) from collection.*		
Client ID: 990329WA01P	Sample Description:						*Collection:*	*3/29/99*	*Time:*	*10:38*
1,1,1,2-Tetrachloroethane	< 4	ug/l	4	13	ns	20		8260	srh	3/31/99
1,1,1-Trichloroethane	330	ug/l	4.6	15	40	20		8260	srh	3/31/99
1,1,2,2-Tetrachloroethane	< 5.8	ug/l	5.8	18	0.02	20		8260	srh	3/31/99
1,1,2-Trichloroethane	< 5.8	ug/l	5.8	18	0.5	20		8260	srh	3/31/99
1,1-Dichloroethane	31	ug/l	3	9.5	85	20		8260	srh	3/31/99
1,1-Dichloroethene	30	ug/l	7.2	23	0.7	20		8260	srh	3/31/99
1,1-Dichloropropene	< 9.8	ug/l	9.8	31	ns	20		8260	srh	3/31/99
1,2,3-Trichlorobenzene	< 4.4	ug/l	4.4	14	ns	20		8260	srh	3/31/99
1,2,3-Trichloropropane	< 12	ug/l	12	38	ns	20		8260	srh	3/31/99
1,2,4-Trichlorobenzene	< 3.2	ug/l	3.2	10	14	20		8260	srh	3/31/99
1,2,4-Trimethylbenzene	< 5.8	ug/l	5.8	18	ns	20		8260	srh	3/31/99
1,2-Dibromoethane	< 4.8	ug/l	4.8	15	0.005	20		8260	srh	3/31/99
1,2-Dichlorobenzene	< 4	ug/l	4	13	60	20		8260	srh	3/31/99
1,2-Dichloroethane	< 3.8	ug/l	3.8	12	0.5	20		8260	srh	3/31/99
1,2-Dichloropropane	< 4.6	ug/l	4.6	15	0.5	20		8260	srh	3/31/99
1,3,5-Trimethylbenzene	< 4.6	ug/l	4.6	15	ns	20		8260	srh	3/31/99
1,3-Dichlorobenzene	< 3.8	ug/l	3.8	12	125	20		8260	srh	3/31/99
1,3-Dichloropropane	< 4.2	ug/l	4.2	13	ns	20		8260	srh	3/31/99
1,4-Dichlorobenzene	< 3	ug/l	3	9.5	15	20		8260	srh	3/31/99
12Dibromo-3-chloropropan	< 12	ug/l	12	38	0.02	20		8260	srh	3/31/99
2,2-Dichloropropane	< 8	ug/l	8	25	ns	20		8260	srh	3/31/99
2-Butanone (MEK)	< 28	ug/l	28	88	90	20		8260	srh	3/31/99
2-Chloroethyl Vinyl Ether	< 5.8	ug/l	5.8	18	ns	20		8260	srh	3/31/99
2-Chlorotoluene	< 3	ug/l	3	9.5	ns	20		8260	srh	3/31/99
4-Chlorotoluene	< 5	ug/l	5	16	ns	20		8260	srh	3/31/99
4-Methyl-2-Pentanone	< 17	ug/l	17	53	50	20		8260	srh	3/31/99
Acetone	< 31	ug/l	31	99	200	20		8260	srh	3/31/99
Benzene	< 3.8	ug/l	3.8	12	0.5	20		8260	srh	3/31/99
Bromobenzene	< 3.8	ug/l	3.8	12	ns	20		8260	srh	3/31/99
Bromochloromethane	< 6.8	ug/l	6.8	22	ns	20		8260	srh	3/31/99
Bromodichloromethane	< 5.2	ug/l	5.2	17	0.06	20		8260	srh	3/31/99
Bromoform	< 9.4	ug/l	9.4	30	0.44	20		8260	srh	3/31/99
Bromomethane	< 4.2	ug/l	4.2	13	1	20		8260	srh	3/31/99
Carbon tetrachloride	< 4.4	ug/l	4.4	14	0.5	20		8260	srh	3/31/99
Chlorobenzene	< 4	ug/l	4	13	20	20		8260	srh	3/31/99
Chloroethane	< 23	ug/l	23	74	80	20		8260	srh	3/31/99
Chloroform	< 5.4	ug/l	5.4	17	0.6	20		8260	srh	3/31/99
Chloromethane	< 15	ug/l	15	49	0.3	20		8260	srh	3/31/99
cis-1,2-Dichloroethene	64	ug/l	4	13	7	20		8260	srh	3/31/99
cis-1,3-Dichloropropene	< 4.8	ug/l	4.8	15	0.02	20		8260	srh	3/31/99

APL Environmental
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Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990220**
DATE REPORTED: 05-Apr-99
DATE RECEIVED: 29-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME: weekly sampling

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	<4.2	ug/l	4.2	13	6	20		8260	srh	3/31/99
Dibromomethane	<7	ug/l	7	22	ns	20		8260	srh	3/31/99
Dichlorodifluoromethane	<7.2	ug/l	7.2	23	200	20		8260	srh	3/31/99
Ethylbenzene	<3.2	ug/l	3.2	10	140	20		8260	srh	3/31/99
Hexachlorobutadiene	<4.4	ug/l	4.4	14	ns	20		8260	srh	3/31/99
Isopropyl Ether	<6.4	ug/l	6.4	20	ns	20		8260	srh	3/31/99
Isopropylbenzene	<3.2	ug/l	3.2	10	ns	20		8260	srh	3/31/99
m&p-xylene	<7.2	ug/l	7.2	23	124	20		8260	srh	3/31/99
Methyl-t-butyl ether	<4.2	ug/l	4.2	13	12	20		8260	srh	3/31/99
Methylene chloride	<15	ug/l	15	48	0.5	20		8260	srh	3/31/99
n-Butylbenzene	<4.6	ug/l	4.6	15	ns	20		8260	srh	3/31/99
n-Propylbenzene	<5	ug/l	5	16	ns	20		8260	srh	3/31/99
Naphthalene	<9.2	ug/l	9.2	29	8	20		8260	srh	3/31/99
o-xylene	<3.6	ug/l	3.6	11	124	20		8260	srh	3/31/99
p-Isopropyltoluene	<3.6	ug/l	3.6	11	ns	20		8260	srh	3/31/99
sec-Butylbenzene	<6	ug/l	6	19	ns	20		8260	srh	3/31/99
Styrene	<4.2	ug/l	4.2	13	10	20		8260	srh	3/31/99
tert-Butylbenzene	<4	ug/l	4	13	ns	20		8260	srh	3/31/99
Tetrachloroethene	16	ug/l	5.8	18	0.5	20	J	8260	srh	3/31/99
Toluene	<6.6	ug/l	6.6	21	68.6	20		8260	srh	3/31/99
trans-1,2-Dichloroethene	26	ug/l	3.2	10	20	20		8260	srh	3/31/99
trans-1,3-Dichloropropene	<4	ug/l	4	13	0.02	20		8260	srh	3/31/99
Trichloroethene	826	ug/l	3.2	10	0.5	20		8260	srh	3/31/99
Trichlorofluoromethane	<6.8	ug/l	6.8	22	ns	20		8260	srh	3/31/99
Vinyl chloride	<4.2	ug/l	4.2	13	0.02	20		8260	srh	3/31/99

Sample Number: **14550** QC Prep Batch Number: 990611 *Sample analyzed within 2 Day(s) from collection.*
Client ID: **990329WA09P** Sample Description: *Collection: 3/29/99 Time: 10:40*

1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/31/99
1,1,1-Trichloroethane	1.2	ug/l	0.2	0.7	40	1		8260	srh	3/31/99
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1		8260	srh	3/31/99
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/31/99
1,1-Dichloroethane	0.5	ug/l	0.2	0.5	85	1		8260	srh	3/31/99
1,1-Dichloroethene	<0.4	ug/l	0.4	1.1	0.7	1		8260	srh	3/31/99
1,1-Dichloropropene	<0.5	ug/l	0.5	1.6	ns	1		8260	srh	3/31/99
1,2,3-Trichlorobenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/31/99
1,2,3-Trichloropropane	<0.6	ug/l	0.6	1.9	ns	1		8260	srh	3/31/99
1,2,4-Trichlorobenzene	<0.2	ug/l	0.2	0.5	14	1		8260	srh	3/31/99
1,2,4-Trimethylbenzene	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/31/99
1,2-Dibromoethane	<0.2	ug/l	0.2	0.8	0.005	1		8260	srh	3/31/99
1,2-Dichlorobenzene	<0.2	ug/l	0.2	0.6	60	1		8260	srh	3/31/99
1,2-Dichloroethane	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/31/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990220**
DATE REPORTED: 05-Apr-99
DATE RECEIVED: 29-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME: weekly sampling

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/31/99
1,3,5-Trimethylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/31/99
1,3-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	125	1		8260	srh	3/31/99
1,3-Dichloropropane	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/31/99
1,4-Dichlorobenzene	< 0.2	ug/l	0.2	0.5	15	1		8260	srh	3/31/99
12Dibromo-3-chloropropan	< 0.6	ug/l	0.6	1.9	0.02	1		8260	srh	3/31/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	srh	3/31/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	srh	3/31/99
2-Chloroethyl Vinyl Ether	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/31/99
2-Chlorotoluene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/31/99
4-Chlorotoluene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/31/99
4-Methyl-2-Pentanone	< 0.8	ug/l	0.8	2.7	50	1		8260	srh	3/31/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	srh	3/31/99
Benzene	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/31/99
Bromobenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/31/99
Bromochloromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/31/99
Bromodichloromethane	1.8	ug/l	0.3	0.8	0.06	1		8260	srh	3/31/99
Bromoform	< 0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/31/99
Bromomethane	< 0.2	ug/l	0.2	0.7	1	1		8260	srh	3/31/99
Carbon tetrachloride	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/31/99
Chlorobenzene	< 0.2	ug/l	0.2	0.6	20	1		8260	srh	3/31/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	srh	3/31/99
Chloroform	4.3	ug/l	0.3	0.9	0.6	1		8260	srh	3/31/99
Chloromethane	< 0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/31/99
cis-1,2-Dichloroethene	0.3	ug/l	0.2	0.6	7	1	J	8260	srh	3/31/99
cis-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/31/99
Dibromochloromethane	1	ug/l	0.2	0.7	6	1		8260	srh	3/31/99
Dibromomethane	< 0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/31/99
Dichlorodifluoromethane	< 0.4	ug/l	0.4	1.1	200	1		8260	srh	3/31/99
Ethylbenzene	< 0.2	ug/l	0.2	0.5	140	1		8260	srh	3/31/99
Hexachlorobutadiene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/31/99
Isopropyl Ether	< 0.3	ug/l	0.3	1	ns	1		8260	srh	3/31/99
Isopropylbenzene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/31/99
m&p-xylene	< 0.4	ug/l	0.4	1.1	124	1		8260	srh	3/31/99
Methyl-t-butyl ether	< 0.2	ug/l	0.2	0.7	12	1		8260	srh	3/31/99
Methylene chloride	< 0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/31/99
n-Butylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/31/99
n-Propylbenzene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/31/99
Naphthalene	< 0.5	ug/l	0.5	1.5	8	1		8260	srh	3/31/99
o-xylene	< 0.2	ug/l	0.2	0.6	124	1		8260	srh	3/31/99
p-Isopropyltoluene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/31/99
sec-Butylbenzene	< 0.3	ug/l	0.3	1	ns	1		8260	srh	3/31/99
Styrene	< 0.2	ug/l	0.2	0.7	10	1		8260	srh	3/31/99

APL Environmental
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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990220**
DATE REPORTED: 05-Apr-99
DATE RECEIVED: 29-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME: weekly sampling

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/31/99
Tetrachloroethene	< 0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/31/99
Toluene	< 0.3	ug/l	0.3	1	68.6	1		8260	srh	3/31/99
trans-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.5	20	1		8260	srh	3/31/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/31/99
Trichloroethene	< 0.2	ug/l	0.2	0.5	0.5	1		8260	srh	3/31/99
Trichlorofluoromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/31/99
Vinyl chloride	< 0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/31/99

Sample Number: **14554** QC Prep Batch Number: 990611 *Sample analyzed within 2 Day(s) from collection.*
Client ID: **trip blank** Sample Description: *Collection: 3/29/99 Time:*

1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/31/99
1,1,1-Trichloroethane	< 0.2	ug/l	0.2	0.7	40	1		8260	srh	3/31/99
1,1,2,2-Tetrachloroethane	< 0.3	ug/l	0.3	0.9	0.02	1		8260	srh	3/31/99
1,1,2-Trichloroethane	< 0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/31/99
1,1-Dichloroethane	< 0.2	ug/l	0.2	0.5	85	1		8260	srh	3/31/99
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.1	0.7	1		8260	srh	3/31/99
1,1-Dichloropropene	< 0.5	ug/l	0.5	1.6	ns	1		8260	srh	3/31/99
1,2,3-Trichlorobenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/31/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	srh	3/31/99
1,2,4-Trichlorobenzene	< 0.2	ug/l	0.2	0.5	14	1		8260	srh	3/31/99
1,2,4-Trimethylbenzene	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/31/99
1,2-Dibromoethane	< 0.2	ug/l	0.2	0.8	0.005	1		8260	srh	3/31/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	60	1		8260	srh	3/31/99
1,2-Dichloroethane	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/31/99
1,2-Dichloropropane	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/31/99
1,3,5-Trimethylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/31/99
1,3-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	125	1		8260	srh	3/31/99
1,3-Dichloropropane	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/31/99
1,4-Dichlorobenzene	< 0.2	ug/l	0.2	0.5	15	1		8260	srh	3/31/99
12Dibromo-3-chloropropan	< 0.6	ug/l	0.6	1.9	0.02	1		8260	srh	3/31/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	srh	3/31/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	srh	3/31/99
2-Chloroethyl Vinyl Ether	< 0.3	ug/l	0.3	0.9	ns	1		8260	srh	3/31/99
2-Chlorotoluene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/31/99
4-Chlorotoluene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/31/99
4-Methyl-2-Pentanone	< 0.8	ug/l	0.8	2.7	50	1		8260	srh	3/31/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	srh	3/31/99
Benzene	< 0.2	ug/l	0.2	0.6	0.5	1		8260	srh	3/31/99
Bromobenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/31/99
Bromochloromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/31/99
Bromodichloromethane	< 0.3	ug/l	0.3	0.8	0.06	1		8260	srh	3/31/99

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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: **990220**
DATE REPORTED: 05-Apr-99
DATE RECEIVED: 29-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME: weekly sampling

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	< 0.5	ug/l	0.5	1.5	0.44	1		8260	srh	3/31/99
Bromomethane	< 0.2	ug/l	0.2	0.7	1	1		8260	srh	3/31/99
Carbon tetrachloride	< 0.2	ug/l	0.2	0.7	0.5	1		8260	srh	3/31/99
Chlorobenzene	< 0.2	ug/l	0.2	0.6	20	1		8260	srh	3/31/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	srh	3/31/99
Chloroform	< 0.3	ug/l	0.3	0.9	0.6	1		8260	srh	3/31/99
Chloromethane	< 0.8	ug/l	0.8	2.4	0.3	1		8260	srh	3/31/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.6	7	1		8260	srh	3/31/99
cis-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.8	0.02	1		8260	srh	3/31/99
Dibromochloromethane	< 0.2	ug/l	0.2	0.7	6	1		8260	srh	3/31/99
Dibromomethane	< 0.4	ug/l	0.4	1.1	ns	1		8260	srh	3/31/99
Dichlorodifluoromethane	< 0.4	ug/l	0.4	1.1	200	1		8260	srh	3/31/99
Ethylbenzene	< 0.2	ug/l	0.2	0.5	140	1		8260	srh	3/31/99
Hexachlorobutadiene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/31/99
Isopropyl Ether	< 0.3	ug/l	0.3	1	ns	1		8260	srh	3/31/99
Isopropylbenzene	< 0.2	ug/l	0.2	0.5	ns	1		8260	srh	3/31/99
m&p-xylene	< 0.4	ug/l	0.4	1.1	124	1		8260	srh	3/31/99
Methyl-t-butyl ether	< 0.2	ug/l	0.2	0.7	12	1		8260	srh	3/31/99
Methylene chloride	< 0.8	ug/l	0.8	2.4	0.5	1		8260	srh	3/31/99
n-Butylbenzene	< 0.2	ug/l	0.2	0.7	ns	1		8260	srh	3/31/99
n-Propylbenzene	< 0.3	ug/l	0.3	0.8	ns	1		8260	srh	3/31/99
Naphthalene	< 0.5	ug/l	0.5	1.5	8	1		8260	srh	3/31/99
o-xylene	< 0.2	ug/l	0.2	0.6	124	1		8260	srh	3/31/99
p-Isopropyltoluene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/31/99
sec-Butylbenzene	< 0.3	ug/l	0.3	1	ns	1		8260	srh	3/31/99
Styrene	< 0.2	ug/l	0.2	0.7	10	1		8260	srh	3/31/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.6	ns	1		8260	srh	3/31/99
Tetrachloroethene	< 0.3	ug/l	0.3	0.9	0.5	1		8260	srh	3/31/99
Toluene	< 0.3	ug/l	0.3	1	68.6	1		8260	srh	3/31/99
trans-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.5	20	1		8260	srh	3/31/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.6	0.02	1		8260	srh	3/31/99
Trichloroethene	< 0.2	ug/l	0.2	0.5	0.5	1		8260	srh	3/31/99
Trichlorofluoromethane	< 0.3	ug/l	0.3	1.1	ns	1		8260	srh	3/31/99
Vinyl chloride	< 0.2	ug/l	0.2	0.7	0.02	1		8260	srh	3/31/99

APL Environmental
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER:	990220
DATE REPORTED:	05-Apr-99
DATE RECEIVED:	29-Mar-99
SAMPLE TEMP (C):	Rec On Ice
PROJECT ID:	
PROJECT NAME:	weekly sampling

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal

Approved By: James Chang /smv **Date:** 4/5/99
James Chang, Ph.D. , Lab Director

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B *"e" = Estimate value, over calibration range .*
LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified
RQ : Run Qualifier; "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample, "B" = Showed in Blank sample.

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limit Guidance, April 1995.

INORGANIC REPORT

WDNR# 241340550

INVOICE NUMBER **990220**
DATE REPORTED: 09-Apr-99
DATE RECEIVED: 29-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME: weekly sampling

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Nova Sample Number: 14549
Client ID: **990329WA01P**
Collection: 3/29/99 Time: 10:38
Sample Description:

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd	3/30/99	990568
Barium - ICAP	0.1	mg/l	RJ	0.003	0.010	200.7	dmd	4/7/99	990631
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	dmd	3/31/99	990584
Chromium, Total - ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd	4/7/99	990631
Copper- ICAP	<0.008	mg/l	RJ	0.008	0.03	200.7	dmd	4/7/99	990631
Iron - ICAP	1	mg/l	RJ	0.071	0.2	200.7	dmd	4/7/99	990631
Lead - Furnace AA	<1.1	ug/l	RJ	1.1	3.5	239.2	dmd	4/2/99	990609
Manganese - ICAP	0.2	mg/l	RJ	0.009	0.03	200.7	dmd	4/7/99	990631
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	3/31/99	990587
Nickel - ICAP	37	ug/l	RJ	11	35	200.7	dmd	4/7/99	990631
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd	3/30/99	990569
Silver - ICAP	<0.006	mg/l	RJ	0.006	0.02	200.7	dmd	4/7/99	990631
Thallium - Furnace AA	<5.0	ug/l	RJ	5	16	279.2	dmd	4/7/99	990633
Zinc - ICAP	<0.021	mg/l	RJ	0.021	0.07	200.7	dmd	4/7/99	990631
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500D	12805	3/30/99	990602
Cyanide, Amenable	<0.018	mg/l		0.018	0.06	335.2	van	5/2/99	990596
Cyanide, Total	<0.018	mg/l		0.018	0.06	335.2	van	5/2/99	990597
pH (water)	7.1	s.u.	#			150.1	srh	3/29/99	990582

Nova Sample Number: 14550
Client ID: **990329WA09P**
Collection: 3/29/99 Time: 10:40
Sample Description:

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd	3/30/99	990568
Barium - ICAP	0.02	mg/l	RJ	0.003	0.010	200.7	dmd	4/7/99	990631
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	dmd	3/31/99	990584
Chromium, Total - ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd	4/7/99	990631
Copper- ICAP	<0.008	mg/l	RJ	0.008	0.03	200.7	dmd	4/7/99	990631
Iron - ICAP	0.5	mg/l	RJ	0.071	0.2	200.7	dmd	4/7/99	990631
Lead - Furnace AA	<1.1	ug/l	RJ	1.1	3.5	239.2	dmd	4/2/99	990609
Manganese - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd	4/7/99	990631
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	3/31/99	990587
Nickel - ICAP	<11	ug/l	RJ	11	35	200.7	dmd	4/7/99	990631
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd	3/30/99	990569

INORGANIC REPORT

WDNR# 241340550

INVOICE NUMBER 990220
DATE REPORTED: 09-Apr-99
DATE RECEIVED: 29-Mar-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME: weekly sampling

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun , WI 53003

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Silver - ICAP	**<0.006**	**mg/l**	**RJ**	0.006	0.02	200.7	dmd	4/7/99	*990631*	
Thallium - Furnace AA	**<5.0**	**ug/l**	**RJ**	5	16	279.2	dmd	4/7/99	*990633*	
Zinc - ICAP	**<0.021**	**mg/l**	**RJ**	0.021	0.07	200.7	dmd	4/7/99	*990631*	
Chromium, Hexavalent	**<0.0042**	**mg/l**		0.004	0.01	SM 3500D	12805	3/30/99	*990602*	
Cyanide, Amenable	**<0.018**	**mg/l**		0.018	0.06	335.2	van	5/2/99	*990596*	
Cyanide, Total	**<0.018**	**mg/l**		0.018	0.06	335.2	van	5/2/99	*990597*	
pH (water)	**8.6**	**s.u.**	**#**			150.1	srh	3/29/99	*990582*	

Nova Sample Number: 14551
Client ID: **990329WA02P**
Collection: 3/29/99 Time: 10:45
Sample Description:

pH (water)	**10**	**s.u.**	**#**			150.1	srh	3/29/99	*990582*	

Nova Sample Number: 14552
Client ID: **990329WA03P**
Collection: 3/29/99 Time: 10:46
Sample Description:

pH (water)	**11**	**s.u.**	**#**			150.1	srh	3/29/99	*990582*	

Nova Sample Number: 14553
Client ID: **990329WA05P**
Collection: 3/29/99 Time: 10:56
Sample Description:

pH (water)	**8.3**	**s.u.**	**#**			150.1	srh	3/29/99	*990582*	

Approved By: _____ **Date:** 4/5/99
James Chang, Ph.D. , Lab Director

RJ *Result expressed as Total.*
TTR *Result expressed as total and total recoverable.*

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B "J" = Results between LOD and LOQ "#" = no LOD or LOQ required.
LOQ = 10 (S) x Dilution Facor, where "S" is the Standard Deviation from the MDL Study
LOD = 3.143 (S) x Dilution Facor, where "S" is the Standard Deviation from the MDL Study

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limit Guidance, April 1995.

WISCONSIN
DEPT. OF NATURAL RESOURCES

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary

101 S. Webster St.
Box 7921
Madison, Wisconsin 53707-7921
Telephone 608-266-2621
FAX 608-267-3579
TDD 608-267-6897

March 1, 1999

DEAN GROLEAU 0049531
OCONOMOWOC ELECTROPLATING SUPERFUNI
PO BOX 352
ASHIPPUN WI 53003

Enclosed is the 1998 wastewater summary report for you to review and update. Section 299.15 of the Wisconsin Statutes and chapter NR101 of the Wisconsin Administrative Code require this report to collect accurate data for assessing the 1998 wastewater fees. Section 299.15 establishes the wastewater fee program to recover the annual cost of the Department's water pollution control functions from holders of WPDES permits.

You will notice that the summary report contains an estimate of the wastewater fees based on your DMR data. THIS IS NOT A BILLING STATEMENT! The Environmental Fee statements will be mailed out at the end of May.

The wastewater fee program uses discharge data that you submitted on your WPDES Discharge Monitoring Reports (DMR's) to calculate the wastewater fees. The summary report shows our calculations for each outfall and substance that meet the requirements. Here are the formulas that we use:

If you report actual pounds per month of a substance discharged, we use those values directly. Otherwise, we calculate the average daily outfall pounds with this formula:

pounds = monthly average concentration X monthly average flow X 8.34

The discharge fee estimate is calculated using the formula:

discharge fee = pounds X rate X # of days X annual adjustment factor

The rate is the inverse of the lowest limit in effect for the month (i.e., 1 / limit). The number of discharge days per month is from your DMR's or an estimate of the number of operating days each month. The annual adjustment factor is needed to collect the amount specified by law. The factor used for this summary is printed at the top of the first page.

The wastewater fee is the greater of the sum of discharge fees calculated as above, or a base fee ($250 for minor permits or $500 for major permits).

WHAT DO YOU NEED TO DO?

You should confirm that our calculated monthly numbers from your DMR's are accurate. Any changes or corrections can be made by writing the new number directly above the old number. Verify that we have used the right number of discharge days. Confirm that the pollutants listed in the summary have a limit in effect during each month listed.

If you report monthly maximum values on your DMR's and not monthly averages, you should calculate the monthly average discharges and enter those numbers on the report. If we have not included a month when discharges occurred and limits were in effect, you must add in the pounds, rate and number of days. You do not need to re-calculate the fees, because the adjustment factor will be re-calculated after all of the updated NR 101 reports are returned.

You should be aware that Chapter NR 101 allows any analytical value which is less than the limit of quantitation for that substance to be treated as a zero. These zeros should be incorporated into the monthly average. You may need to recalculate the monthly averages to include any zero values.

Dischargers are allowed to deduct the amount of substances present in the influent to the facility. The influent for municipal facilities is the drinking water source serving the municipality. Dischargers who use surface water as an influent source may benefit from this deduction, which is discussed in NR101.12(7).

Dischargers to land disposal systems that harvest the cover crop may deduct the yearly crop nutrient uptake rate of nitrogen. The crop nutrient uptake rates can be found in USGS-SCS-Wisconsin Section IV Technical Guide 633 Table 2 07/87. The amount of nitrogen uptake per acre times the number of acres harvested gives you the nitrogen to deduct from the monthly pounds. If your facility uses a land disposal system that is not listed on this summary report, we continue to have difficulty loading land application data in a timely manner and so will not be including the missing discharges in the wastewater fee program. This situation is expected to be fixed next year.

After you have completed making any changes, please sign the report and provide us with a phone number to call in case of any questions. Indicate the reason for any changes using the check-off's at the end of the report. Make a copy for your files, then send the original summary pages back to us in the envelope provided, or to the address on the top of this letter. YOU MUST RETURN THE SUMMARY BY APRIL 1, 1999, EVEN IF YOU MAKE NO CHANGES.

WHAT'S NEXT?

We will contact you if there is a question about your changes. The Environmental Fee statements, containing the wastewater fees and any other applicable fees, will be mailed out at the end of May 1999. You will then have thirty days to pay the wastewater fee.

If you'd like to discuss the summary, please call me at (608) 267-7638.

Sincerely,

Thomas Aten
Environmental Fees Program

PERMIT #: 0049531
OCONOMOWOC ELECTROPLATING SUPERFUND

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
1998 NR 101 WASTEWATER REPORT

FORM 3200-18
REV.07/93

THIS REPORT OF YOUR 1998 WPDES DISCHARGE MONITORING REPORT DATA IS PROVIDED UNDER SECTION 299.15, WIS. STATS AND CHAPTER NR 101, WIS. ADMIN. CODE. THIS REPORT IS FOR YOU TO REVIEW AND CORRECT, IF NECESSARY, PRIOR TO THE 1998 WASTEWATER FEE BILLING. TO CORRECT A VALUE, WRITE THE NEW VALUE ABOVE THE OLD AND CHECK THE REASON AT THE END OF THE REPORT. YOU MUST RETURN THE REPORT BY APRIL 1 1999, EVEN IF YOU MADE NO CHANGES, OR ELSE BE IN VIOLATION OF 299.15(4), WHERE THE AUTHORITY TO ASSESS A MONETARY PENALTY OF UP TO $10,000 IS PROVIDED. PERSONALLY IDENTIFIABLE INFORMATION WILL BE USED FOR THE PURPOSES OF THE NR 101 WASTEWATER FEE PROGRAM.

THIS REPORT ALSO PROVIDES AN ESTIMATE OF YOUR WASTEWATER FEE USING THE FORMULA: POUNDS X RATE X DAYS X ADJUSTMENT FACTOR.
THE ADJUSTMENT FACTOR USED IN THIS ESTIMATE IS 6.4799 CONTACT TOM ATEN AT (608) 267-7638 IF YOU HAVE QUESTIONS ABOUT THIS REPORT.

120 CADMIUM TOTAL

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0001	2000.0000	31	$40.18
FEB'97	0.0170	0.0000	2000.0000	28	$0.00
MAR'97	0.0100	0.0000	2000.0000	7	$0.00
APR'97	0.0150	0.0000	2000.0000	13	$0.00
MAY'97	0.5100	0.0000	2000.0000	16	$0.00
JUN'97	0.5000	0.0000	2000.0000	30	$0.00
JUL'97	0.0120	0.0000	2000.0000	12	$0.00
AUG'97	0.0230	0.0000	2000.0000	31	$0.00
SEP'97	0.0230	0.0000	2000.0000	28	$0.00
OCT'97	0.0220	0.0000	2000.0000	29	$0.00
NOV'97	0.0200	0.0000	2000.0000	28	$0.00
DEC'97	0.0190	0.0000	2000.0000	31	$0.00

TOTAL ANNUAL POUNDS OF CADMIUM TOTAL : 0.0031 PARAMETER TOTAL: $40.18

122 CHROMIUM TOTAL

OUTFALL 1

	FLOW	POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0001	100.0000	31	$2.01
FEB'97	0.0170	0.0001	100.0000	28	$1.81
MAR'97	0.0100	0.0000	100.0000	7	$0.00
APR'97	0.0150	0.0004	100.0000	13	$3.37
MAY'97	0.5100	0.0000	100.0000	16	$0.00
JUN'97	0.5000	0.0013	100.0000	30	$25.27
JUL'97	0.0120	0.0024	100.0000	12	$18.66
AUG'97	0.0230	0.0000	100.0000	31	$0.00
SEP'97	0.0230	0.0000	100.0000	28	$0.00
OCT'97	0.0220	0.0000	100.0000	29	$0.00
NOV'97	0.0200	0.0000	100.0000	28	$0.00
DEC'97	0.0190	0.0003	100.0000	31	$6.03

TOTAL ANNUAL POUNDS OF CHROMIUM TOTAL : 0.0882

PARAMETER TOTAL: $57.15

125 LEAD TOTAL

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	666.6667	31	$0.00
FEB'97	0.0170	0.0000	666.6667	28	$0.00
MAR'97	0.0100	0.0001	666.6667	7	$3.02
MAY'97	0.5100	0.0000	666.6667	16	$0.00
JUN'97	0.5000	0.0021	666.6667	30	$272.16
JUL'97	0.0120	0.0005	666.6667	12	$25.92
AUG'97	0.0230	0.0000	666.6667	31	$0.00
SEP'97	0.0230	0.0000	666.6667	28	$0.00
OCT'97	0.0220	0.0000	666.6667	29	$0.00
NOV'97	0.0200	0.0000	666.6667	28	$0.00
DEC'97	0.0190	0.0000	666.6667	31	$0.00

TOTAL ANNUAL POUNDS OF LEAD TOTAL : 0.0697 PARAMETER TOTAL: $301.10

126 MERCURY TOTAL

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	2500.0000	31	
FEB'97	0.0170	0.0000	2500.0000	28	$0.00
MAR'97	0.0100	0.0000	2500.0000	7	$0.00
MAY'97	0.5100	0.0000	2500.0000	16	$0.00
JUN'97	0.5000	0.0000	2500.0000	30	$0.00
JUL'97	0.0120	0.0000	2500.0000	12	$0.00
AUG'97	0.0230	0.0000	2500.0000	31	$0.00
SEP'97	0.0230	0.0000	2500.0000	28	$0.00
OCT'97	0.0220	0.0000	2500.0000	29	$0.00
NOV'97	0.0200	0.0000	2500.0000	28	$0.00
DEC'97	0.0190	0.0000	2500.0000	31	$0.00
		TOTAL ANNUAL POUNDS OF MERCURY TOTAL :		0.0000	$0.00
			PARAMETER TOTAL:		$0.00

128 NICKEL TOTAL

OUTFALL 1

	FLOW	POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0012	0.0500	31	$0.01
FEB'97	0.0170	0.0026	0.0500	28	$0.02
MAR'97	0.0100	0.0006	0.0500	7	$0.00
MAY'97	0.5100	0.0400	0.0500	16	$0.21
JUN'97	0.5000	0.0375	0.0500	30	$0.36
JUL'97	0.0120	0.0001	0.0500	12	$0.00
AUG'97	0.0230	0.0000	0.0500	31	$0.00
SEP'97	0.0230	0.0038	0.0500	28	$0.03
OCT'97	0.0220	0.0005	0.0500	29	$0.00
NOV'97	0.0200	0.0008	0.0500	28	$0.01
DEC'97	0.0190	0.0013	0.0500	31	$0.01

TOTAL ANNUAL POUNDS OF NICKEL TOTAL : 2.0640 PARAMETER TOTAL: $0.65

270 SELENIUM TOTAL

OUTFALL 1

	FLOW	POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	100.0000	31	$0.00
FEB'97	0.0170	0.0000	100.0000	28	$0.00
MAR'97	0.0100	0.0000	100.0000	7	$0.00
MAY'97	0.5100	0.0000	100.0000	16	$0.00
JUN'97	0.5000	0.0000	100.0000	30	$0.00
JUL'97	0.0120	0.0000	100.0000	12	$0.00
AUG'97	0.0230	0.0000	100.0000	31	$0.00
SEP'97	0.0230	0.0000	100.0000	28	$0.00
OCT'97	0.0220	0.0000	100.0000	29	$0.00
NOV'97	0.0200	0.0000	100.0000	28	$0.00
DEC'97	0.0190	0.0000	100.0000	31	$0.00

TOTAL ANNUAL POUNDS OF SELENIUM TOTAL : 0.0000 PARAMETER TOTAL: $0.00

271 SILVER TOTAL

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS		DOLLARS
JAN'97	0.0120	0.0000	100.0000	31		$0.00
FEB'97	0.0170	0.0001	100.0000	28		$1.81
MAR'97	0.0100	0.0000	100.0000	7		$0.00
MAY'97	0.5100	0.0000	100.0000	16		$0.00
JUN'97	0.5000	0.0000	100.0000	30		$0.00
JUL'97	0.0120	0.0000	100.0000	12		$0.00
AUG'97	0.0230	0.0000	100.0000	31		$0.00
SEP'97	0.0230	0.0000	100.0000	28		$0.00
OCT'97	0.0220	0.0000	100.0000	29		$0.00
NOV'97	0.0200	0.0000	100.0000	28		$0.00
DEC'97	0.0190	0.0000	100.0000	31		$0.00

TOTAL ANNUAL POUNDS OF SILVER TOTAL : 0.0028 PARAMETER TOTAL: $1.81

PERMIT #: 0049531 OCONOMOWOC ELECTROPLATING SUPERFUND

720 CYANIDE TOTAL

OUTFALL 1

	FLOW	POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	25.0000	31	
FEB'97	0.0170	0.0000	25.0000	28	$0.00
MAR'97	0.0100	0.0000	25.0000	7	$0.00
APR'97	0.0150	0.0000	25.0000	13	$0.00
MAY'97	0.5100	0.0038	25.0000	16	$0.00
JUN'97	0.5000	0.0000	25.0000	30	$9.85
JUL'97	0.0120	0.0000	25.0000	12	$0.00
AUG'97	0.0230	0.0001	25.0000	31	$0.00
SEP'97	0.0230	0.0004	25.0000	28	$0.50
OCT'97	0.0220	0.0000	25.0000	29	$1.81
NOV'97	0.0200	0.0000	25.0000	28	$0.00
DEC'97	0.0190	0.0002	25.0000	31	$0.00
					$1.00

TOTAL ANNUAL POUNDS OF CYANIDE TOTAL : 0.0813

PARAMETER TOTAL: $13.16

1002 ARSENIC TOTAL

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS		DOLLARS
JAN'97	0.0120	0.0000	200.0000	31		$0.00
FEB'97	0.0170	0.0000	200.0000	28		$0.00
MAR'97	0.0100	0.0000	200.0000	7		$0.00
APR'97	0.0150	0.0000	200.0000	13		$0.00
MAY'97	0.5100	0.0000	200.0000	16		$0.00
JUN'97	0.5000	0.0071	200.0000	30		$276.04
JUL'97	0.0120	0.0000	200.0000	12		$0.00
AUG'97	0.0230	0.0000	200.0000	31		$0.00
SEP'97	0.0230	0.0000	200.0000	28		$0.00
OCT'97	0.0220	0.0000	200.0000	29		$0.00
NOV'97	0.0200	0.0000	200.0000	28		$0.00
DEC'97	0.0190	0.0000	200.0000	31		$0.00

TOTAL ANNUAL POUNDS OF ARSENIC TOTAL : 0.2130 PARAMETER TOTAL: $276.04

34546 1,2 TRANS- DICHLORO ETHYLENE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	50.0000	31	
FEB'97	0.0170	0.0000	50.0000	28	$0.00
MAR'97	0.0100	0.0000	50.0000	7	$0.00
APR'97	0.0150	0.0000	50.0000	13	$0.00
MAY'97	0.5100	0.0000	50.0000	16	$0.00
JUN'97	0.5000	0.0000	50.0000	30	$0.00
JUL'97	0.0120	0.0000	50.0000	12	$0.00
AUG'97	0.0230	0.0000	50.0000	31	$0.00
SEP'97	0.0230	0.0000	50.0000	28	$0.00
OCT'97	0.0220	0.0000	50.0000	29	$0.00
NOV'97	0.0200	0.0000	50.0000	28	$0.00
DEC'97	0.0190	0.0000	50.0000	31	$0.00
					$0.00

TOTAL ANNUAL POUNDS OF 1,2 TRANS- DICHLORO ETHYLENE : 0.0000 PARAMETER TOTAL: $0.00

43002 TOLUENE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS		DOLLARS
JAN'97	0.0120	0.0000	14.7059	31		$0.00
MAR'97	0.0100	0.0000	14.7059	7		$0.00
APR'97	0.0150	0.0000	14.7059	13		$0.00
MAY'97	0.5100	0.0000	14.7059	16		$0.00
JUN'97	0.5000	0.0000	14.7059	30		$0.00
JUL'97	0.0120	0.0000	14.7059	12		$0.00
AUG'97	0.0230	0.0000	14.7059	31		$0.00
SEP'97	0.0230	0.0000	14.7059	28		$0.00
OCT'97	0.0220	0.0000	14.7059	29		$0.00
NOV'97	0.0200	0.0000	14.7059	28		$0.00
DEC'97	0.0190	0.0000	14.7059	31		$0.00

TOTAL ANNUAL POUNDS OF TOLUENE : 0.0000 PARAMETER TOTAL: $0.00

43003 1,1,1- TRICHLORO- ETHANE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	25.0000	31	$0.00
FEB'97	0.0170	0.0001	25.0000	28	$0.45
MAR'97	0.0100	0.0000	25.0000	7	$0.00
APR'97	0.0150	0.0000	25.0000	13	$0.00
MAY'97	0.5100	0.0000	25.0000	16	$0.00
JUN'97	0.5000	0.0000	25.0000	30	$0.00
JUL'97	0.0120	0.0000	25.0000	12	$0.00
AUG'97	0.0230	0.0000	25.0000	31	$0.00
SEP'97	0.0230	0.0000	25.0000	28	$0.00
OCT'97	0.0220	0.0000	25.0000	29	$0.00
NOV'97	0.0200	0.0000	25.0000	28	$0.00
DEC'97	0.0190	0.0001	25.0000	31	$0.50

TOTAL ANNUAL POUNDS OF 1,1,1- TRICHLORO- ETHANE : 0.0059 PARAMETER TOTAL: $0.95

43004 1,1,2- TRICHLORO- ETHANE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	2000.0000	31	$0.00
FEB'97	0.0170	0.0000	2000.0000	28	$0.00
MAR'97	0.0100	0.0000	2000.0000	7	$0.00
APR'97	0.0150	0.0000	2000.0000	13	$0.00
MAY'97	0.5100	0.0000	2000.0000	16	$0.00
JUN'97	0.5000	0.0000	2000.0000	30	$0.00
JUL'97	0.0120	0.0000	2000.0000	12	$0.00
AUG'97	0.0230	0.0000	2000.0000	31	$0.00
SEP'97	0.0230	0.0000	2000.0000	28	$0.00
OCT'97	0.0220	0.0000	2000.0000	29	$0.00
NOV'97	0.0200	0.0000	2000.0000	28	$0.00
DEC'97	0.0190	0.0000	2000.0000	31	$0.00

TOTAL ANNUAL POUNDS OF 1,1,2- TRICHLORO- ETHANE : 0.0000 PARAMETER TOTAL: $0.00

43006 TETRA- CHLORO- ETHYLENE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	2000.0000	31	
FEB'97	0.0170	0.0000	2000.0000	28	$0.00
MAR'97	0.0100	0.0000	2000.0000	7	$0.00
APR'97	0.0150	0.0000	2000.0000	13	$0.00
MAY'97	0.5100	0.0000	2000.0000	16	$0.00
JUN'97	0.5000	0.0000	2000.0000	30	$0.00
JUL'97	0.0120	0.0000	2000.0000	12	$0.00
AUG'97	0.0230	0.0000	2000.0000	31	$0.00
SEP'97	0.0230	0.0000	2000.0000	28	$0.00
OCT'97	0.0220	0.0000	2000.0000	29	$0.00
NOV'97	0.0200	0.0000	2000.0000	28	$0.00
DEC'97	0.0190	0.0000	2000.0000	31	$0.00
	TOTAL ANNUAL POUNDS OF TETRA- CHLORO- ETHYLENE :		0.0000	PARAMETER TOTAL:	$0.00

43007 TRICHLORO- ETHYLENE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	2000.0000	31	$0.00
FEB'97	0.0170	0.0000	2000.0000	28	$0.00
MAR'97	0.0100	0.0000	2000.0000	7	$0.00
APR'97	0.0150	0.0000	2000.0000	13	$0.00
MAY'97	0.5100	0.0009	2000.0000	16	$186.62
JUN'97	0.5000	0.0000	2000.0000	30	$0.00
JUL'97	0.0120	0.0000	2000.0000	12	$0.00
AUG'97	0.0230	0.0000	2000.0000	31	$0.00
SEP'97	0.0230	0.0001	2000.0000	28	$36.29
OCT'97	0.0220	0.0000	2000.0000	29	$0.00
NOV'97	0.0200	0.0001	2000.0000	28	$36.29
DEC'97	0.0190	0.0001	2000.0000	31	$40.18

TOTAL ANNUAL POUNDS OF TRICHLORO- ETHYLENE : 0.0231 PARAMETER TOTAL: $299.38

43008 ETHYL- BENZENE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	7.1429	31	$0.00
FEB'97	0.0170	0.0000	7.1429	28	$0.00
MAR'97	0.0100	0.0000	7.1429	7	$0.00
APR'97	0.0150	0.0000	7.1429	13	$0.00
MAY'97	0.5100	0.0000	7.1429	16	$0.00
JUN'97	0.5000	0.0000	7.1429	30	$0.00
JUL'97	0.0120	0.0000	7.1429	12	$0.00
AUG'97	0.0230	0.0000	7.1429	31	$0.00
SEP'97	0.0230	0.0000	7.1429	28	$0.00
OCT'97	0.0220	0.0000	7.1429	29	$0.00
NOV'97	0.0200	0.0000	7.1429	28	$0.00
DEC'97	0.0190	0.0000	7.1429	31	$0.00

TOTAL ANNUAL POUNDS OF ETHYL- BENZENE : 0.0000 PARAMETER TOTAL: $0.00

43024 METHYLENE CHLORIDE PPB

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	2000.0000	31	
FEB'97	0.0170	0.0000	2000.0000	28	$0.00
MAR'97	0.0100	0.0000	2000.0000	7	$0.00
APR'97	0.0150	0.0000	2000.0000	13	$0.00
MAY'97	0.5100	0.0000	2000.0000	16	$0.00
JUN'97	0.5000	0.0000	2000.0000	30	$0.00
JUL'97	0.0120	0.0000	2000.0000	12	$0.00
AUG'97	0.0230	0.0000	2000.0000	31	$0.00
SEP'97	0.0230	0.0000	2000.0000	28	$0.00
OCT'97	0.0220	0.0000	2000.0000	29	$0.00
NOV'97	0.0200	0.0000	2000.0000	28	$0.00
DEC'97	0.0190	0.0000	2000.0000	31	$0.00
					$0.00

TOTAL ANNUAL POUNDS OF METHYLENE CHLORIDE PPB : 0.0000 PARAMETER TOTAL: $0.00

43031 1,2 DI- CHLORO- ETHANE

OUTFALL 1

	FLOW	POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	2000.0000	31	$0.00
FEB'97	0.0170	0.0000	2000.0000	28	$0.00
MAR'97	0.0100	0.0000	2000.0000	7	$0.00
APR'97	0.0150	0.0000	2000.0000	13	$0.00
MAY'97	0.5100	0.0000	2000.0000	16	$0.00
JUN'97	0.5000	0.0000	2000.0000	30	$0.00
JUL'97	0.0120	0.0000	2000.0000	12	$0.00
AUG'97	0.0230	0.0000	2000.0000	31	$0.00
SEP'97	0.0230	0.0000	2000.0000	28	$0.00
OCT'97	0.0220	0.0000	2000.0000	29	$0.00
NOV'97	0.0200	0.0000	2000.0000	28	$0.00
DEC'97	0.0190	0.0000	2000.0000	31	$0.00

TOTAL ANNUAL POUNDS OF 1,2 DI- CHLORO- ETHANE : 0.0000 PARAMETER TOTAL: $0.00

81574 1,2-CIS- DICHLORO ETHENE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	142.8571	31	$0.00
FEB'97	0.0170	0.0000	142.8571	28	$0.00
MAR'97	0.0100	0.0000	142.8571	7	$0.00
APR'97	0.0150	0.0000	142.8571	13	$0.00
MAY'97	0.5100	0.0000	142.8571	16	$0.00
JUN'97	0.5000	0.0000	142.8571	30	$0.00
JUL'97	0.0120	0.0000	142.8571	12	$0.00
AUG'97	0.0230	0.0000	142.8571	31	$0.00
SEP'97	0.0230	0.0000	142.8571	28	$0.00
OCT'97	0.0220	0.0000	142.8571	29	$0.00
NOV'97	0.0200	0.0000	142.8571	28	$0.00
DEC'97	0.0190	0.0000	142.8571	31	$0.00

TOTAL ANNUAL POUNDS OF 1,2-CIS- DICHLORO ETHENE : 0.0000 PARAMETER TOTAL: $0.00

REASONS FOR CHANGING SUMMARY DATA (CHECK ANY THAT APPLY):

__ THE LIMIT WAS NOT IN EFFECT FOR ANY PART OF 1998. (STRIKE OUT THE DATA FOR THAT SUBSTANCE)

__ THE NUMBER OF DAYS SHOWN IS NOT THE ACTUAL NUMBER OF DISCHARGE DAYS.

__ AN INFLUENT DEDUCTION REDUCED THE POUNDS. (PROVIDE SUPPORTING DOCUMENTATION)

__ ADDITIONAL DATA WAS USED TO CALCULATE MONTHLY POUNDS.

FACILITY SUBTOTAL: $990.42

MINIMUM BASE FEE: $250.00

ESTIMATED TOTAL FEE: $990.42

NOTE: ESTIMATE ONLY - DO NOT PAY AT THIS TIME

SIGNATURE & PHONE # OF PERSON COMPLETING THE FORM:

SPECIAL NOTICE of 1999 WASTEWATER FEES

The attached special Wastewater Summary report is provided to alert you to the impact of a new wastewater fee. Chapter NR 101.13 establishes the procedures for applying WPDES permit information to the wastewater fee calculations. Chapter NR 101.13(5)(c) establishes the use of phosphorus limits established under chapter NR 217, *"except that until 90% of affected dischargers receive such limits or a variance from the limits there shall be no fees for the discharge of phosphorus"*

The exclusion in italics above was included in the rule because NR 217 has just been promulgated and would have adversely impacted recently reissued permits. We've been watching the reissuance rate of WPDES permits and calculate that the 90% criteria will be exceeded in 1999. This will mean that facilities with phosphorus limits in effect will be charged a wastewater fee for phosphorus beginning in 1999. The actual 1999 fees will be assessed in May of 2000.

Phosphorus fees will impact all facilities. Facilities without phosphorus limits in their permits will see a decrease in their total wastewater fee, perhaps to the base fee level ($250 or $500). This is because phosphorus fees must not increase the total of wastewater fees collected above the revenue cap in S. 299.15. The adjustment factors, which control the total amount assessed, will therefore go down.

Facilities with phosphorus limits in effect will see the lower adjustment factors applied to their normal billable parameters, BOD-5 and Total Suspended Solids for example, but will see the new phosphorus fees. The total wastewater fee may be higher or lower depending on the amount of the phosphorus fee. Phosphorus fees are calculated in much the same way as BOD – 5, average pounds X rate X. number of days. We understand that some facilities are reporting 12-month rolling average phosphorus values rather than monthly averages. At this time we are unable apply the December value, which should be indicative of the whole year, to the fee calculation process. What we have provided is a fee calculation based on each monthly average value, whether it's an actual monthly average or a 12-month rolling average. We intend to correctly use 12-month rolling average values next year.

This special notice is meant to alert you to the impact of the new phosphorus fees. You do not need to do anything at this time. You may contact me at (608) 267-7638 to discuss wastewater fees. Please call your WPDES contact person if your question is about the actual phosphorus limit.

Tom Aten
Fee Program Manager
Bureau of Integrated Science Services

PERMIT #: 0049531
OCONOMOWOC ELECTROPLATING SUPERFUND

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
1998 NR 101 WASTEWATER REPORT INCLUDING PHOSPHORUS

FORM 3200-18
REV.07/93

THIS REPORT OF YOUR 1998 WPDES DISCHARGE MONITORING REPORT DATA IS PROVIDED UNDER SECTION 299.15, WIS. STATS AND CHAPTER NR 101, WIS. ADMIN. CODE. THIS REPORT IS FOR YOUR INFORMATION TO HELP YOU UNDERSTAND THE IMPACT OF PHOSPHORUS FEES THAT WILL BE ASSESSED NEXT YEAR. YOU DO NOT NEED TO DO ANYTHING WITH THIS REPORT.

THIS REPORT ALSO PROVIDES AN ESTIMATE OF YOUR WASTEWATER FEE USING THE FORMULA: POUNDS X RATE X DAYS X ADJUSTMENT FACTOR. THE ADJUSTMENT FACTOR USED IN THIS ESTIMATE IS 4.3236 CONTACT TOM ATEN AT (608) 267-7638 IF YOU HAVE A QUESTION ABOUT THIS REPORT.

120 CADMIUM TOTAL

OUTFALL 1

	FLOW	POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0001	2000.0000	31	$26.81
FEB'97	0.0170	0.0000	2000.0000	28	$0.00
MAR'97	0.0100	0.0000	2000.0000	7	$0.00
APR'97	0.0150	0.0000	2000.0000	13	$0.00
MAY'97	0.5100	0.0000	2000.0000	16	$0.00
JUN'97	0.5000	0.0000	2000.0000	30	$0.00
JUL'97	0.0120	0.0000	2000.0000	12	$0.00
AUG'97	0.0230	0.0000	2000.0000	31	$0.00
SEP'97	0.0230	0.0000	2000.0000	28	$0.00
OCT'97	0.0220	0.0000	2000.0000	29	$0.00
NOV'97	0.0200	0.0000	2000.0000	28	$0.00
DEC'97	0.0190	0.0000	2000.0000	31	$0.00

TOTAL ANNUAL POUNDS OF CADMIUM TOTAL : 0.0031 PARAMETER TOTAL: $26.81

PERMIT #: 0049531 OCONOMOWOC ELECTROPLATING SUPERFUND

122 CHROMIUM TOTAL

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0001	100.0000	31	$1.34
FEB'97	0.0170	0.0001	100.0000	28	$1.21
MAR'97	0.0100	0.0000	100.0000	7	$0.00
APR'97	0.0150	0.0004	100.0000	13	$2.25
MAY'97	0.5100	0.0000	100.0000	16	$0.00
JUN'97	0.5000	0.0013	100.0000	30	$16.86
JUL'97	0.0120	0.0024	100.0000	12	$12.45
AUG'97	0.0230	0.0000	100.0000	31	$0.00
SEP'97	0.0230	0.0000	100.0000	28	$0.00
OCT'97	0.0220	0.0000	100.0000	29	$0.00
NOV'97	0.0200	0.0000	100.0000	28	$0.00
DEC'97	0.0190	0.0003	100.0000	31	$4.02

TOTAL ANNUAL POUNDS OF CHROMIUM TOTAL : 0.0882

PARAMETER TOTAL: $38.13

125 LEAD TOTAL

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS			DOLLARS
JAN'97	0.0120	0.0000	666.6667	31			$0.00
FEB'97	0.0170	0.0000	666.6667	28			$0.00
MAR'97	0.0100	0.0001	666.6667	7			$2.02
MAY'97	0.5100	0.0000	666.6667	16			$0.00
JUN'97	0.5000	0.0021	666.6667	30			$181.59
JUL'97	0.0120	0.0005	666.6667	12			$17.29
AUG'97	0.0230	0.0000	666.6667	31			$0.00
SEP'97	0.0230	0.0000	666.6667	28			$0.00
OCT'97	0.0220	0.0000	666.6667	29			$0.00
NOV'97	0.0200	0.0000	666.6667	28			$0.00
DEC'97	0.0190	0.0000	666.6667	31			$0.00

TOTAL ANNUAL POUNDS OF LEAD TOTAL : 0.0697 PARAMETER TOTAL: $200.90

126 MERCURY TOTAL

OUTFALL 1

	FLOW	POUNDS	RATE	# DAYS		DOLLARS
JAN'97	0.0120	0.0000	2500.0000	31		$0.00
FEB'97	0.0170	0.0000	2500.0000	28		$0.00
MAR'97	0.0100	0.0000	2500.0000	7		$0.00
MAY'97	0.5100	0.0000	2500.0000	16		$0.00
JUN'97	0.5000	0.0000	2500.0000	30		$0.00
JUL'97	0.0120	0.0000	2500.0000	12		$0.00
AUG'97	0.0230	0.0000	2500.0000	31		$0.00
SEP'97	0.0230	0.0000	2500.0000	28		$0.00
OCT'97	0.0220	0.0000	2500.0000	29		$0.00
NOV'97	0.0200	0.0000	2500.0000	28		$0.00
DEC'97	0.0190	0.0000	2500.0000	31		$0.00

TOTAL ANNUAL POUNDS OF MERCURY TOTAL : 0.0000 PARAMETER TOTAL: $0.00

128 NICKEL TOTAL

	OUTFALL 1 FLOW	POUNDS	RATE	# DAYS		DOLLARS
JAN'97	0.0120	0.0012	0.0500	31		$0.01
FEB'97	0.0170	0.0026	0.0500	28		$0.02
MAR'97	0.0100	0.0006	0.0500	7		$0.00
MAY'97	0.5100	0.0400	0.0500	16		$0.14
JUN'97	0.5000	0.0375	0.0500	30		$0.24
JUL'97	0.0120	0.0001	0.0500	12		$0.00
AUG'97	0.0230	0.0000	0.0500	31		$0.00
SEP'97	0.0230	0.0038	0.0500	28		$0.02
OCT'97	0.0220	0.0005	0.0500	29		$0.00
NOV'97	0.0200	0.0008	0.0500	28		$0.00
DEC'97	0.0190	0.0013	0.0500	31		$0.01

TOTAL ANNUAL POUNDS OF NICKEL TOTAL : 2.0640 PARAMETER TOTAL: $0.44

270 SELENIUM TOTAL

OUTFALL 1

	FLOW	POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	100.0000	31	$0.00
FEB'97	0.0170	0.0000	100.0000	28	$0.00
MAR'97	0.0100	0.0000	100.0000	7	$0.00
MAY'97	0.5100	0.0000	100.0000	16	$0.00
JUN'97	0.5000	0.0000	100.0000	30	$0.00
JUL'97	0.0120	0.0000	100.0000	12	$0.00
AUG'97	0.0230	0.0000	100.0000	31	$0.00
SEP'97	0.0230	0.0000	100.0000	28	$0.00
OCT'97	0.0220	0.0000	100.0000	29	$0.00
NOV'97	0.0200	0.0000	100.0000	28	$0.00
DEC'97	0.0190	0.0000	100.0000	31	$0.00

TOTAL ANNUAL POUNDS OF SELENIUM TOTAL : 0.0000 PARAMETER TOTAL: $0.00

271 SILVER TOTAL

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS		DOLLARS
JAN'97	0.0120	0.0000	100.0000	31		$0.00
FEB'97	0.0170	0.0001	100.0000	28		$1.21
MAR'97	0.0100	0.0000	100.0000	7		$0.00
MAY'97	0.5100	0.0000	100.0000	16		$0.00
JUN'97	0.5000	0.0000	100.0000	30		$0.00
JUL'97	0.0120	0.0000	100.0000	12		$0.00
AUG'97	0.0230	0.0000	100.0000	31		$0.00
SEP'97	0.0230	0.0000	100.0000	28		$0.00
OCT'97	0.0220	0.0000	100.0000	29		$0.00
NOV'97	0.0200	0.0000	100.0000	28		$0.00
DEC'97	0.0190	0.0000	100.0000	31		$0.00

TOTAL ANNUAL POUNDS OF SILVER TOTAL : 0.0028 PARAMETER TOTAL: $1.21

PERMIT #: 0049531 OCONOMOWOC ELECTROPLATING SUPERFUND

720 CYANIDE TOTAL

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	25.0000	31	$0.00
FEB'97	0.0170	0.0000	25.0000	28	$0.00
MAR'97	0.0100	0.0000	25.0000	7	$0.00
APR'97	0.0150	0.0000	25.0000	13	$0.00
MAY'97	0.5100	0.0038	25.0000	16	$6.57
JUN'97	0.5000	0.0000	25.0000	30	$0.00
JUL'97	0.0120	0.0000	25.0000	12	$0.00
AUG'97	0.0230	0.0001	25.0000	31	$0.34
SEP'97	0.0230	0.0004	25.0000	28	$1.21
OCT'97	0.0220	0.0000	25.0000	29	$0.00
NOV'97	0.0200	0.0000	25.0000	28	$0.00
DEC'97	0.0190	0.0002	25.0000	31	$0.67

TOTAL ANNUAL POUNDS OF CYANIDE TOTAL : 0.0813 PARAMETER TOTAL: $8.79

1002 ARSENIC TOTAL

OUTFALL 1

	FLOW	POUNDS	RATE	# DAYS		DOLLARS
JAN'97	0.0120	0.0000	200.0000	31		$0.00
FEB'97	0.0170	0.0000	200.0000	28		$0.00
MAR'97	0.0100	0.0000	200.0000	7		$0.00
APR'97	0.0150	0.0000	200.0000	13		$0.00
MAY'97	0.5100	0.0000	200.0000	16		$0.00
JUN'97	0.5000	0.0071	200.0000	30		$184.19
JUL'97	0.0120	0.0000	200.0000	12		$0.00
AUG'97	0.0230	0.0000	200.0000	31		$0.00
SEP'97	0.0230	0.0000	200.0000	28		$0.00
OCT'97	0.0220	0.0000	200.0000	29		$0.00
NOV'97	0.0200	0.0000	200.0000	28		$0.00
DEC'97	0.0190	0.0000	200.0000	31		$0.00

TOTAL ANNUAL POUNDS OF ARSENIC TOTAL : 0.2130 PARAMETER TOTAL: $184.19

34546 1,2 TRANS- DICHLORO ETHYLENE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	50.0000	31	
FEB'97	0.0170	0.0000	50.0000	28	$0.00
MAR'97	0.0100	0.0000	50.0000	7	$0.00
APR'97	0.0150	0.0000	50.0000	13	$0.00
MAY'97	0.5100	0.0000	50.0000	16	$0.00
JUN'97	0.5000	0.0000	50.0000	30	$0.00
JUL'97	0.0120	0.0000	50.0000	12	$0.00
AUG'97	0.0230	0.0000	50.0000	31	$0.00
SEP'97	0.0230	0.0000	50.0000	28	$0.00
OCT'97	0.0220	0.0000	50.0000	29	$0.00
NOV'97	0.0200	0.0000	50.0000	28	$0.00
DEC'97	0.0190	0.0000	50.0000	31	$0.00
					$0.00

TOTAL ANNUAL POUNDS OF 1,2 TRANS- DICHLORO ETHYLENE : 0.0000 PARAMETER TOTAL: $0.00

43002 TOLUENE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS		DOLLARS
JAN'97	0.0120	0.0000	14.7059	31		$0.00
MAR'97	0.0100	0.0000	14.7059	7		$0.00
APR'97	0.0150	0.0000	14.7059	13		$0.00
MAY'97	0.5100	0.0000	14.7059	16		$0.00
JUN'97	0.5000	0.0000	14.7059	30		$0.00
JUL'97	0.0120	0.0000	14.7059	12		$0.00
AUG'97	0.0230	0.0000	14.7059	31		$0.00
SEP'97	0.0230	0.0000	14.7059	28		$0.00
OCT'97	0.0220	0.0000	14.7059	29		$0.00
NOV'97	0.0200	0.0000	14.7059	28		$0.00
DEC'97	0.0190	0.0000	14.7059	31		$0.00

TOTAL ANNUAL POUNDS OF TOLUENE : 0.0000 PARAMETER TOTAL: $0.00

43003 1,1,1- TRICHLORO- ETHANE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	25.0000	31	
FEB'97	0.0170	0.0001	25.0000	28	$0.00
MAR'97	0.0100	0.0000	25.0000	7	$0.30
APR'97	0.0150	0.0000	25.0000	13	$0.00
MAY'97	0.5100	0.0000	25.0000	16	$0.00
JUN'97	0.5000	0.0000	25.0000	30	$0.00
JUL'97	0.0120	0.0000	25.0000	12	$0.00
AUG'97	0.0230	0.0000	25.0000	31	$0.00
SEP'97	0.0230	0.0000	25.0000	28	$0.00
OCT'97	0.0220	0.0000	25.0000	29	$0.00
NOV'97	0.0200	0.0000	25.0000	28	$0.00
DEC'97	0.0190	0.0001	25.0000	31	$0.00
					$0.34

TOTAL ANNUAL POUNDS OF 1,1,1- TRICHLORO- ETHANE : 0.0059 PARAMETER TOTAL: $0.64

43004 1,1,2- TRICHLORO- ETHANE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	2000.0000	31	
FEB'97	0.0170	0.0000	2000.0000	28	$0.00
MAR'97	0.0100	0.0000	2000.0000	7	$0.00
APR'97	0.0150	0.0000	2000.0000	13	$0.00
MAY'97	0.5100	0.0000	2000.0000	16	$0.00
JUN'97	0.5000	0.0000	2000.0000	30	$0.00
JUL'97	0.0120	0.0000	2000.0000	12	$0.00
AUG'97	0.0230	0.0000	2000.0000	31	$0.00
SEP'97	0.0230	0.0000	2000.0000	28	$0.00
OCT'97	0.0220	0.0000	2000.0000	29	$0.00
NOV'97	0.0200	0.0000	2000.0000	28	$0.00
DEC'97	0.0190	0.0000	2000.0000	31	$0.00
	TOTAL ANNUAL POUNDS OF 1,1,2- TRICHLORO- ETHANE :		0.0000	PARAMETER TOTAL:	$0.00

43006 TETRA- CHLORO- ETHYLENE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	2000.0000	31	$0.00
FEB'97	0.0170	0.0000	2000.0000	28	$0.00
MAR'97	0.0100	0.0000	2000.0000	7	$0.00
APR'97	0.0150	0.0000	2000.0000	13	$0.00
MAY'97	0.5100	0.0000	2000.0000	16	$0.00
JUN'97	0.5000	0.0000	2000.0000	30	$0.00
JUL'97	0.0120	0.0000	2000.0000	12	$0.00
AUG'97	0.0230	0.0000	2000.0000	31	$0.00
SEP'97	0.0230	0.0000	2000.0000	28	$0.00
OCT'97	0.0220	0.0000	2000.0000	29	$0.00
NOV'97	0.0200	0.0000	2000.0000	28	$0.00
DEC'97	0.0190	0.0000	2000.0000	31	$0.00
					$0.00

TOTAL ANNUAL POUNDS OF TETRA- CHLORO- ETHYLENE : 0.0000 PARAMETER TOTAL: $0.00

43007 TRICHLORO- ETHYLENE

OUTFALL 1

	FLOW	POUNDS	RATE	# DAYS		DOLLARS
JAN'97	0.0120	0.0000	2000.0000	31		
FEB'97	0.0170	0.0000	2000.0000	28		$0.00
MAR'97	0.0100	0.0000	2000.0000	7		$0.00
APR'97	0.0150	0.0000	2000.0000	13		$0.00
MAY'97	0.5100	0.0009	2000.0000	16		$0.00
JUN'97	0.5000	0.0000	2000.0000	30		$124.52
JUL'97	0.0120	0.0000	2000.0000	12		$0.00
AUG'97	0.0230	0.0000	2000.0000	31		$0.00
SEP'97	0.0230	0.0001	2000.0000	28		$0.00
OCT'97	0.0220	0.0000	2000.0000	29		$24.21
NOV'97	0.0200	0.0001	2000.0000	28		$0.00
DEC'97	0.0190	0.0001	2000.0000	31		$24.21
						$26.81

TOTAL ANNUAL POUNDS OF TRICHLORO- ETHYLENE : 0.0231 PARAMETER TOTAL: $199.75

43008 ETHYL- BENZENE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	7.1429	31	
FEB'97	0.0170	0.0000	7.1429	28	$0.00
MAR'97	0.0100	0.0000	7.1429	7	$0.00
APR'97	0.0150	0.0000	7.1429	13	$0.00
MAY'97	0.5100	0.0000	7.1429	16	$0.00
JUN'97	0.5000	0.0000	7.1429	30	$0.00
JUL'97	0.0120	0.0000	7.1429	12	$0.00
AUG'97	0.0230	0.0000	7.1429	31	$0.00
SEP'97	0.0230	0.0000	7.1429	28	$0.00
OCT'97	0.0220	0.0000	7.1429	29	$0.00
NOV'97	0.0200	0.0000	7.1429	28	$0.00
DEC'97	0.0190	0.0000	7.1429	31	$0.00

TOTAL ANNUAL POUNDS OF ETHYL- BENZENE : 0.0000

PARAMETER TOTAL: $0.00

43024 METHYLENE CHLORIDE PPB

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	2000.0000	31	
FEB'97	0.0170	0.0000	2000.0000	28	$0.00
MAR'97	0.0100	0.0000	2000.0000	7	$0.00
APR'97	0.0150	0.0000	2000.0000	13	$0.00
MAY'97	0.5100	0.0000	2000.0000	16	$0.00
JUN'97	0.5000	0.0000	2000.0000	30	$0.00
JUL'97	0.0120	0.0000	2000.0000	12	$0.00
AUG'97	0.0230	0.0000	2000.0000	31	$0.00
SEP'97	0.0230	0.0000	2000.0000	28	$0.00
OCT'97	0.0220	0.0000	2000.0000	29	$0.00
NOV'97	0.0200	0.0000	2000.0000	28	$0.00
DEC'97	0.0190	0.0000	2000.0000	31	$0.00

TOTAL ANNUAL POUNDS OF METHYLENE CHLORIDE PPB : 0.0000 PARAMETER TOTAL: $0.00

43031 1,2 DI- CHLORO- ETHANE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	2000.0000	31	
FEB'97	0.0170	0.0000	2000.0000	28	$0.00
MAR'97	0.0100	0.0000	2000.0000	7	$0.00
APR'97	0.0150	0.0000	2000.0000	13	$0.00
MAY'97	0.5100	0.0000	2000.0000	16	$0.00
JUN'97	0.5000	0.0000	2000.0000	30	$0.00
JUL'97	0.0120	0.0000	2000.0000	12	$0.00
AUG'97	0.0230	0.0000	2000.0000	31	$0.00
SEP'97	0.0230	0.0000	2000.0000	28	$0.00
OCT'97	0.0220	0.0000	2000.0000	29	$0.00
NOV'97	0.0200	0.0000	2000.0000	28	$0.00
DEC'97	0.0190	0.0000	2000.0000	31	$0.00
		TOTAL ANNUAL POUNDS OF 1,2 DI- CHLORO- ETHANE :		0.0000	$0.00
				PARAMETER TOTAL:	$0.00

81574 1,2-CIS- DICHLORO ETHENE

	FLOW	OUTFALL 1 POUNDS	RATE	# DAYS	DOLLARS
JAN'97	0.0120	0.0000	142.8571	31	$0.00
FEB'97	0.0170	0.0000	142.8571	28	$0.00
MAR'97	0.0100	0.0000	142.8571	7	$0.00
APR'97	0.0150	0.0000	142.8571	13	$0.00
MAY'97	0.5100	0.0000	142.8571	16	$0.00
JUN'97	0.5000	0.0000	142.8571	30	$0.00
JUL'97	0.0120	0.0000	142.8571	12	$0.00
AUG'97	0.0230	0.0000	142.8571	31	$0.00
SEP'97	0.0230	0.0000	142.8571	28	$0.00
OCT'97	0.0220	0.0000	142.8571	29	$0.00
NOV'97	0.0200	0.0000	142.8571	28	$0.00
DEC'97	0.0190	0.0000	142.8571	31	$0.00

TOTAL ANNUAL POUNDS OF 1,2-CIS- DICHLORO ETHENE : 0.0000 PARAMETER TOTAL: $0.00

REASONS FOR CHANGING SUMMARY DATA (CHECK ANY THAT APPLY):

__ THE LIMIT WAS NOT IN EFFECT FOR ANY PART OF 1998. (STRIKE OUT THE DATA FOR THAT SUBSTANCE)

__ THE NUMBER OF DAYS SHOWN IS NOT THE ACTUAL NUMBER OF DISCHARGE DAYS.

__ AN INFLUENT DEDUCTION REDUCED THE POUNDS. (PROVIDE SUPPORTING DOCUMENTATION)

__ ADDITIONAL DATA WAS USED TO CALCULATE MONTHLY POUNDS.

FACILITY SUBTOTAL: $660.86

MINIMUM BASE FEE: $250.00

ESTIMATED TOTAL FEE: $660.86

NOTE: ESTIMATE ONLY - DO NOT PAY AT THIS TIME

SIGNATURE & PHONE # OF PERSON COMPLETING THE FORM: