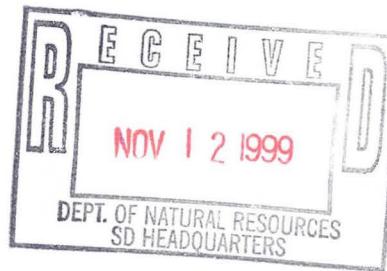




November 15, 1999



Mr. Paul Kozol
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711

Re: Monthly Monitoring Report for the Oconomowoc Groundwater Treatment Facility

Dear Mr. Kozol:

Attached is the Monthly Monitoring Report for October, 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, Plant Superintendent
APL, Inc.

cc: Steven Brossart, USACE, St. Paul District
Steve Padovani, USEPA
James Chang, APL, Inc.
David Brodzinski, WDNR, Horicon

**MONTHLY MONITORING REPORT
FOR THE
OCONOMOWOC ELECTROPLATING
GROUNDWATER TREATMENT FACILITY**

ASHIPPUN, WISCONSIN 53003

Prepared for:

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

Prepared by:

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

November 15, 1999

1.0 Introduction

This report summarizes the monthly effluent monitoring results for the Oconomowoc Electroplating Groundwater Treatment Plant (OEGTP) for October, 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 Steven Brossart of the U.S. Army Corps of Engineers (USACE). Mr. Brossart's phone number is (507) 454-6150, Fax (507) 454-4963. 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.

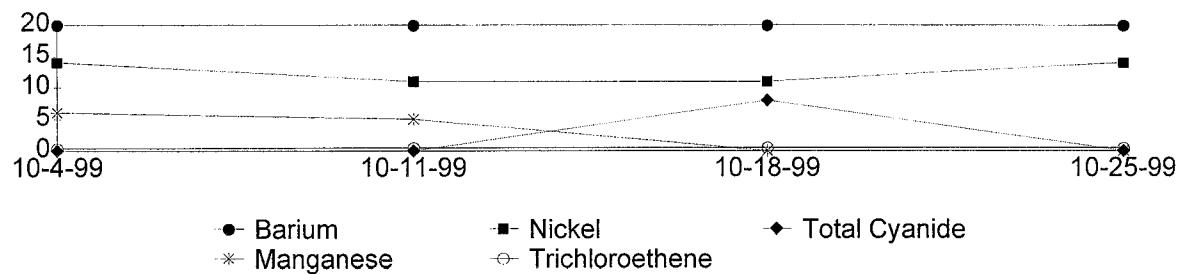
1.3 Effluent Monitoring

Weekly monitoring was conducted on October 4, 11, 18, and 25. The weekly samples for October were tested by APL, Inc. The results of the effluent monitoring tests for the samples taken in October showed exceedences of the WDNR effluent discharge permit for TCE on the October 11 and 18 samplings. The possible cause of the high levels of TCE 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)*.

Chart 1 - 5 Important Indicator Parameters



2.0 Plant Permit Exceedences

The high level of TCE may be due to the life span of the activated Carbon being close to it's change out time. Paul Kozol, of the WDNR, authorized continued plant operations until the TCE level is equal to or > 1.5 ug/l. The treatment plant's limit for TCE is 0.5 ug/l and the October 11 sampling result was 0.51 ug/l and the October 18 sampling result was 0.52 ug/l. The spent Carbon was changed out of the GAC's between October 26 to 29. Mr. Kozol wanted the Carbon changed out and only one vessel put in line to see if the Carbon is lasting longer since the treatment plant modifications have been fine tuned.

3.0 Treatment Plant Shut Downs

The Treatment Plant was shut down four times for a total of 34.25 hours in October, 1999. The shut downs were due to 2 Scheduled Maintenances, Clogged CRT-211 Discharge Line, and to Acid Clean the Extraction Well Field Piping. Table 1 shows the summary of the plant down times for the month of October, 1999.

Table 1 - Plant Down Time Summary

Date(s)	Number Hours Shut Down	Reason
10-5-99	6.5	Scheduled Maintenance Shut Down
10-14-99	0.25	Shut Down Due to Clogged CRT-211 Discharge Line
10-25-26-99	10	Shut Down Due to Acid Cleaning Extraction Well Field Piping
10-26-27-99	17.5	Scheduled Maintenance Shut Down
TOTAL	34.25	

3.1 Shut Down Due To Scheduled Maintenance

On October 5, the treatment plant was shut down at 6:30 A.M. to perform scheduled maintenance. Equipment worked on and work performed included acid cleaning the fixing the auger seal and lug bolt for the Clarifier's Thickener Drive (TD-401), modifying the discharge line for the Equalization Tank Solids Pumps (ESP-120/121), trouble shooting the air flow problem with the Air Compressors (AC-950A/B), and replacing a gasket on MOV-711. The treatment plant was restarted at 1:00 P.M. The total down time was 6.5 hours.

3.2 Shut Down Due To Clogged CRT-211 Discharge Line

On October 14, it was discovered that the level in CRT-211 was starting to rise, again. CRT-201/211 were by-passed and all chemical feed pumps and mixers were shut off. CRT-211 was partially drained to ST-820 using ESP-120. The discharge line's elbow connection was removed and cleaned with inhibited Muriatic acid. The access cover to the Rapid Mix Tank (RMT-301) was unbolted and the Rapid Tank Mixer (RMT-302) and treatment plant was shut down. The CRT-211 discharge line was augured out using a water hose jetter and the access cover to RTM-301 was rebolted down. RTM-302 and the treatment plant was restarted and the discharge line's elbow connection was reconnected. CRT-201/211 were put back in-line and all appropriate chemical feed pumps and mixers were reactivated. Total down time was only 15 minutes.

3.3 Shut Down Due To Acid Cleaning Extraction Well Field Piping

On October 25, the Extraction Well field was shut down at 10 A.M., to allow for acid cleaning of the piping to the Equalization Tank (EQT-100). The treatment plant flow was slowed down and water was added to the floor trench to reduce the amount of treatment plant down time. A dilute inhibited muriatic acid solution was pumped into the EW piping to react with the iron bacteria and hardness that was observed coating the piping during the EW pump change outs. The dilute inhibited muriatic acid solution was left in the piping over night. The Neutralization Stage (RMT-451/FT-461) was isolated, it's chemical feed pump and mixer were shut off, and its pH probe was removed and placed in water. The tanks were drained to ST-820 using the ESP-120. The stand-by acid pump (SAP-752) was activated to compensate for the Neutralization Stage being by-passed. At 7:30 P.M., the treatment plant shut down automatically due high pH reading in the effluent at the Effluent Holding Tank (EHT-700). At 5:30 A.M., on October 26, the Treatment System was restarted to lower the level in the EQT-100 and SAP-753 was directed to EHT-700 to lower the effluent pH. At 9:00 A.M., the EW's were started to flush out the acid from the lines. The total flow to EQT-100 increased from 21.7 gpm to 27.4 gpm after the pumps were restarted. APL, WDNR, and USACE were notified. The total down time was 10 hours.

3.4 Shut Down Due To Scheduled Maintenance

On October 26, at 1:00 P.M., the Treatment System was shut down to perform a spent Carbon removal on the Granular Activated Carbon Filters (GAC-650/651) and to remove sludge from the Rapid Mix Tanks (RMT-301/451) and the Flocculation Tanks (FT-311/461). On October 25,

GAC-650 was isolated, drained, and it's access cover removed. A fan was positioned to aid in removing the water from the Carbon overnight. It was noticed that there was more Carbon than normal in the vessel. On October 26, 9 barrels of spent Carbon were removed from GAC-650 with the Barrel Vacuum. Normally there are only 5 barrels of Carbon. The Treatment Plant was shut down because it was believed that there must only be 1 barrel of Carbon remaining in GAC-651. APL, WDNR, and USACE were notified. GAC-651 was isolated, drained, and it's access cover removed. There was a lot less Carbon in it than there should have been. A fan was positioned to aid in removing the water from the Carbon overnight. RMT-451 and FT-461 were cleaned out using a pressure washer and transferred to the ST-820. They were refilled and put back in-line. On October 27, GAC-650 was filled using the modified Barrel Vac. GAC-650 was backwashed with effluent to remove the fines and put back in-line. RMT-301 and FT-311 were cleaned out using a pressure washer and transferred to the ST-820. They were refilled and put back in-line and the Treatment Plant was restarted. APL, WDNR, and USACE were notified. The total down time was 17.5 hours.

4.0 Summary

Groundwater Treatment Plant effluent monitoring was conducted on October 4, 11, 18, and 25 of 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 except for TCE. Paul Kozol of the WDNR authorized continued plant operations until the TCE level reached 1.5 ug/l. See Chart 1, Section 1.4 for *Important Indicator Parameters*.

During the month of October, 1999, the plant were shut downs four times for a total of 34.25 hours. See Table 1, Section 3.0 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 November 15, 1999.

OCONOMOWOC GROUNDWATER TREATMENT PLANT

Weekly Sampling Results

Date: 10-4-99

Parameter	Influent	After FT-311	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l
pH	7	11	N/A	N/A	8.4	Monitor
TSS	1.5	NT	NT	NT	0.5	Monitor
Arsenic	ND	NT	NT	NT	ND	5
Barium	0.12	NT	NT	NT	20	400
Cadmium	ND	NT	NT	NT	ND	0.5
Cadmium Total	ND	NT	NT	NT	ND	Monitor
Recoverable Chromium +6	ND	NT	NT	NT	ND	Monitor
Chromium Total	ND	NT	NT	NT	ND	10
Copper	ND	NT	NT	NT	10	Monitor
Iron	1100	NT	NT	NT	90	Monitor
Lead	ND	NT	NT	NT	ND	1.5
Manganese	170	NT	NT	NT	6	Monitor
Mercury	ND	NT	NT	NT	ND	0.2
Nickel	40	NT	NT	NT	14	20
Selenium	22	NT	NT	NT	ND	10
Silver	ND	NT	NT	NT	ND	10
Thallium	ND	NT	NT	NT	ND	0.4
Zinc	10	NT	NT	NT	30	Monitor
Cyanide	20	NT	NT	NT	ND	40
Cyanide Free	20	NT	NT	NT	ND	Monitor
1,1-Dichloroethane	28	NT	ND	NT	ND/ND	85
1,2-Dichloroethane	ND	NT	ND	NT	ND/ND	0.5
1,1-Dichloroethene	13	NT	ND	NT	ND/ND	0.7
1,2-Dichloroethene Cis	48	NT	0.27	NT	ND/ND	7
1,2-Dichloroethene Trans	19	NT	ND	NT	ND/ND	20
Ethylbenzene	ND	NT	ND	NT	ND/ND	140
Methylene Chloride	ND	NT	ND	NT	ND/ND	0.5
Tetrachloroethene	7.3	NT	ND	NT	ND/ND	0.5
Toluene	ND	NT	ND	NT	ND/ND	68
1,1,1-Trichloroethane	207	NT	0.41	NT	ND/ND	40
1,1,2-Trichloroethane	ND	NT	ND	NT	ND/ND	0.5
TCE	547	NT	1.9	NT	.33/.35	0.5
Vinyl Chloride	ND	NT	ND	NT	ND/ND	0.2
Xylene Total	ND	NT	ND	NT	ND/ND	124
COD	20	NT	NT	NT	ND	Monitor
Phosphorus Total	NT	NT	NT	NT	ND	Monitor
Nitrate + Nitrite	NT	NT	NT	NT	0.27	Monitor
Ammonia Nitrogen	NT	NT	NT	NT	ND	Monitor

mg/l

mg/l

mg/l

mg/l

mg/l

OCONOMOWOC GROUNDWATER TREATMENT PLANT						
Weekly Sampling Results						Date: 10-11-99
Parameter	Influent	After FT-311	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l
pH	7.4	11	N/A	N/A	8.5	Monitor
TSS	NT	NT	NT	NT	NT	Monitor
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	1100	NT	NT	NT	80	Monitor
Lead	ND	NT	NT	NT	ND	1.5
Manganese	120	NT	NT	NT	5	Monitor
Mercury	ND	NT	NT	NT	ND	0.2
Nickel	18	NT	NT	NT	11	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	20	Monitor
Cyanide	10	NT	NT	NT	ND	40
Cyanide Free	ND	NT	NT	NT	ND	Monitor
1,1-Dichloroethane	28	NT	ND	NT	ND	85
1,2-Dichloroethane	ND	NT	ND	NT	ND	0.5
1,1-Dichloroethene	13	NT	ND	NT	ND	0.7
1,2-Dichloroethene Cis	49	NT	ND	NT	ND	7
1,2-Dichloroethene Trans	16	NT	ND	NT	ND	20
Ethylbenzene	ND	NT	ND	NT	ND	140
Methylene Chloride	ND	NT	ND	NT	ND	0.5
Tetrachloroethene	8.2	NT	ND	NT	ND	0.5
Toluene	ND	NT	ND	NT	ND	68
1,1,1-Trichloroethane	196	NT	ND	NT	ND	40
1,1,2-Trichloroethane	ND	NT	ND	NT	ND	0.5
TCE	539	NT	0.33	NT	0.51	0.5
Vinyl Chloride	ND	NT	ND	NT	ND	0.2
Xylene Total	ND	NT	ND	NT	ND	124
COD	NT	NT	NT	NT	NT	Monitor
Phosphorus Total	NT	NT	NT	NT	NT	Monitor
Nitrate + Nitrite	NT	NT	NT	NT	NT	Monitor
Ammonia Nitrogen	NT	NT	NT	NT	NT	Monitor

mg/l

mg/l

mg/l

mg/l

mg/l

OCONOMOWOC GROUNDWATER TREATMENT PLANT

Weekly Sampling Results

Date: 10-18-99

Parameter	Influent	After FT-311	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l	
pH	7.3	11	N/A	N/A	8.5	Monitor	
TSS	NT	NT	NT	NT	NT	Monitor	mg/l
Arsenic	ND	NT	NT	NT	ND	5	
Barium	110	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	1200	NT	NT	NT	290	Monitor	
Lead	ND	NT	NT	NT	ND	1.5	
Manganese	130	NT	NT	NT	ND	Monitor	
Mercury	ND	NT	NT	NT	ND	0.2	
Nickel	19	NT	NT	NT	11	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	50	Monitor	
Cyanide	10	NT	NT	NT	8	40	
Cyanide Free	ND	NT	NT	NT	ND	Monitor	
1,1-Dichloroethane	30	NT	ND	NT	ND	85	
1,2-Dichloroethane	ND	NT	ND	NT	ND	0.5	
1,1-Dichloroethene	14	NT	ND	NT	ND	0.7	
1,2-Dichloroethene Cis	53	NT	0.41	NT	ND	7	
1,2-Dichloroethene Trans	20	NT	ND	NT	ND	20	
Ethylbenzene	ND	NT	ND	NT	ND	140	
Methylene Chloride	ND	NT	ND	NT	ND	0.5	
Tetrachloroethene	9.8	NT	ND	NT	ND	0.5	
Toluene	ND	NT	ND	NT	ND	68	
1,1,1-Trichloroethane	192	NT	0.36	NT	ND	40	
1,1,2-Trichloroethane	ND	NT	ND	NT	ND	0.5	
TCE	547	NT	1.9	NT	0.52	0.5	
Vinyl Chloride	3.2	NT	ND	NT	ND	0.2	
Xylene Total	ND	NT	ND	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: 10-25-99
Parameter	Influent	After FT-311	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l
pH	7.6	11	N/A	N/A	8.5	Monitor
TSS	NT	NT	NT	NT	NT	Monitor
Arsenic	ND	NT	NT	NT	ND	5
Barium	1100	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	1100	NT	NT	NT	ND	Monitor
Lead	ND	NT	NT	NT	ND	1.5
Manganese	160	NT	NT	NT	ND	Monitor
Mercury	ND	NT	NT	NT	ND	0.2
Nickel	40	NT	NT	NT	14	20
Selenium	ND	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	50	Monitor
Cyanide	10	NT	NT	NT	ND	40
Cyanide Free	ND	NT	NT	NT	ND	Monitor
1,1-Dichloroethane	31	NT	ND	NT	ND	85
1,2-Dichloroethane	ND	NT	ND	NT	ND	0.5
1,1-Dichloroethene	12	NT	ND	NT	ND	0.7
1,2-Dichloroethene Cis	56	NT	0.38	NT	ND	7
1,2-Dichloroethene Trans	14	NT	ND	NT	ND	20
Ethylbenzene	ND	NT	ND	NT	ND	140
Methylene Chloride	ND	NT	ND	NT	ND	0.5
Tetrachloroethene	7.2	NT	ND	NT	ND	0.5
Toluene	ND	NT	ND	NT	ND	68
1,1,1-Trichloroethane	173	NT	0.35	NT	ND	40
1,1,2-Trichloroethane	ND	NT	ND	NT	ND	0.5
TCE	588	NT	1.8	NT	0.48	0.5
Vinyl Chloride	ND	NT	ND	NT	ND	0.2
Xylene Total	ND	NT	ND	NT	ND	124
COD	NT	NT	NT	NT	NT	Monitor
Phosphorus Total	NT	NT	NT	NT	NT	Monitor
Nitrate + Nitrite	NT	NT	NT	NT	NT	Monitor
Ammonia Nitrogen	NT	NT	NT	NT	NT	Monitor

mg/l

mg/l

mg/l

mg/l

mg/l

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
Apr. 15, 1999	5.30	6.20	3.25	4.40	6.92	COVERED
May 10, 1999	5.50	6.35	3.35	3.40	7.05	COVERED
June 18, 1999	4.95	6.05	3.00	3.22	6.81	COVERED
July 13, 1999	6.30	DRY	3.80	4.05	7.90	COVERED
August 06, 1999	6.37	DRY	3.58	4.00	7.65	COVERED
Sept. 15, 20, 1999	7.68	DRY	DRY	5.60	DRY	COVERED
October 06, 1999	6.60	DRY	3.84	4.14	DRY	COVERED

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
Apr. 15, 1999	3.61	3.20	4.84	2.60	9.25	2.63
May 10, 1999	3.85	3.05	4.95	2.80	9.45	3.80
June 18, 1999	3.71	3.75	4.87	2.49	9.29	2.81
July 13-14, 1999	4.50	3.65	5.74	3.82	10.19	3.05
August 06, 1999	4.62	3.59	5.48	3.26	10.17	3.32
Sept. 13, 15, 20, 23, '99	6.00	4.90	6.51	4.80	10.95	4.17
October 06, 1999	4.80	3.80	6.00	4.56	10.70	3.40

FLOW FROM EXTRACTION WELLS

YEAR: 1999			
MONTH: OCT.	FE-100 FLOW TOTALIZER	TOTAL DAY'S FLOW (GAL.)	DAILY FLOW MGD
1	1,676,029.00	25,835.00	0.026
2	1,701,864.00	28,707.00	0.029
3	1,730,571.00	39,743.00	0.040
4	1,770,314.00	24,591.00	0.025
5	1,794,905.00	13,149.00	0.013
6	1,808,054.00	29,532.00	0.030
7	1,837,586.00	32,122.00	0.032
8	1,869,708.00	18,394.00	0.018
9	1,888,102.00	35,931.00	0.036
10	1,924,033.00	34,192.00	0.034
11	1,958,225.00	31,799.00	0.032
12	1,990,024.00	30,283.00	0.030
13	2,020,307.00	26,206.00	0.026
14	2,046,513.00	29,064.00	0.029
15	2,075,577.00	20,940.00	0.021
16	2,096,517.00	34,682.00	0.035
17	2,131,199.00	32,890.00	0.033
18	2,164,089.00	26,267.00	0.026
19	2,190,356.00	30,570.00	0.031
20	2,220,926.00	27,183.00	0.027
21	2,248,109.00	30,323.00	0.030
22	2,278,432.00	24,946.00	0.025
23	2,303,378.00	18,242.00	0.018
24	2,321,620.00	26,630.00	0.027
25	2,348,250.00	2,737.00	0.003
26	2,350,987.00	15,383.00	0.015
27	2,366,370.00	31,075.00	0.031
28	2,397,445.00	34,288.00	0.034
29	2,431,733.00	22,128.00	0.022
30	2,453,861.00	45,140.00	0.045
31	2,499,001.00	31,414.00	0.031
November 01	2,530,415.00		
		TOTAL	0.854
		AVERAGE	0.028

FLOW FROM EQT-100

YEAR: 1999			
MONTH: OCT.	FE-112 FLOW TOTALIZER	TOTAL DAY'S FLOW (GAL.)	DAILY FLOW MGD
1	3,843,210.00	27,626.00	0.028
2	3,870,836.00	30,804.00	0.031
3	3,901,640.00	41,730.00	0.042
4	3,943,370.00	21,488.00	0.021
5	3,964,858.00	46,215.00	0.046
6	4,011,073.00	32,320.00	0.032
7	4,043,393.00	37,360.00	0.037
8	4,080,753.00	22,931.00	0.023
9	4,103,684.00	40,429.00	0.040
10	4,144,113.00	37,047.00	0.037
11	4,181,160.00	41,166.00	0.041
12	4,222,326.00	39,256.00	0.039
13	4,261,582.00	31,263.00	0.031
14	4,292,845.00	37,337.00	0.037
15	4,330,182.00	27,865.00	0.028
16	4,358,047.00	46,121.00	0.046
17	4,404,168.00	43,833.00	0.044
18	4,448,001.00	31,505.00	0.032
19	4,479,506.00	36,079.00	0.036
20	4,515,585.00	33,636.00	0.034
21	4,549,221.00	36,752.00	0.037
22	4,585,973.00	32,588.00	0.033
23	4,618,561.00	34,031.00	0.034
24	4,652,592.00	46,049.00	0.046
25	4,698,641.00	19,791.00	0.020
26	4,718,432.00	19,005.00	0.019
27	4,737,437.00	37,892.00	0.038
28	4,775,329.00	49,398.00	0.049
29	4,824,727.00	25,559.00	0.026
30	4,850,286.00	55,780.00	0.056
31	4,906,066.00	49,606.00	0.050
November 01	4,955,672.00		

TOTAL 1.113
AVERAGE 0.036

EFFLUENT FLOW FROM PLANT

YEAR: 1999				
MONTH: OCT.	NPDES STATION TOTALIZER	TOTAL DAY'S FLOW (GAL.)	X2	DAILY FLOW MGD
1	875,498.40	11,542	23,084.40	0.023
2	887,040.60	14,717	29,434.00	0.023
3	901,757.60	20,011	40,021.20	0.040
4	921,768.20	10,789	21,578.00	0.022
5	932,557.20	8,129	16,258.00	0.016
6	940,686.20	13,466	26,932.20	0.027
7	954,152.30	16,585	33,170.00	0.033
8	970,737.30	10,771	21,541.60	0.022
9	981,508.10	18,352	36,704.80	0.037
10	999,860.50	15,336	30,671.00	0.031
11	1,015,196.00	16,245	32,490.00	0.032
12	1,031,441.00	15,459	30,918.00	0.031
13	1,046,900.00	13,162	26,324.00	0.026
14	1,060,062.00	13,918	27,836.00	0.028
15	1,073,980.00	12,874	25,748.00	0.026
16	1,086,854.00	18,627	37,254.00	0.037
17	1,105,481.00	17,442	34,884.00	0.035
18	1,122,923.00	12,848	25,696.00	0.026
19	1,135,771.00	14,710	29,420.00	0.029
20	1,150,481.00	12,963	25,926.00	0.026
21	1,163,444.00	16,196	32,392.00	0.032
22	1,179,640.00	14,298	28,596.00	0.029
23	1,193,938.00	4,334	8,668.00	0.009
24	1,198,272.00	18,866	37,732.00	0.038
25	1,217,138.00	3,656	7,312.00	0.007
26	1,220,794.00	1,559	3,118.00	0.003
27	1,222,353.00	16,236	32,472.00	0.032
28	1,238,589.00	17,970	35,940.00	0.036
29	1,256,559.00	11,760	23,520.00	0.024
30	1,268,319.00	31,344	62,688.00	0.063
31	1,299,663.00	8,985	17,970.00	0.018
November 01	1,308,648.00		TOTAL	0.861
			AVERAGE	0.028



INORGANIC REPORT

James Chang

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

WDNR# 241340550

INVOICE NUMBER: **990821**
DATE REPORTED: **04-Nov-99**
DATE RECEIVED: **18-Oct-99**
SAMPLE TEMP (C): **Rec On Ice**
PROJECT ID: **Weekly Samplin**
PROJECT NAME: **OGTP**

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 17026										
Client ID: 991018WA01P										
Collection: 10/18/99 Time: 13:55										
Sample Description:										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	rf	10/19/99	992302	
Barium - ICAP	0.11	mg/l	RJ	0.002	0.006	200.7	dmd/rf	10/20/99	992318	
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	rf	10/22/99	992355	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	dmd/rf	10/20/99	992318	
Copper- ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd/rf	10/20/99	992318	
Iron - ICAP	1.2	mg/l	RJ	0.078	0.25	200.7	dmd/rf	10/20/99	992318	
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	rf	10/22/99	992359	
Manganese - ICAP	0.13	mg/l	RJ	0.004	0.01	200.7	dmd/rf	10/20/99	992318	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	10/20/99	992332	
Nickel - ICAP	19	ug/l	J RJ	10	32	200.7	dmd/rf	10/20/99	992318	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	rf	10/19/99	992304	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd/rf	10/20/99	992318	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	dmd/rf	10/26/99	992373	
Zinc - ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd/rf	10/20/99	992318	
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500D	#12805	10/19/99	992403	
Cyanide, Amenable	<0.0077	mg/l		0.008	0.02	335.2	80535	10/27/99	992408	
Cyanide, Total	0.01	mg/l	J	0.008	0.02	335.2	#12805	10/27/99	992401	
pH (water)	7.3	s.u.	#			150.1	sh	10/20/99	992321	

Nova Sample Number: 17027

Client ID: **991018WA09R**

Collection: 10/18/99 Time: 12:30

Sample Description:

Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	rf	10/19/99	992302	
Barium - ICAP	0.02	mg/l	RJ	0.002	0.006	200.7	dmd/rf	10/20/99	992318	
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	rf	10/22/99	992355	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	dmd/rf	10/20/99	992318	
Copper- ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd/rf	10/20/99	992318	
Iron - ICAP	0.29	mg/l	RJ	0.078	0.25	200.7	dmd/rf	10/20/99	992318	
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	rf	10/22/99	992359	
Manganese - ICAP	<0.004	mg/l	RJ	0.004	0.01	200.7	dmd/rf	10/20/99	992318	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	10/20/99	992332	
Nickel - ICAP	11	ug/l	J RJ	10	32	200.7	dmd/rf	10/20/99	992318	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	rf	10/19/99	992304	



INORGANIC REPORT

WDNR# 241340550

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

INVOICE NUMBER: 990821
 DATE REPORTED: 04-Nov-99
 DATE RECEIVED: 18-Oct-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: Weekly Samplin
 PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd/rf	10/20/99	992318	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	dmd/rf	10/26/99	992373	
Zinc - ICAP	0.05	mg/l	RJ	0.01	0.03	200.7	dmd/rf	10/20/99	992318	

Nova Sample Number: 17028

Client ID: 991018WA02P

Collection: 10/18/99 Time: 14:25

Sample Description:

pH (water)	9.9	s.u.	#	150.1	sh	10/20/99	992321
------------	-----	------	---	-------	----	----------	--------

Nova Sample Number: 17029

Client ID: 991018WA03P

Collection: 10/18/99 Time: 14:30

Sample Description:

pH (water)	11	s.u.	#	150.1	sh	10/20/99	992321
------------	----	------	---	-------	----	----------	--------

Nova Sample Number: 17030

Client ID: 991018WA05P

Collection: 10/18/99 Time: 14:15

Sample Description:

pH (water)	9.3	s.u.	#	150.1	sh	10/20/99	992321
------------	-----	------	---	-------	----	----------	--------

Nova Sample Number: 17032

Client ID: 991018WA09P

Collection: 10/18/99 Time: 14:05

Sample Description:

Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500D	#12805	10/19/99	992403
Cyanide, Amenable	<0.006	mg/l		0.006	0.02	335.2	srh	11/2/99	992455
Cyanide, Total	0.008	mg/l	J	0.008	0.02	335.2	#12805	10/27/99	992401
pH (water)	8.5	s.u.	#	150.1	sh	10/20/99	992321		

Approved By:

Date: 11/4/99

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 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

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.



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

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

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990821
DATE REPORTED: 21-Oct-99
DATE RECEIVED: 18-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: 17026										
Client ID: 991018WA01P	Sample Description:									
1,1,1,2-Tetrachloroethane	< 2	ug/l	2	6.4	ns	10		8260	cps	10/20/99
1,1,1-Trichloroethane	192	ug/l	2.3	7.3	40	10		8260	cps	10/20/99
1,1,2,2-Tetrachloroethane	< 2.9	ug/l	2.9	9.2	0.02	10		8260	cps	10/20/99
1,1,2-Trichloroethane	< 2.9	ug/l	2.9	9.2	0.5	10		8260	cps	10/20/99
1,1-Dichloroethane	30	ug/l	1.5	4.8	85	10		8260	cps	10/20/99
1,1-Dichloroethene	14	ug/l	3.6	11	0.7	10		8260	cps	10/20/99
1,1-Dichloropropene	< 4.9	ug/l	4.9	16	ns	10		8260	cps	10/20/99
1,2,3-Trichlorobenzene	< 2.2	ug/l	2.2	7	ns	10		8260	cps	10/20/99
1,2,3-Trichloropropane	< 6	ug/l	6	19	ns	10		8260	cps	10/20/99
1,2,4-Trichlorobenzene	< 1.6	ug/l	1.6	5.1	14	10		8260	cps	10/20/99
1,2,4-Trimethylbenzene	< 2.9	ug/l	2.9	9.2	ns	10		8260	cps	10/20/99
1,2-Dibromoethane	< 2.4	ug/l	2.4	7.6	0.005	10		8260	cps	10/20/99
1,2-Dichlorobenzene	< 2	ug/l	2	6.4	60	10		8260	cps	10/20/99
1,2-Dichloroethane	< 1.9	ug/l	1.9	6	0.5	10		8260	cps	10/20/99
1,2-Dichloropropane	< 2.3	ug/l	2.3	7.3	0.5	10		8260	cps	10/20/99
1,3,5-Trimethylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	cps	10/20/99
1,3-Dichlorobenzene	< 1.9	ug/l	1.9	6	125	10		8260	cps	10/20/99
1,3-Dichloropropane	< 2.1	ug/l	2.1	6.7	ns	10		8260	cps	10/20/99
1,4-Dichlorobenzene	< 1.5	ug/l	1.5	4.8	15	10		8260	cps	10/20/99
12Dibromo-3-chloropropan	< 5.9	ug/l	5.9	19	0.02	10		8260	cps	10/20/99
2,2-Dichloropropane	< 4	ug/l	4	13	ns	10		8260	cps	10/20/99
2-Butanone (MEK)	< 14	ug/l	14	44	90	10		8260	cps	10/20/99
2-Chloroethyl Vinyl Ether	< 2.9	ug/l	2.9	9.2	ns	10		8260	cps	10/20/99
2-Chlorotoluene	< 1.5	ug/l	1.5	4.8	ns	10		8260	cps	10/20/99
4-Chlorotoluene	< 2.5	ug/l	2.5	8	ns	10		8260	cps	10/20/99
4-Methyl-2-Pentanone	< 8.4	ug/l	8.4	27	50	10		8260	cps	10/20/99
Acetone	< 16	ug/l	16	49	200	10		8260	cps	10/20/99
Benzene	< 1.9	ug/l	1.9	6	0.5	10		8260	cps	10/20/99
Bromobenzene	< 1.9	ug/l	1.9	6	ns	10		8260	cps	10/20/99
Bromochloromethane	< 3.4	ug/l	3.4	11	ns	10		8260	cps	10/20/99
Bromodichloromethane	< 2.6	ug/l	2.6	8.3	0.06	10		8260	cps	10/20/99
Bromoform	< 4.7	ug/l	4.7	15	0.44	10		8260	cps	10/20/99
Bromomethane	< 2.1	ug/l	2.1	6.7	1	10		8260	cps	10/20/99
Carbon tetrachloride	< 2.2	ug/l	2.2	7	0.5	10		8260	cps	10/20/99
Chlorobenzene	< 2	ug/l	2	6.4	20	10		8260	cps	10/20/99
Chloroethane	< 12	ug/l	12	37	80	10		8260	cps	10/20/99
Chloroform	< 2.7	ug/l	2.7	8.6	0.6	10		8260	cps	10/20/99
Chloromethane	< 7.7	ug/l	7.7	24	0.3	10		8260	cps	10/20/99
cis-1,2-Dichloroethene	53	ug/l	2	6.4	7	10		8260	cps	10/20/99
cis-1,3-Dichloropropene	< 2.4	ug/l	2.4	7.6	0.02	10		8260	cps	10/20/99



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

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

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990821
DATE REPORTED: 21-Oct-99
DATE RECEIVED: 18-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	< 2.1	ug/l	2.1	6.7	6	10		8260	cps	10/20/99
Dibromomethane	< 3.5	ug/l	3.5	11	ns	10		8260	cps	10/20/99
Dichlorodifluoromethane	< 3.6	ug/l	3.6	11	200	10		8260	cps	10/20/99
Ethylbenzene	< 1.6	ug/l	1.6	5.1	140	10		8260	cps	10/20/99
Hexachlorobutadiene	< 2.2	ug/l	2.2	7	ns	10		8260	cps	10/20/99
Isopropyl Ether	< 3.2	ug/l	3.2	10	ns	10		8260	cps	10/20/99
Isopropylbenzene	< 1.6	ug/l	1.6	5.1	ns	10		8260	cps	10/20/99
m&p-xylene	< 3.6	ug/l	3.6	11	124	10		8260	cps	10/20/99
Methyl-t-butyl ether	< 2.1	ug/l	2.1	6.7	12	10		8260	cps	10/20/99
Methylene chloride	< 7.6	ug/l	7.6	24	0.5	10		8260	cps	10/20/99
n-Butylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	cps	10/20/99
n-Propylbenzene	< 2.5	ug/l	2.5	8	ns	10		8260	cps	10/20/99
Naphthalene	< 4.6	ug/l	4.6	15	8	10		8260	cps	10/20/99
o-xylene	< 1.8	ug/l	1.8	5.7	124	10		8260	cps	10/20/99
p-Isopropyltoluene	< 1.8	ug/l	1.8	5.7	ns	10		8260	cps	10/20/99
sec-Butylbenzene	< 3	ug/l	3	9.5	ns	10		8260	cps	10/20/99
Styrene	< 2.1	ug/l	2.1	6.7	10	10		8260	cps	10/20/99
tert-Butylbenzene	< 2	ug/l	2	6.4	ns	10		8260	cps	10/20/99
Tetrachloroethene	9.8	ug/l	2.9	9.2	0.5	10		8260	cps	10/20/99
Toluene	< 3.3	ug/l	3.3	10	68.6	10		8260	cps	10/20/99
trans-1,2-Dichloroethene	20	ug/l	1.6	5.1	20	10		8260	cps	10/20/99
trans-1,3-Dichloropropene	< 2	ug/l	2	6.4	0.02	10		8260	cps	10/20/99
Trichloroethene	\$47	ug/l	1.6	5.1	0.5	10		8260	cps	10/20/99
Trichlorofluoromethane	4.9	ug/l	3.4	11	ns	10	J	8260	cps	10/20/99
Vinyl chloride	3.2	ug/l	2.1	6.7	0.02	10	J	8260	cps	10/20/99

Sample Number:	17031	QC Prep Batch Number:	992328	Sample analyzed within	2	Day(s) from collection:	Collection:	10/18/99	Time:	14:20
Client ID:	991018WA07P	Sample Description:								
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/20/99
1,1,1-Trichloroethane	0.36	ug/l	0.23	0.73	40	1	J	8260	cps	10/20/99
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1		8260	cps	10/20/99
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/20/99
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1		8260	cps	10/20/99
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	cps	10/20/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	cps	10/20/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/20/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	cps	10/20/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1		8260	cps	10/20/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/20/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	cps	10/20/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	cps	10/20/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/20/99



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

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

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990821
DATE REPORTED: 21-Oct-99
DATE RECEIVED: 18-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	10/20/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/20/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	10/20/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	10/20/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	10/20/99
12Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	10/20/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	10/20/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	10/20/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/20/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	10/20/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/20/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	10/20/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	10/20/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/20/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	10/20/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/20/99
Bromodichloromethane	0.7	ug/l	0.26	0.83	0.06	1	J	8260	cps	10/20/99
Bromoform	0.93	ug/l	0.47	1.5	0.44	1	J	8260	cps	10/20/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	10/20/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	10/20/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	cps	10/20/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	10/20/99
Chloroform	1.7	ug/l	0.27	0.86	0.6	1		8260	cps	10/20/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	10/20/99
cis-1,2-Dichloroethene	0.41	ug/l	0.2	0.64	7	1	J	8260	cps	10/20/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	10/20/99
Dibromochloromethane	0.95	ug/l	0.21	0.67	6	1		8260	cps	10/20/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	10/20/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	10/20/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	10/20/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/20/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	10/20/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	10/20/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	10/20/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	10/20/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	10/20/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/20/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/20/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	10/20/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	10/20/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	10/20/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	10/20/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	10/20/99



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

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990821
DATE REPORTED: 21-Oct-99
DATE RECEIVED: 18-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/20/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/20/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	10/20/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	10/20/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	10/20/99
Trichloroethene	1.9	ug/l	0.16	0.51	0.5	1		8260	cps	10/20/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/20/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	10/20/99

Sample Number:	17032	QC Prep Batch Number:	992328	Sample analyzed within	2	Day(s)	from collection			
Client ID:	991018WA09P	Sample Description:		Collection:	10/18/99	Time:	14:05			
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/20/99
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1		8260	cps	10/20/99
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1		8260	cps	10/20/99
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/20/99
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1		8260	cps	10/20/99
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	cps	10/20/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	cps	10/20/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/20/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	cps	10/20/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1		8260	cps	10/20/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/20/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	cps	10/20/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	cps	10/20/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/20/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	10/20/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/20/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	10/20/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	10/20/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	10/20/99
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	10/20/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	10/20/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	10/20/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/20/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	10/20/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/20/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	10/20/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	10/20/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/20/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	10/20/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/20/99
Bromodichloromethane	0.79	ug/l	0.26	0.83	0.06	1	J	8260	cps	10/20/99



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

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990821
DATE REPORTED: 21-Oct-99
DATE RECEIVED: 18-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	10/20/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	10/20/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	10/20/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	cps	10/20/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	10/20/99
Chloroform	3.5	ug/l	0.27	0.86	0.6	1		8260	cps	10/20/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	10/20/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	10/20/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	10/20/99
Dibromochloromethane	0.23	ug/l	0.21	0.67	6	1	J	8260	cps	10/20/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	10/20/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	10/20/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	10/20/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/20/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	10/20/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	10/20/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	10/20/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	10/20/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	10/20/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/20/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/20/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	10/20/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	10/20/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	10/20/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	10/20/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	10/20/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/20/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/20/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	10/20/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	10/20/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	10/20/99
Trichloroethene	0.52	ug/l	0.16	0.51	0.5	1		8260	cps	10/20/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/20/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	10/20/99

Sample Number:	17033	QC Prep Batch Number:	992323	Sample analyzed within:	2 Day(s)	from collection:	
Client ID:	Trip Blank	Sample Description:		Collection:	10/18/99	Time:	
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1	
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1	
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1	
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1	
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1	



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5888 Fax: (414) 355-3899

ORGANIC REPORT

WDNR# 241340550

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

BATCH NUMBER: 990821
DATE REPORTED: 21-Oct-99
DATE RECEIVED: 18-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	cps	10/20/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	cps	10/20/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/20/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	cps	10/20/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1		8260	cps	10/20/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/20/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	cps	10/20/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	cps	10/20/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/20/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	10/20/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/20/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	10/20/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	10/20/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	10/20/99
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	10/20/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	10/20/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	10/20/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/20/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	10/20/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/20/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	10/20/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	10/20/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/20/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	10/20/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/20/99
Bromodichloromethane	< 0.26	ug/l	0.26	0.83	0.06	1		8260	cps	10/20/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	10/20/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	10/20/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	10/20/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	cps	10/20/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	10/20/99
Chloroform	< 0.27	ug/l	0.27	0.86	0.6	1		8260	cps	10/20/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	10/20/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	10/20/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	10/20/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	10/20/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	10/20/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	10/20/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	10/20/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/20/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	10/20/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	10/20/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	10/20/99



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

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

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990821
DATE REPORTED: 21-Oct-99
DATE RECEIVED: 18-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	10/20/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	10/20/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/20/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/20/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	10/20/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	10/20/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	10/20/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	10/20/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	10/20/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/20/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/20/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	10/20/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	10/20/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	10/20/99
Trichloroethene	< 0.16	ug/l	0.16	0.51	0.5	1		8260	cps	10/20/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/20/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	10/20/99

Approved By: 
Date: 11/14/99
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

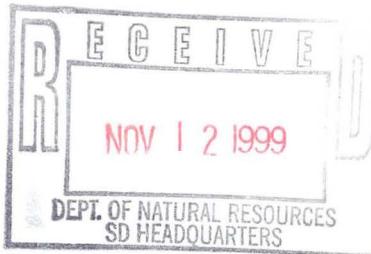
RQ : Run Qualifier; "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample, "B" = Showed in Blank sample.

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.



Dr. James Chang
APL Environmental
8222 W. Calumet Road
Milwaukee, WI 53223



INORGANIC REPORT

WDNR# 241340550

INVOICE NUMBER 990760
DATE REPORTED: 06-Oct-99
DATE RECEIVED: 28-Sep-99
SAMPLE TEMP (C)
PROJECT ID:
PROJECT NAME:

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 16759										
Client ID: 990927WA01P										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd/rf	9/29/99	992140	Collection: 9/27/99 Time: 01:40
Barium - ICAP	0.1	mg/l	RJ	0.002	0.006	200.7	rf	9/30/99	992157	Sample Description:
Cadmium - Furnace AA	<0.7	ug/l	RJ	0.7	2.2	213.2	rf	10/4/99	992179	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	rf	9/30/99	992157	
Copper - ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	rf	9/30/99	992157	
Iron - ICAP	0.88	mg/l	RJ	0.078	0.25	200.7	rf	9/30/99	992157	
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	rf	10/4/99	992177	
Manganese - ICAP	0.16	mg/l	RJ	0.004	0.01	200.7	rf	9/30/99	992157	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd/rf	10/5/99	992190	
Nickel - ICAP	0.03	mg/l	J RJ	0.01	0.03	200.7	rf	9/30/99	992157	
Selenium - Furnace AA	25	ug/l	RJ	7.8	25	270.2	dmd/rf	10/5/99	992188	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	rf	9/30/99	992157	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	dmd/rf	9/29/99	992149	
Zinc - ICAP	0.02	mg/l	J RJ	0.01	0.03	200.7	rf	9/30/99	992157	
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500	805353	9/28/99	992186	
Cyanide, Amenable	<0.007	mg/l		0.008	0.02	335.2	805353	9/30/99	992194	
Cyanide, Total	<0.0077	mg/l		0.008	0.02	335.2	805353	9/30/99	992187	
pH (water)	7.1	s.u.	#			150.1	tg	9/27/99	992132	
Nova Sample Number: 16760										
Client ID: 990927WA02P										
pH (water)	9.8	s.u.	#			150.1	tg	9/27/99	992132	Collection: 9/27/99 Time: 01:45
Nova Sample Number: 16761										
Client ID: 990927WA03P										
pH (water)	8	s.u.	#			150.1	tg	9/27/99	992132	Collection: 9/27/99 Time: 01:50
Nova Sample Number: 16762										
Client ID: 990927WA05P										
pH (water)	9	s.u.	#			150.1	tg	9/27/99	992132	Collection: 9/27/99 Time: 01:55



INORGANIC REPORT

Dr. James Chang
APL Environmental
8222 W. Calumet Road
Milwaukee, WI 53223

WDNR# 241340550

INVOICE NUMBER 990760
DATE REPORTED: 06-Oct-99
DATE RECEIVED: 28-Sep-99
SAMPLE TEMP (C)
PROJECT ID:
PROJECT NAME:

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 16764										
Client ID: 990927WA09P										
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500	805353	9/28/99	992186	Collection: 9/27/99 Time:
Cyanide, Amenable	<0.007	mg/l		0.008	0.02	335.2	805353	9/30/99	992194	Sample Description:
Cyanide, Total	<0.0077	mg/l		0.008	0.02	335.2	805353	9/30/99	992187	
Nova Sample Number: 16765										
Client ID: 990927WA09R										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd/rf	9/29/99	992140	Collection: 9/27/99 Time:
Barium - ICAP	0.02	mg/l	RJ	0.002	0.006	200.7	rf	9/30/99	992157	Sample Description:
Cadmium - Furnace AA	<0.7	ug/l	RJ	0.7	2.2	213.2	rf	10/4/99	992179	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	rf	9/30/99	992157	
Copper - ICAP	0.01	mg/l	J RJ	0.01	0.03	200.7	rf	9/30/99	992157	
Iron - ICAP	0.18	mg/l	J RJ	0.078	0.25	200.7	rf	9/30/99	992157	
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	rf	10/4/99	992177	
Manganese - ICAP	<0.004	mg/l	RJ	0.004	0.01	200.7	rf	9/30/99	992157	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd/rf	10/5/99	992190	
Nickel - ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	rf	9/30/99	992157	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd/rf	10/5/99	992188	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	rf	9/30/99	992157	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	dmd/rf	9/29/99	992149	
Zinc - ICAP	0.02	mg/l	J RJ	0.01	0.03	200.7	rf	9/30/99	992157	

Approved By: 

Date: 10/6/99

James Chang, Ph.D., Lab Director

RJ Result expressed as Total.

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 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

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.



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

ORGANIC REPORT

Dr. James Chang
APL Environmental
8222 W. Calumet Road
Milwaukee , WI 53223

WDNR# 241340550

BATCH NUMBER: 990760
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 28-Sep-99
SAMPLE TEMP (C):
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: 16759										
Client ID: 990927WA01P	QC Prep Batch Number:	992173								
1,1,1,2-Tetrachloroethane	< 1	ug/l	1	3.2	ns	5		8260	cps	9/30/99
1,1,1-Trichloroethane	103	ug/l	1.2	3.7	40	5		8260	cps	9/30/99
1,1,2,2-Tetrachloroethane	< 1.5	ug/l	1.5	4.6	0.02	5		8260	cps	9/30/99
1,1,2-Trichloroethane	< 1.5	ug/l	1.5	4.6	0.5	5		8260	cps	9/30/99
1,1-Dichloroethane	31	ug/l	0.75	2.4	85	5		8260	cps	9/30/99
1,1-Dichloroethene	5.4	ug/l	1.8	5.7	0.7	5	J	8260	cps	9/30/99
1,1-Dichloropropene	< 2.5	ug/l	2.5	7.8	ns	5		8260	cps	9/30/99
1,2,3-Trichlorobenzene	< 1.1	ug/l	1.1	3.5	ns	5		8260	cps	9/30/99
1,2,3-Trichloropropane	< 3	ug/l	3	9.5	ns	5		8260	cps	9/30/99
1,2,4-Trichlorobenzene	< 0.8	ug/l	0.8	2.5	14	5		8260	cps	9/30/99
1,2,4-Trimethylbenzene	< 1.5	ug/l	1.5	4.6	ns	5		8260	cps	9/30/99
1,2-Dibromoethane	< 1.2	ug/l	1.2	3.8	0.005	5		8260	cps	9/30/99
1,2-Dichlorobenzene	< 1	ug/l	1	3.2	60	5		8260	cps	9/30/99
1,2-Dichloroethane	< 0.95	ug/l	0.95	3	0.5	5		8260	cps	9/30/99
1,2-Dichloropropane	< 1.2	ug/l	1.2	3.7	0.5	5		8260	cps	9/30/99
1,3,5-Trimethylbenzene	< 1.2	ug/l	1.2	3.7	ns	5		8260	cps	9/30/99
1,3-Dichlorobenzene	< 0.95	ug/l	0.95	3	125	5		8260	cps	9/30/99
1,3-Dichloropropane	< 1.1	ug/l	1.1	3.3	ns	5		8260	cps	9/30/99
1,4-Dichlorobenzene	< 0.75	ug/l	0.75	2.4	15	5		8260	cps	9/30/99
12Dibromo-3-chloropropan	< 3	ug/l	3	9.4	0.02	5		8260	cps	9/30/99
2,2-Dichloropropane	< 2	ug/l	2	6.4	ns	5		8260	cps	9/30/99
2-Butanone (MEK)	< 6.9	ug/l	6.9	22	90	5		8260	cps	9/30/99
2-Chloroethyl Vinyl Ether	< 1.5	ug/l	1.5	4.6	ns	5		8260	cps	9/30/99
2-Chlorotoluene	< 0.75	ug/l	0.75	2.4	ns	5		8260	cps	9/30/99
4-Chlorotoluene	< 1.3	ug/l	1.3	4	ns	5		8260	cps	9/30/99
4-Methyl-2-Pentanone	< 4.2	ug/l	4.2	13	50	5		8260	cps	9/30/99
Acetone	< 7.8	ug/l	7.8	25	200	5		8260	cps	9/30/99
Benzene	< 0.95	ug/l	0.95	3	0.5	5		8260	cps	9/30/99
Bromobenzene	< 0.95	ug/l	0.95	3	ns	5		8260	cps	9/30/99
Bromochloromethane	< 1.7	ug/l	1.7	5.4	ns	5		8260	cps	9/30/99
Bromodichloromethane	< 1.3	ug/l	1.3	4.1	0.06	5		8260	cps	9/30/99
Bromoform	< 2.4	ug/l	2.4	7.5	0.44	5		8260	cps	9/30/99
Bromomethane	< 1.1	ug/l	1.1	3.3	1	5		8260	cps	9/30/99
Carbon tetrachloride	< 1.1	ug/l	1.1	3.5	0.5	5		8260	cps	9/30/99
Chlorobenzene	1.9	ug/l	1	3.2	20	5	J	8260	cps	9/30/99
Chloroethane	< 5.8	ug/l	5.8	18	80	5		8260	cps	9/30/99
Chloroform	< 1.4	ug/l	1.4	4.3	0.6	5		8260	cps	9/30/99
Chloromethane	< 3.9	ug/l	3.9	12	0.3	5		8260	cps	9/30/99
cis-1,2-Dichloroethene	42	ug/l	1	3.2	7	5		8260	cps	9/30/99
cis-1,3-Dichloropropene	< 1.2	ug/l	1.2	3.8	0.02	5		8260	cps	9/30/99



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

ORGANIC REPORT

Dr. James Chang
APL Environmental
8222 W. Calumet Road
Milwaukee , WI 53223

WDNR# 241340550

BATCH NUMBER: 990760
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 28-Sep-99
SAMPLE TEMP (C):
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	< 1.1	ug/l	1.1	3.3	6	5		8260	cps	9/30/99
Dibromomethane	< 1.8	ug/l	1.8	5.6	ns	5		8260	cps	9/30/99
Dichlorodifluoromethane	< 1.8	ug/l	1.8	5.7	200	5		8260	cps	9/30/99
Ethylbenzene	< 0.8	ug/l	0.8	2.5	140	5		8260	cps	9/30/99
Hexachlorobutadiene	< 1.1	ug/l	1.1	3.5	ns	5		8260	cps	9/30/99
Isopropyl Ether	< 1.6	ug/l	1.6	5.1	ns	5		8260	cps	9/30/99
Isopropylbenzene	< 0.8	ug/l	0.8	2.5	ns	5		8260	cps	9/30/99
m&p-xylene	< 1.8	ug/l	1.8	5.7	124	5		8260	cps	9/30/99
Methyl-t-butyl ether	< 1.1	ug/l	1.1	3.3	12	5		8260	cps	9/30/99
Methylene chloride	< 3.8	ug/l	3.8	12	0.5	5		8260	cps	9/30/99
n-Butylbenzene	< 1.2	ug/l	1.2	3.7	ns	5		8260	cps	9/30/99
n-Propylbenzene	< 1.3	ug/l	1.3	4	ns	5		8260	cps	9/30/99
Naphthalene	< 2.3	ug/l	2.3	7.3	8	5		8260	cps	9/30/99
o-xylene	< 0.9	ug/l	0.9	2.9	124	5		8260	cps	9/30/99
p-Isopropyltoluene	< 0.9	ug/l	0.9	2.9	ns	5		8260	cps	9/30/99
sec-Butylbenzene	< 1.5	ug/l	1.5	4.8	ns	5		8260	cps	9/30/99
Styrene	< 1.1	ug/l	1.1	3.3	10	5		8260	cps	9/30/99
tert-Butylbenzene	< 1	ug/l	1	3.2	ns	5		8260	cps	9/30/99
Tetrachloroethene	< 1.5	ug/l	1.5	4.6	0.5	5		8260	cps	9/30/99
Toluene	< 1.7	ug/l	1.7	5.2	68.6	5		8260	cps	9/30/99
trans-1,2-Dichloroethene	4.5	ug/l	0.8	2.5	20	5		8260	cps	9/30/99
trans-1,3-Dichloropropene	< 1	ug/l	1	3.2	0.02	5		8260	cps	9/30/99
Trichloroethene	365	ug/l	0.8	2.5	0.5	5		8260	cps	9/30/99
Trichlorofluoromethane	< 1.7	ug/l	1.7	5.4	ns	5		8260	cps	9/30/99
Vinyl chloride	< 1.1	ug/l	1.1	3.3	0.02	5		8260	cps	9/30/99

Sample Number:	16763	QC Prep Batch Number:	992144	Sample analyzed within	1 Day(s)	from collection.
Client ID:	990927WA07P	Sample Description:		Collection:	9/27/99	Time:
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5888 Fax: (414) 355-3899

ORGANIC REPORT

Dr. James Chang
APL Environmental
8222 W. Calumet Road
Milwaukee , WI 53223

WDNR# 241340550

BATCH NUMBER: 990760
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 28-Sep-99
SAMPLE TEMP (C):
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	9/28/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/28/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	9/28/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	9/28/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	9/28/99
12Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	9/28/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	9/28/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	9/28/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	9/28/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	9/28/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/28/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	9/28/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	9/28/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	9/28/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	9/28/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/28/99
Bromodichloromethane	< 0.26	ug/l	0.26	0.83	0.06	1		8260	cps	9/28/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	9/28/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	9/28/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	9/28/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	cps	9/28/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	9/28/99
Chloroform	< 0.27	ug/l	0.27	0.86	0.6	1		8260	cps	9/28/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	9/28/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	9/28/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	9/28/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	9/28/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	9/28/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	9/28/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	9/28/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/28/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	9/28/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	9/28/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	9/28/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	9/28/99
Methylene chloride	3.8	ug/l	0.76	2.4	0.5	1		8260	cps	9/28/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/28/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/28/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	9/28/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	9/28/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	9/28/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	9/28/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	9/28/99



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

ORGANIC REPORT

Dr. James Chang
APL Environmental
8222 W. Calumet Road
Milwaukee , WI 53223

WDNR# 241340550

BATCH NUMBER: 990760
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 28-Sep-99
SAMPLE TEMP (C):
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/28/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	9/28/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	9/28/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	9/28/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	9/28/99
Trichloroethene	< 0.16	ug/l	0.16	0.51	0.5	1		8260	cps	9/28/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/28/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	9/28/99

Sample Number:	16764	QC Prep Batch Number:	992144	Sample analyzed within	1 Day(s)	from collection.
Client ID:	990927TWA09P	Sample Description:		Collection:	9/27/99	Time:
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1
1,1,1-Trichloroethane	0.29	ug/l	0.23	0.73	40	1
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1
Acetone	< 1.6	ug/l	1.6	4.9	200	1
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1
Bromodichloromethane	0.6	ug/l	0.26	0.83	0.06	1



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

ORGANIC REPORT

Dr. James Chang
APL Environmental
8222 W. Calumet Road
Milwaukee , WI 53223

WDNR# 241340550

BATCH NUMBER: 990760
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 28-Sep-99
SAMPLE TEMP (C):
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	9/28/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	9/28/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	9/28/99
Chlorobenzene	0.72	ug/l	0.2	0.64	20	1		8260	cps	9/28/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	9/28/99
Chloroform	3.2	ug/l	0.27	0.86	0.6	1		8260	cps	9/28/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	9/28/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	9/28/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	9/28/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	9/28/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	9/28/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	9/28/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	9/28/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/28/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	9/28/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	9/28/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	9/28/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	9/28/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	9/28/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/28/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/28/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	9/28/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	9/28/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	9/28/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	9/28/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	9/28/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/28/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	9/28/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	9/28/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	9/28/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	9/28/99
Trichloroethene	0.76	ug/l	0.16	0.51	0.5	1		8260	cps	9/28/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/28/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	9/28/99

Sample Number:	16766	QC Prep Batch Number:	992144	Sample analyzed within	1 Day(s)	from collection.
Client ID:	Culligan Water	Sample Description:		Collection:	9/27/99	Time: 11:00
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1
1,1,1-Trichloroethane	0.27	ug/l	0.23	0.73	40	1
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

Dr. James Chang
APL Environmental
8222 W. Calumet Road
Milwaukee , WI 53223

WDNR# 241340550

BATCH NUMBER: 990760
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 28-Sep-99
SAMPLE TEMP (C):
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	cps	9/28/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	cps	9/28/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/28/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	cps	9/28/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1		8260	cps	9/28/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	9/28/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	cps	9/28/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	cps	9/28/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	9/28/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	9/28/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/28/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	9/28/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	9/28/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	9/28/99
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	9/28/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	9/28/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	9/28/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	9/28/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	9/28/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/28/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	9/28/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	9/28/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	9/28/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	9/28/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/28/99
Bromodichloromethane	< 0.26	ug/l	0.26	0.83	0.06	1		8260	cps	9/28/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	9/28/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	9/28/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	9/28/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	cps	9/28/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	9/28/99
Chloroform	0.31	ug/l	0.27	0.86	0.6	1	J	8260	cps	9/28/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	9/28/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	9/28/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	9/28/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	9/28/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	9/28/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	9/28/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	9/28/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/28/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	9/28/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	9/28/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	9/28/99



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

ORGANIC REPORT

Dr. James Chang
APL Environmental
8222 W. Calumet Road
Milwaukee , WI 53223

WDNR# 241340550

BATCH NUMBER: 990760
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 28-Sep-99
SAMPLE TEMP (C):
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	9/28/99
Methylene chloride	2.2	ug/l	0.76	2.4	0.5	1	J	8260	cps	9/28/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/28/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/28/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	9/28/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	9/28/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	9/28/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	9/28/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	9/28/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/28/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	9/28/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	9/28/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	9/28/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	9/28/99
Trichloroethene	1	ug/l	0.16	0.51	0.5	1		8260	cps	9/28/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/28/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	9/28/99

Sample Number:	16767	QC Prep Batch Number:	992144	Sample analyzed within	1 Day(s)	from collection.
Client ID:	Trip Blank	Sample Description:		Collection:	9/27/99	Time:
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

Dr. James Chang
APL Environmental
8222 W. Calumet Road
Milwaukee , WI 53223

WDNR# 241340550

BATCH NUMBER: 990760
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 28-Sep-99
SAMPLE TEMP (C):
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	9/28/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	9/28/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/28/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	9/28/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	9/28/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	9/28/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	9/28/99
Bromoform	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/28/99
Bromochloromethane	< 0.26	ug/l	0.26	0.83	0.06	1		8260	cps	9/28/99
Bromodichloromethane	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	9/28/99
Bromoform	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	9/28/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	9/28/99
Chlorobenzene	0.74	ug/l	0.2	0.64	20	1		8260	cps	9/28/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	9/28/99
Chloroform	< 0.27	ug/l	0.27	0.86	0.6	1		8260	cps	9/28/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	9/28/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	9/28/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	9/28/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	9/28/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	9/28/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	9/28/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	9/28/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/28/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	9/28/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	9/28/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	9/28/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	9/28/99
Methylene chloride	0.89	ug/l	0.76	2.4	0.5	1	J	8260	cps	9/28/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/28/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/28/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	9/28/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	9/28/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	9/28/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	9/28/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	9/28/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/28/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	9/28/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	9/28/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	9/28/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	9/28/99
Trichloroethene	< 0.16	ug/l	0.16	0.51	0.5	1		8260	cps	9/28/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/28/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	9/28/99



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

Dr. James Chang
APL Environmental
8222 W. Calumet Road
Milwaukee , WI 53223

WDNR# 241340550

BATCH NUMBER: 990760
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 28-Sep-99
SAMPLE TEMP (C):
PROJECT ID:
PROJECT NAME:

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

Approved By:


James Chang, Ph.D., Lab Director

Date: 10/16/99

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

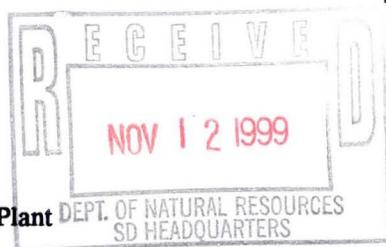
PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified

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.



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



INORGANIC REPORT

WDNR# 241340550

INVOICE NUMBER 990749
DATE REPORTED: 06-Oct-99
DATE RECEIVED: 23-Sep-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID:
PROJECT NAME:

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 16686										
Client ID: 990923MW12DP										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd/rf	9/27/99	992111	Collection: 9/23/99 Time: 13:45
Barium - ICAP	0.11	mg/l	RJ	0.002	0.006	200.7	dmd/rf	9/27/99	992112	Sample Description:
Cadmium - Furnace AA	<0.7	ug/l	RJ	0.7	2.2	213.2	dmd/rf	9/27/99	992109	
Chromium, Total - ICAP	0.05	mg/l	RJ	0.012	0.04	200.7	dmd/rf	9/27/99	992112	
Copper- ICAP	6.6	mg/l	RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112	
Iron - ICAP	6.6	mg/l	RJ	0.078	0.25	200.7	dmd/rf	9/27/99	992112	
Lead - Furnace AA	2.6	ug/l	J RJ	1.4	4.5	239.2	dmd/rf	9/27/99	992110	
Manganese - ICAP	0.1	mg/l	RJ	0.004	0.01	200.7	dmd/rf	9/27/99	992112	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd/rf	9/28/99	992115	
Nickel - ICAP	0.13	mg/l	RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112	
Selenium - Furnace AA	7.9	ug/l	J RJ	7.8	25	270.2	dmd/rf	9/28/99	992121	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd/rf	9/27/99	992112	
Thallium - Furnace AA	5.2	ug/l	J RJ	4.8	15	279.2	dmd/rf	9/29/99	992149	
Zinc - ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112	
Chromium, Hexavalent	0.008	mg/l	J	0.004	0.01	SM 3500	805353	9/24/99	992141	
Conductivity	1060	umhos/cm	#			120.1	tg	9/23/99	992102	done at OGTP
Cyanide, Amenable	<0.006	mg/l		0.006	0.02	335.2	srh	10/5/99	992193	
Cyanide, Total	0.01	mg/l	J	0.006	0.02	335.2	srh	9/28/99	992134	
pH (water)	7.5	s.u.	#			150.1	tg	9/23/99	992132	

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 16687										
Client ID: 990923MW12BP										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd/rf	9/27/99	992111	Collection: 9/23/99 Time: 13:30
Barium - ICAP	0.06	mg/l	RJ	0.002	0.006	200.7	dmd/rf	9/27/99	992112	Sample Description:
Cadmium - Furnace AA	<0.7	ug/l	RJ	0.7	2.2	213.2	dmd/rf	9/27/99	992109	
Chromium, Total - ICAP	0.02	mg/l	J RJ	0.012	0.04	200.7	dmd/rf	9/27/99	992112	
Copper- ICAP	0.01	mg/l	J RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112	
Iron - ICAP	0.74	mg/l	RJ	0.078	0.25	200.7	dmd/rf	9/27/99	992112	
Lead - Furnace AA	5.2	ug/l	RJ	1.4	4.5	239.2	dmd/rf	9/27/99	992110	
Manganese - ICAP	0.09	mg/l	RJ	0.004	0.01	200.7	dmd/rf	9/27/99	992112	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd/rf	9/28/99	992115	
Nickel - ICAP	0.02	mg/l	J RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112	



INORGANIC REPORT

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

WDNR# 241340550

INVOICE NUMBER 990749
DATE REPORTED: 06-Oct-99
DATE RECEIVED: 23-Sep-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID:
PROJECT NAME:

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd/rf	9/28/99	992121	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd/rf	9/27/99	992112	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	dmd/rf	9/29/99	992149	
Zinc - ICAP	0.02	mg/l	J RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112	
Chromium, Hexavalent	0.01	mg/l	J	0.004	0.01	SM 3500	805353	9/24/99	992141	
Conductivity	887	umhos/cm	#				tg	9/23/99	992102	done at OGTP
Cyanide, Amenable	<0.006	mg/l		0.006	0.02	335.2	srh	10/5/99	992193	
Cyanide, Total	<0.006	mg/l		0.006	0.02	335.2	srh	9/28/99	992134	
pH (water)	7.4	s.u.	#			150.1	tg	9/23/99	992132	

Nova Sample Number: 16688

Client ID: 990923EW-04

Collection: 9/23/99 Time:

Sample Description:

Cyanide, Amenable

<0.006 mg/l

0.006 0.02 335.2

srh 10/5/99 992193

Cyanide, Total

0.01 mg/l J

0.006 0.02 335.2

srh 9/28/99 992134

Nova Sample Number: 16689

Client ID: 990923EW-05

Collection: 9/23/99 Time: 14:40

Sample Description:

Cyanide, Amenable

0.03 mg/l

0.006 0.02 335.2

srh 10/5/99 992193

Cyanide, Total

0.03 mg/l

0.006 0.02 335.2

srh 9/28/99 992134

Nova Sample Number: 16690

Client ID: 990923WA01P

Collection: 9/23/99 Time: 14:40

Sample Description:

Cyanide, Amenable

<0.006 mg/l

0.006 0.02 335.2

srh 10/5/99 992193

Cyanide, Total

<0.006 mg/l

0.006 0.02 335.2

srh 9/28/99 992134

Nova Sample Number: 16691

Client ID: 990923WA09P

Collection: 9/23/99 Time: 15:00

Sample Description:

Cyanide, Amenable

<0.006 mg/l

0.006 0.02 335.2

srh 10/5/99 992193

Cyanide, Total

<0.006 mg/l

0.006 0.02 335.2

srh 9/28/99 992134



INORGANIC REPORT

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

WDNR# 241340550

INVOICE NUMBER 990749
DATE REPORTED: 06-Oct-99
DATE RECEIVED: 23-Sep-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID:
PROJECT NAME:

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
------	--------	-------	----	-----	-----	--------	---------	-----------	-----	----------

Approved By:

James Chang, Ph.D., Lab Director

Date: 10/16/99

RJ Result expressed as Total.

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 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

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.



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990749
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 23-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: 16686										
Client ID: 990923MW12D	Sample Description:		QC Prep Batch Number:	992144				Sample analyzed within 5 days(s) from collection.		
								Collection: 9/23/99	Time: 13:45	
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/28/99
1,1,1-Trichloroethane	0.52	ug/l	0.23	0.73	40	1	J	8260	cps	9/28/99
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1		8260	cps	9/28/99
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	9/28/99
1,1-Dichloroethane	0.28	ug/l	0.15	0.48	85	1	J	8260	cps	9/28/99
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	cps	9/28/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	cps	9/28/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/28/99
1,2,3-Trichloropropane	2.8	ug/l	0.6	1.9	ns	1		8260	cps	9/28/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1		8260	cps	9/28/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	9/28/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	cps	9/28/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	cps	9/28/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	9/28/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	9/28/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/28/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	9/28/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	9/28/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	9/28/99
12Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	9/28/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	9/28/99
2-Butanone (MEK)	2.6	ug/l	1.4	4.4	90	1	J	8260	cps	9/28/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	9/28/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	9/28/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/28/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	9/28/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	9/28/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	9/28/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	9/28/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/28/99
Bromodichloromethane	0.77	ug/l	0.26	0.83	0.06	1	J	8260	cps	9/28/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	9/28/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	9/28/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	9/28/99
Chlorobenzene	0.63	ug/l	0.2	0.64	20	1	J	8260	cps	9/28/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	9/28/99
Chloroform	3.4	ug/l	0.27	0.86	0.6	1		8260	cps	9/28/99
Chloromethane	2.2	ug/l	0.77	2.4	0.3	1	J	8260	cps	9/28/99
cis-1,2-Dichloroethene	0.42	ug/l	0.2	0.64	7	1	J	8260	cps	9/28/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	9/28/99



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

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990749
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 23-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	1	ug/l	0.21	0.67	6	1		8260	cps	9/28/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	9/28/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	9/28/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	9/28/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/28/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	9/28/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	9/28/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	9/28/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	9/28/99
Methylene chloride	2.5	ug/l	0.76	2.4	0.5	1		8260	cps	9/28/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/28/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/28/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	9/28/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	9/28/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	9/28/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	9/28/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	9/28/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/28/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	9/28/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	9/28/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	9/28/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	9/28/99
Trichloroethene	2.1	ug/l	0.16	0.51	0.5	1		8260	cps	9/28/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/28/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	9/28/99

Sample Number:	16687	QC Prep Batch Number:	992175	Sample analyzed within:	7	Day(s) from collection:	
Client ID:	990923MW12B	Sample Description:		Collection:	9/23/99	Time:	13:30
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1	
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1	
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1	
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1	
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1	
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1	
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1	
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1	
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1	
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1	
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1	
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1	
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1	
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1	



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990749
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 23-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	9/30/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/30/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	9/30/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	9/30/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	9/30/99
12Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	9/30/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	9/30/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	9/30/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	9/30/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	9/30/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/30/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	9/30/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	9/30/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	9/30/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	9/30/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/30/99
Bromodichloromethane	< 0.26	ug/l	0.26	0.83	0.06	1		8260	cps	9/30/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	9/30/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	9/30/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	9/30/99
Chlorobenzene	0.48	ug/l	0.2	0.64	20	1	J	8260	cps	9/30/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	9/30/99
Chloroform	< 0.27	ug/l	0.27	0.86	0.6	1		8260	cps	9/30/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	9/30/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	9/30/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	9/30/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	9/30/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	9/30/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	9/30/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	9/30/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/30/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	9/30/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	9/30/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	9/30/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	9/30/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	9/30/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/30/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/30/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	9/30/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	9/30/99
p-Isopropyltoluene	11	ug/l	0.18	0.57	ns	1		8260	cps	9/30/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	9/30/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	9/30/99



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990749
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 23-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/30/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	9/30/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	9/30/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	9/30/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	9/30/99
Trichloroethene	< 0.16	ug/l	0.16	0.51	0.5	1		8260	cps	9/30/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/30/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	9/30/99

Sample Number: 16692	QC Prep Batch Number: 992144	Sample analyzed within 5 Day(s) from collection.
Client ID: Trip Blank	Collection: 9/23/99	Time:
1,1,1,2-Tetrachloroethane	< 0.2 ug/l	0.2 0.64 ns 1 8260 cps 9/28/99
1,1,1-Trichloroethane	< 0.23 ug/l	0.23 0.73 40 1 8260 cps 9/28/99
1,1,2,2-Tetrachloroethane	< 0.29 ug/l	0.29 0.92 0.02 1 8260 cps 9/28/99
1,1,2-Trichloroethane	< 0.29 ug/l	0.29 0.92 0.5 1 8260 cps 9/28/99
1,1-Dichloroethane	< 0.15 ug/l	0.15 0.48 85 1 8260 cps 9/28/99
1,1-Dichloroethene	< 0.36 ug/l	0.36 1.1 0.7 1 8260 cps 9/28/99
1,1-Dichloropropene	< 0.49 ug/l	0.49 1.6 ns 1 8260 cps 9/28/99
1,2,3-Trichlorobenzene	< 0.22 ug/l	0.22 0.7 ns 1 8260 cps 9/28/99
1,2,3-Trichloropropane	< 0.6 ug/l	0.6 1.9 ns 1 8260 cps 9/28/99
1,2,4-Trichlorobenzene	< 0.16 ug/l	0.16 0.51 14 1 8260 cps 9/28/99
1,2,4-Trimethylbenzene	< 0.29 ug/l	0.29 0.92 ns 1 8260 cps 9/28/99
1,2-Dibromoethane	< 0.24 ug/l	0.24 0.76 0.005 1 8260 cps 9/28/99
1,2-Dichlorobenzene	< 0.2 ug/l	0.2 0.64 60 1 8260 cps 9/28/99
1,2-Dichloroethane	< 0.19 ug/l	0.19 0.6 0.5 1 8260 cps 9/28/99
1,2-Dichloropropane	< 0.23 ug/l	0.23 0.73 0.5 1 8260 cps 9/28/99
1,3,5-Trimethylbenzene	< 0.23 ug/l	0.23 0.73 ns 1 8260 cps 9/28/99
1,3-Dichlorobenzene	< 0.19 ug/l	0.19 0.6 125 1 8260 cps 9/28/99
1,3-Dichloropropane	< 0.21 ug/l	0.21 0.67 ns 1 8260 cps 9/28/99
1,4-Dichlorobenzene	< 0.15 ug/l	0.15 0.48 15 1 8260 cps 9/28/99
1,2-Dibromo-3-chloropropan	< 0.59 ug/l	0.59 1.9 0.02 1 8260 cps 9/28/99
2,2-Dichloropropane	< 0.4 ug/l	0.4 1.3 ns 1 8260 cps 9/28/99
2-Butanone (MEK)	< 1.4 ug/l	1.4 4.4 90 1 8260 cps 9/28/99
2-Chloroethyl Vinyl Ether	< 0.29 ug/l	0.29 0.92 ns 1 8260 cps 9/28/99
2-Chlorotoluene	< 0.15 ug/l	0.15 0.48 ns 1 8260 cps 9/28/99
4-Chlorotoluene	< 0.25 ug/l	0.25 0.8 ns 1 8260 cps 9/28/99
4-Methyl-2-Pentanone	< 0.84 ug/l	0.84 2.7 50 1 8260 cps 9/28/99
Acetone	< 1.6 ug/l	1.6 4.9 200 1 8260 cps 9/28/99
Benzene	< 0.19 ug/l	0.19 0.6 0.5 1 8260 cps 9/28/99
Bromobenzene	< 0.19 ug/l	0.19 0.6 ns 1 8260 cps 9/28/99
Bromochloromethane	< 0.34 ug/l	0.34 1.1 ns 1 8260 cps 9/28/99
Bromodichloromethane	< 0.26 ug/l	0.26 0.83 0.06 1 8260 cps 9/28/99



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

ORGANIC REPORT

WDNR# 241340550

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

BATCH NUMBER: 990749
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 23-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	9/28/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	9/28/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	9/28/99
Chlorobenzene	0.93	ug/l	0.2	0.64	20	1		8260	cps	9/28/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	9/28/99
Chloroform	< 0.27	ug/l	0.27	0.86	0.6	1		8260	cps	9/28/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	9/28/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	9/28/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	9/28/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	9/28/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	9/28/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	9/28/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	9/28/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/28/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	9/28/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	9/28/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	9/28/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	9/28/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	9/28/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/28/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/28/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	9/28/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	9/28/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	9/28/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	9/28/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	9/28/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/28/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	9/28/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	9/28/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	9/28/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	9/28/99
Trichloroethene	< 0.16	ug/l	0.16	0.51	0.5	1		8260	cps	9/28/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/28/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	9/28/99



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5888 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990749
DATE REPORTED: 04-Oct-99
DATE RECEIVED: 23-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID:
PROJECT NAME:

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

Approved By:


James Chang, Ph.D., Lab Director

Date: 10/6/99

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.



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



INORGANIC REPORT

WDNR# 241340550

INVOICE NUMBER 990736
DATE REPORTED: 06-Oct-99
DATE RECEIVED: 20-Sep-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: Weekly Samplin
PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 16638										
Client ID: 990920MW16SP										
Collection: 9/20/99 Time: 10:20										
Sample Description:										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd/rf	9/29/99	992140	
Barium - ICAP	0.19	mg/l	RJ	0.002	0.006	200.7	dmd/rf	9/27/99	992112	
Cadmium - Furnace AA	5	ug/l	RJ	0.7	2.2	213.2	dmd/rf	9/23/99	992080	
Cadmium-Total Recoverable	2	ug/l	J TR	0.7	2.2	7131	dmd/rf	9/27/99	992143	
Chromium, Total - ICAP	0.28	mg/l	RJ	0.012	0.04	200.7	dmd/rf	9/27/99	992112	
Copper- ICAP	0.17	mg/l	RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112	
Iron - ICAP	115	mg/l	RJ	0.078	0.25	200.7	dmd/rf	9/27/99	992112	
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	dmd/rf	9/23/99	992078	
Manganese - ICAP	1.8	mg/l	RJ	0.004	0.01	200.7	dmd/rf	9/27/99	992112	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	9/24/99	992091	
Nickel - ICAP	0.34	mg/l	RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd/rf	9/22/99	992060	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd/rf	9/27/99	992112	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	dmd/rf	9/23/99	992089	
Zinc - ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112	
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500	805353	9/21/99	992077	
Conductivity	1590	umhos/cm	#				sh	9/22/99	992067	
Cyanide, Amenable	<0.006	mg/l		0.006	0.02	335.2	srh	9/28/99	992136	
Cyanide, Total	<0.006	mg/l		0.006	0.02	335.2	srh	9/23/99	992090	
pH (water)	9	s.u.	#			150.1	sh	9/22/99	992068	

Nova Sample Number: 16639	Collection: 9/20/99	Time: 11:30
Client ID: 990920MW05DP	Sample Description:	

Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd/rf	9/29/99	992140
Barium - ICAP	0.07	mg/l	RJ	0.002	0.006	200.7	dmd/rf	9/27/99	992112
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	dmd/rf	9/23/99	992080
Chromium, Total - ICAP	0.05	mg/l	RJ	0.012	0.04	200.7	dmd/rf	9/27/99	992112
Copper- ICAP	0.01	mg/l	J RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112
Iron - ICAP	4.4	mg/l	RJ	0.078	0.25	200.7	dmd/rf	9/27/99	992112
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	dmd/rf	9/23/99	992078
Manganese - ICAP	0.1	mg/l	RJ	0.004	0.01	200.7	dmd/rf	9/27/99	992112
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	9/24/99	992091



INORGANIC REPORT

WDNR# 241340550

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

INVOICE NUMBER	990736
DATE REPORTED:	06-Oct-99
DATE RECEIVED:	20-Sep-99
SAMPLE TEMP (C)	Rec On Ice
PROJECT ID:	Weekly Samplin
PROJECT NAME:	OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nickel - ICAP	0.03	mg/l	J RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd/rf	9/22/99	992060	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd/rf	9/27/99	992112	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	dmd/rf	9/23/99	992089	
Zinc - ICAP	0.48	mg/l	RJ	0.01	0.03	200.7	dmd/rf	9/27/99	992112	
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500	805353	9/21/99	992077	
Conductivity	636	umhos/cm	#			120.1	sh	9/22/99	992067	
Cyanide, Amenable	<0.006	mg/l		0.006	0.02	335.2	srh	9/28/99	992136	
Cyanide, Total	<0.006	mg/l		0.006	0.02	335.2	srh	9/23/99	992090	
pH (water)	7.7	s.u.	#			150.1	sh	9/22/99	992068	

Nova Sample Number: 16640

Client ID: 990920WA01P

Collection: 9/20/99

Time: 13:20

Sample Description:

Arsenic - Furnace AA	13	ug/l	J RJ	9.9	31	206.2	dmd/rf	9/27/99	992111
Barium - ICAP	0.11	mg/l	RJ	0.002	0.006	200.7	dmd/rf	9/22/99	992061
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	dmd/rf	9/23/99	992080
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	dmd/rf	9/22/99	992061
Copper- ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd/rf	9/22/99	992061
Iron - ICAP	1	mg/l	RJ	0.078	0.25	200.7	dmd/rf	9/22/99	992061
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	dmd/rf	9/23/99	992078
Manganese - ICAP	0.19	mg/l	RJ	0.004	0.01	200.7	dmd/rf	9/22/99	992061
Mercury CV	<0.002	mg/l	RJ	0.0002	0.0006	245.1	dmd	9/24/99	992092
Nickel - ICAP	0.04	mg/l	RJ	0.01	0.03	200.7	dmd/rf	9/22/99	992061
Selenium - Furnace AA	18	ug/l	J RJ	7.8	25	270.2	dmd/rf	9/22/99	992060
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd/rf	9/22/99	992061
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	dmd/rf	9/23/99	992089
Zinc - ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd/rf	9/22/99	992061
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500	805353	9/21/99	992077
Cyanide, Amenable	<0.006	mg/l		0.006	0.02	335.2	srh	9/28/99	992136
Cyanide, Total	0.01	mg/l	J	0.006	0.02	335.2	srh	9/23/99	992090
pH (water)	7.4	s.u.	#			150.1	sh	9/22/99	992068

Nova Sample Number: 16641

Client ID: 990920WA09R

Collection: 9/20/99

Time: 10:30

Sample Description:



INORGANIC REPORT

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

WDNR# 241340550

INVOICE NUMBER 990736
DATE REPORTED: 06-Oct-99
DATE RECEIVED: 21-Sep-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: Weekly Samplin
PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd/rf	9/27/99	992111	
Barium - ICAP	0.02	mg/l	RJ	0.002	0.006	200.7	dmd/rf	9/22/99	992061	
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	dmd/rf	9/23/99	992080	
Chromium, Total - ICAP	0.01	mg/l	J RJ	0.012	0.04	200.7	dmd/rf	9/22/99	992061	
Copper- ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd/rf	9/22/99	992061	
Iron - ICAP	0.34	mg/l	RJ	0.078	0.25	200.7	dmd/rf	9/22/99	992061	
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	dmd/rf	9/23/99	992078	
Manganese - ICAP	0.004	mg/l	J RJ	0.004	0.01	200.7	dmd/rf	9/22/99	992061	
Mercury CV	<0.002	mg/l	RJ	0.0002	0.0006	245.1	dmd	9/24/99	992092	
Nickel - ICAP	17	ug/l	J RJ	10	32	200.7	dmd/rf	9/22/99	992061	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd/rf	9/22/99	992060	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd/rf	9/22/99	992061	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	dmd/rf	9/23/99	992089	
Zinc - ICAP	0.02	mg/l	J RJ	0.01	0.03	200.7	dmd/rf	9/22/99	992061	

Nova Sample Number: 16642

Client ID: 990920WA02P

Collection: 9/20/99 Time: 13:27

Sample Description:

pH (water)

9.9

s.u.

#

150.1

sh

9/22/99 992068

Nova Sample Number: 16643

Client ID: 990920WA03P

Collection: 9/20/99 Time: 13:28

Sample Description:

pH (water)

11

s.u.

#

150.1

sh

9/22/99 992068

Nova Sample Number: 16644

Client ID: 990920WA05P

Collection: 9/20/99 Time: 13:35

Sample Description:

pH (water)

8.8

s.u.

#

150.1

sh

9/22/99 992068

Nova Sample Number: 16646

Client ID: 990920WA09P

Collection: 9/20/99 Time: 13:10

Sample Description:

Chromium, Hexavalent

<0.0042 mg/l

0.004 0.01 SM 3500

805353 9/21/99 992077

Cyanide, Amenable

<0.006 mg/l

0.006 0.02 335.2

srh 9/28/99 992136

Cyanide, Total

<0.006 mg/l

0.006 0.02 335.2

srh 9/23/99 992090

pH (water)

8.6

s.u.

#

150.1

sh

9/22/99 992068



INORGANIC REPORT

WDNR# 241340550

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

INVOICE NUMBER 990736
DATE REPORTED: 06-Oct-99
DATE RECEIVED: 21-Sep-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: Weekly Samplin
PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
------	--------	-------	----	-----	-----	--------	---------	-----------	-----	----------

Approved By:

James Chang, Ph.D., Lab Director

Date: 10/6/99

RJ Result expressed as Total.

TR Result expressed as Total Recoverable.

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 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

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.



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990736
DATE REPORTED: 24-Sep-99
DATE RECEIVED: 20-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling &
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: 16638										
Client ID: 990920MW16S	Sample Description:									
1,1,1,2-Tetrachloroethane	< 0.5	ug/l	0.5	1.6	ns	2.5		8260	cps	9/23/99
1,1,1-Trichloroethane	< 0.58	ug/l	0.58	1.8	40	2.5		8260	cps	9/23/99
1,1,2,2-Tetrachloroethane	< 0.73	ug/l	0.73	2.3	0.02	2.5		8260	cps	9/23/99
1,1,2-Trichloroethane	< 0.73	ug/l	0.73	2.3	0.5	2.5		8260	cps	9/23/99
1,1-Dichloroethane	< 0.38	ug/l	0.38	1.2	85	2.5		8260	cps	9/23/99
1,1-Dichloroethene	< 0.9	ug/l	0.9	2.9	0.7	2.5		8260	cps	9/23/99
1,1-Dichloropropene	< 1.2	ug/l	1.2	3.9	ns	2.5		8260	cps	9/23/99
1,2,3-Trichlorobenzene	< 0.55	ug/l	0.55	1.7	ns	2.5		8260	cps	9/23/99
1,2,3-Trichloropropane	< 1.5	ug/l	1.5	4.8	ns	2.5		8260	cps	9/23/99
1,2,4-Trichlorobenzene	< 0.4	ug/l	0.4	1.3	14	2.5		8260	cps	9/23/99
1,2,4-Trimethylbenzene	< 0.73	ug/l	0.73	2.3	ns	2.5		8260	cps	9/23/99
1,2-Dibromoethane	< 0.6	ug/l	0.6	1.9	0.005	2.5		8260	cps	9/23/99
1,2-Dichlorobenzene	< 0.5	ug/l	0.5	1.6	60	2.5		8260	cps	9/23/99
1,2-Dichloroethane	0.55	ug/l	0.48	1.5	0.5	2.5	J	8260	cps	9/23/99
1,2-Dichloropropane	< 0.58	ug/l	0.58	1.8	0.5	2.5		8260	cps	9/23/99
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.8	ns	2.5		8260	cps	9/23/99
1,3-Dichlorobenzene	< 0.48	ug/l	0.48	1.5	125	2.5		8260	cps	9/23/99
1,3-Dichloropropane	< 0.53	ug/l	0.53	1.7	ns	2.5		8260	cps	9/23/99
1,4-Dichlorobenzene	< 0.38	ug/l	0.38	1.2	15	2.5		8260	cps	9/23/99
1,2-Dibromo-3-chloropropan	< 1.5	ug/l	1.5	4.7	0.02	2.5		8260	cps	9/23/99
2,2-Dichloropropane	< 1	ug/l	1	3.2	ns	2.5		8260	cps	9/23/99
2-Butanone (MEK)	< 3.5	ug/l	3.5	11	90	2.5		8260	cps	9/23/99
2-Chloroethyl Vinyl Ether	< 0.73	ug/l	0.73	2.3	ns	2.5		8260	cps	9/23/99
2-Chlorotoluene	< 0.38	ug/l	0.38	1.2	ns	2.5		8260	cps	9/23/99
4-Chlorotoluene	< 0.63	ug/l	0.63	2	ns	2.5		8260	cps	9/23/99
4-Methyl-2-Pentanone	< 2.1	ug/l	2.1	6.7	50	2.5		8260	cps	9/23/99
Acetone	< 3.9	ug/l	3.9	12	200	2.5		8260	cps	9/23/99
Benzene	< 0.48	ug/l	0.48	1.5	0.5	2.5		8260	cps	9/23/99
Bromobenzene	< 0.48	ug/l	0.48	1.5	ns	2.5		8260	cps	9/23/99
Bromochloromethane	< 0.85	ug/l	0.85	2.7	ns	2.5		8260	cps	9/23/99
Bromodichloromethane	< 0.65	ug/l	0.65	2.1	0.06	2.5		8260	cps	9/23/99
Bromoform	< 1.2	ug/l	1.2	3.7	0.44	2.5		8260	cps	9/23/99
Bromomethane	< 0.53	ug/l	0.53	1.7	1	2.5		8260	cps	9/23/99
Carbon tetrachloride	< 0.55	ug/l	0.55	1.7	0.5	2.5		8260	cps	9/23/99
Chlorobenzene	< 0.5	ug/l	0.5	1.6	20	2.5		8260	cps	9/23/99
Chloroethane	< 2.9	ug/l	2.9	9.2	80	2.5		8260	cps	9/23/99
Chloroform	< 0.68	ug/l	0.68	2.1	0.6	2.5		8260	cps	9/23/99
Chloromethane	< 1.9	ug/l	1.9	6.1	0.3	2.5		8260	cps	9/23/99
cis-1,2-Dichloroethene	197	ug/l	0.5	1.6	7	2.5		8260	cps	9/23/99
cis-1,3-Dichloropropene	< 0.6	ug/l	0.6	1.9	0.02	2.5		8260	cps	9/23/99



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990736
DATE REPORTED: 24-Sep-99
DATE RECEIVED: 20-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling &
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	< 0.53	ug/l	0.53	1.7	6	2.5		8260	cps	9/23/99
Dibromomethane	< 0.88	ug/l	0.88	2.8	ns	2.5		8260	cps	9/23/99
Dichlorodifluoromethane	< 0.9	ug/l	0.9	2.9	200	2.5		8260	cps	9/23/99
Ethylbenzene	< 0.4	ug/l	0.4	1.3	140	2.5		8260	cps	9/23/99
Hexachlorobutadiene	< 0.55	ug/l	0.55	1.7	ns	2.5		8260	cps	9/23/99
Isopropyl Ether	< 0.8	ug/l	0.8	2.5	ns	2.5		8260	cps	9/23/99
Isopropylbenzene	< 0.4	ug/l	0.4	1.3	ns	2.5		8260	cps	9/23/99
m&p-xylene	< 0.9	ug/l	0.9	2.9	124	2.5		8260	cps	9/23/99
Methyl-t-butyl ether	< 0.53	ug/l	0.53	1.7	12	2.5		8260	cps	9/23/99
Methylene chloride	< 1.9	ug/l	1.9	6	0.5	2.5		8260	cps	9/23/99
n-Butylbenzene	< 0.58	ug/l	0.58	1.8	ns	2.5		8260	cps	9/23/99
n-Propylbenzene	< 0.63	ug/l	0.63	2	ns	2.5		8260	cps	9/23/99
Naphthalene	< 1.2	ug/l	1.2	3.7	8	2.5		8260	cps	9/23/99
o-xylene	< 0.45	ug/l	0.45	1.4	124	2.5		8260	cps	9/23/99
p-Isopropyltoluene	< 0.45	ug/l	0.45	1.4	ns	2.5		8260	cps	9/23/99
sec-Butylbenzene	< 0.75	ug/l	0.75	2.4	ns	2.5		8260	cps	9/23/99
Styrene	< 0.53	ug/l	0.53	1.7	10	2.5		8260	cps	9/23/99
tert-Butylbenzene	< 0.5	ug/l	0.5	1.6	ns	2.5		8260	cps	9/23/99
Tetrachloroethene	< 0.73	ug/l	0.73	2.3	0.5	2.5		8260	cps	9/23/99
Toluene	< 0.83	ug/l	0.83	2.6	68.6	2.5		8260	cps	9/23/99
trans-1,2-Dichloroethene	2.9	ug/l	0.4	1.3	20	2.5		8260	cps	9/23/99
trans-1,3-Dichloropropene	< 0.5	ug/l	0.5	1.6	0.02	2.5		8260	cps	9/23/99
Trichloroethene	0.78	ug/l	0.4	1.3	0.5	2.5	J	8260	cps	9/23/99
Trichlorofluoromethane	< 0.85	ug/l	0.85	2.7	ns	2.5		8260	cps	9/23/99
Vinyl chloride	55	ug/l	0.53	1.7	0.02	2.5		8260	cps	9/23/99

Sample Number:	16639	QC Prep Batch Number:	992095	Sample analyzed within:	3	Day(s) from collection:	
Client ID:	990920MW05D	Sample Description:		Collection:	9/20/99	Time:	11:30
1,1,1,2-Tetrachloroethane	< 2	ug/l	2	6.4	ns	10	
1,1,1-Trichloroethane	< 2.3	ug/l	2.3	7.3	40	10	
1,1,2,2-Tetrachloroethane	< 2.9	ug/l	2.9	9.2	0.02	10	
1,1,2-Trichloroethane	< 2.9	ug/l	2.9	9.2	0.5	10	
1,1-Dichloroethane	48	ug/l	1.5	4.8	85	10	
1,1-Dichloroethene	5	ug/l	3.6	11	0.7	10	J
1,1-Dichloropropene	< 4.9	ug/l	4.9	16	ns	10	
1,2,3-Trichlorobenzene	< 2.2	ug/l	2.2	7	ns	10	
1,2,3-Trichloropropane	< 6	ug/l	6	19	ns	10	
1,2,4-Trichlorobenzene	< 1.6	ug/l	1.6	5.1	14	10	
1,2,4-Trimethylbenzene	< 2.9	ug/l	2.9	9.2	ns	10	
1,2-Dibromoethane	< 2.4	ug/l	2.4	7.6	0.005	10	
1,2-Dichlorobenzene	< 2	ug/l	2	6.4	60	10	
1,2-Dichloroethane	2.1	ug/l	1.9	6	0.5	10	J
							8260 cps 9/23/99



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

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990736
DATE REPORTED: 24-Sep-99
DATE RECEIVED: 20-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling &
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	< 2.3	ug/l	2.3	7.3	0.5	10		8260	cps	9/23/99
1,3,5-Trimethylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	cps	9/23/99
1,3-Dichlorobenzene	< 1.9	ug/l	1.9	6	125	10		8260	cps	9/23/99
1,3-Dichloropropane	< 2.1	ug/l	2.1	6.7	ns	10		8260	cps	9/23/99
1,4-Dichlorobenzene	< 1.5	ug/l	1.5	4.8	15	10		8260	cps	9/23/99
1,2-Dibromo-3-chloropropan	< 5.9	ug/l	5.9	19	0.02	10		8260	cps	9/23/99
2,2-Dichloropropane	< 4	ug/l	4	13	ns	10		8260	cps	9/23/99
2-Butanone (MEK)	< 14	ug/l	14	44	90	10		8260	cps	9/23/99
2-Chloroethyl Vinyl Ether	< 2.9	ug/l	2.9	9.2	ns	10		8260	cps	9/23/99
2-Chlorotoluene	< 1.5	ug/l	1.5	4.8	ns	10		8260	cps	9/23/99
4-Chlorotoluene	< 2.5	ug/l	2.5	8	ns	10		8260	cps	9/23/99
4-Methyl-2-Pentanone	< 8.4	ug/l	8.4	27	50	10		8260	cps	9/23/99
Acetone	< 16	ug/l	16	49	200	10		8260	cps	9/23/99
Benzene	< 1.9	ug/l	1.9	6	0.5	10		8260	cps	9/23/99
Bromobenzene	< 1.9	ug/l	1.9	6	ns	10		8260	cps	9/23/99
Bromochloromethane	< 3.4	ug/l	3.4	11	ns	10		8260	cps	9/23/99
Bromodichloromethane	< 2.6	ug/l	2.6	8.3	0.06	10		8260	cps	9/23/99
Bromoform	< 4.7	ug/l	4.7	15	0.44	10		8260	cps	9/23/99
Bromomethane	< 2.1	ug/l	2.1	6.7	1	10		8260	cps	9/23/99
Carbon tetrachloride	< 2.2	ug/l	2.2	7	0.5	10		8260	cps	9/23/99
Chlorobenzene	< 2	ug/l	2	6.4	20	10		8260	cps	9/23/99
Chloroethane	< 12	ug/l	12	37	80	10		8260	cps	9/23/99
Chloroform	< 2.7	ug/l	2.7	8.6	0.6	10		8260	cps	9/23/99
Chloromethane	< 7.7	ug/l	7.7	24	0.3	10		8260	cps	9/23/99
cis-1,2-Dichloroethene	48	ug/l	2	6.4	7	10		8260	cps	9/23/99
cis-1,3-Dichloropropene	< 2.4	ug/l	2.4	7.6	0.02	10		8260	cps	9/23/99
Dibromochloromethane	< 2.1	ug/l	2.1	6.7	6	10		8260	cps	9/23/99
Dibromomethane	< 3.5	ug/l	3.5	11	ns	10		8260	cps	9/23/99
Dichlorodifluoromethane	< 3.6	ug/l	3.6	11	200	10		8260	cps	9/23/99
Ethylbenzene	< 1.6	ug/l	1.6	5.1	140	10		8260	cps	9/23/99
Hexachlorobutadiene	< 2.2	ug/l	2.2	7	ns	10		8260	cps	9/23/99
Isopropyl Ether	< 3.2	ug/l	3.2	10	ns	10		8260	cps	9/23/99
Isopropylbenzene	< 1.6	ug/l	1.6	5.1	ns	10		8260	cps	9/23/99
m&p-xylene	< 3.6	ug/l	3.6	11	124	10		8260	cps	9/23/99
Methyl-t-butyl ether	< 2.1	ug/l	2.1	6.7	12	10		8260	cps	9/23/99
Methylene chloride	< 7.6	ug/l	7.6	24	0.5	10		8260	cps	9/23/99
n-Butylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	cps	9/23/99
n-Propylbenzene	< 2.5	ug/l	2.5	8	ns	10		8260	cps	9/23/99
Naphthalene	< 4.6	ug/l	4.6	15	8	10		8260	cps	9/23/99
o-xylene	< 1.8	ug/l	1.8	5.7	124	10		8260	cps	9/23/99
p-Isopropyltoluene	< 1.8	ug/l	1.8	5.7	ns	10		8260	cps	9/23/99
sec-Butylbenzene	< 3	ug/l	3	9.5	ns	10		8260	cps	9/23/99
Styrene	< 2.1	ug/l	2.1	6.7	10	10		8260	cps	9/23/99



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

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990736
DATE REPORTED: 24-Sep-99
DATE RECEIVED: 20-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling &
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	< 2	ug/l	2	6.4	ns	10		8260	cps	9/23/99
Tetrachloroethene	< 2.9	ug/l	2.9	9.2	0.5	10		8260	cps	9/23/99
Toluene	< 3.3	ug/l	3.3	10	68.6	10		8260	cps	9/23/99
trans-1,2-Dichloroethene	2.5	ug/l	1.6	5.1	20	10	J	8260	cps	9/23/99
trans-1,3-Dichloropropene	< 2	ug/l	2	6.4	0.02	10		8260	cps	9/23/99
Trichloroethene	530	ug/l	1.6	5.1	0.5	10		8260	cps	9/23/99
Trichlorofluoromethane	< 3.4	ug/l	3.4	11	ns	10		8260	cps	9/23/99
Vinyl chloride	3.5	ug/l	2.1	6.7	0.02	10	J	8260	cps	9/23/99

Sample Number:	16640	QC Prep Batch Number:	992095	Sample analyzed within	3 Day(s)	from collection.
Client ID:	990920WA01P	Sample Description:		Collection:	9/20/99	Time:
1,1,1,2-Tetrachloroethane	< 2	ug/l	2	6.4	ns	10
1,1,1-Trichloroethane	267	ug/l	2.3	7.3	40	10
1,1,2,2-Tetrachloroethane	< 2.9	ug/l	2.9	9.2	0.02	10
1,1,2-Trichloroethane	< 2.9	ug/l	2.9	9.2	0.5	10
1,1-Dichloroethane	29	ug/l	1.5	4.8	85	10
1,1-Dichloroethene	19	ug/l	3.6	11	0.7	10
1,1-Dichloropropene	< 4.9	ug/l	4.9	16	ns	10
1,2,3-Trichlorobenzene	< 2.2	ug/l	2.2	7	ns	10
1,2,3-Trichloropropane	< 6	ug/l	6	19	ns	10
1,2,4-Trichlorobenzene	< 1.6	ug/l	1.6	5.1	14	10
1,2,4-Trimethylbenzene	< 2.9	ug/l	2.9	9.2	ns	10
1,2-Dibromoethane	< 2.4	ug/l	2.4	7.6	0.005	10
1,2-Dichlorobenzene	< 2	ug/l	2	6.4	60	10
1,2-Dichloroethane	< 1.9	ug/l	1.9	6	0.5	10
1,2-Dichloropropene	< 2.3	ug/l	2.3	7.3	0.5	10
1,3,5-Trimethylbenzene	< 2.3	ug/l	2.3	7.3	ns	10
1,3-Dichlorobenzene	< 1.9	ug/l	1.9	6	125	10
1,3-Dichloropropane	< 2.1	ug/l	2.1	6.7	ns	10
1,4-Dichlorobenzene	< 1.5	ug/l	1.5	4.8	15	10
1,2-Dibromo-3-chloropropan	< 5.9	ug/l	5.9	19	0.02	10
2,2-Dichloropropane	< 4	ug/l	4	13	ns	10
2-Butanone (MEK)	< 14	ug/l	14	44	90	10
2-Chloroethyl Vinyl Ether	< 2.9	ug/l	2.9	9.2	ns	10
2-Chlorotoluene	< 1.5	ug/l	1.5	4.8	ns	10
4-Chlorotoluene	< 2.5	ug/l	2.5	8	ns	10
4-Methyl-2-Pentanone	< 8.4	ug/l	8.4	27	50	10
Acetone	< 16	ug/l	16	49	200	10
Benzene	< 1.9	ug/l	1.9	6	0.5	10
Bromobenzene	< 1.9	ug/l	1.9	6	ns	10
Bromochloromethane	< 3.4	ug/l	3.4	11	ns	10
Bromodichloromethane	< 2.6	ug/l	2.6	8.3	0.06	10



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990736
DATE REPORTED: 24-Sep-99
DATE RECEIVED: 20-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling &
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	< 4.7	ug/l	4.7	15	0.44	10		8260	cps	9/23/99
Bromomethane	< 2.1	ug/l	2.1	6.7	1	10		8260	cps	9/23/99
Carbon tetrachloride	< 2.2	ug/l	2.2	7	0.5	10		8260	cps	9/23/99
Chlorobenzene	3	ug/l	2	6.4	20	10	J	8260	cps	9/23/99
Chloroethane	< 12	ug/l	12	37	80	10		8260	cps	9/23/99
Chloroform	< 2.7	ug/l	2.7	8.6	0.6	10		8260	cps	9/23/99
Chloromethane	< 7.7	ug/l	7.7	24	0.3	10		8260	cps	9/23/99
cis-1,2-Dichloroethene	54	ug/l	2	6.4	7	10		8260	cps	9/23/99
cis-1,3-Dichloropropene	< 2.4	ug/l	2.4	7.6	0.02	10		8260	cps	9/23/99
Dibromochloromethane	< 2.1	ug/l	2.1	6.7	6	10		8260	cps	9/23/99
Dibromomethane	< 3.5	ug/l	3.5	11	ns	10		8260	cps	9/23/99
Dichlorodifluoromethane	< 3.6	ug/l	3.6	11	200	10		8260	cps	9/23/99
Ethylbenzene	< 1.6	ug/l	1.6	5.1	140	10		8260	cps	9/23/99
Hexachlorobutadiene	< 2.2	ug/l	2.2	7	ns	10		8260	cps	9/23/99
Isopropyl Ether	< 3.2	ug/l	3.2	10	ns	10		8260	cps	9/23/99
Isopropylbenzene	< 1.6	ug/l	1.6	5.1	ns	10		8260	cps	9/23/99
m&p-xylene	< 3.6	ug/l	3.6	11	124	10		8260	cps	9/23/99
Methyl-t-butyl ether	< 2.1	ug/l	2.1	6.7	12	10		8260	cps	9/23/99
Methylene chloride	< 7.6	ug/l	7.6	24	0.5	10		8260	cps	9/23/99
n-Butylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	cps	9/23/99
n-Propylbenzene	< 2.5	ug/l	2.5	8	ns	10		8260	cps	9/23/99
Naphthalene	< 4.6	ug/l	4.6	15	8	10		8260	cps	9/23/99
o-xylene	< 1.8	ug/l	1.8	5.7	124	10		8260	cps	9/23/99
p-Isopropyltoluene	< 1.8	ug/l	1.8	5.7	ns	10		8260	cps	9/23/99
sec-Butylbenzene	< 3	ug/l	3	9.5	ns	10		8260	cps	9/23/99
Styrene	< 2.1	ug/l	2.1	6.7	10	10		8260	cps	9/23/99
tert-Butylbenzene	< 2	ug/l	2	6.4	ns	10		8260	cps	9/23/99
Tetrachloroethene	7.2	ug/l	2.9	9.2	0.5	10	J	8260	cps	9/23/99
Toluene	< 3.3	ug/l	3.3	10	68.6	10		8260	cps	9/23/99
trans-1,2-Dichloroethene	18	ug/l	1.6	5.1	20	10		8260	cps	9/23/99
trans-1,3-Dichloropropene	< 2	ug/l	2	6.4	0.02	10		8260	cps	9/23/99
Trichloroethene	656	ug/l	1.6	5.1	0.5	10		8260	cps	9/23/99
Trichlorofluoromethane	< 3.4	ug/l	3.4	11	ns	10		8260	cps	9/23/99
Vinyl chloride	2.9	ug/l	2.1	6.7	0.02	10	J	8260	cps	9/23/99

Sample Number:	16645	QC Prep Batch Number:	992095	Sample analyzed within:	3	Day(s) from collection:
Client ID:	990920WA07P	Sample Description:		Collection:	9/20/99	Time: 13:38
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1



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

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990736
DATE REPORTED: 24-Sep-99
DATE RECEIVED: 21-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling &
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	cps	9/23/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	cps	9/23/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/23/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	cps	9/23/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1		8260	cps	9/23/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	9/23/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	cps	9/23/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	cps	9/23/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	9/23/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	9/23/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/23/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	9/23/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	9/23/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	9/23/99
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	9/23/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	9/23/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	9/23/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	9/23/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	9/23/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/23/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	9/23/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	9/23/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	9/23/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	9/23/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/23/99
Bromodichloromethane	< 0.26	ug/l	0.26	0.83	0.06	1		8260	cps	9/23/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	9/23/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	9/23/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	9/23/99
Chlorobenzene	0.42	ug/l	0.2	0.64	20	1	J	8260	cps	9/23/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	9/23/99
Chloroform	0.29	ug/l	0.27	0.86	0.6	1	J	8260	cps	9/23/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	9/23/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	9/23/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	9/23/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	9/23/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	9/23/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	9/23/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	9/23/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/23/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	9/23/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	9/23/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	9/23/99



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5000 Fax: (414) 355-3099

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990736
DATE REPORTED: 24-Sep-99
DATE RECEIVED: 21-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling &
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	9/23/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	9/23/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/23/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/23/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	9/23/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	9/23/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	9/23/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	9/23/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	9/23/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/23/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	9/23/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	9/23/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	9/23/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	9/23/99
Trichloroethene	0.93	ug/l	0.16	0.51	0.5	1		8260	cps	9/23/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/23/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	9/23/99

Sample Number:	16646	QC Prep Batch Number:	992095	Sample analyzed within:	3 Day(s) from collection.	Collection:	9/20/99	Time:	13:10	
Client ID:	990920WA09P	Sample Description:								
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/23/99
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1		8260	cps	9/23/99
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1		8260	cps	9/23/99
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	9/23/99
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1		8260	cps	9/23/99
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	cps	9/23/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	cps	9/23/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/23/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	cps	9/23/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1		8260	cps	9/23/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	9/23/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	cps	9/23/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	cps	9/23/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	9/23/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	9/23/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/23/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	9/23/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	9/23/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	9/23/99
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	9/23/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	9/23/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	9/23/99



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990736
DATE REPORTED: 24-Sep-99
DATE RECEIVED: 21-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling &
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	9/23/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	9/23/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/23/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	9/23/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	9/23/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	9/23/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	9/23/99
Bromoform	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/23/99
Bromochloromethane	< 0.48	ug/l	0.26	0.83	0.06	1		8260	cps	9/23/99
Bromodichloromethane	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	9/23/99
Bromoform	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	9/23/99
Bromomethane	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	9/23/99
Carbon tetrachloride	< 0.64	ug/l	0.2	0.64	20	1		8260	cps	9/23/99
Chlorobenzene	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	9/23/99
Chloroethane	2.4	ug/l	0.27	0.86	0.6	1		8260	cps	9/23/99
Chloroform	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	9/23/99
Chloromethane	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	9/23/99
cis-1,2-Dichloroethene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	9/23/99
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	9/23/99
Dibromochloromethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	9/23/99
Dibromomethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	9/23/99
Dichlorodifluoromethane	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	9/23/99
Ethylbenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/23/99
Hexachlorobutadiene	< 0.32	ug/l	0.32	1	ns	1		8260	cps	9/23/99
Isopropyl Ether	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	9/23/99
Isopropylbenzene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	9/23/99
m&p-xylene	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	9/23/99
Methyl-t-butyl ether	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/23/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	9/23/99
n-Butylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/23/99
n-Propylbenzene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	9/23/99
Naphthalene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	9/23/99
o-xylene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	9/23/99
p-Isopropyltoluene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	9/23/99
sec-Butylbenzene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	9/23/99
Styrene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/23/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	9/23/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	9/23/99
Trichloroethene	< 0.16	ug/l	0.16	0.51	0.5	1		8260	cps	9/23/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/23/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	9/23/99



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

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990736
DATE REPORTED: 24-Sep-99
DATE RECEIVED: 21-Sep-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling &
PROJECT NAME: OGTP

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

Sample Number:	16647	QC Prep Batch Number:	992095	Sample analyzed within 3 Day(s) from collection.					
Client ID:	Trip Blank	Sample Description:		Collection:	9/20/99	Time:			
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1	8260	cps	9/23/99
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1	8260	cps	9/23/99
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1	8260	cps	9/23/99
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1	8260	cps	9/23/99
1,1-Dichloroethane	< 0.13	ug/l	0.15	0.48	85	1	8260	cps	9/23/99
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1	8260	cps	9/23/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1	8260	cps	9/23/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1	8260	cps	9/23/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1	8260	cps	9/23/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1	8260	cps	9/23/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1	8260	cps	9/23/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1	8260	cps	9/23/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1	8260	cps	9/23/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1	8260	cps	9/23/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1	8260	cps	9/23/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1	8260	cps	9/23/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1	8260	cps	9/23/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1	8260	cps	9/23/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1	8260	cps	9/23/99
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1	8260	cps	9/23/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1	8260	cps	9/23/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1	8260	cps	9/23/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1	8260	cps	9/23/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1	8260	cps	9/23/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1	8260	cps	9/23/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1	8260	cps	9/23/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1	8260	cps	9/23/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1	8260	cps	9/23/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1	8260	cps	9/23/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1	8260	cps	9/23/99
Bromodichloromethane	< 0.26	ug/l	0.26	0.83	0.06	1	8260	cps	9/23/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1	8260	cps	9/23/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1	8260	cps	9/23/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1	8260	cps	9/23/99
Chlorobenzene	0.74	ug/l	0.2	0.64	20	1	8260	cps	9/23/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1	8260	cps	9/23/99
Chloroform	< 0.27	ug/l	0.27	0.86	0.6	1	8260	cps	9/23/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1	8260	cps	9/23/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1	8260	cps	9/23/99

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

WDNR# 241340550

BATCH NUMBER: 990736
 DATE REPORTED: 24-Sep-99
 DATE RECEIVED: 21-Sep-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: Weekly Sampling &
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	9/23/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	9/23/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	9/23/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	9/23/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	9/23/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	9/23/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	9/23/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	9/23/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	9/23/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	9/23/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	9/23/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	9/23/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	9/23/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	9/23/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	9/23/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	9/23/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	9/23/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	9/23/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	9/23/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	9/23/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	9/23/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	9/23/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	9/23/99
Trichloroethene	< 0.16	ug/l	0.16	0.51	0.5	1		8260	cps	9/23/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	9/23/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	9/23/99

Approved By:

James Chang, Ph.D., Lab Director

Date: 9/28/99

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



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

WDNR# 241340550

INVOICE NUMBER 990797
DATE REPORTED: 22-Oct-99
DATE RECEIVED: 11-Oct-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: Weekly Samplin
PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 16945										
Client ID: 991011WA01P										
Arsenic - Furnace AA	<9.9	ug/l		9.9	31	206.2	dmd	10/13/99	992265	Collection: 10/11/99 Time: 11:10
Barium - ICAP	0.1	mg/l	RJ	0.002	0.006	200.7	rf	10/13/99	992266	Sample Description:
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	rf	10/12/99	992254	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	rf	10/13/99	992266	
Copper- ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	rf	10/13/99	992266	
Iron - ICAP	1.1	mg/l	RJ	0.078	0.25	200.7	rf	10/13/99	992266	
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	dmd/rf	10/12/99	992249	
Manganese - ICAP	0.12	mg/l	RJ	0.004	0.01	200.7	rf	10/13/99	992266	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd/rf	10/12/99	992245	
Nickel - ICAP	18	ug/l	J RJ	10	32	200.7	rf	10/13/99	992266	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd/rf	10/13/99	992267	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	rf	10/13/99	992266	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	dmd/rf	10/12/99	992255	
Zinc - ICAP	0.03	mg/l	J RJ	0.01	0.03	200.7	rf	10/13/99	992266	
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500	805353	10/12/99	992340	
Cyanide, Amenable	<0.0077	mg/l		0.008	0.02	335.2	805353	10/20/99	992345	
Cyanide, Total	0.01	mg/l	J	0.008	0.02	335.2	805353	10/20/99	992342	
pH (water)	7.4	s.u.	#			150.1	sh	10/13/99	992269	

Arsenic - Furnace AA	<9.9	ug/l		9.9	31	206.2	dmd	10/13/99	992265	Collection: 10/11/99 Time: 11:00
Client ID: 991011WA09R										
Sample Description:										
Barium - ICAP	0.02	mg/l	RJ	0.002	0.006	200.7	rf	10/13/99	992266	
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	rf	10/12/99	992254	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	rf	10/13/99	992266	
Copper- ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	rf	10/13/99	992266	
Iron - ICAP	0.08	mg/l	J RJ	0.078	0.25	200.7	rf	10/13/99	992266	
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	dmd/rf	10/12/99	992252	
Manganese - ICAP	0.005	mg/l	J RJ	0.004	0.01	200.7	rf	10/13/99	992266	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd/rf	10/12/99	992245	
Nickel - ICAP	11	ug/l	J RJ	10	32	200.7	rf	10/13/99	992266	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd/rf	10/13/99	992267	



INORGANIC REPORT

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

WDNR# 241340550

INVOICE NUMBER 990797
DATE REPORTED: 22-Oct-99
DATE RECEIVED: 11-Oct-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: Weekly Samplin
PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	rf	10/13/99	992266	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	dmd/rf	10/12/99	992255	
Zinc - ICAP	0.02	mg/l	J RJ	0.01	0.03	200.7	rf	10/13/99	992266	

Nova Sample Number: 16947

Client ID: 991011WA02P

Collection: 10/11/99 Time:

Sample Description:

pH (water) 10 s.u. #

150.1

sh 10/13/99 992269

Nova Sample Number: 16948

Client ID: 991011WA03P

Collection: 10/11/99 Time: 11:29

Sample Description:

pH (water) 11 s.u. #

150.1

sh 10/13/99 992269

Nova Sample Number: 16949

Client ID: 991011WA05P

Collection: 10/11/99 Time: 11:15

Sample Description:

pH (water) 8.9 s.u. #

150.1

sh 10/13/99 992269

Nova Sample Number: 16951

Client ID: 991011WA09P

Collection: 10/11/99 Time: 11:20

Sample Description:

Chromium, Hexavalent <0.0042 mg/l

0.004 0.01 SM 3500

805353 10/12/99 992340

Cyanide, Amenable <0.0077 mg/l

0.008 0.02 335.2

805353 10/20/99 992345

Cyanide, Total <0.0077 mg/l

0.008 0.02 335.2

805353 10/20/99 992342

pH (water) 8.5 s.u. #

150.1

sh 10/13/99 992269

Approved By:

Date: 10/12/99 PS

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 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

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.



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5888 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990797
DATE REPORTED: 15-Oct-99
DATE RECEIVED: 11-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: 16945										
Client ID: 991011WA01P	Sample Description:									
1,1,1,2-Tetrachloroethane	< 2	ug/l	2	6.4	ns	10		8260	cps	10/14/99
1,1,1-Trichloroethane	196	ug/l	2.3	7.3	40	10		8260	cps	10/14/99
1,1,2,2-Tetrachloroethane	< 2.9	ug/l	2.9	9.2	0.02	10		8260	cps	10/14/99
1,1,2-Trichloroethane	< 2.9	ug/l	2.9	9.2	0.5	10		8260	cps	10/14/99
1,1-Dichloroethane	28	ug/l	1.5	4.8	85	10		8260	cps	10/14/99
1,1-Dichloroethene	13	ug/l	3.6	11	0.7	10		8260	cps	10/14/99
1,1-Dichloropropene	< 4.9	ug/l	4.9	16	ns	10		8260	cps	10/14/99
1,2,3-Trichlorobenzene	2.3	ug/l	2.2	7	ns	10	J	8260	cps	10/14/99
1,2,3-Trichloropropane	< 6	ug/l	6	19	ns	10		8260	cps	10/14/99
1,2,4-Trichlorobenzene	< 1.6	ug/l	1.6	5.1	14	10		8260	cps	10/14/99
1,2,4-Trimethylbenzene	< 2.9	ug/l	2.9	9.2	ns	10		8260	cps	10/14/99
1,2-Dibromoethane	< 2.4	ug/l	2.4	7.6	0.005	10		8260	cps	10/14/99
1,2-Dichlorobenzene	< 2	ug/l	2	6.4	60	10		8260	cps	10/14/99
1,2-Dichloroethane	< 1.9	ug/l	1.9	6	0.5	10		8260	cps	10/14/99
1,2-Dichloropropane	< 2.3	ug/l	2.3	7.3	0.5	10		8260	cps	10/14/99
1,3,5-Trimethylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	cps	10/14/99
1,3-Dichlorobenzene	< 1.9	ug/l	1.9	6	125	10		8260	cps	10/14/99
1,3-Dichloropropane	< 2.1	ug/l	2.1	6.7	ns	10		8260	cps	10/14/99
1,4-Dichlorobenzene	< 1.5	ug/l	1.5	4.8	15	10		8260	cps	10/14/99
1,2-Dibromo-3-chloropropan	< 5.9	ug/l	5.9	19	0.02	10		8260	cps	10/14/99
2,2-Dichloropropane	< 4	ug/l	4	13	ns	10		8260	cps	10/14/99
2-Butanone (MEK)	< 14	ug/l	14	44	90	10		8260	cps	10/14/99
2-Chloroethyl Vinyl Ether	< 2.9	ug/l	2.9	9.2	ns	10		8260	cps	10/14/99
2-Chlorotoluene	< 1.5	ug/l	1.5	4.8	ns	10		8260	cps	10/14/99
4-Chlorotoluene	< 2.5	ug/l	2.5	8	ns	10		8260	cps	10/14/99
4-Methyl-2-Pentanone	< 8.4	ug/l	8.4	27	50	10		8260	cps	10/14/99
Acetone	< 16	ug/l	16	49	200	10		8260	cps	10/14/99
Benzene	< 1.9	ug/l	1.9	6	0.5	10		8260	cps	10/14/99
Bromobenzene	< 1.9	ug/l	1.9	6	ns	10		8260	cps	10/14/99
Bromochloromethane	< 3.4	ug/l	3.4	11	ns	10		8260	cps	10/14/99
Bromodichloromethane	< 2.6	ug/l	2.6	8.3	0.06	10		8260	cps	10/14/99
Bromoform	< 4.7	ug/l	4.7	15	0.44	10		8260	cps	10/14/99
Bromomethane	< 2.1	ug/l	2.1	6.7	1	10		8260	cps	10/14/99
Carbon tetrachloride	< 2.2	ug/l	2.2	7	0.5	10		8260	cps	10/14/99
Chlorobenzene	< 2	ug/l	2	6.4	20	10		8260	cps	10/14/99
Chloroethane	< 12	ug/l	12	37	80	10		8260	cps	10/14/99
Chloroform	< 2.7	ug/l	2.7	8.6	0.6	10		8260	cps	10/14/99
Chloromethane	< 7.7	ug/l	7.7	24	0.3	10		8260	cps	10/14/99
cis-1,2-Dichloroethene	49	ug/l	2	6.4	7	10		8260	cps	10/14/99
cis-1,3-Dichloropropene	< 2.4	ug/l	2.4	7.6	0.02	10		8260	cps	10/14/99



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990797
DATE REPORTED: 15-Oct-99
DATE RECEIVED: 11-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	< 2.1	ug/l	2.1	6.7	6	10		8260	cps	10/14/99
Dibromomethane	< 3.5	ug/l	3.5	11	ns	10		8260	cps	10/14/99
Dichlorodifluoromethane	< 3.6	ug/l	3.6	11	200	10		8260	cps	10/14/99
Ethylbenzene	< 1.6	ug/l	1.6	5.1	140	10		8260	cps	10/14/99
Hexachlorobutadiene	< 2.2	ug/l	2.2	7	ns	10		8260	cps	10/14/99
Isopropyl Ether	< 3.2	ug/l	3.2	10	ns	10		8260	cps	10/14/99
Isopropylbenzene	< 1.6	ug/l	1.6	5.1	ns	10		8260	cps	10/14/99
m&p-xylene	< 3.6	ug/l	3.6	11	124	10		8260	cps	10/14/99
Methyl-t-butyl ether	< 2.1	ug/l	2.1	6.7	12	10		8260	cps	10/14/99
Methylene chloride	< 7.6	ug/l	7.6	24	0.5	10		8260	cps	10/14/99
n-Butylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	cps	10/14/99
n-Propylbenzene	< 2.5	ug/l	2.5	8	ns	10		8260	cps	10/14/99
Naphthalene	5.2	ug/l	4.6	15	8	10	J	8260	cps	10/14/99
o-xylene	< 1.8	ug/l	1.8	5.7	124	10		8260	cps	10/14/99
p-Isopropyltoluene	< 1.8	ug/l	1.8	5.7	ns	10		8260	cps	10/14/99
sec-Butylbenzene	< 3	ug/l	3	9.5	ns	10		8260	cps	10/14/99
Styrene	< 2.1	ug/l	2.1	6.7	10	10		8260	cps	10/14/99
tert-Butylbenzene	< 2	ug/l	2	6.4	ns	10		8260	cps	10/14/99
Tetrachloroethene	8.2	ug/l	2.9	9.2	0.5	10	J	8260	cps	10/14/99
Toluene	< 3.3	ug/l	3.3	10	68.6	10		8260	cps	10/14/99
trans-1,2-Dichloroethene	16	ug/l	1.6	5.1	20	10		8260	cps	10/14/99
trans-1,3-Dichloropropene	< 2	ug/l	2	6.4	0.02	10		8260	cps	10/14/99
Trichloroethene	539	ug/l	1.6	5.1	0.5	10		8260	cps	10/14/99
Trichlorofluoromethane	< 3.4	ug/l	3.4	11	ns	10		8260	cps	10/14/99
Vinyl chloride	< 2.1	ug/l	2.1	6.7	0.02	10		8260	cps	10/14/99

Sample Number:	16950	QC Prep Batch Number:	992285	Sample analyzed within	3 Day(s) from collection.
Client ID:	991011WA07P	Sample Description:		Collection:	10/11/99 Time: 11:17
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns 1
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40 1
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02 1
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5 1
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85 1
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7 1
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns 1
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns 1
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns 1
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14 1
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns 1
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005 1
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60 1
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5 1

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

WDNR# 241340550

BATCH NUMBER: 990797
 DATE REPORTED: 15-Oct-99
 DATE RECEIVED: 11-Oct-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: Weekly Sampling
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	10/14/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/14/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	10/14/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	10/14/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	10/14/99
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	10/14/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	10/14/99
2-Butanone (MEK)	29	ug/l	1.4	4.4	90	1		8260	cps	10/14/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/14/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	10/14/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/14/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	10/14/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	10/14/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/14/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	10/14/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/14/99
Bromodichloromethane	0.34	ug/l	0.26	0.83	0.06	1	J	8260	cps	10/14/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	10/14/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	10/14/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	10/14/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	cps	10/14/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	10/14/99
Chloroform	0.62	ug/l	0.27	0.86	0.6	1	J	8260	cps	10/14/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	10/14/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	10/14/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	10/14/99
Dibromochloromethane	0.43	ug/l	0.21	0.67	6	1	J	8260	cps	10/14/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	10/14/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	10/14/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	10/14/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/14/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	10/14/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	10/14/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	10/14/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	10/14/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	10/14/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/14/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/14/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	10/14/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	10/14/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	10/14/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	10/14/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	10/14/99



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

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990797
DATE REPORTED: 15-Oct-99
DATE RECEIVED: 11-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/14/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/14/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	10/14/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	10/14/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	10/14/99
Trichloroethene	0.33	ug/l	0.16	0.51	0.5	1	J	8260	cps	10/14/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/14/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	10/14/99

Sample Number:	16951	QC Prep Batch Number:	992285	Sample analyzed within	3	Day(s) from collection.
Client ID:	991011WA09P	Sample Description:		Collection:	10/11/99	Time:
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1
Acetone	< 1.6	ug/l	1.6	4.9	200	1
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1
Bromodichloromethane	0.73	ug/l	0.26	0.83	0.06	1



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

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990797
DATE REPORTED: 15-Oct-99
DATE RECEIVED: 11-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	10/14/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	10/14/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	10/14/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	cps	10/14/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	10/14/99
Chloroform	2.9	ug/l	0.27	0.86	0.6	1		8260	cps	10/14/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	10/14/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	10/14/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	10/14/99
Dibromochloromethane	0.21	ug/l	0.21	0.67	6	1		8260	cps	10/14/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	10/14/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	10/14/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	10/14/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/14/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	10/14/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	10/14/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	10/14/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	10/14/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	10/14/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/14/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/14/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	10/14/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	10/14/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	10/14/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	10/14/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	10/14/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/14/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/14/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	10/14/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	10/14/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	10/14/99
Trichloroethene	0.51	ug/l	0.16	0.51	0.5	1		8260	cps	10/14/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/14/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	10/14/99

Sample Number:	16952	QC Prep Batch Number:	992283	Sample analyzed within:	3	Day(s)	from collection.
Client ID:	TRIP BLANK	Sample Description:		Collection:	10/11/99	Time:	
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1	8260 cps 10/14/99
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1	8260 cps 10/14/99
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1	8260 cps 10/14/99
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1	8260 cps 10/14/99
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1	8260 cps 10/14/99



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990797
DATE REPORTED: 15-Oct-99
DATE RECEIVED: 11-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Weekly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	cps	10/14/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	cps	10/14/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/14/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	cps	10/14/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1		8260	cps	10/14/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/14/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	cps	10/14/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	cps	10/14/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/14/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	10/14/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/14/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	10/14/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	10/14/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	10/14/99
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	10/14/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	10/14/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	10/14/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/14/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	10/14/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/14/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	10/14/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	10/14/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/14/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	10/14/99
Bromoform	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/14/99
Bromochloromethane	< 0.26	ug/l	0.26	0.83	0.06	1		8260	cps	10/14/99
Bromodichloromethane	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	10/14/99
Bromoform	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	10/14/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	10/14/99
Chlorobenzene	0.95	ug/l	0.2	0.64	20	1		8260	cps	10/14/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	10/14/99
Chloroform	< 0.27	ug/l	0.27	0.86	0.6	1		8260	cps	10/14/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	10/14/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	10/14/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	10/14/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	10/14/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	10/14/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	10/14/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	10/14/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/14/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	10/14/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	10/14/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	10/14/99

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

WDNR# 241340550

BATCH NUMBER: 990797
 DATE REPORTED: 15-Oct-99
 DATE RECEIVED: 11-Oct-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: Weekly Sampling
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	10/14/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	10/14/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/14/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/14/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	10/14/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	10/14/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	10/14/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	10/14/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	10/14/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/14/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/14/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	10/14/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	10/14/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	10/14/99
Trichloroethene	< 0.16	ug/l	0.16	0.51	0.5	1		8260	cps	10/14/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/14/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	10/14/99

Approved By:

Date: 10/18/99

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

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

WDNR# 241340550

INVOICE NUMBER 990776
DATE REPORTED: 22-Oct-99
DATE RECEIVED: 05-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Monthly Sampli
PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 16824										
Client ID: 991004WA01P										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd/rf	10/5/99	992189	Collection: 10/4/99 Time: 13:25
Barium - ICAP	0.12	mg/l	RJ	0.002	0.006	200.7	dmd/rf	10/6/99	992197	Sample Description:
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	rf	10/7/99	992214	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	dmd/rf	10/6/99	992197	
Copper- ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd/rf	10/6/99	992197	
Iron - ICAP	1.1	mg/l	RJ	0.078	0.25	200.7	dmd/rf	10/6/99	992197	
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	rf	10/7/99	992215	
Manganese - ICAP	0.17	mg/l	RJ	0.004	0.01	200.7	dmd/rf	10/6/99	992197	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd/rf	10/5/99	992190	
Nickel - ICAP	0.04	mg/l	RJ	0.01	0.03	200.7	dmd/rf	10/6/99	992197	
Selenium - Furnace AA	22	ug/l	J RJ	7.8	25	270.2	dmd/rf	10/5/99	992188	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd/rf	10/6/99	992197	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	rf	10/7/99	992216	
Zinc - ICAP	0.01	mg/l	J RJ	0.01	0.03	200.7	dmd/rf	10/6/99	992197	
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500D	80535	10/5/99	992340	
COD. Total	20	mg/l	J	7.3	23	410.4-CT	80535	10/11/99	992341	
Cyanide, Amenable	0.02	mg/l	J	0.018	0.06	335.2		10/19/99		
Cyanide, Total	0.02	mg/l	J	0.008	0.02	335.2	80535	10/14/99	992342	
pH (water)	7	s.u.	#			150.1	sh	10/5/99	992195	
Solids, Total Suspended	1.5	mg/l	J	1	3.2	SM 2540D	rf	10/7/99	992210	

Nova Sample Number: 16825										
Client ID: 991004WA09R										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd/rf	10/5/99	992189	Collection: 10/4/99 Time: 11:15
Barium - ICAP	0.02	mg/l	RJ	0.002	0.006	200.7	dmd/rf	10/6/99	992197	Sample Description:
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	rf	10/7/99	992214	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	dmd/rf	10/6/99	992197	
Copper- ICAP	0.01	mg/l	J RJ	0.01	0.03	200.7	dmd/rf	10/6/99	992197	
Iron - ICAP	0.09	mg/l	J RJ	0.078	0.25	200.7	dmd/rf	10/6/99	992197	
Lead - Furnace AA	<1.4	ug/l	RJ	1.4	4.5	239.2	rf	10/7/99	992215	
Manganese - ICAP	0.006	mg/l	J RJ	0.004	0.01	200.7	dmd/rf	10/6/99	992197	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd/rf	10/5/99	992190	



INORGANIC REPORT

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

WDNR# 241340550

INVOICE NUMBER 990776
DATE REPORTED: 22-Oct-99
DATE RECEIVED: 05-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Monthly Sampli
PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nickel - ICAP	14	ug/l	J RJ	10	32	200.7	dmd/rf	10/6/99	992197	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd/rf	10/5/99	992188	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd/rf	10/6/99	992197	
Thallium - Furnace AA	<4.8	ug/l	RJ	4.8	15	279.2	rf	10/7/99	992216	
Zinc - ICAP	0.03	mg/l	J RJ	0.01	0.03	200.7	dmd/rf	10/6/99	992197	
COD. Total	<7.3	mg/l		7.3	23	410.4-CT	80535	10/11/99	992341	
Nitrate + Nitrite Nitrogen	0.27	mg/l		0.04	0.13	353.3	srh	10/12/99	992248	
Nitrogen, Ammonia	<0.1	mg/l		0.1	0.32	350.1	12805	10/22/99	992365	
Phosphorus, Total	<0.1	mg/l		0.033	0.10	365.2	12805	10/22/99	992366	
Solids, Total Suspended	0.5	mg/l	J	1	3.2	SM 2540D	rf	10/7/99	992210	

Nova Sample Number: 16826

Client ID: 991004WA02P

pH (water) 9.8 s.u. #

150.1

Collection: 10/4/99

Time: 14:05

Sample Description:

Nova Sample Number: 16827

Client ID: 991004WA03P

pH (water) 11 s.u. #

150.1

Collection: 10/4/99

Time: 14:07

Sample Description:

Nova Sample Number: 16828

Client ID: 991004WA05P

pH (water) 9 s.u. #

150.1

Collection: 10/4/99

Time: 14:10

Sample Description:

Nova Sample Number: 16830

Client ID: 991004WA09P

Chromium, Hexavalent <0.0042 mg/l

0.004 0.01 SM 3500D 80535 10/5/99 992340

Cyanide, Amenable <0.0077 mg/l

0.008 0.02 335.2 80535 10/14/99 992345

Cyanide, Total <0.0077 mg/l

0.008 0.02 335.2 80535 10/14/99 992342

pH (water) 8.4 s.u. #

150.1

Collection: 10/4/99

Time: 13:50

Sample Description:

Nova Sample Number: 16831

Client ID: 991004WA09Q

Chromium, Hexavalent <0.0042 mg/l

0.004 0.01 SM 3500D 80535 10/5/99 992340

Cyanide, Amenable <0.0077 mg/l

0.008 0.02 335.2 80535 10/14/99 992345

Collection: 10/4/99

Time: 13:55

Sample Description: FS DUP.



INORGANIC REPORT

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

WDNR# 241340550

INVOICE NUMBER 990776
DATE REPORTED: 22-Oct-99
DATE RECEIVED: 05-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Monthly Sampli
PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Cyanide, Total	<0.0077	mg/l		0.008	0.02	335.2	80535	10/14/99	992342	

Approved By:

James Chang, Ph.D., Lab Director

Date: 10/22/99

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 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

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.



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

WDNR# 241340550

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

BATCH NUMBER: 990776
DATE REPORTED: 07-Oct-99
DATE RECEIVED: 05-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Monthly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number:	16824									
Client ID:	991004WA01P	QC Prep Batch Number:	992211					Sample analyzed within	2 Day(s) from collection.	
								Collection:	10/4/99	Time: 13:25
1,1,1,2-Tetrachloroethane	< 2	ug/l	2	6.4	ns	10		8260	cps	10/6/99
1,1,1-Trichloroethane	207	ug/l	2.3	7.3	40	10		8260	cps	10/6/99
1,1,2,2-Tetrachloroethane	< 2.9	ug/l	2.9	9.2	0.02	10		8260	cps	10/6/99
1,1,2-Trichloroethane	< 2.9	ug/l	2.9	9.2	0.5	10		8260	cps	10/6/99
1,1-Dichloroethane	28	ug/l	1.5	4.8	85	10		8260	cps	10/6/99
1,1-Dichloroethene	13	ug/l	3.6	11	0.7	10		8260	cps	10/6/99
1,1-Dichloropropene	< 4.9	ug/l	4.9	16	ns	10		8260	cps	10/6/99
1,2,3-Trichlorobenzene	< 2.2	ug/l	2.2	7	ns	10		8260	cps	10/6/99
1,2,3-Trichloropropane	< 6	ug/l	6	19	ns	10		8260	cps	10/6/99
1,2,4-Trichlorobenzene	< 1.6	ug/l	1.6	5.1	14	10		8260	cps	10/6/99
1,2,4-Trimethylbenzene	< 2.9	ug/l	2.9	9.2	ns	10		8260	cps	10/6/99
1,2-Dibromoethane	< 2.4	ug/l	2.4	7.6	0.005	10		8260	cps	10/6/99
1,2-Dichlorobenzene	< 2	ug/l	2	6.4	60	10		8260	cps	10/6/99
1,2-Dichloroethane	< 1.9	ug/l	1.9	6	0.5	10		8260	cps	10/6/99
1,2-Dichloropropane	< 2.3	ug/l	2.3	7.3	0.5	10		8260	cps	10/6/99
1,3,5-Trimethylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	cps	10/6/99
1,3-Dichlorobenzene	< 1.9	ug/l	1.9	6	125	10		8260	cps	10/6/99
1,3-Dichloropropane	< 2.1	ug/l	2.1	6.7	ns	10		8260	cps	10/6/99
1,4-Dichlorobenzene	< 1.5	ug/l	1.5	4.8	15	10		8260	cps	10/6/99
12Dibromo-3-chloropropan	< 5.9	ug/l	5.9	19	0.02	10		8260	cps	10/6/99
2,2-Dichloropropane	< 4	ug/l	4	13	ns	10		8260	cps	10/6/99
2-Butanone (MEK)	< 14	ug/l	14	44	90	10		8260	cps	10/6/99
2-Chloroethyl Vinyl Ether	< 2.9	ug/l	2.9	9.2	ns	10		8260	cps	10/6/99
2-Chlorotoluene	< 1.5	ug/l	1.5	4.8	ns	10		8260	cps	10/6/99
4-Chlorotoluene	< 2.5	ug/l	2.5	8	ns	10		8260	cps	10/6/99
4-Methyl-2-Pentanone	< 8.4	ug/l	8.4	27	50	10		8260	cps	10/6/99
Acetone	< 16	ug/l	16	49	200	10		8260	cps	10/6/99
Benzene	< 1.9	ug/l	1.9	6	0.5	10		8260	cps	10/6/99
Bromobenzene	< 1.9	ug/l	1.9	6	ns	10		8260	cps	10/6/99
Bromochloromethane	< 3.4	ug/l	3.4	11	ns	10		8260	cps	10/6/99
Bromodichloromethane	< 2.6	ug/l	2.6	8.3	0.06	10		8260	cps	10/6/99
Bromoform	< 4.7	ug/l	4.7	15	0.44	10		8260	cps	10/6/99
Bromomethane	< 2.1	ug/l	2.1	6.7	1	10		8260	cps	10/6/99
Carbon tetrachloride	< 2.2	ug/l	2.2	7	0.5	10		8260	cps	10/6/99
Chlorobenzene	< 2	ug/l	2	6.4	20	10		8260	cps	10/6/99
Chloroethane	< 12	ug/l	12	37	80	10		8260	cps	10/6/99
Chloroform	< 2.7	ug/l	2.7	8.6	0.6	10		8260	cps	10/6/99
Chloromethane	< 7.7	ug/l	7.7	24	0.3	10		8260	cps	10/6/99
cis-1,2-Dichloroethene	48	ug/l	2	6.4	7	10		8260	cps	10/6/99
cis-1,3-Dichloropropene	< 2.4	ug/l	2.4	7.6	0.02	10		8260	cps	10/6/99

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

WDNR# 241340550

BATCH NUMBER: 990776
DATE REPORTED: 07-Oct-99
DATE RECEIVED: 05-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Monthly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	< 2.1	ug/l	2.1	6.7	6	10		8260	cps	10/6/99
Dibromomethane	< 3.5	ug/l	3.5	11	ns	10		8260	cps	10/6/99
Dichlorodifluoromethane	< 3.6	ug/l	3.6	11	200	10		8260	cps	10/6/99
Ethylbenzene	< 1.6	ug/l	1.6	5.1	140	10		8260	cps	10/6/99
Hexachlorobutadiene	< 2.2	ug/l	2.2	7	ns	10		8260	cps	10/6/99
Isopropyl Ether	< 3.2	ug/l	3.2	10	ns	10		8260	cps	10/6/99
Isopropylbenzene	< 1.6	ug/l	1.6	5.1	ns	10		8260	cps	10/6/99
m&p-xylene	< 3.6	ug/l	3.6	11	124	10		8260	cps	10/6/99
Methyl-t-butyl ether	< 2.1	ug/l	2.1	6.7	12	10		8260	cps	10/6/99
Methylene chloride	< 7.6	ug/l	7.6	24	0.5	10		8260	cps	10/6/99
n-Butylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	cps	10/6/99
n-Propylbenzene	< 2.5	ug/l	2.5	8	ns	10		8260	cps	10/6/99
Naphthalene	< 4.6	ug/l	4.6	15	8	10		8260	cps	10/6/99
o-xylene	< 1.8	ug/l	1.8	5.7	124	10		8260	cps	10/6/99
p-Isopropyltoluene	< 1.8	ug/l	1.8	5.7	ns	10		8260	cps	10/6/99
sec-Butylbenzene	< 3	ug/l	3	9.5	ns	10		8260	cps	10/6/99
Styrene	< 2.1	ug/l	2.1	6.7	10	10		8260	cps	10/6/99
tert-Butylbenzene	< 2	ug/l	2	6.4	ns	10		8260	cps	10/6/99
Tetrachloroethene	7.3	ug/l	2.9	9.2	0.5	10	J	8260	cps	10/6/99
Toluene	< 3.3	ug/l	3.3	10	68.6	10		8260	cps	10/6/99
trans-1,2-Dichloroethene	19	ug/l	1.6	5.1	20	10		8260	cps	10/6/99
trans-1,3-Dichloropropene	< 2	ug/l	2	6.4	0.02	10		8260	cps	10/6/99
Trichloroethene	547	ug/l	1.6	5.1	0.5	10		8260	cps	10/6/99
Trichlorofluoromethane	< 3.4	ug/l	3.4	11	ns	10		8260	cps	10/6/99
Vinyl chloride	< 2.1	ug/l	2.1	6.7	0.02	10		8260	cps	10/6/99

Sample Number:	16829	QC Prep Batch Number:	992211	Sample analyzed within	2 Day(s)	from collection
Client ID:	991004WA07P	Sample Description:		Collection:	10/4/99	Time:
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1
1,1,1-Trichloroethane	0.41	ug/l	0.23	0.73	40	1
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1
1,2,3-Trichloropropane	2.9	ug/l	0.6	1.9	ns	1
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1

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

WDNR# 241340550

BATCH NUMBER: 990776
 DATE REPORTED: 07-Oct-99
 DATE RECEIVED: 05-Oct-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: Monthly Sampling
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	10/6/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/6/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	10/6/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	10/6/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	10/6/99
12Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	10/6/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	10/6/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	10/6/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/6/99
2-Chlorotoluene	< 0.13	ug/l	0.15	0.48	ns	1		8260	cps	10/6/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/6/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	10/6/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	10/6/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/6/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	10/6/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/6/99
Bromodichloromethane	0.78	ug/l	0.26	0.83	0.06	1	J	8260	cps	10/6/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	10/6/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	10/6/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	10/6/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	cps	10/6/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	10/6/99
Chloroform	3.6	ug/l	0.27	0.86	0.6	1		8260	cps	10/6/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	10/6/99
cis-1,2-Dichloroethene	0.27	ug/l	0.2	0.64	7	1	J	8260	cps	10/6/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	10/6/99
Dibromochloromethane	0.98	ug/l	0.21	0.67	6	1		8260	cps	10/6/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	10/6/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	10/6/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	10/6/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/6/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	10/6/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	10/6/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	10/6/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	10/6/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	10/6/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/6/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/6/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	10/6/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	10/6/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	10/6/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	10/6/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	10/6/99

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

WDNR# 241340550

BATCH NUMBER: 990776
DATE REPORTED: 07-Oct-99
DATE RECEIVED: 05-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Monthly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/6/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/6/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	10/6/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	10/6/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	10/6/99
Trichloroethene	1.9	ug/l	0.16	0.51	0.5	1		8260	cps	10/6/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/6/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	10/6/99

Sample Number:	16830	QC Prep Batch Number:	992211	Sample analyzed within	2 Day(s)	from collection
Client ID:	991004WA09P	Sample Description:		Collection:	10/4/99	Time:

1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/6/99
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1		8260	cps	10/6/99
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1		8260	cps	10/6/99
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/6/99
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1		8260	cps	10/6/99
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	cps	10/6/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	cps	10/6/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/6/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	cps	10/6/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.31	14	1		8260	cps	10/6/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/6/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	cps	10/6/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	cps	10/6/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/6/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	10/6/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/6/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	10/6/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	10/6/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	10/6/99
12Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	10/6/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	10/6/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	10/6/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/6/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	10/6/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/6/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	10/6/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	10/6/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/6/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	10/6/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/6/99
Bromodichloromethane	0.7	ug/l	0.26	0.83	0.06	1	J	8260	cps	10/6/99

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

WDNR# 241340550

BATCH NUMBER: 990776
 DATE REPORTED: 07-Oct-99
 DATE RECEIVED: 05-Oct-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: Monthly Sampling
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	10/6/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	10/6/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	10/6/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	cps	10/6/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	10/6/99
Chloroform	3.1	ug/l	0.27	0.86	0.6	1		8260	cps	10/6/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	10/6/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	10/6/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	10/6/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	10/6/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	10/6/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	10/6/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	10/6/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/6/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	10/6/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	10/6/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	10/6/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	10/6/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	10/6/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/6/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/6/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	10/6/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	10/6/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	10/6/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	10/6/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	10/6/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/6/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/6/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	10/6/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	10/6/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	10/6/99
Trichloroethene	0.33	ug/l	0.16	0.51	0.5	1	J	8260	cps	10/6/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/6/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	10/6/99

Sample Number:	16831	QC Prep Batch Number:	992211	Sample analyzed within	2	Day(s) from collection:	
Client ID:	991004WA09Q	Sample Description:	FS DUP.	Collection:	10/4/99	Time:	13:55
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1	
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1	
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1	
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1	
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1	

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

WDNR# 241340550

BATCH NUMBER: 990776
 DATE REPORTED: 07-Oct-99
 DATE RECEIVED: 05-Oct-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: Monthly Sampling
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	cps	10/6/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	cps	10/6/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/6/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	cps	10/6/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1		8260	cps	10/6/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/6/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	cps	10/6/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	cps	10/6/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/6/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	10/6/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/6/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	10/6/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	10/6/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	10/6/99
12Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	10/6/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	10/6/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	10/6/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/6/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	10/6/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/6/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	10/6/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	10/6/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/6/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	10/6/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/6/99
Bromodichloromethane	0.67	ug/l	0.26	0.83	0.06	1		8260	cps	10/6/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	10/6/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	10/6/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	10/6/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	cps	10/6/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	10/6/99
Chloroform	3.1	ug/l	0.27	0.86	0.6	1		8260	cps	10/6/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	10/6/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	10/6/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	10/6/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	10/6/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	10/6/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	10/6/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	10/6/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/6/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	10/6/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	10/6/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	10/6/99



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5888 Fax: (414) 355-3889

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990776
DATE REPORTED: 07-Oct-99
DATE RECEIVED: 05-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Monthly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	10/6/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	10/6/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/6/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/6/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	10/6/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	10/6/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	10/6/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	10/6/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	10/6/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/6/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/6/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	10/6/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	10/6/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	10/6/99
Trichloroethene	0.35	ug/l	0.16	0.51	0.5	1	J	8260	cps	10/6/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/6/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	10/6/99

Sample Number:	16832	QC Prep Batch Number:	992211	Sample analyzed within	2 Day(s)	from collection
Client ID:	Trip Blank	Sample Description:		Collection:	10/4/99	Time:
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1



8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3899

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990776
DATE REPORTED: 07-Oct-99
DATE RECEIVED: 05-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Monthly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/6/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	10/6/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/6/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	10/6/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	10/6/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/6/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	10/6/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/6/99
Bromodichloromethane	< 0.26	ug/l	0.26	0.83	0.06	1		8260	cps	10/6/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	10/6/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	10/6/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	10/6/99
Chlorobenzene	1.6	ug/l	0.2	0.64	20	1		8260	cps	10/6/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	10/6/99
Chloroform	< 0.27	ug/l	0.27	0.86	0.6	1		8260	cps	10/6/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	10/6/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	10/6/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	10/6/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	10/6/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	10/6/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	10/6/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	10/6/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/6/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	10/6/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	10/6/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	10/6/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	10/6/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	10/6/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/6/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/6/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	10/6/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	10/6/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	10/6/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	10/6/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	10/6/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/6/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/6/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	10/6/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	10/6/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	10/6/99
Trichloroethene	< 0.16	ug/l	0.16	0.51	0.5	1		8260	cps	10/6/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/6/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	10/6/99



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

ORGANIC REPORT

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

WDNR# 241340550

BATCH NUMBER: 990776
DATE REPORTED: 07-Oct-99
DATE RECEIVED: 05-Oct-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: Monthly Sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: 16833										
Client ID: Culligan DW	Sample Description:	OC Prep Batch Number: 992211						Sample analyzed within 2 Day(s) from collection.		
							Collection: 10/4/99	Time:		
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/6/99
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40	1		8260	cps	10/6/99
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1		8260	cps	10/6/99
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/6/99
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1		8260	cps	10/6/99
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	cps	10/6/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	cps	10/6/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/6/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	cps	10/6/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1		8260	cps	10/6/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/6/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	cps	10/6/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	cps	10/6/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/6/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	cps	10/6/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/6/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	cps	10/6/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	cps	10/6/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	cps	10/6/99
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	cps	10/6/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	cps	10/6/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	cps	10/6/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	cps	10/6/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	cps	10/6/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/6/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	cps	10/6/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	cps	10/6/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	cps	10/6/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	cps	10/6/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/6/99
Bromodichloromethane	< 0.26	ug/l	0.26	0.83	0.06	1		8260	cps	10/6/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	cps	10/6/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	cps	10/6/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	cps	10/6/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	cps	10/6/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	cps	10/6/99
Chloroform	< 0.27	ug/l	0.27	0.86	0.6	1		8260	cps	10/6/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	cps	10/6/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	cps	10/6/99

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

WDNR# 241340550

BATCH NUMBER: 990776
 DATE REPORTED: 07-Oct-99
 DATE RECEIVED: 05-Oct-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: Monthly Sampling
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	cps	10/6/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	cps	10/6/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	cps	10/6/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	cps	10/6/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	cps	10/6/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	cps	10/6/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	cps	10/6/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	cps	10/6/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	cps	10/6/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	cps	10/6/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	cps	10/6/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	cps	10/6/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	cps	10/6/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	cps	10/6/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	cps	10/6/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	cps	10/6/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	cps	10/6/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	cps	10/6/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	cps	10/6/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	cps	10/6/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	cps	10/6/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	cps	10/6/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	cps	10/6/99
Trichloroethene	0.8	ug/l	0.16	0.51	0.5	1		8260	cps	10/6/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	cps	10/6/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	cps	10/6/99

Approved By:

James Chang, Ph.D., Lab Director

Date: 10/18/99

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.