

Dakota Environmental of Wisconsin

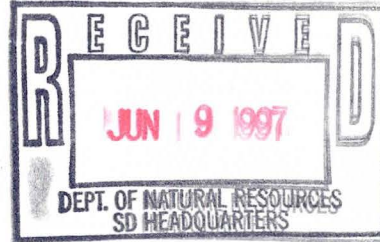


Oconomowoc Electroplating GWTF ♦ P.O. Box 352 ♦ Ashippun, WI 53003

Phone 414-474-3024 ♦ Fax 414-474-4319

June 15, 1997

Mr. Paul Kozol, P.E.
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 May, 1997 for the above referenced project. Questions regarding these reports should be directed to Dean Groleau at the treatment plant. The treatment plant phone number is (414) 474-3024.

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

Sincerely,

Dean P. Groleau (FOR ROGER FIELD)

Roger Field, Project Manager
Dakota Environmental

cc: Arne Thomsen, USACE, St. Paul District
Steve Peterson, USACE, Omaha District
Tom Williams, USEPA
Kurt Unnerstall, Sverdrup Environmental, Inc.
Mike Boehlar, Black and Veatch
Marilyn and Rick Warrington, Warrington Builders, Inc.
Dean Groleau, Plant Superintendent, Dakota Env., Inc.

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

ASHIPPUN, WISCONSIN

Prepared for:

**U.S. ARMY CORPS OF ENGINEERS
ST. PAUL DISTRICT
HASTINGS, MINNESOTA
CONTRACT DACW45-95-C-0064**

Prepared by:

**Dakota Environmental, Inc.
S15 W22600 Arcadian Avenue
Waukesha, Wisconsin 53186**

June 9, 1997

1.0 Introduction

This report summarizes the monthly effluent monitoring results for the Oconomowoc Electroplating Groundwater Treatment Plant (OEGTP) for May, 1997. 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 Dean Groleau and Rich Watson, of Dakota Environmental. Laboratory analysis was provided by Specialized Assays Environmental, 2960 Foster Creighton Drive, Nashville, Tennessee 37204, and En Chem, Inc., 802 Deming Way, Madison, Wisconsin 53707. 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 for the first year of operation is Arne Thomsen of the U.S. Army Corps of Engineers (USACE). Mr. Thomsen's phone number is (612) 438-3076, Fax (612) 438-2464. Dakota Environmental supplies the treatment plant operators for Sverdrup Environmental, Inc., who was contracted by the USACE to operate and maintain the plant for the first year. The contact for Dakota is Roger Field, who can be reached at (414) 548-8884, Fax (414) 548-0881. The phone number for the treatment plant is (414) 474-3024, Fax (414) 474-4319. The contact for Sverdrup is Kurt Unnerstall, who can be reached at (314) 770-4705, Fax (314) 770-5108.

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 influent gallery, located south of Elm Street, near Davey Creek.

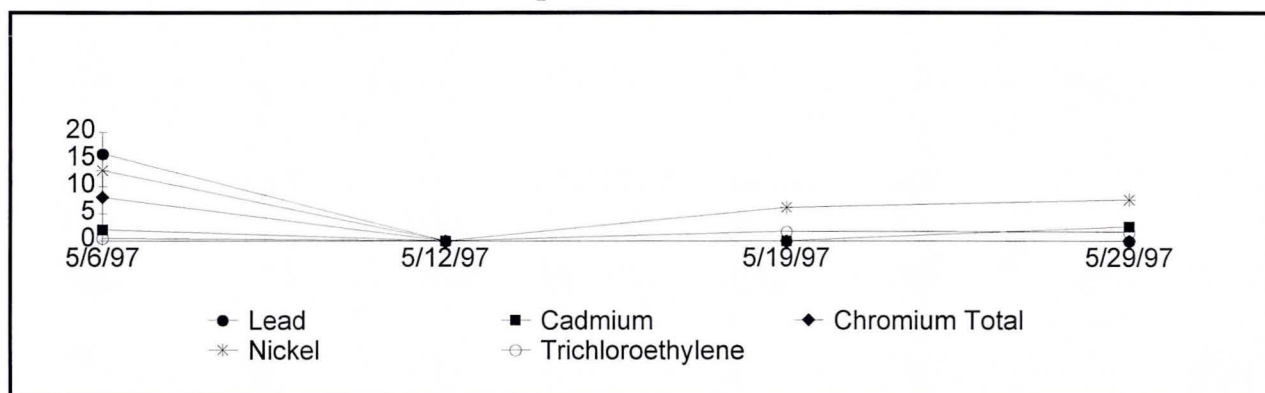
1.3 Effluent Monitoring

Weekly monitoring was conducted on May 6, 12, 19, and 29. The weekly samples for May 6 were tested by Specialized Assays, Inc. and En Chem, Inc. The weekly samples for May 12, 19, and 29 were tested by En Chem, Inc. The results of the effluent monitoring tests for the samples taken on May 12 were within the limits of Table 1 of the Oconomowoc Electroplating Superfund Site Limits and Requirements for Discharge of Treated Groundwater. The results of the effluent monitoring tests for the samples taken on May 6 showed Lead and Total Cadmium exceeded the limits of the WDNR effluent discharge permit. The results for the May 19 effluent monitoring samples showed Trichloroethylene exceeded the limit of the WDNR effluent discharge permit. The results for the May 29 effluent monitoring samples showed Trichloroethylene and Total Cadmium exceeded the limits of the WDNR effluent discharge permit. The possible causes of the exceedences are discussed in Section 3.0.

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 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). Results of testing showed Lead at 16ug/l and Total Cadmium at 2ug/l on the May 6 samples. The May 19 sampling results showed Trichloroethylene at 1.7ug/l. Results of testing showed Total Cadmium at 2.6ug/l and Trichloroethylene at 1.6ug/l on the May 29 samples. These results exceeded the effluent limits established in Table 1 of the Oconomowoc Electroplating Superfund Site Limits and Requirements for Discharge of Treated Groundwater. The discharge limit for Trichloroethylene is 0.5ug/l, Lead is 1.5ug/l, and Total Cadmium is 0.5ug/l. See Section 2.1 for further details concerning the plant shut down.

Chart 1 - 5 Important Indicator Parameters



2.1 Plant Shut Down

The treatment plant was shut down two times for a total of 214 hours in May, 1997. There was two shut downs due to contaminants exceeding permit limits and one shut down due to sludge build up stopping the Treatment System Feed Pump (TFP111). Although the limits were exceeded for Lead and Total Cadmium on May 6, Paul Kozol of the Wisconsin Department of Natural Resources (WDNR) agreed to allow the plant to continue running until the results from May 12 sampling were analyzed. The results from the May 12 sampling, received on May 16, showed that Lead and Total Cadmium were within the permit's limits. The results from the May 19 sampling, received after working hours on May 23, showed Trichloroethylene (TCE) exceeded the permit's limits. Mr. Kozol, WDNR, and other related parties were informed of the TCE exceedence and the plant was shut down while waiting for Mr. Kozol's further instructions. See Section 3.0 for further details. Table 1 shows the summary of the plant down time for the month of May, 1997.

Table 1 - Plant Down Time Summary

Date(s)	Number Hours		Reason
	Shut Down		
5/1-5/5	113		TCE, Lead, & Nickel Exceedences In Effluent (Continuation of 4/17/97 Shut Down)
5/18-5/19	8		TFP111 Stopped Due To Build Up On the Impeller
5/24-5/28	93		TCE Exceedence in Effluent
TOTAL	214		

2.1.1. Shut Down Due To Exceeded Limits Of Trichloroethylene, Nickel, and Lead

On April 9, the results of the effluent sampling showed that Trichloroethylene (TCE) exceeded the limit established in Table 1 of the Oconomowoc Electroplating Superfund Site Limits and Requirements for Discharge of Treated Groundwater. After discussions with Paul Kozol, WDNR, the plant was allowed to run until the following week's sampling results are available (April 14).

On April 17, the results of the April 14 samples were obtained and showed that TCE, Nickel, and Lead exceeded the limits established in Table 1 of the Oconomowoc Electroplating Superfund Site Limits and Requirements for Discharge of Treated Water. The treatment plant was shut down pending a course of action from Paul Kozol, WDNR, who was contacted by voice mail immediately after the sampling results were analyzed by the plant superintendent.

On April 18, Mr. Kozol instructed that the treatment plant would remain shut down until the sludge in the bottom of the EQT100 was removed, the Granular Activated Carbon (GAC) was changed out, the piping from the EQT100 to the CRT201 was cleaned out, and the TF600 media was cleaned. Mr. Kozol also directed that the plant restart at a reduced flow and duplicate samples taken and analyzed at separate labs within 48 hours after the restart. The treatment plant will continue to run at this reduced flow until the lab results are analyzed. Mr. Kozol will be notified of the sampling results and a decision will be made whether to increase the plant's flow or shut the plant down depending on the lab results.

On May 1, the Diffused Air Stripper (DAS500) was disassembled, cleaned, and reassembled. The entire metals package also was pressure washed, cleaned, and drained, using the Thickened Sludge Pump (TSP411) to transfer the sludge to the Sludge Holding Tank (ST820).

On May 2, Taylor Industrial Vac Inc., from Milwaukee, removed the sludge from the Equalization Tank (EQT100) with their industrial vacuum tanker truck. The sludge was removed from the truck with the TSP411 to the ST820.

On May 3, the Granular Activated Carbon Filters (GAC650/651) and the Tertiary Filter (TF600) were backwashed with effluent from the Effluent Holding Tank (EHT700) using the Effluent Transfer Pump (ETP710).

On May 5, the treatment system was activated at 20GPM flow rate and on May 6 the duplicate samples were drawn and sent to separate labs for analyzing. Results were obtained from one lab on May 10 and from the other lab on May 12.

On May 12, the weekly samples were drawn and sent to the lab for analyzing. After reviewing and comparing the results the treatment plants flow was increased to 25GPM until the results from the May 12 were analyzed. The May 12 results were received on May 16. After reviewing the results, Mr. Kozol allowed the treatment plant to resume normal operating flow.

2.1.2. Shut Down Due To Sludge Build Up In Treatment System Feed Pump

Problems with excessive sludge build up in the Treatment System Feed Pump (TFP111), led to a shut down of the treatment plant for a total of 8 hours in May. The stand by feed pump (TFP110) was put into the lead position when it was discovered that TFP111 had shut off. The wet end of TFP111 was removed and inspected. There was nothing impeding the impeller except for the sludge build up. The wet end of TFP111 was cleaned with a dilute Muriatic Acid solution, reassembled, and test run.

This a continuing problem which has been discussed in several memos. High pH of recycled water may be a contributing factor to the problem.

3.0 Shut Down Due To Exceeded Limit Of Trichloroethylene

On May 23, the lab results from samples drawn on May 19 were received after normal business hours. On May 24, the results were reviewed and an exceedence in Trichloroethylene was identified. The treatment plant was immediately shut down and voice mail messages were left with Paul Kozol (WDNR), Arne Thomsen (USACE), Kurt Unnerstall (Sverdrup Corp.), and Wenbin Yuan (Dakota Env.). Roger Field of Dakota Environmental was contacted.

On May 27, the complete Metals Package was drained to the Sludge Holding Tank (ST820) using the Thickened Sludge Pump (TSP410) and cleaned with a pressure washer. The Tertiary Filter was backwashed with effluent from the Effluent Holding Tank (EHT700) using the Effluent Transfer Pump (ETP710). Mr. Kozol instructed the operators to start up the plant on May 28 and to draw the weekly samples on May 29. A decision will be made, after the results

from these samples are obtained and reviewed, to keep the plant running or to shut it down pending further investigation.

On June 3, the results from the May 29 sampling were obtained. The results showed that TCE and Total Cadmium exceeded the WDNR monitoring discharge permit levels. Mr. Kozol instructed the operators to continue running the plant until the June 2 sampling results are obtained and reviewed. A decision will be made, after the results from these samples are obtained and reviewed, to keep the plant running or to shut it down pending further investigation.

4.0 Summary

Groundwater treatment plant effluent monitoring was conducted on May 6, 12, 19 and 29 of 1997. 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 the May 6 & 29 Total Cadmium, May 6 Lead, and May 19 & 29 TCE exceedences. The May 6 & 29 exceedences did not lead to plant shut downs. The May 19 TCE exceedence led to a treatment plant shut down for 93 hours. (See Section 3.0 for further details of the work.)

During the month of May, 1997, the plant was shut down three times for a total of 214 hours. See Table 1 for shut down times and reasons. 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 to Sverdrup Environmental by June 15, 1997.