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March 31, 1998

Hw/6wm 246004330

Subject:

1997 Annual Groundwater Monitoring Report

Cook Composites and Polymers, Co.

Saukville, Wisconsin Project No. 8E13503-001

Enclosed please find one copy of the 1997 Annual Groundwater Monitoring Report for the Cook Composites and Polymers Co. facility located in Saukville, Wisconsin. If you have any questions or comments regarding the information included in the enclosed report, please call Robert Cigale at Woodward-Clyde at (414) 513-0577 or Michael Gromacki at Cook Composites and Polymers at (816) 391-6011.

Sincerely,

Robert A. Cigale, P.G., CHMM

Senior Staff Geologist

RAC:jrm

Enclosures

1997 ANNUAL GROUNDWATER MONITORING REPORT CCP SAUKVILLE, WISCONSIN

Hw/Gwm 246004330 revd 4-2-98

Prepared for Cook Composites and Polymers, Co. 810 East 14th Avenue North Kansas City, MO 64116

March 31, 1998

Woodward-Clyde 😷

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The groundwater extraction system was designed to minimize the downward migration of impacts from the glacial drift and shallow dolomite units to the deep dolomite units, and to control off-site migration of the impacts in the glacial drift, shallow dolomite, and deep dolomite units.

Concentrations of VOCs at the perimeter monitoring wells remain at non-detectable to low levels. Groundwater surface contours and potentiometric surface plots indicate that there is convergent flow on the site towards the extraction wells. Stable or decreasing plume size and concentrations indicate that the extraction system is effectively controlling the off-site migration of impacts, and is reducing the plume of impacts observed. Municipal wells in Saukville continue to exhibit no detection of the impacts present on the Cook Composites and Polymers Co. site.

SECTIONONE Introduction

Cook Composites and Polymers Co. (CCP) operates a polyester, acrylic, and alkyd resin manufacturing plant in Saukville, Wisconsin (Figure 1). Prior to 1991, the plant was owned and operated by the Freeman Chemical Corporation.

In compliance with the 1987 Corrective Action order on Consent (Docket #V-W-88-R-002), October 19, 1987, 3008h order for RCRA, Cook Composites and Polymers Co. is required to perform quarterly groundwater monitoring for specific wells. Other wells or sampling points are sampled semi-annually and annually.

Samples were collected from the Saukville facility in January, April, July, and October 1997 by Woodward-Clyde International-Americas (Woodward-Clyde) personnel. The samples collected in January were analyzed by HES Laboratory of Madison, Wisconsin. The samples collected in April and July were analyzed by Quanterra Laboratory of North Canton, Ohio. The samples collected in October were analyzed by EnChem Laboratory of Madison, Wisconsin. Changes in the laboratories utilized was necessary due to HES withdrawing from the market. Due to problems with turn-around-times at Quanterra, it was decided to change contracted laboratories to EnChem for the October sampling event. The Quality Assurance Project Plan has been updated to reflect this change.

The field data and the results of the chemical analyses were compiled by Woodward-Clyde, and were submitted on a quarterly basis by Cook Composites and Polymers Co. to the USEPA Region V, and the WDNR. Volatile organic compound (VOC) exceedances of the Wisconsin Administrative Code Chapter NR 140 Preventative Action Limits (PAL) or Enforcement Standards (ES) were reported quarterly by Cook Composites and Polymers Co. in accordance with NR 508. This report was prepared to summarize the results of the groundwater monitoring over the past year.

This document presents a summary of the data collected during the four quarterly groundwater sampling events at the Cook Composites and Polymers Co. Saukville facility in 1997, and provides an evaluation of groundwater elevation and groundwater quality trends at the site. The water quality data have been submitted to the USEPA and the WDNR in the quarterly reports. Copies of the summary tables included in each of the quarterly reports are included in Appendix A.

The contents of this report include the following:

- A summary of the groundwater elevations that were measured in on-site and off-site monitoring wells in 1997, and potentiometric surface maps of the glacial drift and shallow dolomite hydrogeologic units.
- An evaluation of groundwater flow directions in the glacial drift and shallow dolomite
 hydrogeologic units, and the effects of groundwater extraction on these patterns of
 groundwater flow.
- A summary of the site groundwater monitoring program and the quarterly total VOC concentrations by well.
- Isoconcentration maps for total VOCs in groundwater in the glacial drift and shallow dolomite wells.
- Time vs. concentration plots of total VOCs in groundwater in selected wells.
- An evaluation of the trends in groundwater quality for each monitoring group for 1997.
- An evaluation of the effectiveness of plume containment by on-site groundwater extraction, based on groundwater flow and quality data.

3.1 DESCRIPTION OF HYDROGEOLOGIC UNITS

The subsurface geology at the site has been divided into three hydrogeologic units. These include the unconsolidated glacial drift deposits, the shallow dolomite units consisting of Silurian dolomite to 100 ft below grade, and the deep dolomite unit consisting of Silurian dolomite from 100 to 700 ft below grade. Detailed descriptions of the hydrogeologic units are provided below.

3.1.1 Glacial Drift

The glacial drift hydrogeologic unit consists of a complex succession of fill and glaciolacustrine deposits that is underlain by till. The lake deposits and other materials have been extensively used as fill on-site. Both the till and the glaciolacustrine deposits are considered to be part of a partially confining hydrostratigraphic unit.

The total thickness of the glacial drift typically varies between 10 and 30 ft in the vicinity of the site, but the glacial drift is generally on the order of 10 ft thick beneath the Cook Composites and Polymers, Co. facility. Glaciolacustrine deposits are up to 20 ft thick on the western side of the site, and consist of interbedded sand, silt, and clay. The clay is soft to medium hard, gray, and plastic to slightly plastic. Between 5 and 25 ft of glacial till is present beneath the eastern side of the site. The till is composed of interbedded silty sand and sandy gravel. The sandy gravel varies from loose to very dense, is brown to gray, and is typically well-graded.

The stratigraphic order of the deposits from the ground surface is generally sand and silt overlying a laterally continuous layer of laminated silt and clay (glaciolacustrine deposits) above dense clay (glacial till). A thin layer of sand and gravel (glacial outwash) lies between this till unit and bedrock.

3.1.2 Shallow Dolomite

The glacial deposits are unconformably underlain by fractured, thinly to massive bedded Silurian dolomite, with a total thickness of approximately 600 feet in the site area, which includes the deep dolomite aquifer.

The uppermost 100 feet of the Silurian dolomite in the Saukville area tends to have a lower permeability than the underlying deep dolomite aquifer. Occasionally, transmissive zones are encountered in the shallow dolomite, such as at well W-24A, which extracts groundwater at 40 gallons per minute, and yet shows little drawdown.

3.1.3 Deep Dolomite

The deep dolomite aquifer is defined as the Silurian dolomite from 100 feet to 700 feet below the ground surface. The dominant lithology in the deep dolomite aguifer in the Saukville area is the Racine Formation. Municipal wells within the study area are typically cased to approximately 100 feet below the ground surface, and are completed in the Silurian dolomite to depths in the range of 450 to 550 feet below the ground surface. Groundwater flow within the Silurian dolomite appears to be fracture controlled beneath the study area.

Several solution features have been identified in the dolomite on-site. A sinkhole, filled with glacial deposits, which extends to a depth of approximately 200 feet below the ground surface was encountered on the eastern edge of the Cook Composites and Polymers, Co. site during the installation of wells W-3A, W-3B, and W-20. The areal extent of the sinkhole was further defined based on the seismic refraction survey performed by Minnesota Geophysical Associates. Further evidence of karstic features includes solution-enlarged joints in the dolomite observed during the borehole video logging of W-30. These observations, coupled with the hydraulic response of the aquifer during pumping tests in Saukville, suggest that groundwater flow in the Silurian dolomite is fracture controlled in the study area.

3.2 **GROUNDWATER LEVELS AND FLOW PATTERNS IN 1997**

Groundwater levels in site monitoring wells were measured prior to purging and sampling during each of the quarterly sampling events. Table 1 presents a summary of the water level measurements for each quarter, and Figure 2 shows the locations of the site monitoring wells. The water level data collected in 1997 was used to develop quarterly water table maps for the glacial drift unit, and quarterly potentiometric surface maps for the shallow dolomite unit. These maps are attached as Figures 3 through 10 at the end of this report.

3.2.1 Glacial Drift Hydrogeologic Unit

The water table occurs in the glacial drift unit, as shown on Figures 3 through 6. The depth to the water table at the site is approximately 10 feet below the ground surface. Water table elevations appear to be higher in the spring, possibly due to increased recharge resulting from melting snow and increased rainfall. Well W-20 is constructed as a piezometer within the glacial drift present in the sinkhole identified in the northeast corner of the site, and the hydraulic head within this well is representative of groundwater flow in the shallow dolomite unit. Therefore, water levels from well W-20 were not used to construct the water table maps included as Figures 3 to 6, but have

4.1 PROGRAM DESCRIPTION

The groundwater monitoring program at the Cook Composites and Polymers Co. Saukville site includes 42 monitoring points composed of 19 glacial drift wells, 11 shallow dolomite wells, 6 deep dolomite wells, 3 Ranney collectors, and 3 sample points at the Saukville publicly owned treatment works (POTW). The monitoring points are further grouped according to 4 sampling objectives: receptor points, perimeter monitoring points, remediation progress points, and groundwater elevation monitoring points. The organization of monitoring wells by monitoring objective is summarized in Table 3.

Receptor monitoring points include 4 municipal water supply wells (MW-1, MW-2, MW-3, and MW-4), POTW influent, effluent, and sludge, and the Ranney collectors. The Ranney collectors are essentially french drains which intercept shallow groundwater, and discharge to the sanitary sewer system. The results of the analyses performed on the Ranney collectors provide a portion of the data necessary to calculate VOC extraction rates.

Perimeter points include monitoring wells both on-site and off site that are located at or beyond the edge of the VOC plume. These wells provide necessary information to define the extent of the plume.

Remediation progress points are monitoring wells which are located within the VOC plume. These wells provide an indication regarding the effectiveness of the on-site remedial systems.

Groundwater elevation monitoring points are located both on and off-site, and provide information on groundwater flow patterns and the effectiveness of on-site pumping wells.

Each of these sets of monitoring points is further subdivided into glacial drift, shallow dolomite, and deep dolomite hydrogeologic units. This subdivision allows for more effective evaluation of the on-site groundwater flow and quality trends.

4.2 CHANGES IN MONITORING NETWORK

As noted in the 1996 Annual Report (RMT, 1996a), Monitoring Well W-37 was damaged during construction of the baseball diamond, and was subsequently abandoned. Ranney collector RC-3 was extended to the former W-37 location, and will provide additional hydraulic control.

During construction of the west addition to the Oscar Grady Library, Monitoring Well W-25 was damaged. It was determined that the damage to the well would prevent future sampling. Therefore, following discussions with the WDNR, W-25 was abandoned on July 29, 1997. Based on the distance of W-25 from the VOC plume, it was determined that a replacement for well W-25 would not be necessary.

4.3 SAMPLING SCHEDULE

Table 3 presents the sampling schedule that was developed for 1997 groundwater monitoring, along with the analytical methods used each quarter. The methods and associated parameters are listed in Table 4. The Ranney Collectors and the remediation progress wells are only analyzed for the volatile organic compounds listed under EPA method SW846-8021. The winter, spring, and fall quarter samples, including monitoring wells, municipal wells, and POTW samples points, were analyzed for the volatile organic compounds listed under EPA method SW846-8260. In addition, selected wells were analyzed during the summer sampling event (annual sampling round) for parameters detected during the Appendix IX monitoring, conducted during the RFI. These additional parameters included semivolatile organic compounds (EPA method SW846-8270, polychlorinated biphenyls (EPA method SW846-8080), arsenic (EPA method SW846-7060), and barium (EPA method SW846-6010).

5.1 **TOTAL VOC DATA**

The tabulated results of VOC concentrations in each well and the supporting laboratory data were presented in each of the four quarterly reports (Woodward-Clyde, 1997a to 1997d). Copies of the result summary tables included in each of the quarterly reports have been attached in Appendix A. Tables 5, 6, and 7 present a summary of total VOC concentrations in each of the wells for the four quarters. The wells are organized by monitoring objective and hydrogeologic unit as previously described in Section 4 and Table 3. Figure 2 shows the locations of the monitoring wells on and off-site.

The lateral distribution of VOCs in the glacial drift unit, and the shallow dolomite unit for 1997 is depicted on the isoconcentration maps (Figures 11 and 12). The isoconcentration maps were constructed using VOC concentration data from the annual and semi-annual sampling events in 1997. Both sets of results from the semi-annual events are included on the figures. Results on the semi-annual sampling events were within the same level of magnitude. Therefore, an average concentration was utilized to construct the isoconcentration maps.

5.1.1 VOC Patterns in the Glacial Drift Unit

The distribution of VOCs in the glacial drift unit for 1997 is depicted in the isoconcentration map included as Figure 11. As discussed in Section 3, Monitoring Well W-20 is completed in the glacial drift present within the sinkhole, and the results obtained from W-20 are more representative of the water quality in the shallow dolomite aquifer. Isoconcentration contours in the glacial drift unit do not include VOC concentrations in the Ranney collectors. The Ranney collector samples are composite groundwater samples that are collected from broad areas of the site through radial collection lines.

The distribution of VOCs in the groundwater in the glacial drift in 1997 (Figure 11) was somewhat similar to that observed in 1996. However, it appears that the plume which was previously located within the northern portion of the site, centered on the former hazardous waste incinerator/urethane laboratory has been reduced over the past year. The extension of RC-3 to replace W-37 appears to have reduced the overall concentration and extent of the plume. While 3 distinct plumes have been identified in the past, the reduction of the plume in the vicinity of the former incinerator has caused the plumes to meld into a large area of impacts with 2 nodes of elevated total VOC concentrations. The first node is loacted near the aforementioned former incinerator area. The second node of the plume can be identified in the southwestern portion of

the site, near the former location of the dry well. Total VOC concentrations in the vicinity of this node range from 670 to 267,267 ug/L. RC-2 appears to effectively contain this plume.

5.1.2 VOC Patterns in the Shallow Dolomite Unit

Total VOC concentrations in groundwater in the shallow dolomite unit for 1997 are shown on Figure 12. The concentrations and distribution of VOCs in groundwater are similar to those documented in 1996.

The concentrations of detected VOCs in the shallow dolomite appear to be highest near the center of the site, in the vicinity of W-21A. The concentrations decrease in all directions from W-21A, and are typically less than 10 ug/L at the perimeter of the site. This supports that off-site migration of the impacts is being controlled by on-site pumping.

5.2 NR 140 PAL AND ES EXCEEDANCES

Wisconsin Administrative Code (WAC) Chapter NR 140 Preventative Action Limits (PALs) and Enforcement Standards (ESs) were exceeded in a total of 15 monitoring wells in 1997. Monitoring Wells W-08R, W-22, W-23, and W-27 had PAL and ES exceedances during the semi-annual sampling events in April and October. Monitoring Wells W-06A, W-21A, W-24A, W-28, W-29, W-30, W-38, W-41, W-43, and W-47 had PAL and ES exceedances during the annual sampling event in July. The concentrations observed as exceedances in 1997 were similar to those observed in previous years.

5.3 **VOC TRENDS BY MONITORING OBJECTIVE**

This section describes trends in total VOC concentrations for each of the monitoring objectives. Total VOC concentrations in groundwater versus time plots for selected wells are included in Appendix B. The discussion that follows is organized by monitoring objective (receptor, perimeter, remediation progress), and for each monitoring objective, by the hydrogeologic unit (glacial drift, shallow dolomite, deep dolomite). The total VOC data from 1996 was obtained from RMT (RMT, 1997).

5.3.1 Receptor Monitoring

Receptor monitoring points are sampled on a quarterly basis.

Ranney Collectors and POTW

Total VOCs were monitored in 1997 in the shallow groundwater that was discharged from the Ranney Collectors (RC-1, RC-2, and RC-3), and in the influent, effluent, and sludge samples that were collected at the POTW. These analyses were performed to monitor the levels of chemical compounds leaving the Cook Composites and Polymers Co. site, and being treated at the POTW.

The total VOCs detected in 1997 are summarized in Table 5. The total VOC concentrations detected in the Ranney Collector discharges are somewhat variable. The absence of collected water in the Ranney Collectors prohibited sampling on several occasions in 1997. Total VOC concentrations have exhibited a steady decline since 1987, when concentrations were approximately 100,000 ug/L.

Ranney collector discharges are mixed with wastewater from several sources prior to arrival at the POTW. Total VOC concentrations detected in the POTW Influent, Effluent, and Sludge are summarized on Table 5. Total VOC concentrations detected in the POTW Influent were variable. but generally below 120 ug/L. When compared to the total VOCs discharged from the Ranney Collectors, the total VOC concentrations in the POTW Influent are 30 to 1000 times less concentrated than the total VOCs discharged through the Ranney Collectors. With the exception of the Spring 1997 sampling quarter, total VOCs were not detected in the POTW Effluent. Total VOC concentrations detected in the POTW Sludge were generally in accordance with the concentrations detected in the POTW Influent.

Municipal Wells (Deep Dolomite Wells)

No VOC concentrations were reported in the municipal wells (MW-1, MW-2, MW-3, and MW-4) during 1997, indicating that the Village water supply continues to be unaffected by the activities on the Cook Composites and Polymers, Co. site.

Perimeter Monitoring 5.3.2

Perimeter monitoring points are samples on a semi-annual basis in April and October.

Glacial Drift Wells

VOC concentrations in the perimeter wells screened in the glacial drift in 1997 were generally at non-detectable levels, with the exception of upgradient monitoring well W-27. As in previous years, concentrations of trichloroethene in exceedance of the NR 140 Enforcement Standard were noted. Well W-27 has consistently contained concentrations of chlorinated VOCs since 1988.

W-27 is located hydraulically upgradient of the Cook Composites and Polymers Co. site, and detections of chlorinated VOCs are likely due to TCE sludge disposal at the former Northern Signal, formerly located immediately west of the Cook Composites and Polymers Co. property.

Dolomite Wells

Perimeter wells screened in the dolomite generally contained non-detectable concentrations of total VOCs. However, PAL and ES exceedances were noted in Monitoring Wells W-22 and W-23, respectively, during the April and October sampling events. Both of these wells have a history of low-level VOC concentrations. However, the concentrations observed in 1997 are less than those observed in 1995 and 1996. Total VOC concentrations in the Perimeter Monitoring Wells are summarized in Table 6.

Well W-25 was abandoned in August 1997 due to unrepairable damage to the well, caused during expansion of the library. WDNR agreed that a replacement for W-25 would not be required.

5.3.3 Remediation Progress Wells

Glacial Drift Wells

The remediation progress wells screened in the glacial drift unit are sampled on an annual basis. In general, total VOC concentrations observed in 1997 were consistent with historical ranges. Total VOC concentrations ranged between non-detectable levels and 267,267 ug/L in 1997. A summary of the total VOCs detected in 1997 is presented in Table 7.

Total VOC concentrations in wells W-41 and W-43 have appeared to stabilize. Total VOC concentrations in wells W-19A, W-42, and W-47 have decreased by 44 to 100 percent since 1996. No VOCs were detected in well W-19A during the 1997 annual sampling event. Total VOC concentrations in well W-06A increased by 77 percent since 1996.

Several of the remediation progress wells screened in the glacial drift exhibited concentrations of VOCs in exceedance of the ES. Specifically, well W-06A had ES exceedances for ethylbenzene, toluene, and xylene, wells W-41 and W-42 had ES exceedances for xylene, well W-43 had ES exceedances for benzene, ethylbenzene, toluene, xylene, bis (2-ethylhexyl) phthalate, and napthalene, and well W-47 had ES exceedances for ethylbenzene, toluene, and xylene. An exceedance of the PAL for naphthalene was also noted in well W-06A.

Dolomite Wells

Total VOC concentrations in the remediation progress wells screened in the shallow dolomite were within ranges established in the past. A summary of the total VOCs is presented in Table 7.

Total VOC concentration in well W-21A appears to be stable in the 30,000 ug/L range. Total VOCs in wells W-24A and W-28 have increased significantly since 1996. However, the concentration detected in W-24A (560 ug/L) and W-28 (1525 ug/L) are significantly less than high concentrations in the range of 10,000 to 130,000 ug/L since the end of 1994. Total VOC concentrations in wells W-29, W-30, and W-38 have remained generally constant, with slight increases and decreases observed since 1996.

Several of the remediation progress wells screened in the shallow dolomite had concentrations of various VOCs in exceedance ESs. Wells W-28, W-29, and W-30 had concentrations of benzene in excess of the ES in 1997. Concentrations of benzene and xylene in well W-38, and benzene, ethylbenzene, and xylene in well W-06A were in exceedance of ESs.

5.4 APPENDIX IX RESULTS

In accordance with the WDNR requirement, eight remedial progress wells were analyzed during the annual sampling round (July) for the non-VOC Appendix IX parameters detected during the October 1994 sampling round and during the January 1995 confirmatory round (Table 8). Each of the wells sampled for Appendix IX parameters is located near the center of the groundwater contamination.

Non-VOC parameters detected during the 1997 annual sampling event included: 1,4-dioxane, 2,4dimethylphenol, 2-methylphenol, 4-methylphenol, acetophenone, naphthalene, phenol, 1,2dichlorobenzene, 2-methylnaphthalene, phenanthrene, bis (2-ethylhexyl) phthalate, Arochlor-1242, Arochlor-1248, arsenic, and barium. The metals detected may be related to naturally occurring elements. Naphthalene, bis (2-ethylhexyl) phthalate, and arsenic were detected at concentrations above their respective PAL or ES.

Naphthalene was detected at concentrations in exceedance of the PAL at wells W-06A and W-47. Naphthalene was detected at a concentration in excess of the ES in well W-43. The concentrations detected in the 1997 annual sampling round are consistent with the concentrations detected in previous sampling rounds. The naphthalene concentrations detected appear to be related to past activities on the Cook Composites and Polymers Co. site.

Bis (2-ethylhexyl) phthalate was detected at a concentration above the PAL in well W-24A, and above the ES in well W-43. Bis (2-ethylhexyl) phthalate is a common laboratory contaminant, and the concentrations detected were below the laboratory reporting limit.

Concentrations of arsenic in exceedance of the PAL were detected in wells W-06A, W-21A, W-43, and W-47. Arsenic has been detected in all of the 8 remedial progress wells in the past. Arsenic is a naturally occurring element, and is not known to be associated with past or present activities on the Cook Composites and Polymers Co. site.

SECTIONSIX **Plume Containment**

The discussion in this section combines groundwater flow and quality trends from the receptor, perimeter, and remediation progress wells in the glacial drift and dolomite, to present an evaluation of the effectiveness of the plume containment in the remedial system at the Saukville site.

6.1 **GLACIAL DRIFT UNIT**

Portions of the glacial deposits in the area of the Ranney collectors appear to be dewatered. This, along with the generally non-detectable concentrations within the perimeter wells (Figure 11), indicates that off-site migration of contaminated groundwater within the glacial drift unit is being effectively controlled.

6.2 SHALLOW DOLOMITE UNIT

For the past several years, VOC concentrations in the shallow dolomite unit have remained relatively stable in the range of 10 to 30,000 ug/L in the remediation progress wells. Perimeter wells in this unit typically contained non-detectable concentrations of VOCs, with the exception of W-23 which had low-level (<10 ug/L) total VOC concentrations. The remediation system has dewatered an elliptically shaped area extending from W-30 to W-21A, as shown on Figures 7 through 10. The high capacity pumping from W-30 has resulted in the dewatering of a large area of the glacial till unit and the shallow dolomite unit, thereby reducing the groundwater exchange between the 2 units. This has reduced the quantity of contaminants which can migrate from the glacial till to the shallow dolomite. Based on the steep gradients towards W-30 and W-21A, and the continued non-detectable concentrations of VOCs in the perimeter monitoring wells, migration of the contaminanat plume in the shallow dolomite unit is being effectively contained.

6.3 **DEEP DOLOMITE UNIT**

VOC concentrations in the deep dolomite receptor (municipal) wells (MW-1, MW-2, MW-3, MW-4) have remained below detectable levels throughout 1997. VOC concentrations in PW-08, located upgradient of thhe Cook Composites and Polymers Co. site, have not been detected since 1994. VOC concentrations in W-30 remain stable. As discussed in previous sections of this report, high capacity pumping from W-30 has caused convergent flow towards W-30. This convergent flow, along with stable VOC concentrations in the extracted groundwater, and continued non-detectable levels of VOCs in the municipal wells indicate that the migration of the impacted groundwater in the deep dolomite aguifer is being effectively controlled by on-site pumping.



SECTIONSIX

HYDRAULIC COMMUNICATION BETWEEN AQUIFERS 6.4

Groundwater elevation data indicates that downward seepage is occuring from the source areas in the glacial drift into the shallow dolomite through fractures in the weathered upper portion of the bedrock. However, high capacity pumping has created dewatered zones within the glacial drift and shallow dolomite units, reducing the potential for vertical migration of the contaminanats from the glacial drift to the shallow dolomite.

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Winter 1997

Table 1 - Municipal Well Results

Table 2 - POTW and Ranney Collector Results

Spring 1991

Table 1 - Municipal Well Results

Table 2 - POTW and Ranney Collector Results

Table 3 - Perimeter Monitoring Well Results

Summer 1997

Table 1 - Municipal Well Results

Table 2 - POTW and Ranney Collector Results

Table 3 - Summary of Monitoring Well Results

Fall 1997

Table 1 - Municipal Well Results

Table 2 - POTW and Ranney Collector Results

Table 3 - Perimeter Monitoring Well Results

Appendix B Trend Plots

Groundwater Elevation Trends		
Glacial Drift Wells		
	Page B-1 Page B-2 Page B-3 Page B-4 Page B-5	W-01A, W-03B, W-04A, W-06A W-08R, W-14B, W-16A, W-18A W-19A, W-20, W-27 W-41, W-42, W-43, W-44 W-46, W-47, W-48
Shallow Dolomite Wells		
	Page B-6 Page B-7 Page B-8	W-03A, W-07, W-21A, W-22 W-23,W-24A, W-25, W-28 W-29, W-38, W-39, W-40
Deep Dolomite Wells		
	Page B-9	PW-08, W-30
Total VOC Trends		
Glacial Drift Wells		
Perimeter	Page B-10	W-01A, W-03B, W-04A, W-08, W-20, W-27
Remediation Progress	Page B-11 Page B-12	W-19A, W-41 W-06A, W-42, W-43, W-47
Dolomite Wells		
Perimeter	Page B-13 Page B-14	W-03A, W-07, W-22 W-23, PW-08
Remediation Progress	Page B-15 Page B-16	W-21A, W-29, W-38 W-24A, W-28, W-30,

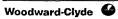


TABLE 1 SUMMARY OF WATER LEVELS, 1997 (FEET, MSL) COOK COMPOSITES AND POLYMERS CO.

GEOLOGIC UNIT	WELL ID	Jan-97	Apr-97	Jul-97	Oct-97
Glacial	W-01A	758.64	760.48	760.06	757.69
Glacial	W-03B	733.02	735.94	735.06	733.69
Glacial	W-04A	755.29	756.18	754.74	746.85
Glacial	W-06A	766.74	766.47	766.11	764.92
Glacial	W-08R	747.05	749.79	747.24	745.58
Glacial	W-14B	766.03	766.76	765.84	763.40
Glacial	W-16A	DW	759.27	756.88	752.41
Glacial	W-18A	767.67	769.10	767.94	766.55
Glacial	W-19A	768.03	768.37	767.64	764.99
Glacial	W-20	727.77	730.74	730.18	728.29
Glacial	W-27	769.13	765.83	768.20	766.88
Glacial	W-37	******	Well aband	doned 8/2/96 **	*****
Glacial	W-41	759.55	761.84	761.72	758.25
Glacial	W-42	755.39	758.73	758.47	756.24
Glacial	W-43	758.01	760.03	759.01	757.15
Glacial	W-44	754.70	755.18	757.59	754.79
Glacial	W-45	DW	752.48	752.32	DW
Glacial	W-46	762.10	762.24	761.09	760.11
Glacial	W-47	760.28	760.74	759.67	758.43
Glacial	W-48	761.23	762.11	761.75	760.74
Shallow Dolomite	W-03A	732.20	735.07	734.26	732.85
Shallow Dolomite	W-07	743.89	747.86	745.58	742.54
Shallow Dolomite	W-21A*	NM	NM	726.98	726.98
Shallow Dolomite	W-22	729.61	731.05	730.87	729.06
Shallow Dolomite	W-23	740.45	740.59	740.02	737.31
Shallow Dolomite	W-24A*	NM	760.79	760.00	758.13
Shallow Dolomite	W-25	NM	NM		oned 7/29/97*
Shallow Dolomite	W-28*	719.97	707.86	738.56	739.51
Shallow Dolomite	W-29*	722.69	732.30	731.15	730.23
Shallow Dolomite	W-38	747.93	750.41	750.38	748.40
Shallow Dolomite	W-39	757.76	759.83	759.08	756.84
Shallow Dolomite	W-40	736.85	740.27	740.77	738.51
Deep Dolomite	MW-01	481	476	468	501
Deep Dolomite	MW-02	NM	NM	579.03	NM
Deep Dolomite	MW-03	576	461	454	494
Deep Dolomite	MW-04	656	660	658	654
Deep Dolomite	PW-08	734.75	735.94	737.71	730.65
Deep Dolomite	W-30*	667.66	673.43	669.97	672.28

^{* =} Extraction Wells DW = Dry Well NM = Not Measured

	TABLE 2															
	SUMMARY OF WELL RUNNING TIMES															
	COOK COMPOSITES AND POLYMERS CO.															
														Annual	Percent	
Hydrogeologic	Well						nthly Runni	ng Time (ho	urs)					Total	of Total	
Unit	ID	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct	Nov.	Dec.	(hours)	Available	Comments
Glacial Drift	W-31	0	0	0.4	0.5	0.6	0	0	0	0	0	0	0	1.5	0.0%	Dewatering of glacial drift due to pumping at RC-2 has affected groundwater elevation.
	W-32	5.7	0	0	0	0	2.9	8.3	3.4	1.3	1.2	2.2	3.6	28.6	0,3%	Dewatering of glacial drift due to pumping at RC-2 has affected groundwater elevation.
	W-33	7.8	26.8	28.7	38.7	26.4	250.7	798.2	666.4	576.7	300.4	300.9	295.1	3314.8	38%	Dewatering of glacial drift due to pumping at RC-2 has affected groundwater elevation.
	W-34	281.2	226.5	295.9	235.5	183	225.8	304.4	207.9	159	182.4	217.6	240	2759.2	31%	Continued pumping assists in controlling off-site migration of contaminants within the glacial drift.
	W-35	1.6	1.5	2.1	1.5	1.6	1.6	2.3	2.1	1.6	4.9	2	1.2	24	0.3%	Continued pumping assists in controlling off-site migration of contaminants within the glacial drift.
	W-37	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	W-37 was abandoned in August 1996, and replaced by an extension of RC-3.
	RC-1	731.6	669.8	839	648.5	667.4	678.2	43.1	0	0	239.5	673.7	471.7	5682.5	65%	Pumping has created some dewatering of the glacial drift.
	RC-2	762,5	863.1	839.1	667.5	669.9	678.2	841.7	666,4	669.1	834.8	662	346.9	8301.2	95%	Pumping has created some dewatering of the glacial drift.
	RC-3	43.5	79.3	182.5	111.3	93.5	106,8	100.1	64.7	35.8	1.1	0	0	818.6	9%	Pumping has created some dewatering of the glacial drift.
Shallow Dolomite	W-21A	194.4	578.6	792	577.8	170.3	56.6	354.6	114.9	89.4	72.8	49.6	57.6	3108.6	35%	Pumping is contributing to the creation of a large dewatered zone within the dolomite.
	W-24A	6.8	6	6.4	6.3	6	5.2	6.9	5.9	5.5	6.7	14.3	6.6	82.6	1%	Continued pumping assists in controlling off-site migration of contaminants within the dolomite.
	W-28	34.8	5.2	39.8	54.5	101.9	95.5	130.8	57.7	34.7	67.3	47.5	45.1	714.8	8%	Continued pumping assists in controlling off-site migration of contaminants within the dolomite.
	W-29	44.4	36.6	44	33.9	34.2	36.3	46.4	266.1	63.5	97.3	135.9	161.6	1000.2	11%	Continued pumping assists in controlling off-site migration of contaminants within the dolomite.
Deep Dolomite	W-30							Pump runs	continuous	sly at appro	ximately 34	0 gpm to su	pply non-co	ontact coolii	ng water.	

TABLE 3

SUMMARY OF 1997 GROUNDWATER SAMPLING PROGRAM COOK COMPOSITES AND POLYMERS CO.

Monitoring Objective/ Well Group	Unit Monitored	Sampling Point	Sampling Frequency and EPA Method Number				
Wen Gloup	Omt Momtored	Sampling Form	Quarterly	Semiannually ¹	Annually ²		
Receptor	Glacial Drift	RC-1	8021/8260 ³				
		RC-2	8021/8260 ³				
		RC-3	8021/8260 ³				
	Deep Dolomite	MW-1	8260				
	•	MW-2 ⁴			8260		
		MW-3	8260				
		MW-4	8260				
	POTW	POTW-I	8260 .				
		POTW-E	8260				
		POTW-S	8260				
Perimeter	Glacial Drift	W-01A		8260			
		W-03B		8260			
		W-04A		8260			
		W-08R		8260			
		W-20		8260			
		W-27		8260			
	Shallow Dolomite	W-03A		8260			
		W-07		8260			
		W-22		8260			
		W-23		8260			
		W-25 ⁵					
	Deep Dolomite	PW-08		8260			
Remediation Progress	Glacial Drift	W-06A			8260, 8270, 7060, 6010		
		W-19A			8021		
		W-37 ⁶					
		W-41			8021		
		W-42			8021		

TABLE 3 (CONTINUED)

SUMMARY OF 1997 GROUNDWATER SAMPLING PROGRAM COOK COMPOSITES AND POLYMERS CO.

Monitoring Objective/ Well Group	Unit Monitored	Sampling Point	Sampling Frequency and EPA Method Number				
Won Group			Quarterly	Semiannually ¹	Annually ²		
		W-43			8260, 8270, 7060, 6010		
		W-47			8260, 8270, 7060, 6010, 8081		
	Shallow Dolomite	W-21A			8260, 8270, 7060, 6010		
		W-24A			8260, 8270, 7060, 6010		
		W-28			8260, 8270, 7060, 6010		
		W-2 9			8260, 8270, 7060, 6010		
		W-38			8021		
,	Deep Dolomite	W-3 0			8260, 8270, 7060, 6010		
Groundwater elevation	Glacial Drift	W-14B	Quarterly water	level measurements	only		
monitoring		W-16A	Quarterly water	level measurements	only		
		W-18A	Quarterly water	level measurements	only		
		W-44	Quarterly water	level measurements	only		
		W-45	Quarterly water	level measurements	only		
		W-46	Quarterly water	level measurements	only		
		W-48	Quarterly water	level measurements	only		
	Shallow Dolomite	W- 39	Quarterly water	level measurements	only		
		W-40	Quarterly water level measurements only				

NOTES

- 1. Semiannual samples were collected in April and October.
- 2. Annual samples were collected in July.
- 3. Samples were analyzed in Fall 1997 using Method 8260.
- 4. MW-2 is only monitored annually because it is not utilized for water supply purposes.
- 5. W-25 is located off-site, and was abandoned in July 1997 due to damage.
- 6. W-37 is located off-site, and was abandoned in August 1996 due to damage.

TABLE 4						
SUMMARY OF ANALYTES AND METHODS COOK COMPOSITES & POLYMERS						
Volatile Organic Com	npounds by Method 8021					
Chloroethane Chloromethane Bromomethane Vinyl chloride Methylene chloride	1,1,2,2-Tetrachloroethane 1,2-Dichloropropane trans-1,2-Dichloropropene Trichloroethene Dibromochloromethane					
Acetone Carbon disulfide 1,1-Dichloroethene 1,2-Dichloroethene(total) Chloroform 1,2-Dichloroethane 2-Butanone 1,1,1-Trichloroethane Carbon tetrachloride Vinyl acetate Bromodichloromethane	1,1,2-Trichloroethane Benzene¹ cis-1,3-Dichloropropene Bromoform 2-Hexanone 4-Methyl-2-Pentanone Tetrachloroethene Toluene¹ Chlorobenzene¹ Ethylbenzene¹ Styrene Xylenes (total)¹ 1,4-Dichlorobenzene¹ 1,3-Dichlorobenzene¹ 1,2-Dichlorobenzene¹					
Semivolatile Organic Compounds by Method 8270	Polychlorinated Biphenyls (PCBs) by Method 8080 ^{2,3}	Metals by Methods 7060, 6010 ¹				
1,4-Dioxane 2,4-Dimethylphenol 2-Methylnaphthalene 2-Methylphenol 4-Methylphenol Acetophenone Bis(2-ethylhexyl)phthalate Naphthalene Phenanthrene Phenol	Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260	Arsenic Barium				
NOTES: 1 Volatile aromatic compounds.						

- Analyzed annually for wells W-06A, W-43, W-47, W-21A, W-24A, W-28, W-29, and W-30. Only well W-47 is analyzed for PCBs. 2

Table 5
Total VOCs Detected 1997
Receptor Monitoring Group
Cook Composites and Polymers Co.

Glacial Unit

Sample ID	Units	Jan-97	Apr-97	Jul-97	Oct-97
RC-1	ug/L	24,900	2,580	NS	NS
RC-2	ug/L	20,900	3,600	137	532.9
RC-3	ug/L	20,400	NS	12,100	NS

Deep Dolomite

MW-01 ug/L ND	ND	ND	ND
MW-02 ug/L NS	NS	ND	NS
MW-03 ug/L ND	ND	ND	ND
MW-04 ug/L ND	ND	ND	ND

POTW

Sample ID	Units	Jan-97	Apr-97	Jul-97	Oct-97
POTW-I	ug/L	60.95	ND	118	15.8
POTW-E	ug/L	ND	123.4	ND	ND
POTW-S	ug/L	42.78	184.4	74	6.8

Notes:

- 1. Ranney collectors (RC) are sampled at the discharge manhole.
- 2. Municipal wells (MW) are screened in the deep dolomite.
- 3. MW-02 is only sampled in July.

ND = Not detected

NS = Not sampled

Table 6
Total VOCs Detected 1997
Perimeter Monitoring Group
Cook Composites and Polymers Co.

Glacial Unit

Sample ID	Units	Apr-97	Oct-97
W-01A	ug/L	ND	ND
W-03B	ug/L	ND	ND
W-04A	ug/L	ND	ND
W-08R	ug/L	2.9	NS
W-20	ug/L	ND	ND
W-27	ug/L	64	199.2

Shallow Dolomite

Sample ID	Units	Apr-97	Oct-97		
PW-08	ug/L	ND	ND		
W-03A	ug/L	ND	ND		
W-07	ug/L	ND	ND		
W-22	ug/L	ND	3.9		
W-23	ug/L	8.7	6.3		
W-25	ug/L	NS	NS		

Notes:

- 1. PW-08 is a deep dolomite well.
- 2. W-25 was abandoned in 1997.

ND = Not detected

NS = Not sampled

Table 7 Total VOCs Detected 1997 Remediation Progress Monitoring Group Cook Composites and Polymers

Glacial Unit

Sample ID	Units	Jul-97			
W-06A	ug/L	267,267			
W-19A	ug/L	ND			
W-37	ug/L	NS			
W-41	ug/L	670			
W-42	ug/L	16,100			
W-43	ug/L	18,020			
W-47	ug/L	55,200			

Shallow Dolomite

Sample ID	Units	Jul-97
W-21A	ug/L	30,599
W-24A	ug/L	560
W-28	ug/L	1,525
W-29	ug/L	1,257
W-30	ug/L	16
W-38	ug/L	2,900
	_	

Notes:

- 1. W-30 is a deep dolomite well.
- 2. W-37 was abandoned in 1996.

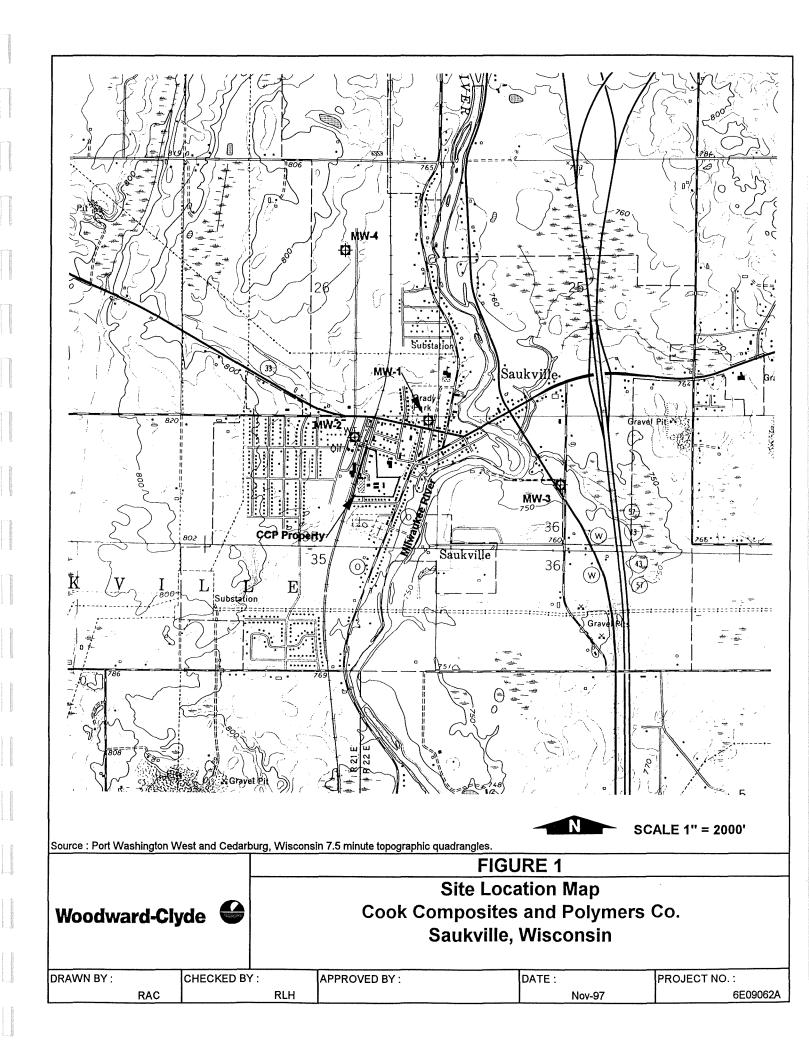
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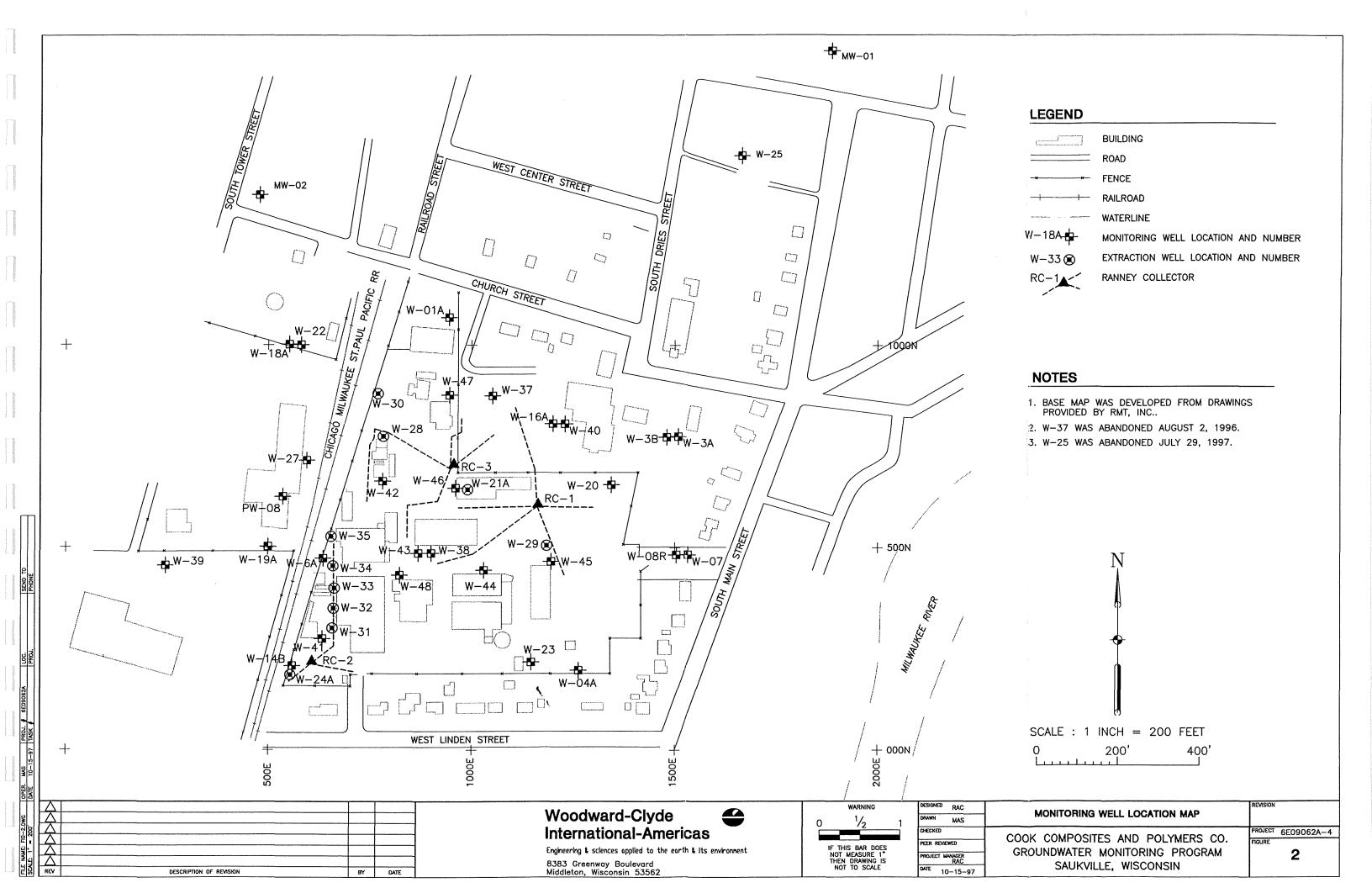
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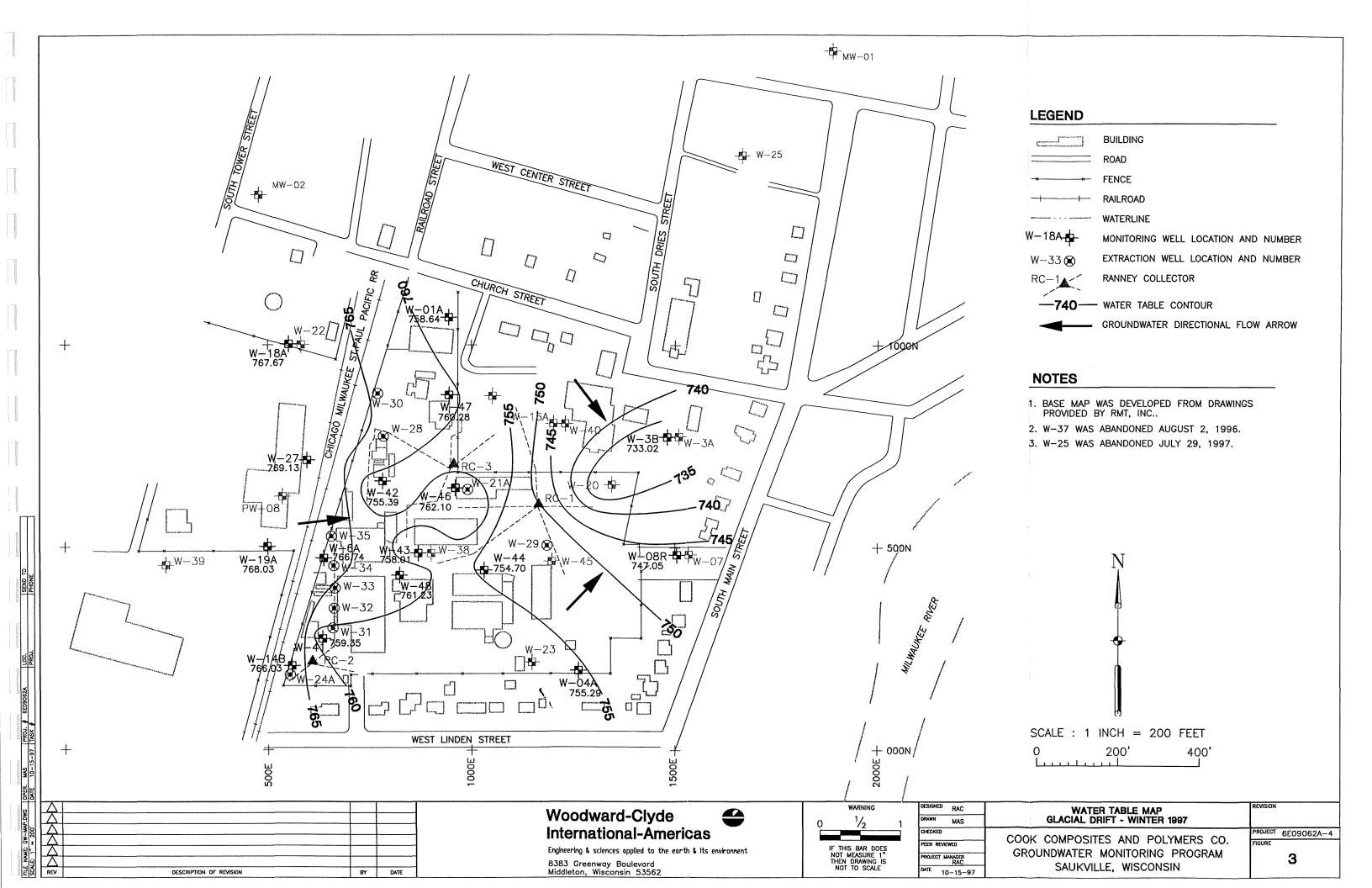
TABLE 8
SUMMARY OF APPENDIX IX PARAMETERS DETECTED
COOK COMPOSITES AND POLYMERS CO.

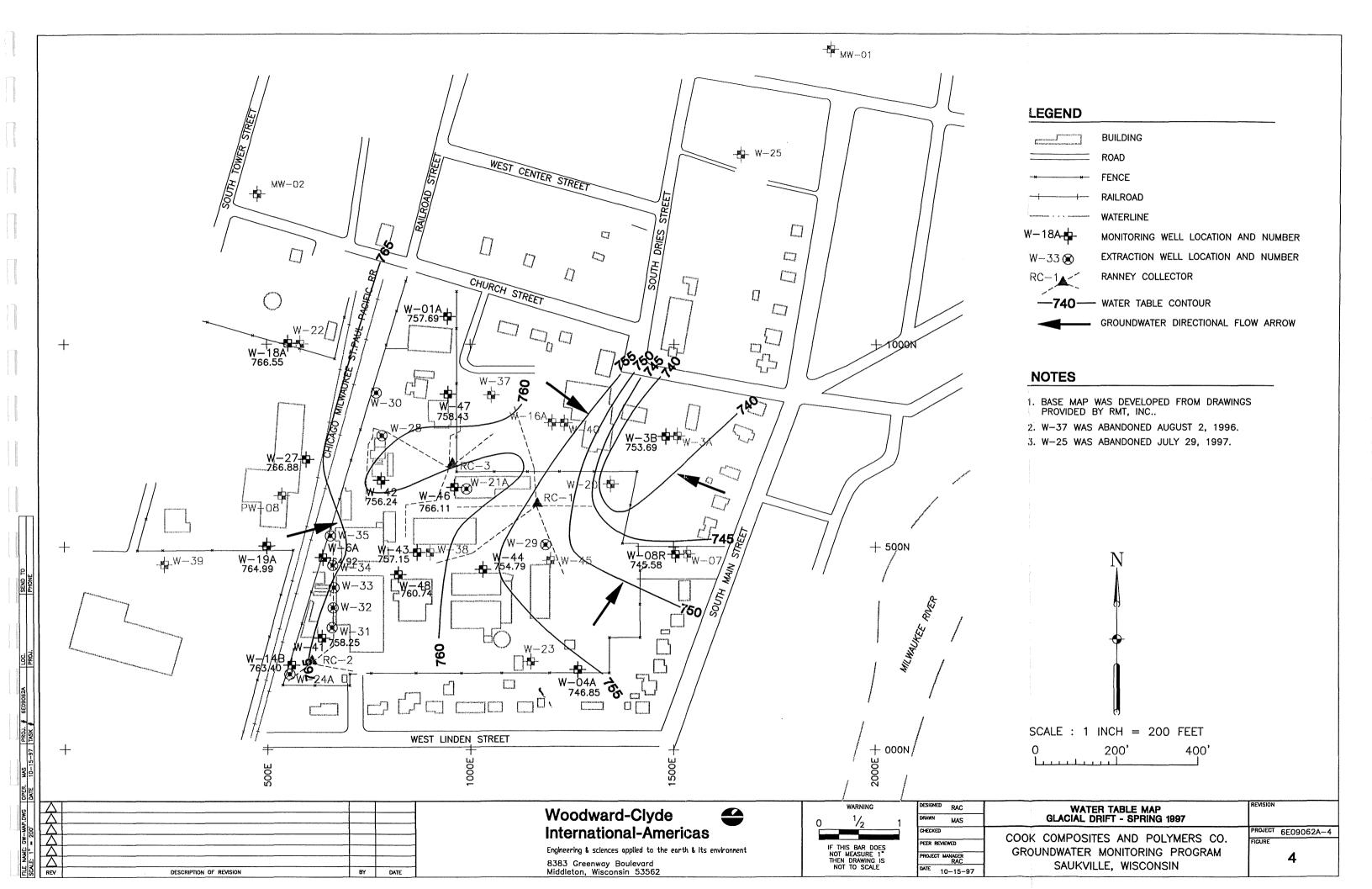
			140					ELL			
PARAMETERS (ug/L)	DATE	PAL	ES	W-06A	W-21A	W-24A	W-28	W-29	W-30	W-43	W-47
SVOCs											
1,4-Dioxane	Oct-94	_		710E	1200D	210	530D	ND	20	ND	380D
	Jan-95			620	960	460	610	ND	24	ND	2000E
	Jul-95			350	1000	260	660	120	19Q	ND	710
	Jul-96	-	-	870Q	1100Q	250D	900D	170	444	ND	4700
	Jul-97	-	-	ND	ND	560	1500	ND	ND	ND	ND
2,4-Dimethylphenol	Oct-94	-	-	120	10	ND	ND	ND	ND	ND	71
	Jan-95	_	_	210	36Q	ND	ND	ND	ND	ND	210
	Jul-95			100Q	18Q	ND	ND	5Q	ND	62	340
	Jul-96			170Q	90Q	ND	1Q	26	ND	93Q	230Q
	Jul-97			210	55	ND	ND	54	ND	ND	790
2-Methylphenol	Oct-94			32	5Q	ND	ND	ND	ND	ND	14
	Jan-95			51Q	ND	ND	ND	ND	ND	ND	27Q
	Jul-95			22Q	ND	ND	ND	ND	ND	ND	45Q
	Jul-97	* ••		29J	ND	ND -	ND	ND	ND	ND	190#
3-Methylphenol	Oct-94			170	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	Oct-94			112	10	ND	ND	ND	ND	ND	51
4 Mediyiphenor	Jan-95			180	ND	ND	ND	ND	ND	ND	130
	Jul-95			89Q	ND	ND	ND	ND	ND	ND	120
	Jul-97			91#	1.3J#	ND	ND	3.8J#	ND	ND	200
Acatanhanana											
Acetophenone	Oct-94			56	ND	ND	ND	ND	ND	ND	ND
	Jan-95			78Q	ND	ND	ND	ND	ND	9600	ND
	Apr-95			ND	ND	ND	ND	ND	ND	23	ND
	Jul-95		-	49Q	ND	ND	ND	2Q	ND	280	120Q
	Jul-96			130QB	ND	ND	ND	ND	ND	ND	250QB
	Jul-97			ND	ND	ND	ND	ND	ND	ND	180
Naphthalene	Oct-94	8	40	10	ND	ND	ND	ND	ND	ND	34
	Jan-95	8	40	15Q	ND	ND	ND	ND	ND	1200Q	17Q
	Jul-95	8	40	ND	27Q	ND	ND	2Q	ND	43Q	30Q
	Jul-96	8	40	31	28Q	ND	ND	0.4Q	ND	75Q	90Q
· · · · · · · · · · · · · · · · · · ·	Jul-97	8	40	17J	4.1J	ND	ND	ND	ND	200	18J
Phenol	Oct-94	1200	6000	70	ND	ND	ND	ND	ND	ND	70
	Jan-95	1200	6000	110	ND	ND -	ND	ND	ND	ND	190
	Jul-95	1200	6000	61Q	ND	ND	ND	ND	ND	30Q	110
	Jul-96	1200	6000	ND	ND	ND	ND	31	ND	ND	180Q
	Jul-97	1200	6000	57	44	ND	ND	52	ND .	ND	130
1,2-Dichlorobenzene	Oct-94	60	600	ND	8Q	ND	ND	ND	ND	ND	ND
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Jul-97	60	600	ND	1.2J	ND	ND	ND	ND	ND	ND
Butlybenzenephthalate	Oct-94		_	ND	ND	ND	ND	2Q	ND	ND	ND
2-Methylnaphthalene	Oct-94			ND	ND	ND	ND	ND	ND	ND	12
2 Modify napridialone	Jan-95			ND	ND	ND	ND	ND	ND	4500	ND
	Apr-95			NA	NA NA	NA	NA	NA	NA	6Q	NA
	Jul-95			ND	ND	ND	ND	ND	ND	120	ND
	Jul-96			ND	ND	ND	ND	ND	ND	200Q	ND
	Jul-97			ND	ND	ND	ND	ND	ND	750	ND
Acenaphthene	Jan-95			ND	ND	ND	ND	ND	ND	280Q	ND
Dibenzofuran	Jan-95		400	ND	ND	ND	ND	ND	ND	370Q	ND
Fluorene	Jan-95	80	400	ND	ND	ND	ND	ND	ND	590Q	ND
N-Nitrosodiphenylamine	Jan-95			ND	ND	ND	ND	ND	ND	1100Q	ND
Phenanthrene	Oct-94			ND	ND	ND	ND	ND	ND	ND	3Q
	Jan-95			ND	ND	ND	ND	ND	ND	1200Q	ND
	Apr-95			NA	NA	NA	NA	NA	NA	4Q	NA
	Jul-95	-	-	ND	ND	ND	ND	ND	ND	33Q	ND
	Jul-96			- ND	ND	ND	ND	ND	ND	48Q	ND
	Jul-97			ND	ND	ND	ND	ND	ND	210	ND
Bis (2-ethylhexyl) phthalate	Oct-94	0.6	6	ND	ND	ND	ND	ND	ND	ND	25
	Jan-95	0.6	6	ND	ND	ND	ND	ND	ND	ND	54
	Jul-96	0.6	6	ND	ND	ND	ND	3Q	ND	ND	ND
	Jul-97	0.6	6	ND	ND	1.3J	ND	ND	ND	44J	ND
PCBs											
Arochor-1242	Oct-94	0.003	0.03	ND	ND	ND	ND	ND	ND	ND	25
	Jul-96	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	38
	Jul-97	0.003	0.03	NA NA	NA NA	NA	NA NA	NA	NA	NA	ND
Arochlor-1248	Jan-95	0.003	0.03	ND ND	ND	ND	ND	ND	ND	ND	27
7.1001101-12 1 0	Jul-95	0.003	0.03	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	7
	Jul-95 Jul-97			NA NA	NA NA	NA NA	NA NA	NA NA		NA NA	ND
Marala	Jul-9/	0.003	0.03	NA	NA	NA	NA	NA	NA	NA .	ND
Metals	0-/ 0-		::::::::::::::::::::::::::::::::::::::	47					N. C.	ND.	
Arsenic	Oct-94	5	50	47	28	3	5.4	5.4	ND	ND	7.6
	Jan-95	5	50	28	30	ND	ND	16	ND	ND	ND
	Jul-95	5	50	45	29	ND	ND	ND	ND	25	4.8
	Jul-96	5	50	29	20	ND	ND	4.4	ND	30	8
	Jul-97	5	50	38	16	ND	2.5	2.7	3.2	11	6.2
Barium	Oct-94	400	2000	66	130	85	130	170	76	ND	150
	Jan-95	400	2000	68	130	74	ND	140	70	490	260
	Jul-95	400	2000	ND	140	83	160	160	73	120	130
	Jul-96	400	2000	ND	170	88	160	200	91	150	110
	Jul-90 Jul-97	400	2000	55	230	73	150	230	87	200	61
Zinc		400	4000	1 33	430	13	150	430	0/		01
Zinc	Oct-94	2500	5000	ND	ND	ND	270	ND	ND	ND	ND

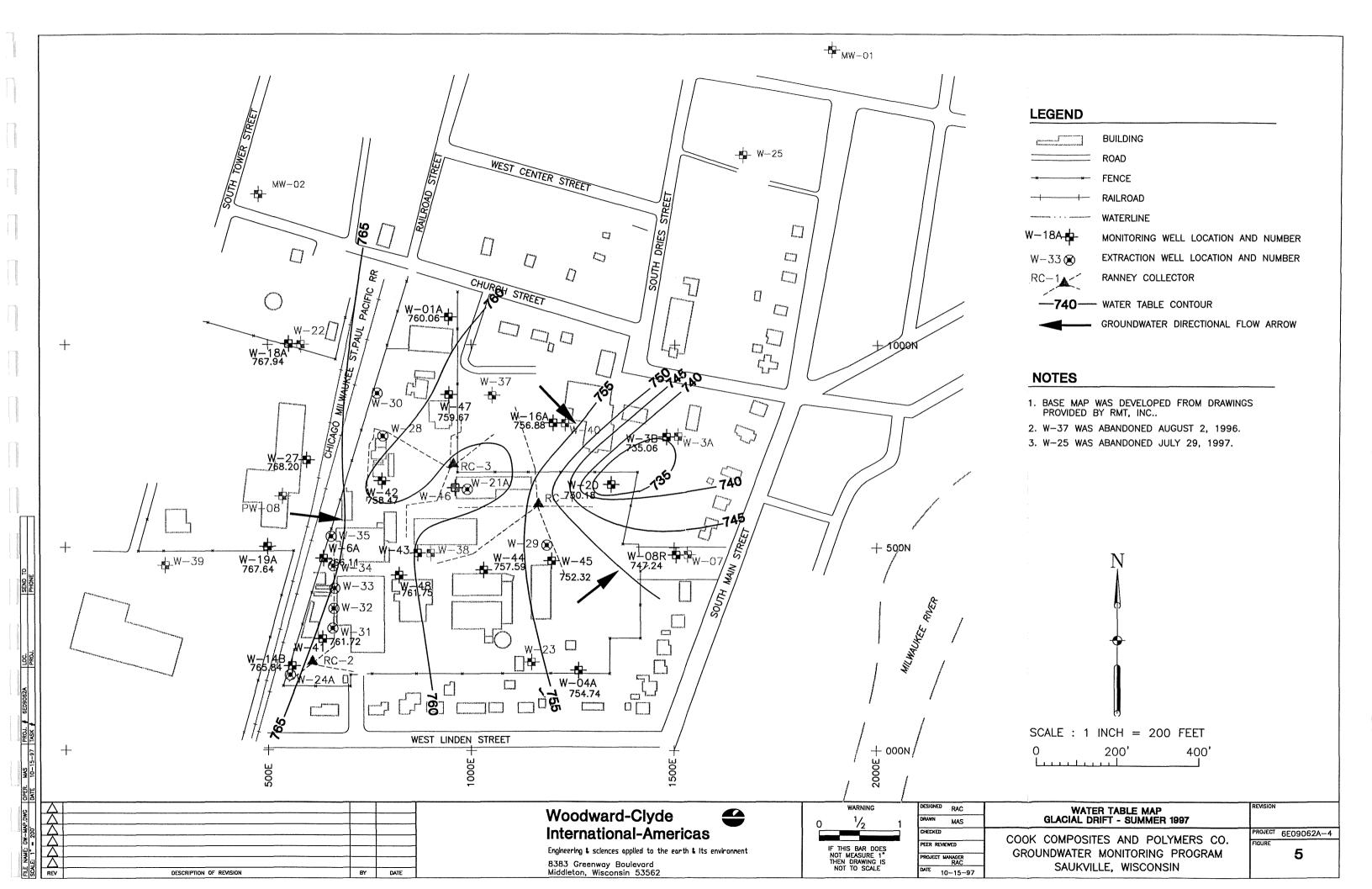
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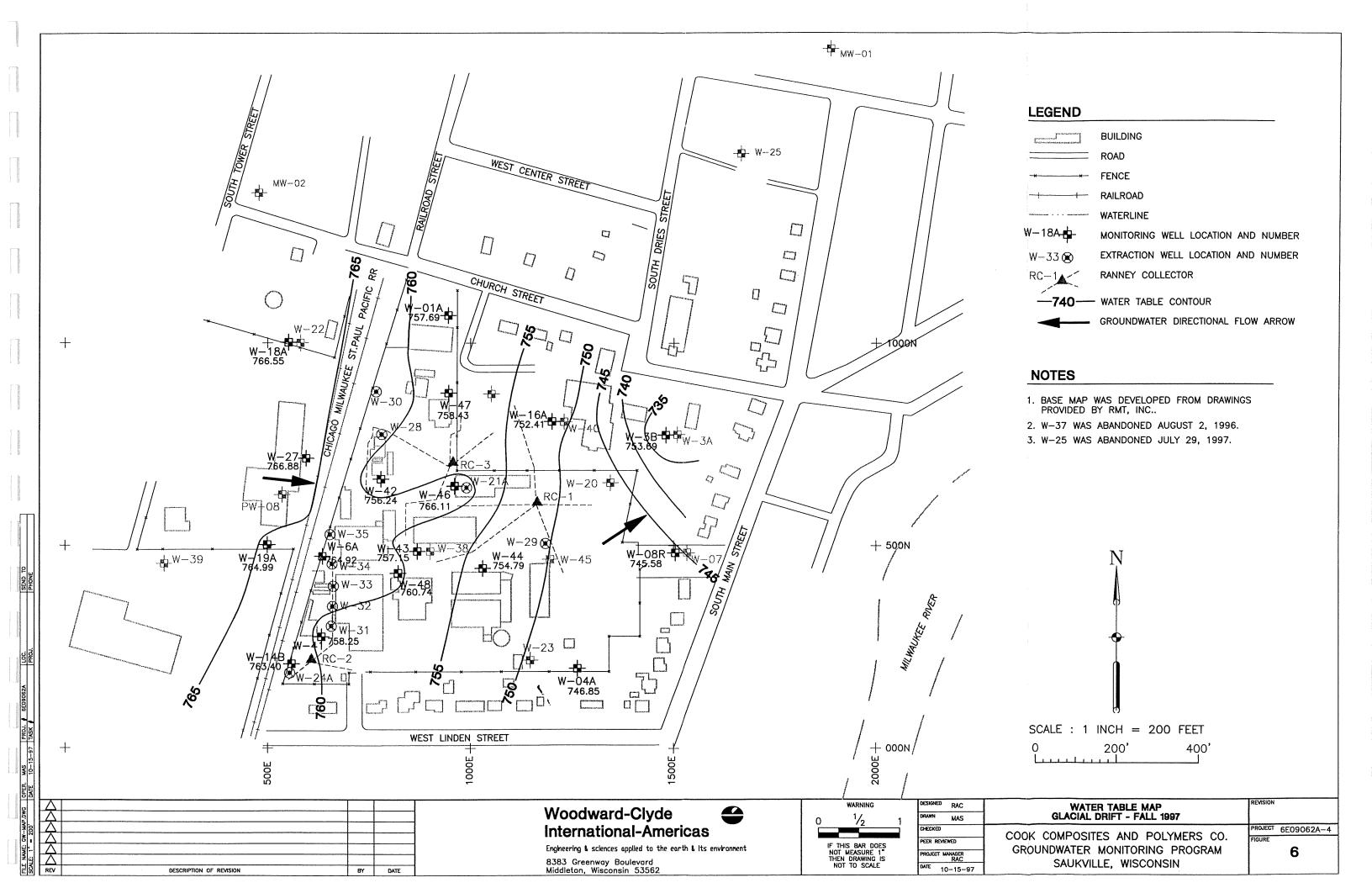


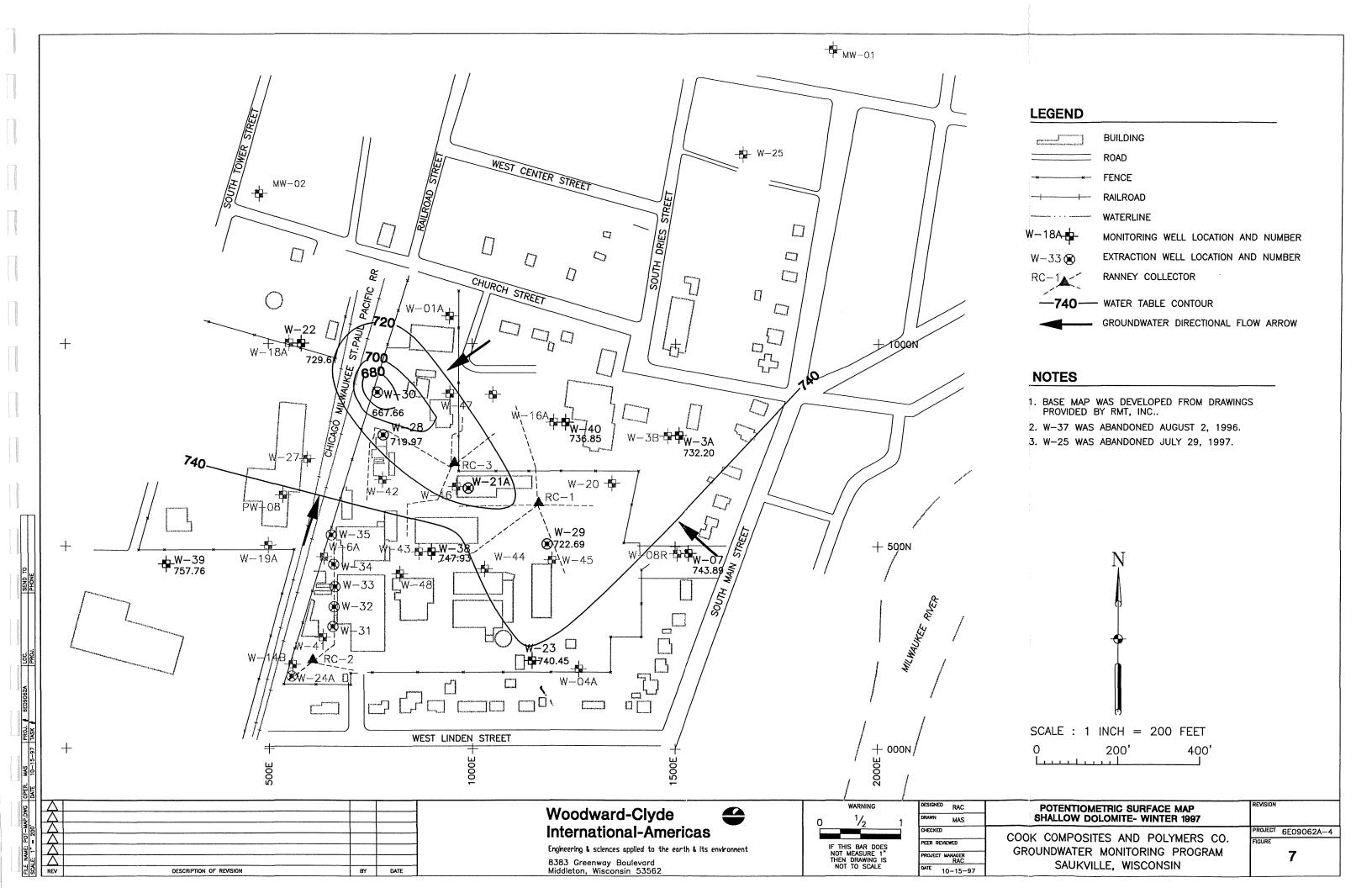


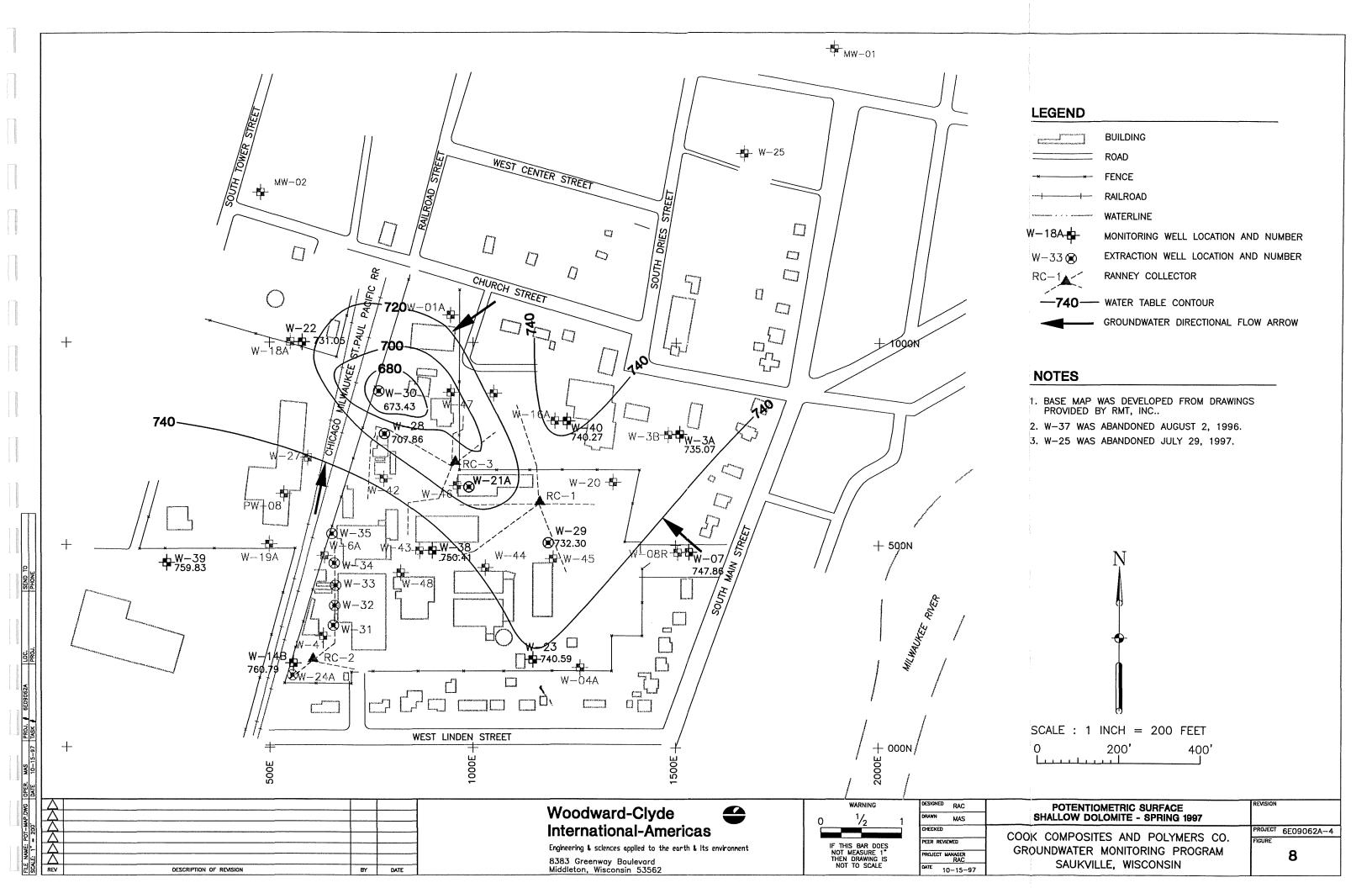


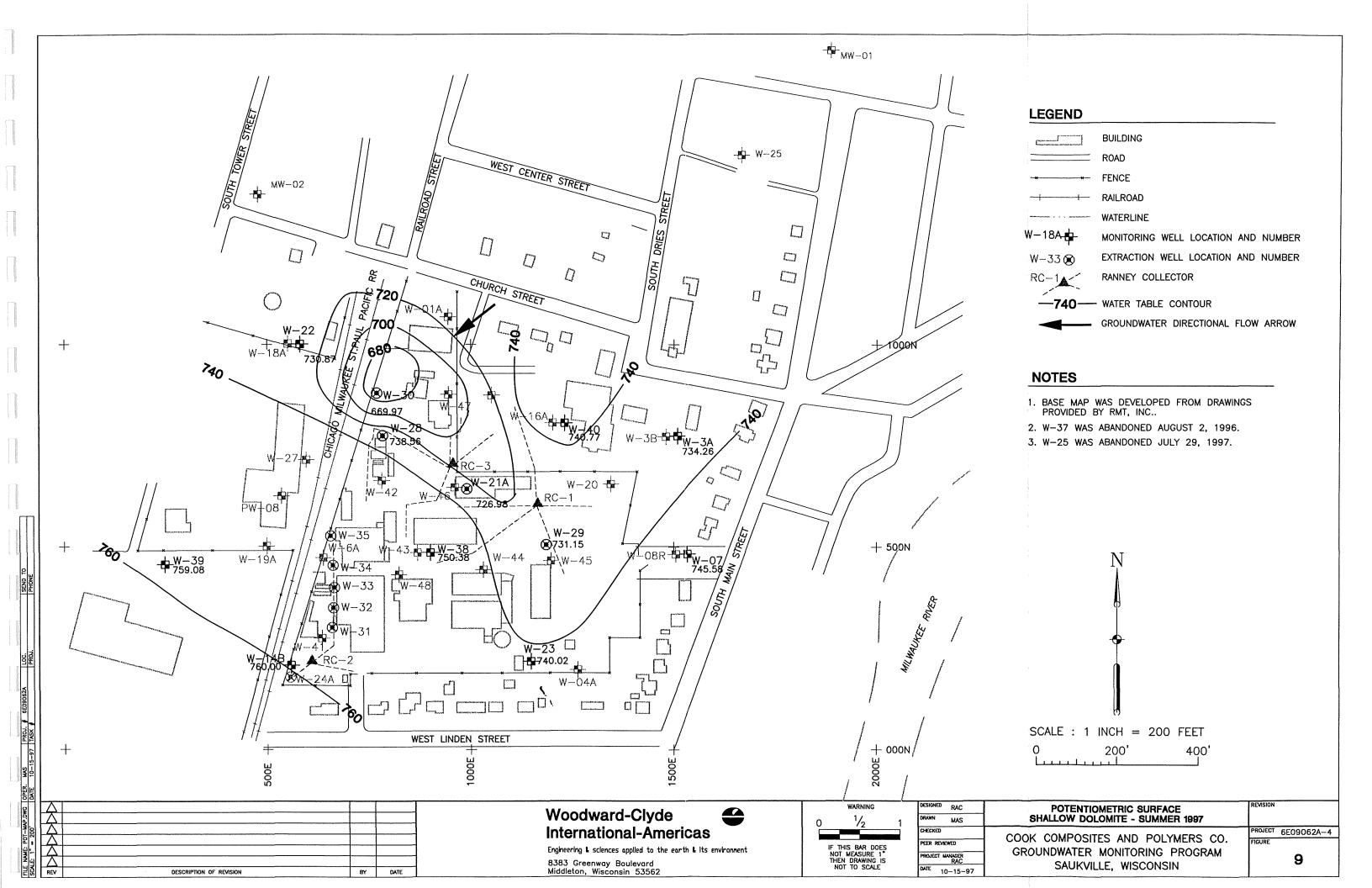


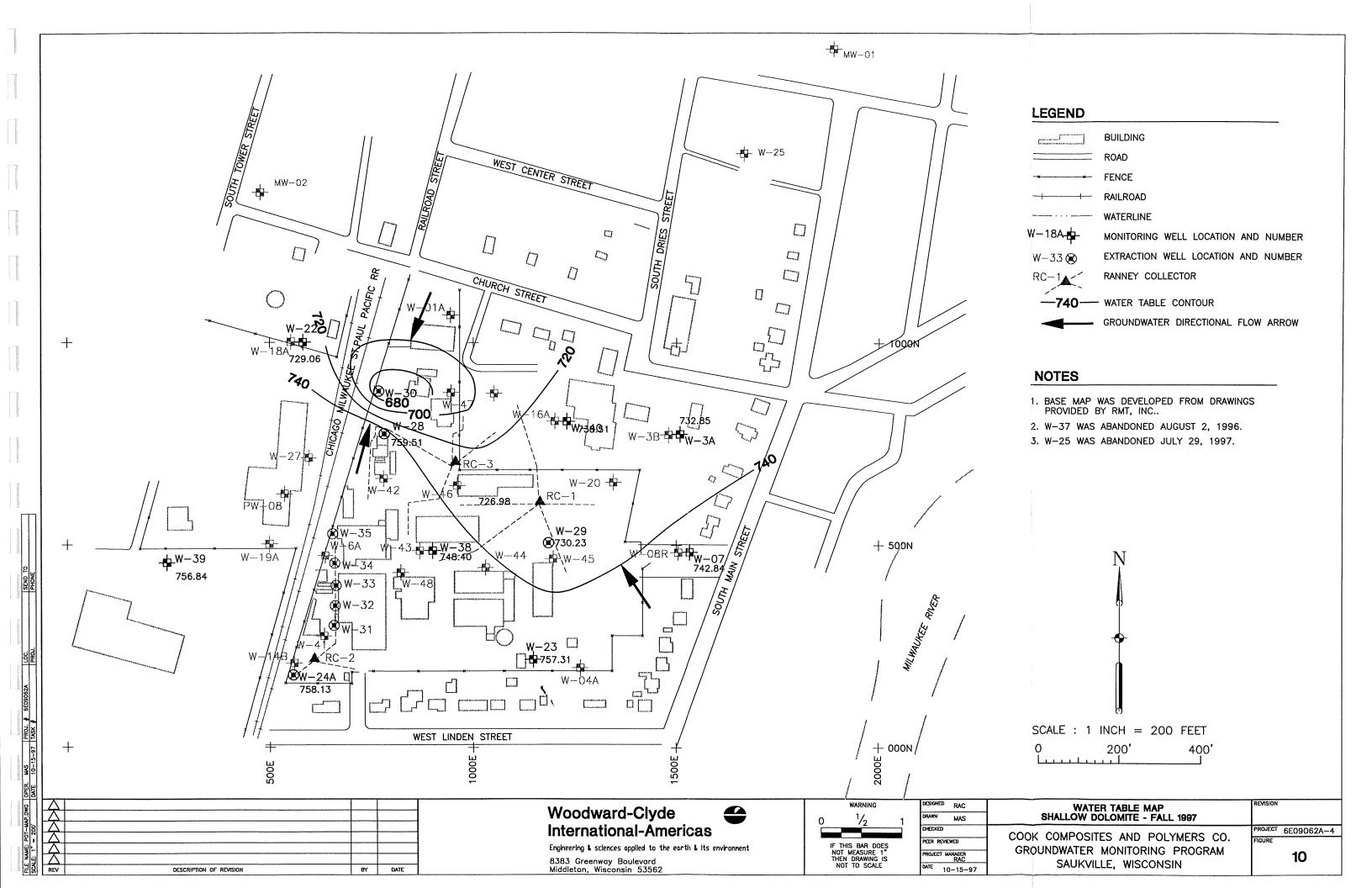


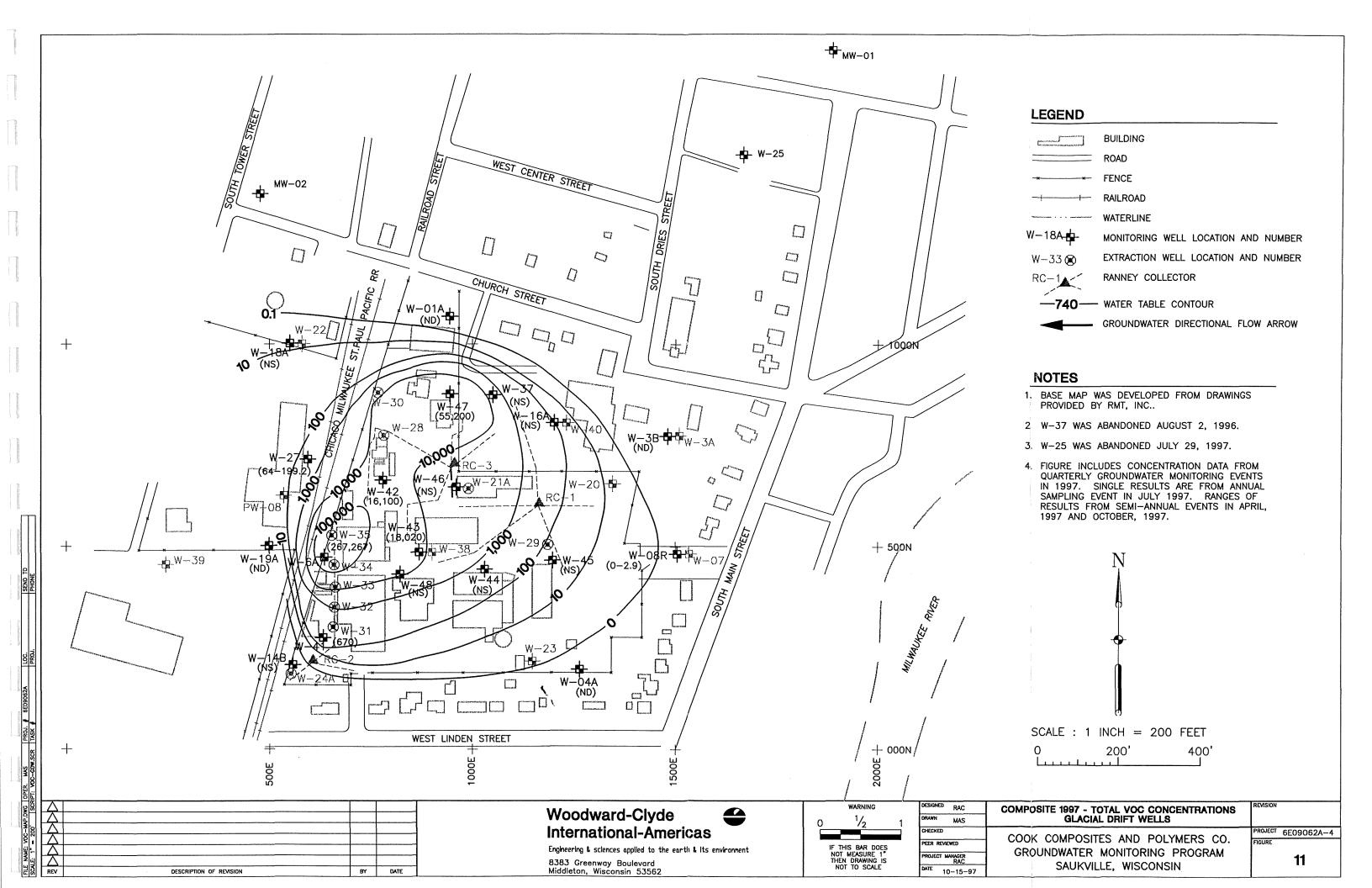


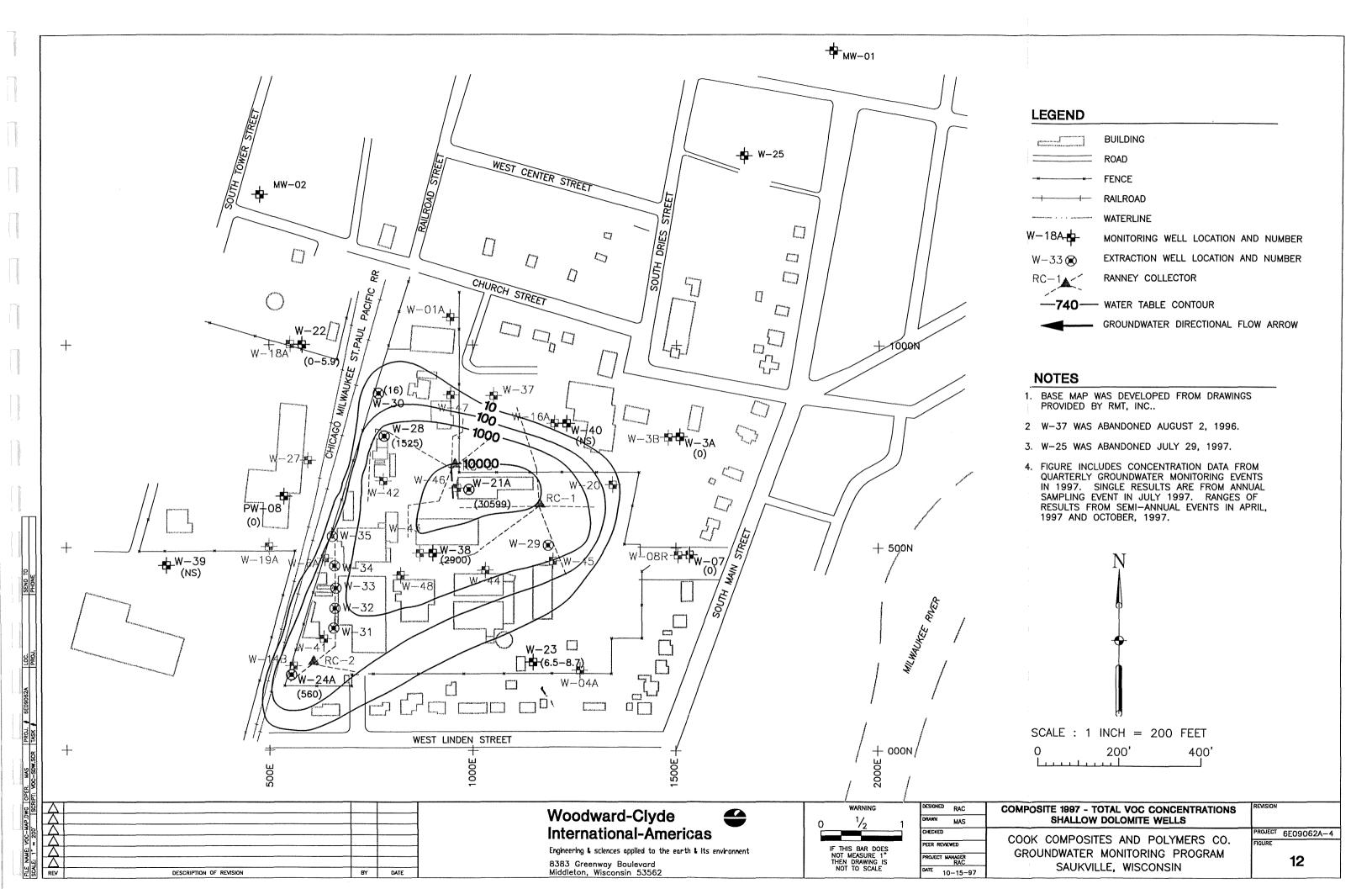












Winter 1997

Table 1 - Municipal Well Results

Table 2 - POTW and Ranney Collector Results

Spring 1991

Table 1 - Municipal Well Results

Table 2 - POTW and Ranney Collector Results

Table 3 - Perimeter Monitoring Well Results

Summer 1997

Table 1 - Municipal Well Results

Table 2 - POTW and Ranney Collector Results

Table 3 - Summary of Monitoring Well Results

Fall 1997

Table 1 - Municipal Well Results

Table 2 - POTW and Ranney Collector Results

Table 3 - Perimeter Monitoring Well Results

PROJECT NUMBER: BEGINNING DATE:

6E09062A 8-Jan-97 TABLE 1
MUNICIPAL WELL RESULTS

(1) PAL = NR140 Preventive Action Limit

(2) ES = NR140 Enformcement Standard

	9-Jan-97			MONICH	FAL V	VELL RESULTS			(2)	.5 - N	K 140 EIII	Jimcen
Parameter	PAL (1)	ES (2)	Units	MW-1-97 1/8/97	7-1	MW-2-97-1 not sampled	MW-3-9 1/8/97	7-1	MW-4-9 1/8/97	97-1	DUP-9 1/8/97	
Chloromethane	0.3	3	ug/L	< 0.8			< 0.8		< 0.8		< 0.8	
Bromomethane	1	10	ug/L	< 0.5		***	< 0.5		< 0.5		< 0.5	
Vinyl Chloride	0.02	0.2	ug/L	< 0.7			< 0.7		< 0.7		< 0.7	
Chioroethane	80	400	ug/L	< 0.7			< 0.7		< 0.7		< 0.7	
Methylene chloride	0.50	5	ug/L	< 0.7	В		< 0.7	В	< 0.7	В	< 0.7	В
Acetone	200	1000	ug/L	< 4.3			< 4.3		< 4.3		< 4.3	
Carbon disulfide			ug/L	< 0.5			< 0.5		< 0.5		< 0.5	
1,1-Dichlorcethene	0.7	7	ug/L	< 0.8		*** ***	< 0.8		< 0.8		< 0.8	
1,1-Dichloroethane	85	850	ug/L	< 0.7			< 0.7		< 0.7		< 0.7	
1,2-Dichloroethene, total	7	70	ug/L	< 1.0			< 1.0		< 1.0		< 1.0	
Chloroform	0.6	6	ug/L	< 1.1			< 1.1		< 1.1		< 1.1	
1,2-Dichloroethane	0.5	5	ug/L	< 0.9			< 0.9		< 0.9		< 0.9	
2-Butanone	90	460	ug/L	< 3.0			< 3.0		< 3.0		< 3.0	
1,1,1-Trichloroethane	40	200	ug/L	< 0.7			< 0.7		< 0.7		< 0.7	
Carbon tetrachloride	0.5	5	ug/L	< 0.9			< 0.9		< 0.9		< 0.9	
Bromodichloromethane	0.06	0.6	ug/L	< 0.8			< 0.8		< 0.8		< 0.8	
1,2-Dichloropropane	_{ني} . 0.5	5	ug/L	< 0.9			< 0.9		< 0.9		< 0.9	
cis-1,2-Dichloropropene	0.02	0.2	ug/L	< 0.3			< 0.3		< 0.3		< 0.3	
Trichloroethene	0.5	5	ug/L	< 1.0			< 1.0		< 1.0		< 1.0	
Chlorodibromomethane	6	60	ug/L	< 0.8			< 0.8		< 0.8		< 0.8	
1,1,2-Trichloroethane	0.5	5	ug/L	< 1.1			< 1.1		< 1.1		< 1.1	
Benzene	0.5	5	ug/L	< 0.6			< 0.6		< 0.6		< 0.6	
trans-1,3-Dichloropropene	0.02	0.2	ug/L	< 0.2			< 0.2		< 0.2		< 0.2	
Bromoform	0.44	4	ug/L	< 0.8			< 0.8		< 0.8		< 0.8	
4-Methyl-2-pentanone	50	500	ug/L	< 0.7			< 0.7		< 0.7		< 0.7	
2-Hexanone	•		ug/L	< 0.6			< 0.6		< 0.6		< 0.6	
Tetrachloroethene	0.5	5	ug/L	< 0.8			< 0.8		< 0.8		< 0.8	
1,1,2,2-Tretrachloroethane	0.02	0.2	ug/L	< 1.0			< 1.0		< 1.0		< 1.0	
Toluene	68.6	343	ug/L	< 0.3			< 0.3		< 0.3		< 0.3	
Chlorobenzene	20	100	ug/L	< 0.8			< 0.8		< 0.8		< 0.8	
Ethylbenzene	140	700	ug/L	< 0.9			< 0.9		< 0.9		< 0.9	
Styrene	10	100	ug/L	< 0.6			< 0.6		< 0.6		< 0.6	
Xylene, total	124	620	ug/L	< 1.0			< 1.0		< 1.0		< 1.0	
Vinyl acetate			ug/L	< 1.1			< 1.1		< 1.1		< 1.1	

PROJECT NUMBER:

6E09062A

BEGINNING DATE: 8-Jan-97

TABLE 2
POTW AND RANNEY COLLECTOR RESULTS

ENDING DATE: 23-Jan-97 POTW-I-97-1 POTW-E-97-1 POTW-S RE RC-1-97-1 RC-2-97-1 RC-3-97-1 Units 1/8/97 1/8/97 02/03/97 1/8/97 Parameter 1/8/97 1/8/97 Chloromethane < 0.8 < 0.8 < 0.8 ug/L Bromomethane ug/L < 0.5 < 0.5 0.78 Y Vinyl Chloride ug/L < 0.7 < 0.7 < 0.7 ug/L < 0.7 < 0.7 < 0.7 Chloroethane < 0.7 В < 0.7 B < 0.7 Methylene chloride ug/L 42 Acetone ug/L 60 UB < 4.3 UB Carbon disulfide ug/L < 0.5 < 0.5 < 0.5 < 0.8 < 0.8 < 0.8 1.1-Dichloroethene ug/L' < 0.7 < 0.7 < 0.7 1,1-Dichloroethane ug/L ua/L < 1 < 1 < 1 1.2-Dichloroethene, total < 1.1 < 1.1 ug/L < 1.1 Chloroform < 0.9 < 0.9 < 0.9 1.2-Dichloroethane ug/L 2-Butanone ug/L < 3 < 3 < 3 ua/L < 0.7 < 0.7 < 0.7 1,1,1-Trichloroethane Carbon tetrachloride ua/L < 0.9 < 0.9 < 0.9 Bromodichloromethane ug/L < 0.8 < 0.8 < 0.8 ug/L < 0.9 < 0.9 < 0.9 1,2-Dichloropropane < 0.3 ua/L < 0.3 < 0.3 cis-1,2-Dichloropropene < 1 Trichloroethene ug/L < 1 < 1 < 0.8 < 0.8 < 0.8 ug/L Chlorodibromomethane < 1.1 < 1.1 1,1,2-Trichloroethane ug/L < 1.1 Benzene ug/L < 0.6 < 0.6 < 0.6 < 69 < 69 < 69 D < 0.2 < 0.2 < 0.2 trans-1,3-Dichloropropene ug/L < 0.8 ug/L < 0.8 < 0.8 Bromoform < 0.7 < 0.7 < 0.7 4-Methyl-2-pentanone ug/L < 0.6 < 0.6 < 0.6 2-Hexanone ug/L < 0.8 < 0.8 < 0.8 ug/L Tetrachioroethene < 1 < 1 < 1 1,1,2,2-Tretrachioroethane ug/L ug/L 0.95 UB < 0.3 < 0.3 4900 D 4300 D 4200 D Toluene < 64 D D < 64 D Chlorobenzene ug/L < 0.8 < 0.8 < 0.8 < 64 ug/L < 0.9 < 0.9 < 0.9 2000 D 1600 D 1200 D Ethylbenzene < 0.6 < 0.6 Styrene ua/L < 0.6 ug/L < 1 < 1 < 1 18000 D 15000 D 15000 D Xylene, total < 1.1 < 1.1 < 1.1 . ua/L Vinyl acetate < 110 D 1,3-Dichlorobenzene D < 110 D < 110 D < 130 < 130 D 1,2-Dichlorobenzene < 130 < 130 D < 130 D < 130 D 1.4-Dichlorobenzene

BEGINNING DATE:

3-Apr-97

TABLE 1 MUNICIPAL WELL RESULTS

(1) PAL = NR140 Preventive Action Limit (2) ES = NR140 Enformcement Standard

ENDING DATE:	3-Apr-97 4-Apr-97			MUNICIPAL	WELL RESULTS		(2) ES = N	K140 Enformcem	ent Standard
Parameter		L (1 ES	(2) Uni	MW-1-97-2 s 4/3/97	MW-2-97-2 not sampled	MW-3-97-2 4/3/97	MW-4-97-2 4/3/97	DUP-1-97-2 4/3/97 (MW-4-97-2)	TB-1-97-2 4/3/97
Chloromethane		0.3	3 ug/l	. ND		ND	ND	NO	ND
Bromomethane		1	10 ug/l	. ND		ND	ND	ND	ND
Vinyl Chloride	(0.02	0.2 ug/l	. ND		ND	ND	ND	ND
Chloroethane		80	400 ug/L	. ND		ND	ND	ND	ND
Methylene chloride	•	0.50	5 ug/l	. NO		ND	ND	ND	ND
Acetone		200 1	000 ug/l	. ND		ND	ND	ND	ND
Carbon disulfide			ug/L	. ND		ND	ND	ND	NO
1,1-Dichloroethene		0.7	7 ug/L	. ND		ND	ND	ND	NO
1,1-Dichloroethane		85	850 ug/t	. ND		ND	ND	NO .	ND
1,2-Dichloroethene, total		7	70 ug/L	. ND		ND	ND	ND	ND
Chloroform		0.6	6 ug/l	. NO		ND	ND	ND	NO
1,2-Dichloroethane		0.5	5 ug/L	. ND		ND	ND	ND	ND
2-Butanone		90	460 ug/l	. ND		ND	ND	ND	ND
1,1,1-Trichloroethane		40	200 ug/L	. ND		ND	ND	ND	ND
Carbon tetrachloride		0.5	5 ug/l	. ND		ND	ND	NO	NO
Bromodichloromethane	(0.06	0.6 ug/L	. ND		ND	ND	NO	ND
1,2-Dichloropropane		0.5	5 ug/L	. ND		ND	ND	ND	ND
cis-1,2-Dichloropropene	•	0.02	0.2 ug/L	. ND		ND	ND	ND	ND
Trichloroethene		0.5	5 ug/L	. NO		ND	NO	ND	ND
Chlorodibromomethane		6	60 ug/L	. ND		ND	ND	ND	ND
1,1,2-Trichloroethane		0.5	5 ug/L	. ND		ND	ND	ND	ND
Benzene		0.5	5 ug/L	. ND		ND	ND	ND	ND
trans-1,3-Dichloropropen	ie (0.02	0.2 ug/l	. ND		ND	ND	ND	ND
Bromoform	(0.44	4 ug/l	. ND		ND	ND	ND	ND
4-Methyl-2-pentanone		50	500 ug/l	. ND		ND	NO	ND	ND
2-Hexanone			υg/l	. ND		ND	ND	ND	ND
Tetrachloroethene		0.5	5 ug/l	. ND		ND	ND	ND	ND
1,1,2,2-Tretrachloroethan	ne '	0.02	0.2 ug/l	. ND		ND	ND	ND	ND
Toluene	(68.6	343 ug/l	. ND		ND	ND	NO	ND
Chlorobenzene		20	100 ug/l	. ND		ND	ND	ND	ND
Ethylbenzene		140	700 ug/l	. ND		ND	ND	ND .	ND
Styrene		10	100 ug/l	ND		ND	ND	ND	ND -
Xylene, total		124	620 ug/l	ND		ND	ND	ND	ND
Vinyl acetate			ug/l	. ND		ND	ND	ND	ND

PROJECT NUMBER: 6E09062A BEGINNING DATE:

7-Apr-97

TABLE 2 POTW AND RANNEY COLLECTOR RESULTS

ENDING DATE: 10-Apr-97 RC-3-97-2 RC-2-97-2 POTW-I-97-2 POTW-S-97-2 RC-1-97-2 POTW-E-97-2 4/8/97 not sampled Parameter Units 4/7/97 4/7/97 4/7/97 4/8/97 Chloromethane ug/L ND ND ND Bromomethane ug/L ND ND ND Vinyl Chloride ug/L ND ND ND ND ND Chloroethane ug/L ND Methylene chloride ug/L ND ND ND ND Acetone ug/L ND 110 Carbon disulfide ug/L ND ND ND ND ug/L ND ND 1,1-Dichloroethene ND ND ND 1.1-Dichloroethane ug/L ND ND ND 1,2-Dichloroethene, total ug/L ND ND ND ug/L Chloroform ND 1,2-Dichloroethane ug/L ND ND 2-Butanone ug/L ND 11 ND 1,1,1-Trichloroethane ug/L ND ND ND Carbon tetrachloride ug/L ND ND ND Bromodichloromethane ug/L ND ND ND 1,2-Dichloropropane ug/L ND ND ND cis-1,2-Dichloropropene ug/L ND ND ND Trichloroethene ug/L ND ND ND ND ND NO Chlorodibromomethane ug/L ND ND ND 1,1,2-Trichioroethane ug/L ug/L ND ND NO NO ND Benzene trans-1,3-Dichioropropene ND ND ND ug/L ug/L ND ND Bromoform ND ug/L ND ND ND 4-Methyl-2-pentanone ug/L ND ND ND 2-Hexanone ND Tetrachioroethene ug/L ND 4.4 1,1,2,2-Tretrachloroethane ND ND ND ug/L ug/L ND 2.4 180 290 450 Toluene ug/L ND ND ND ND ND Chlorobenzene 170 Ethylbenzene ug/L ND ND ND 130 Styrene ug/L ND ND ND 2870 ND ND 2050 Xylene, total ug/L ND ND ND Vinyl acetate ug/L ND ND 110 ug/L 1,3-Dichlorobenzene ND ND 1,2-Dichlorobenzene ug/L 110 ug/L ND 1,4-Dichlorobenzene

TABLE 3

BEGINNING DATE: ENDING DATE:

8-Apr-97 12-Apr-97 PERIMETER MONITORING WELL RESULTS

(1) PAL = NR140 Preventive Action Limit

(2) ES = NR140 Enformcement Standard

Parameter	PAL (1	ES (2) U	W-1A-97-2 nits 4/8/97	W-3A-97-2 4/11/97	W-3B-97-2 4/11/97	W-4-97-2 4/8/97	W-07-97-2 4/8/97	W-08R-97-2 4/8/97
Chloromethane	0.3	3 ug	g/L ND	ND	ND	ND	ND	2.9
Bromomethane	1	10 ug	g/L ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.2 ug	g/L ND	ND	ND	ND	ND	ND
Chloroethane	80	400 uş	g/L ND	ND	ND	ND	ND	ND
Methylene chloride	0.50	5 uş	g/L ND	ND	ND	ND	ND	ND
Acetone	200	1000 սչ	g/L ND	ND	ND	ND	ND	ND
Carbon disulfide		uş	J/L ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.7	7 ug	JL ND	ND	ND	ND	ND :	ND
1,1-Dichloroethane	85	850 ug	J/L NO	ND	ND	ND	ND :	ND .
1,2-Dichloroethene, total	7	70 uş	J/L NO	ND	ND	ND	ND :	ND em
Chloroform	0.6	6 uş	AL ND	ND	ND	ND	ND ·	ND
1,2-Dichloroethane	0.5	5 uş	J/L ND	ND	ND	ND	ND .	ND
2-Butanone	90	460 ug	IL ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	40	200 სვ	J/L ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.5	5 uç	J/L ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.06	0.6 ug	J/L ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.5	5 uş	JL ND	ND	ND	ND	ND	ND
cis-1,2-Dichloropropene	0.02	0.2 ug	J/L ND	ND	ND	ND	ND	ND
Trichloroethene	0.5	5 uş	J/L ND	ND	ND	ND	ND	ND
Chlorodibromomethane	6	60 ug	J/L ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.5	5 ug	J/L ND	ND	ND	ND	ND	ND
Benzene	0.5	5 uç	J/L ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.02	0.2 uş	J/L ND	ND	ND	ND	ND	ND
Bromoform	0.44	4 uş	J/L ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	50	500 uş	J/L ND	ND	ND	ND	ND	ND
2-Hexanone		uş	J/L ND	ND	ND	ND	· ND	ND
Tetrachloroethene '	0.5	5 սչ	J/L ND	ND	ND	ND	ND	ND
1,1,2,2-Tretrachloroethane	0.02	0.2 ug	J/L ND	ND	ND	ND	ND	ND
Toluene	68.6	343 ug	J/L ND	ND	ND	ND	ND	ND
Chlorobenzene	20	100 սյ	J/L ND	ND	ND	ND	ND	ND
Ethylbenzene	140	700 uş	J/L ND	ND	ND	ND	ND	ND
Styrene	10	100 uş	J/L ND	ND	ND	ND	ND	ND
Xylene, total	124	620 uş	J/L ND	ND	ND	ND	ND	ND
Vinyl acetate		uş	7/L ND	ND	ND	ND	ND	ND

TABLE 3 CONTINUED

(1) PAL = NR140 Preventive Action Limit

BEGINNING DATE: ENDING DATE:

8-Apr-97 12-Apr-97 PERIMETER MONITORING WELL RESULTS

(2) ES = NR140 Enformcement Standard

Parameter	PAL (1	ES (2) Un	W-20-97-2 ts 4/8/97	W-22-97-2 4/11/97	W-23-97-2 4/11/97	W-27-97-2 4/8/97	PW-08-97-2 4/8/97	FB-1-97-2 4/8/97
Chloromethane	0.3	3 ug/	ND	ND	ND	ND	ND	2.9
Bromomethane	1	10 ug	L ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.2 ug/	L ND	ND	ND	ND	ND	ND
Chloroethane	80	400 ug	L ND	ND	ND	ND	ND	ND
Methylene chloride	0.50	5 ug	L ND	ND	ND	ND	ND	ND
Acetone	200	1000 ug	L ND	ND	ND	ND	ND	ND
Carbon disulfide		ug	_ ND	ND	ND	ND	ND .	ND
1,1-Dichloroethene	0.7	7 ug	_ ND	ND	ND	ND	ND .	ND
1,1-Dichloroethane	85	850 ug/	_ ND	ND	2.9	ND	ND -	ND
1,2-Dichloroethene, total	7	70 ug/	_ ND	ND	ND	5.3	ND	ND
Chloroform	0.6	6 ug/	_ ND	ND	ND	ND	ND ^{1.}	ND
1,2-Dichloroethane	0.5	5 ug/	_ ND	ND	ND	ND	ND .	ND
2-Butanone	90	460 ug/	_ ND	ND	ND	ND	ND 5	ND
1,1,1-Trichloroethane	40	200 ug/	_ ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.5	5 ug/	. ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.06	0.6 ug/	_ ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.5	5 ug/	_ ND	ND	ND	ND	ND	ND
cis-1,2-Dichloropropene	0.02	0.2 ug/	_ ND	ND	ND	ND	ND	ND
Trichloroethene	0.5	5 ug/	_ ND	ND	ND	59.0	ND	2.0
Chlorodibromomethane	6	60 ug/	. ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.5	5 ug/	_ ND	ND	ND	ND	ND	ND
Benzene	0.5	5 ug/	_ ND	ND	5.8	ND	ND	ND
trans-1,3-Dichloropropene	0.02	0.2 ug/	_ ND	ND	ND	ND	ND	ND
Bromoform	0.44	4 ug/	_ ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	50	500 ug/	_ ND	ND	ND	ND	ND	ND
2-Hexanone		ugi	_ ND	ND	ND	ND	ND	ND
Tetrachloroethene '	0.5	5 ug/	. ND	ND	ND	ND	ND	ND
1,1,2,2-Tretrachloroethane	0.02	0.2 ug/	_ ND	ND	ND	ND	ND	ND
Toluene	68.6	343 ug/	_ ND	ND	ND	ND	ND	ND
Chlorobenzene	20	100 ug/	_ ND	ND	ND	ND	ND	ND
Ethylbenzene	140	700 ugi	_ ND	ND	ND	ND	ND	ND
Styrene	10	100 ug/	. ND	ND	ND	ND	ND	ŊĎ
Xylene, total	124	620 ug/	_ ND	ND	ND	ND	ND	ND
Vinyl acetate		ug/	_ ND	ND	ND	ND	ND	ND

TABLE 3 CONTINUED

BEGINNING DATE:

ENDING DATE:

8-Apr-97 12-Apr-97 PERIMETER MONITORING WELL RESULTS

(1) PAL = NR140 Preventive Action Limit (2) ES = NR140 Enformcement Standard

Parameter		ES (2)	Units	DUP-2-97-2 4/11/97 (W-3A-97-2)	DUP-3-97-2 4/11/97 (W-23-97-2)	TB-2-97-2 4/11/97	FB-2-97-2 4/11/97
Chloromethane	0.3	3	ug/L	ND	ND	ND	NO
Bromomethane	1	10	ug/L	ND	ND	ND	ND
Vinyl Chloride	0.02	0.2	ug/L	ND	ND	ND	ND
Chloroethane	80	400	ug/L	ND	ND	ND	ND
Methylene chloride	0.50	5	ug/L	ND	ND	ND	ND
Acetone	200	1000	ug/L	ND	ND	7.6	11.0
Carbon disulfide			ug/L	ND	ND	ND	ND
1,1-Dichloroethene	0.7	7	ug/L	ND	ND	ND	ND
1,1-Dichloroethane	85	850	ug/L	ND	ND	ND	ND
1,2-Dichloroethene, total	7	70	ug/L	ND	2.8	ND	ND
Chloroform	0.6	6	ug/L	ND	ND	ND	ND
1,2-Dichloroethane	0.5	5	ug/L	ND	ND	ND	ND
2-Butanone	90	460	ug/L	ND	ND	ND	ND
1,1,1-Trichloroethane	40	200	ug/L	ND	ND	ND	ND
Carbon tetrachloride	0.5	5	ug/L	ND	ND	ND	ND
Bromodichloromethane	0.06	0.6	ug/L	ND	ND	ND	ND
1,2-Dichloropropane	0.5	5	ug/L	ND	ND	ND	ND
cis-1,2-Dichloropropene	0.02	0.2	ug/L	ND	ND	ND	ND
Trichloroethene	0.5	5	ug/L	ND	ND	ND	ND
Chlorodibromomethane	6	60	ug/L	ND	ND	ND	ND
1,1,2-Trichloroethane	0.5	5	ug/L	ND	ND	ND	ND
Benzene	0.5	5	ug/L	ND	5.8	ND	ND
trans-1,3-Dichloropropene	0.02	0.2	ug/L	ND	ND	ND	ND
Bromoform	0.44	4	ug/L	ND	ND	ND	ND
4-Methyl-2-pentanone	50	500	ug/L	ND	ND	ND	ND
2-Hexanone			ug/L	ND	ND	ND	ND
Tetrachloroethene .	0.5	5	ug/L	ND	ND	ND	ND
1,1,2,2-Tretrachloroethane	0.02	0.2	ug/L	ND	ND	ND	ND
Toluene	68.6	343	ug/L	ND	ND	ND	ND
Chlorobenzene	20	100	ug/L	ND	ND	ND	ND
Ethylbenzene	140	700	ug/L	ND	ND	ND	ND
Styrene	10	100	ug/L	ND	ND	ND	ND
Xylene, total	124	620	ug/L	ND	ND	ND	ND
Vinyl acetate			ug/L	ND	ND	ND	ND

PROJECT NUMBER: 6E09062A BEGINNING DATE:

8-Jul-97

TABLE 1 MUNICIPAL WELL RESULTS

(1) PAL = NR140 Preventive Action Limit (2) ES = NR140 Enformcement Standard

Parameter PAL (1) ES (2) Units 7/8/97 7/8/	7(8/97 WW-4-97-3) ND ND ND ND	ND ND ND ND
Stromomethane	ND ND ND	ND
Bromomethane	ND ND	
Vinyl Chloride 0.02 0.2 ug/L ND ND ND ND Chloroethane 80 400 ug/L ND ND ND ND ND Methylene chloride 0.50 5 ug/L ND ND ND ND ND Acetone 200 1000 ug/L ND ND ND ND ND Carbon disulfide ug/L ND ND ND ND ND ND 1,1-Dichloroethane 0.7 7 ug/L ND ND ND ND ND 1,1-Dichloroethane 85 850 ug/L ND ND ND ND ND 1,2-Dichloroethane, total 7 70 ug/L ND ND ND ND ND ND ND Chloroform 0.6 6 ug/L ND N	ND	NO
No		NU
Methylene chloride 0.50 5 ug/L ND ND ND ND Acetone 200 1000 ug/L ND ND ND ND Carbon disulfide ug/L ND ND ND ND 1,1-Dichloroethene 0.7 7 ug/L ND ND ND 1,1-Dichloroethane 85 850 ug/L ND ND ND ND 1,2-Dichloroethane, total 7 70 ug/L ND ND ND ND Chloroform 0.6 6 ug/L ND ND ND ND 1,2-Dichloroethane 0.5 5 ug/L ND ND ND ND 2-Butanone 90 460 ug/L ND ND ND ND 1,1,1-Trichloroethane 40 200 ug/L ND ND ND ND		ND
Acetone 200 1000 ug/L ND ND ND ND ND ND ND N	ND	ND
Carbon disulfide ug/L ND ND ND ND I,1-Dichloroethene 0.7 7 ug/L ND ND ND ND I,1-Dichloroethane 85 850 ug/L ND ND ND ND I,2-Dichloroethane, total 7 70 ug/L ND ND ND ND Chloroform 0.6 6 ug/L ND ND ND ND I,2-Dichloroethane 0.5 5 ug/L ND ND ND ND 2-Butanone 90 460 ug/L ND ND ND ND 1,1,1-Trichloroethane 40 200 ug/L ND ND ND ND	ND	ND
,1-Dichloroethene	ND	ND
,1-Dichloroethane	ND	ND
,2-Dichloroethene, total	ND	ND
Chloroform	ND	ND
,2-Dichloroethane	ND	ND
2-Butanone 90 460 ug/L ND	ND	ŅD
,1,1-Trichloroethane 40 200 ug/L ND ND ND ND	ND	ND
	ND ·	ND
	ND	ND
	ND	ND
	ND	ND
in a comment of the form	ND	ND
- 1	ND	ND
	ND	ND
	ND	ND
	ND	ND
· · · · · · · · · · · · · · · · · · ·	ND	ND
-	ND	ND
• • • • • • • • • • • • • • • • • • • •	ND	ND
	ND	ND
	ND	ND
	ND	ND
1·4-1- · ·	ND	ND
······································	ND	ND
•	ND	ND
	NO	ND
· · · · · · · · · · · · · · · · · · ·	ND ·	ND
	ND	ND
otal Volatile Organic Compounds ug/L 0.0 0.0 0.0 0.0		
July 1996 Total VOCs ug/L 0.0 0.0 0.0 0.0	0.0	0.0

ND = Not Detected

PROJECT NUMBER: 6E00062A
BEGINNING DATE: 8-Jul.
ENDING DATE: 8-Jul.

8-Jul-97 8-Jul-97

TABLE 2
POTW AND RANNEY COLLECTOR RESULTS

ENDING DATE: 8	Jul-97				004074	RC-2-97-3	RC-3-97-3
Parameter	Units	POTW4-97-3 7/8/97	POTW-E-97-3 7/8/97	POTW-5-97-3 7/8/97	RC-1-97-3 not sampled	7/8/97	7/8/97
Chloromethane	ug/L	ND	ND	ND		***************************************	
Bromomethane	ug/L	ND	ND	ND			
Vinyl Chloride	ug/L	ND	ND	ND			
Chloroethane	ug/L	ND	ND	ND			
Methylene chloride	ug/L	NO	ND	ND			
Acetone	ug/L	96	ND	11			
Carbon disulfide	ug/L	ND	ND	ND			
1,1-Dichloroethene	ug/L	ND	ND	ND			
1,1-Dichloroethane	ug/L	ND	ND	ND			
1,2-Dichloroethene, total	ug/L	ND	ND	ND			
Chloroform	ug/L	ND	ND	ND			
1,2-Dichloroethane	ug/L	ND	ND	ND			
2-Butanone	ug/L	ND	ND	ND			
1,1,1-Trichioroethane	ug/L	ND	ND	ND			
Carbon tetrachloride	ug/L	ND	ND	ND			
Bromodichioromethane	ug/L	ND	ND	ND			•
1,2-Dichloropropane	ug/L	ND	ND	ND			
cls-1,2-Dichloropropens	ug/L	ND	ND	ND			
Trichloroethene	ug/L	ND	ND	ND			
Chlorodibromomethane	ug/L	ND	ND	ND			
1,1,2-Trichloroethane	ug/L	ND	ND	ND			
Benzene	ug/L	ND	ND	ND	_	ND	ND
trans-1,3-Dichloropropene	ug/L	ND	ND	ND			
Bromoform	ug/L	ND	ND	ND			
4-Methyl-2-pentanone	ug/L	ND	ND	ND			
2-Hexanone	ug/L	ND	ND	ND			
Tetrachioroethene	ug/L	ND	ND	ND			
1,1,2,2-Tretrachioroethane	ug/L	ND	ND	ND			
Toluene	ug/L	22	ND	63	-	ND	1700
Chlorobenzene	ug/L	ND	ND	ND	-	27	ND
Ethylbenzene	ug/L	ND	ND	ND	-	ND	2200
Styrene	ug/L	ND	ND	ND			
Xylene, total	ug/L	ND	ND	ND	-	110	8200
Vinyi acetate	ug/L	ND	ND	ND			
1,3-Dichlorobenzene	ug/L	NA	NA	NA	-	ND	ND
1,2-Dichlorobenzene	ug/L	NA	NA	NA	-	ND	ND
1,4-Dichlorobenzene	ug/L	NA	NA	AA	-	ND	ND
Total Volatile Organic Compos	ınds ug/L	118	0	74	NS	137	12100
July 1996 Total VOCs	ug/L	83.4	0	74.4	34190	32260	20810

NA = Not Analyzed ND = Not Detected

NS = Not Sampled

8-Jul-07

TABLE 8 BUMMARY OF MONITORING WELL RESULTS

(1) PAL = NR140 Preventive Action Limit (2) E8 = NR140 Enformcement Standard

ENDING DATE: 15-Jul	-07					• •		
Parameter	PAL (1)	ES (2) Unita	W-8A-97-3 7/10/97	W-19A-97-3 7/9/97	DUP2-97-3 7/09/97	W-21A-97-3 7/10/97	W-24A-97-3 7/10/97	W-28-97-3 7/10/97
Barium	0.4	2 mg/L	0.055	-	_	0.23	0.073	0.15
Arsenic	5	50 mg/L	0.038	-	_	0.016	ND	0.0025
Aroclor 1016	0.03	0.8 ug/L	_	-	-	-	-	-
Aroclor 1221	0.03	0.8 ug/L	-	-	_	-	-	-
Aroclor 1232	0.03	0.8 ug/L	-	-	-	-	-	-
Aroclor 1242	0.03	0.8 ug/L	-	-	-	-	-	-
Aroclor 1248	80.0	0.8 ug/L	-	-	-	-	-	-
Aroclor 1254	0.03	0.8 ug/L	-	-	-	-	-	-
Aroclor 1260	0.03	0.8 ug/L	-	-	-	-	-	-
Acetone	200	1000 ug/L	ND	-	-	ND	ND	NO
Benzene	0.5	5 ug/L	ND	ND	ND	3400	ND	6.9
Bromodichloromethane	0.06	0.6 ug/L	ND	-	-	ND	ND	ND
Bromoform	0.44	4.4 ug/L	ND	-	-	ND	ND	ND
Bromomethane	1	10 ug/L	ND	-	-	ND	ND	ND
2-Butanone (MEK)	90.0	460 ug/L	ND	-	-	ND	ND	ND ND
Carbon disulfide		- ug/L	ND	-	-	ND	ND	
Carbon tetrachloride	0.5	δ ug/L	ND	-	-	NO	ND	' ND
Chlorobenzene	-	- ug/L	ND	ND	NO	ND	ND ND	ND
Chloroethane	80	400 ug/L	NO	-	-	ND		
Chloroform	0.6	6 ug/L	ND	-	-	ND ND	ND ND	NO NO
Chloromethane	0.3	3 ug/L	ND	-	-	ND	ND	ND
Dibromochioromethane	6.0	60 ug/L	ND	-	-	ND 1.2J	ND	ND
1,2-Dichlorobenzene	60	600 ug/L	ND	ND	ND NO	ND	ND	ND
1,3-Dichlorobenzene	125	1250 ug/L	NO	ND DN	ND	ND	ND	ND
1,4-Dichlorobenzene	15	75 ug/L	ND		-	ND	ND	NO
1,1-Dichloroethane	85	850 ug/L	ND ND	_	_	ND	ND	ND
1,2-Dichloroethene	0.5 7	5 ug/L	ND	_	_	ND	ND	ND
cis-1,2-Dichloroethene	20	70 ug/L 100 ug/L	ND	<u>-</u>	_	ND	ND	ND
trans-1,2-Dichloroethene	0.7	7 ug/L	ND	_	<u>-</u>	ND	ND	ND
1,1-Dichloroethene	0.5	δυg/L	ND	_	_	ND	ND	NO
1,2-Dichloropropene als-1,3-Dichloropropene	0.02	0.2 ug/L	ND	-	_	ND	NO	NO
trans-1,3-Dichloropropens	0.02	0.2 ug/L	ND	_	_	ND	ND	ND
1,4-Dioxane	-	- ug/L	ND	_	_	ND	560	1500
Ethylbenzene	140	700 ug/L	85000	ND	ND	9900	ND	4.4J
2-Hexanone	_	ug/L	NO	_	_	ND	ND	ND
Methylene chloride	0.5	5 ug/L	ND	_	_	ND	ND	NO
4-Methyl-2-pentanone (MIBK)	50	500 ug/L	ND		_	ND	ND	ND
Styrene	10	100 ug/L	ND		-	ND	ND	ND
1,1,2,2,-Tetrachloroethane	0.02	0.2 ug/L	ND	_	-	NO	ND	ND
Tetrachioroethene	0.5	δug/L	ND	-	-	ND	ND	ND
Toluene	68.6	343 ug/L	72000	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	40	200 ug/L	ND	-	-	ND	ND	ND
1,1,2-Trichloroethane	0.5	6 ug/L	ND	_	-	ND	ND	ND
Trichloroethene	0.5	5 ug/L	ND	-	_	ND	ND	ND
Vinyl scelate	_	- ug/L	ND	_	-	ND	ND	ND
Vinyi chloride	0.02	0.2 ug/L	ND	-	-	ND	ND	ND
Xylenes (total)	124	620 ug/L	190000	ND	ND	19200	ND	19
Acetophenone	-	ug/L	ND	-	-	ND	ND	ND
bis (2-Ethylhexyl) phthalate	0.6	6 ug/L	ND	-	-	ND	1.33	ND
2,4-Dimethylphenol	-	- ug/L	210	_	-	66	ND	ND
2-Methylnaphthalene	-	- ug/L	NO	-	-	ND	ND	ND
2-Methylphenol	-	- ug/L	29J	-	-	ND	ND	ND
4-Methylphenol	-	- ug/L	91#	-	_	1,3J#	ND	ND
Naphthalene	8	40 ug/L	17J	-	_	4.1J	ND	ND
Phenanthrene	_	- ug/L	ND .	-	-	ND	ND	ND
Phenol	1200	6000 ug/L	57	-	-	44	NO	ND
Total Volatile Organic Compound	•	ug/L	267267	0	0	30599	560	1525
July 1996 Total VOCs		ug/L	150960	129	86	29900	2	109

Indicates results in exceedance of the PAL Indicates result in exceedance of the E8 ND = Not Detected

PROJECT NUMBER: 6E09062A
BEGINNING DATE: 6-Jul-97
ENDING DATE: 15-Jul-97

TABLE 3 CONTINUED SUMMARY OF MONITORING WELL RESULTS

(1) PAL = NR140 Preventive Action Limit (2) ES = NR140 Enformcement Standard

ENDING DATE: 15-J	ul-97							
Parameter	PAL (1)	ES (2) Unit	W-29-97-8 7/09/97	W-30-97-8 7/09/97	DUP-3-97-3 7/09/97 <u>(W-30-9</u> 7-3)	W-38-97-3 7/0/97	W-41-97-3 7/10/97	W-42-97-3 7/10/97
Barium	0,4	2 mg/l	0,23	0.087	0.088	-	-	-
Arsenia	5	50 mg/l	0,0027	0.0032	0.0028	-	-	-
Aroclor 1016	0.08	0.8 ug/L	_	•	-	-		-
Aroclor 1221	0.03	0.8 ug/L	-	-	-	-	-	-
Arocior 1232	0.03	0.8 ug/L	-	-	-	-	-	_
Aroclor 1242	0.03	0.8 ug/L	-	-		-	_	-
Aroclor 1248	0.03	0.8 ug/L	-	-	-	•••	-	-
Aroclor 1254	0.03	0.8 ug/L	-	-	-	-	-	-
Aroclor 1260	0.03	0.8 ug/L		-	-	-	-	-
Acetone	200	1000 ug/L	ND	ND	ND	822223	-	-
Benzene	0.5	5 ug/L	360	7.0	7.9	313003	ND	ND
Bromodichioromethene	0.06	0.6 ug/L	ND	ND	ND	-	-	-
Bromoform	0.44	4.4 ug/L	ND	ND	ND	-	_	
Bromomethene	1	10 ug/L	ND	ND	ND	-		
2-Butanone (MEK)	90.0	480 ug/L	NO	ND	ND	-	_	
Carbon disulfide	_	- ug/L	ND	ND	ND	-	_	_
Carbon tetrachloride	0.5	5 ug/L	ND	ND	NO	ND	ND	3500
Chlorobenzene	-	- ug/L	ND	ND	ND ND	-	-	-
Chloroethane	80	400 ug/L	ND	ND	ND ND	_	_	_
Chloroform	0.6 0.8	6 ug/L	ND ND	ND ND	ND ND	_	-	_
Chloromethane Dibromochloromethane	6.0	3 ug/L 60 ug/L	ND	ND	ND	_	_	_
1.2-Dichlorobenzene	60	800 ug/L	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	125	1250 ug/L	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	15	76 ug/L	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	86	850 ug/L	ND	ND	ND	_		_
1,2-Dichioroethene	0.5	5 ug/L	ND	ND	ND	_	-	_
ols-1,2-Dichloroethene	7	70 ug/L	ND	ND	ND	-		-
trans-1,2-Dichloroethene	20	100 ug/L	ND	ND	ND	-	_	_
1,1-Dichloroethene	0,7	7 ug/L	ND	NO	ND	_	-	
1,2-Dichloropropane	0.5	5 ug/L	ND	ND	ND	_		-
cis-1,3-Dichloropropens	0.02	0.2 ug/L	ND	ND	ND	_	_	_
trans-1,3-Dichloropropens	0.02	0.2 ug/L	ND	ND	ND	_	_	-
1,4-Dloxane	-	- ug/L	ND	NO	ND	-	_	-
Ethylbenzene	140	700 ug/L	81	ND	ND	ND	ND	ND
2-Hexanone	-	- ug/L	ND	ND	ND	_	_	-
Methylene chloride	0.5	5 ug/L	ND	ND	ND	-	-	-
4-Methyl-2-pentanone (MIBK)	50	500 ug/L	ND	ND	ND	_	-	-
Styrene	10	100 ug/L	ND	ND	ND	-	-	-
1,1,2,2,-Tetrachloroethane	0.02	ا/يون 0.2	ND	ND	ND	-	-	-
Tetrachioroethene	0.5	5 ug/L	ND	ND	ND	-		
Toluene	68.6	843 ug/L	ND	ND	ND	ND	ND	ND
1,1,1-Trichioroethane	40	200 ug/L	ND	ND	ND	-	-	_
1,1,2-Trichioroethene	0.5	5 ug/L	ND	ND	ND	-		-
Trichioroethene	0.5	5 ug/L		ND	ND	-	_	-
Vinyl scetate	-	– ug/L		ND	ND	-	-	
Vinyi chloride	0.02	0.2 ug/L		ND	ND	2000000		**********
Xylenes (total)	124	620 ug/L		7.6	7.2	1600	\$70	12600
Acetophenone		ug/L		ND	ND	-	-	-
ble (2-Ethylhexyl) phthalete	0.6	6 ug/L		ND	ND	-	-	-
2,4-Dimethylphenol		ug/L		ND	ND	-	-	-
2-Methylnaphthalene		ug/L		ND	ND	***	-	-
2-Methylphenol		ug/L		ND	ND	-	-	-
4-Methylphenol		ug/L	-	ND	ND	-	-	-
Naphthalene	8	40 ug/L		ND	ND	-	-	-
Phenanthrene	-	– ug/L		ND	ND	-	-	_
Phenol	1200	6000 ug/L	52	ND	ND	-	-	-
Total Volatile Organic Compour	nde	ug/L	1257	16	15	2900	670	16100
July 1995 Total VOCs		ug/L	929.6	11.1	-	4299	588	28500

Indicates results in exceedance of the PAL Indicates result in exceedance of the ES ND = Not Detected

(1) PAL = NR140 Preventive Action Limit (2) ES = NR140 Enformcement Standard

ENDING DATE:	5-Jul-97					
Parameter	PAL (1)	ES (2)	Units	W-43-97-3 7/9/97	W-47-97-3 7/10/97 (PCB's unflitered)	W-47-97-3 7/10/97 (PCB's filtered)
Berlum	0,4	2	mg/L	0.20	0,061	_
Arsenia	5		mg/L	0.011	0.0062	_
Aroclor 1016	0.03	0.8	ug/L	_	2.0	ND
Aroclor 1221	0.03	0.8	ug/L	-	ND	ND
Aroclor 1232	0.03	0.8	ug/L	-	ND	ND
Aroclor 1242	0.03	0.3	ug/L	_	ND	ND
Aroclor 1248	0.03	0.3	ug/L	-	NO	ND
Aroclor 1254	0.03	0.8	ug/L	_	ND	NO
Aroclor 1260	0.03	0.8	ug/L	-	ND	ND
Acetone	200	1000	ug/L	ND	ND	-
Benzene	0.5	5	ug/L	4100	ND	-
Bromodichloromethane	0.06	0.6	ug/L	ND	ND	
Bromoform	0.44	4.4	ug/L	ND	ND	-
Bromomethane	1	10	ug/L	ND	ND	-
2-Butanone (MEK)	90.0	460	ug/L	ND	ND	_
Carbon disulfide	-	_	ug/L	ND	ND	-
Carbon tetrachloride	0.5	5	ug/L	ND	ND	_
Chlorobenzene	_	_	ug/L	ND	ND	-
Chloroethane	80	400	ug/L	ND	ND	-
Chloroform	0.6	6	ug/L	ND	ND	-
Chloromethane	0.3	8	ug/L	ND	ND	-
Dibromochloromethene	6.0	60	ug/L	ND	ND	-
1,2-Dichlorobenzene	60		ug/L	ND	ND	_
1,3-Dichlorobenzene	125	1250	_	ND	ND	-
1,4-Dichlorobenzene	15		ug/L	ND	ND	-
1,1-Dichloroethane	85		ug/L	ND	NO	-
1,2-Dichloroethane	0.5		ug/L	ND	ND	_
cls-1,2-Dichloroethene	7		ug/L	ND	ND	-
trans-1,2-Dichloroethene	20		ug/L	ND	ND	-
1,1-Dichloroethene	0.7		ug/L	ND	ND	-
1,2-Dichloropropane	0.5		ug/L	ND	ND	-
cis-1,3-Dichloropropene	0.02		ug/L	ND	ND	-
trans-1,3-Dichloropropene	0.02		ug/L	ND	ND	-
1,4-Dioxane	-		ug/L	ND	ND	•••
Ethylbenzene	140		ug/L	9400	\$\$00	-
2-Hexanone	-		ug/L	ND ND	ND ND	_
Methylene chloride	0.5		ug/L	ND	ND ND	_
4-Methyl-2-pentanone (MIBK 8tyrene) 50 10		ug/L ug/L	ND	ND	_
1,1,2,2,-Tetrachloroethane	0.02		ug/L	ND	ND	_
Tetrachioroethene	0,5		ug/L	ND	ND	-
Toluene	68.6		ug/L	380	¥600	-
1,1,1-Trichloroethane	40		ug/L	ND	ND	_
* *	0.5		_	ND	ND	_
1,1,2-Trichloroethane Trichloroethane	0.5		ug/L ug/L	ND	ND	_
	0.5		ug/L	ND	ND	_
Vinyl acetate Vinyl chloride	0.02		ug/L	ND	ND	-
Xylenes (total)	124		ug/L	9000	44000	_
Acetophenone	124	020	ug/L	ND	180	_
bis (2-Ethylhexyl) phthelate	0.6	8	ug/L		ND	_
2,4-Dimethylphenol	3,0	•	ug/L	ND	790	_
2-Methylnaphthalene			ug/L	750	ND	_
2-Methylphenol			ug/L	NO .	190#	_
4-Methylphenol			ug/L	ND	200	_
Naphthalene	8	40	ug/L	200	18J	-
Phenanthrene	-		ug/L	210	ND	_
Phenol	1200	6000	_	ND	130	_
	.230				• = =	
Total Volatile Organic Comp	ounds		ug/L	18020	55200	0
				45-00	404700	
July 1996 Total VOCs			ug/L	15780	124760	

Indicates results in exceedance of the PAL indicates result in exceedance of the ES ND = Not Detected

ENDING DATE:

TABLE 1 MUNICIPAL WELL RESULTS

BEGINNING DATE:

6-Oct-97 8-Oct-97 (1) PAL = NR140 Preventive Action Limit (2) ES = NR140 Enformcement Standard

Parameter	PAL (1)	ES (2)	Units	MW-1-97-4 10/7/97	MW-2-97-4 not sampled	MW-3-97-4 10/7/97	MW-4-97-4 10/7/97	DUP3-97-4 10/7/97 (MW-4-97-4)	TB-1-97-4	TB-2-97-4
1,1,1-Trichloroethane	40	200	ug/L	ND	-	ND	ND	ND	_	ND
1,1,2,2-Tetrachloroethane	0.02	0.2	ug/L	ND	_	ND	NO	ND	_	ND
1,1,2-Trichloroethane	0.5	5	ug/L	ND	_	ND	ND	ND	_	ND
1,1-Dichloroethane	85	850	ug/L	ND	-	ND	ND	ND	_	ND
1,1-Dichloroethene	0.7	7	ug/L	ND	_	ND	ND	ND	-	ND
1,2-Dichloroethane	0.5	5	ug/L	ND	-	ND	ND	ND	_	ND
1,2-Dichloropropane	0.5	5	ug/L	ND		ND	NO	ND	_	ND
2-Butanone	90	460	ug/L	ND	_	ND	ND	ND	_	ND
2-Hexanone			ug/L	ND		ND	ND	ND		ND
4-Methyl-2-Pentanone	50	500	ug/L	ND	_	ND	NO	ND		ND
Acetone	200	1000	ug/L	ND	_	ND	ND	ND	_	ND
Benzene	0.5	5	ug/L	ND	_	ND	ND	ND	ND	ND
Bromodichloromethane	0.06	0.6	ug/L	ND		ND	ND	ND		ND
Bromoform	0.44	4.4	ug/L	ND	_	ND	ND	ND	-	ND
Bromomethane	1	10	ug/L	ND	-	ND	ND	ND	_	ND
Carbon disulfide			ug/L	ND	_	ND	ND	ND	_	ND
Carbon tetrachloride	0.5	5	ug/L	ND		ND	ND	ND		ND
Chlorobenzene	20	100	ug/L	ND	_	ND	ND	ND	ND	ND
Chlorodibromomethane	6	60	ug/L	ND	-	ND	ND	ND		ND
Chloroethane	80	400	ug/L	ND	_	ND	NO	ND		ND
Chloroform	0.6	6	ug/L	ND	-	ND	ND	ND	_	ND
Chloromethane	0.3	3	ug/L	ND	_	ND	ND	ND	-	ND
1,2-Dichloroethene, total	7	70	ug/L	ND	-	ND	ND	ND	***	ND
cis-1,3-Dichloropropene	0.02	0.2	ug/L	ND		ND	ND	ND		ND
Ethylbenzene	140	700	ug/L	ND	_	ND	ND	ND	ND	ND
Methylene chloride	0.50	5	ug/L	ND		ND	ND	ND		ND
Styrene	10	100	ug/L	ND		ND	ND	ND		ND
Tetrachloroethene	0.5	5	ug/L	ND	-	ND	ND	ND	_	ND
Toluene	68.6	343	ug/L	ND	-	ND	ND	ND	ND	ND
trans-1,3-Dichloropropens	0.02	0.2	ug/L	ND	-	ND	ND	ND		ND
Trichloroethene	0.5	5	ug/L	ND	-	ND	ND	ND		ND
Vinyl acetate			ug/L	ND	_	ND	ND	ND		ND
Vinyl Chloride	0.02	0.2	ug/L	ND	-	ND	ND	ND	_	ND
Xylene, total	124	620	ug/L	ND	-	ND	ND	ND	ND	ND
Total VOCs			ug/L	0.0	_	0.0	0.0	0.0	0.0	0.0
Fall 1996 Total VOCs			ug/L	0.0	-	0.0	0.0	0.0	-	_

PROJECT NUMBER: 6E09062A
BEGINNING DATE: 6-Ool-6 6-Oct-97 ENDING DATE: 8-Oct-97

TABLE 2 POTW AND RANNEY COLLECTOR RESULTS

ENDING DATE:	8-OCFA1						
Parameter	Units	POTW-1-97-4 10/7/97	POTW-E-97-4 10/7/97	POTW-8-97-4 10/7/97	RC-1-97-4 not sampled	RC-2-97-4 10/7/97	RC-3-97-4 not sampled
1,1,1-Trichloroethane	ug/L	ND	ND	ND ND			
1,1,2,2-Tetrachloroethane	ug/L	ND	ND	ND			
1,1,2-Trichloroethane	ug/L	ND	ND	ND			
1,1-Dichloroethane	ug/L	ND	ND	ND			
1,1-Dichloroethene	ug/L	ND	ND	ND			
1,2-Dichloroethane	ug/L	ND	ND	ND			
1,2-Dichloropropane	ug/L	ND	ND	ND			
2-Butanone	ug/L	ND	ND	ND			
2-Hexanone	ug/L	ND	ND	ND			
4-Methyl-2-Pentanone	ug/L	ND	ND	ND	•		
Acetone	ug/L	13	ND	5.4 Q			
Benzene	ug/L	ND	ND	ND		7.9	_
Bromodichloromethane	ug/L	ND	ND	ND			
Bromoform	ug/L	ND	ND	ND			
Bromomethane	ug/L	ND	ND	1.4			•
Carbon disulfide	ug/L	ND	ND	ND			
Carbon tetrachloride	ug/L	ND	ND	ND			
Chlorobenzene	ug/L	NO	ND	ND		ND	
Chlorodibromomethane	ug/L	ND	ND	ND			
Chloroethane	ug/L	ND	ND	ND			
Chloroform	ug/L	0.59 Q	ND	ND			
Chloromethane	ug/L	ND	ND	ND			
1,2-Dichloroethene, total	ug/L	ND	ND	ND			
cls-1,3-Dichloropropene	ug/L	ND	ND	ND			
Ethylbenzene	ug/L	ND	ND	ND		100	_
Methylene chloride	ug/L	ND	ND	ND			
Styrene	ug/L	ND	ND	ND			
Tetrachloroethene	ug/L	ND	ND	ND			
Toluene	ug/L	2.2	ND	ND		5	-
trans-1,3-Dichloropropene	_	ND	ND	ND			
Trichioroethene	ug/L	ND	ND	ND			
Vinyl acetate	ug/L	ND	ND	ND			
Vinyl Chloride	ug/L	ND	ND	ND			
Xylene, total	ug/L	0.98 Q	ND	NO	-	420	-
1,3-Dichlorobenzene	ug/L	-	-	-	-	ND	-
1,2-Dichlorobenzene	ug/L	-	-	-	-	ND	-
1,4-Dichiorobenzene	ug/L	-		-	-	ND	
Total VOCs	ug/L	16.8	0.0	6.8	-	532.9	-
Fall 1996 Total VOCs	ug/L	246	0.0	213	271.0	14900	16500

PROJECT NUMBER: 6E09062A BEGINNING DATE:

ENDING DATE:

6-Oct-97

8-Oct-97

TABLE 3 PERIMETER MONITORING WELL RESULTS (1) PAL = NR140 Preventive Action Limit

(2) ES = NR140 Enformcement Standard

Parameter	PAL (1)	ES (2)	Units	W-1A-97-4 10/7/97	W-3A-97-4 10/6/97	DUP1-97-4 10/6/97 (W-3A-97-4)	W-3B-97-4 10/6/97	W-4-97-4 10/7/97	W-07-97-4 10/7/97	W-08R-97-4 not sampled
1,1,1-Trichloroethane	40	200	ug/L	ND	ND	ND	ND	ND	ND	-
1,1,2,2-Tetrachloroethane	0.02	0.2	ug/L	ND	ND	ND	ND	ND	ND	-
1,1,2-Trichloroethane	0.5	5	ug/L	ND	ND	ND	ND	ND	ND	•••
1,1-Dichloroethane	85	850	ug/L	ND	ND	ND	ND	ND	ND	_
1,1-Dichloroethene	0.7	7	ug/L	ND	ND	ND	ND	ND	ND	•
1,2-Dichloroethane	0.5	5	ug/L	ND	ND	ND	ND	ND	ND	
1,2-Dichloropropane	0.5	5	ug/L	ND	ND	ND	ND	ND	ND	_
2-Butanone	90	460	ug/L	ND	ND	ND	ND	ND	ND	_
2-Hexanone			ug/L	ND	NÓ	ND	ND	ND	ND	
4-Methyl-2-Pentanone	50	500	ug/L	ND	ND	ND	ND	ND	ND	_
Acetone	200	1000	ug/L	ND	ND	ND	ND	ND	ND	
Benzene	0.5	5	ug/L	ND	ND	ND	ND	ND	ND	_
Bromodichloromethane	0.06	0.6	ug/L	ND	ND	ND	ND	ND	ND	-
Bromoform	0.44	4.4	ug/L	ND	ND	ND	ND	ND	ND	
Bromomethane	1	10	ug/L	ND	ND	ND	ND	ND	ND	-
Carbon disulfide			ug/L	ND	ND	ND	ND	ND	ND	-
Carbon tetrachloride	0.5	5	ug/L	ND	ND	ND	ND	ND	ND	-
Chlorobenzene	20	100	ug/L	ND	ND	ND	ND	ND	ND	-
Chlorodibromomethane	6	60	ug/L	ND	ND	ND	ND	ND	ND	_
Chloroethane	80	400	ug/L	ND	ND	ND	ND	ND	ND	_
Chloroform	0.6	6	ug/L	ND	ND	ND	ND	ND	ND	_
Chloromethane	0.3	3	ug/L	ND	ND	ND	ND	ND	ND	
1,2-Dichloroethene (Total)	7	70	ug/L	ND	ND	ND	ND	ND	ND	-
cls-1,3-Dichloropropene	0.02	0.2	ug/L	ND	ND	ND	ND	ND	ND	_
Ethylbenzene	140	700	ug/L	ND	ND	ND	ND	ND	ND	-
Methylene chloride	0.50	5	ug/L	ND	ND	ND	ND	ND	ND	_
Styrene	10	100	ug/L	ND	ND	ND	ND	ND	ND	
Tetrachioroethene	0.5	5	ug/L	ND	ND	ND	ND	ND	ND	_
Toluene	68.6	343	ug/L	ND	ND	ND	ND	ND	ND	-
trans-1,3-Dichloropropene	0.02	0.2	ug/L	ND	ND	ND	ND	ND	ND	-
Trichioroethene	0.5	5	ug/L	ND	ND	ND	ND	ND	ND	_
Vinyl acetate			ug/L	ND	ND	ND	ND	ND	ИD	
Vinyl Chloride	0.02	0.2	ug/L	ND	ND	ND	ND	ND	ND	
Xylene, total	124	620	ug/L	ND	ND	ND	ND	ND	ND	-
Total VOCs			.ug/L	0.0	0.0	0.0	0.0	0.0	0.0	-
Fall 1996 Total VOCs			ug/L	0.0	0.0		0.0	0.0	0.0	_

TABLE 3 CONTINUED
PERIMETER MONITORING WELL RESULTS

(1) PAL = NR140 Preventive Action Limit

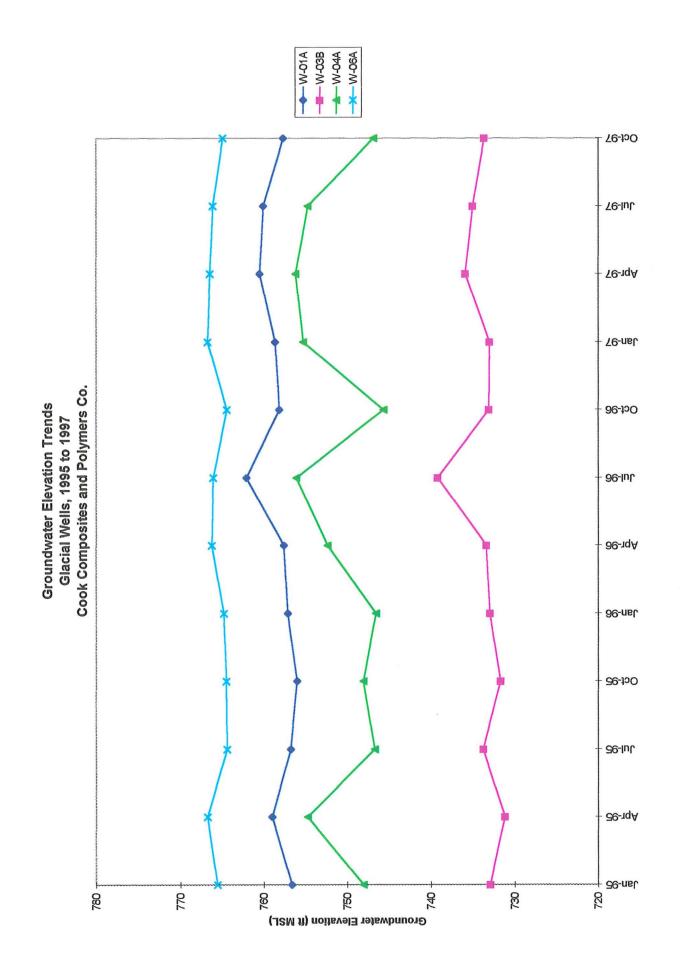
BEGINNING DATE: ENDING DATE: 6-Jan-97 8-Oct-97 (2) ES = NR140 Enformorment Standard

Parameter	PAL (1)	E\$ (2)	Units	W-20-97-4 10/6/97	W-22-97-4 10/6/97	W-23-97-4 10/6/97	DUP2-97-4 10/6/97 (W-23-97-4)	W-27-97-4 10/7/97	PW-08-97-4 10/7/97
1,1,1-Trichioroethane	40	200	ug/L	ND	ND	ND	ND	1.2 Q	ND
1,1,2,2-Tretrachloroethane	0.02	0.2	ug/L	ND	ND	ND	ND	ND	ND
1,1,2-Trichioroethene	0.5	5	ug/L	ND	ND	ND	ND	ND	ND
1,1-Dichlorosthane	85	850	ug/L	ND	ND	ND	ND	ND	ND
1,1-Dichlorosthene	0.7	7	ug/L	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	5	ug/L	ND	ND	ND	ND	NO	ND
1,2-Dichloropropene	0.5	5	ug/L	ND	ND	ND	ND	ND	ND
2-Butanone	90	460	ug/L	ND	ND	ND	ND	ND	ND
2-Hexanone			ug/L	ND	ND	ND	ND	ND	ND
I-Methyl-2-pentanone	50	500	ug/L	ND	ND	ND	ND	ND	ND
Acetone	200	1000	ug/L	ND	ND	ND	ND	ND	ND
Benzene	0.5	5	ug/L	NO	3.9	0.8	8.4	ND	ND
Bromodichioromethane	0.06	0.6	ug/L	ND	ND	ND	ND	ND	ND
3romoform	0.44	4.4	ug/L	ND	ND	ND	ND	ND	ND
3romomethane	1	10	ug/L	NO	ND	ND	ND	ND	ND
Carbon disulfide			ug/L	ND	ND	ND	ND	ND	NO
Carbon tetrachloride	0.5	5	ug/L	NO	ND	ND	ND	ND	ND
Chlorobenzene	20	100	ug/L	ND	ND	ND	ND	ND	ND
Chlorod lbromomethene	6	60	ug/L	ND	ND	ND	ND	ND	NO
Chloroethane	80	400	ug/L	ND	ND	ND	ND	ND	ND
Chloroform	0.6	6	ug/L	ND	ND	ND	ND	ND	ND
Chloromethane	0.3	3	ug/L	NO	ND	ND	ND	ND	ND
1,2-Dichloroethene, (Total)	7	70	ug/L	ND	ND	1.7	1.6	40.2	ND
ols-1,2-Dichloropropene	0.02	0.2	ug/L	ND	ND	ND	ND	ND	ND
Ethylbenzene	140	700	ug/L	ND	ND	ND	ND	ND	ND
Methylene chloride	0.5	5	ug/L	ND	ND	ND	ND	ND	ND
Btyrene	10	100	ug/L	ND	ND	ND	ND	ND	ND
Tetrachloroethene	0.5	5	ug/L	ND	ND	ND	ND	ND	ND
Toluene	68.6	343	ug/L	NO	ND	ND	ND	NO	ND
trans-1,3-Dichloropropens	0.02	0.2	ug/L	ND	ND	ND	ND	ND	ND
Trichloroethene	0.5	5	ug/L	ND	ND	ND	ND	180	ND
Vinyl sostate			ug/L	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.2	ug/L	ND	ND	ND	8.96	ND	ND
Xylene, total	124	620	ug/L	ND	ND	ND	ND	ND	ND
Total VOCs			ug/L	0.0	3.9	8.0	9.0	221.4	0.0
Fall 1996 Total VOCs			ug/L	49.6	1.2	83.9	45,4	142.5	0.0

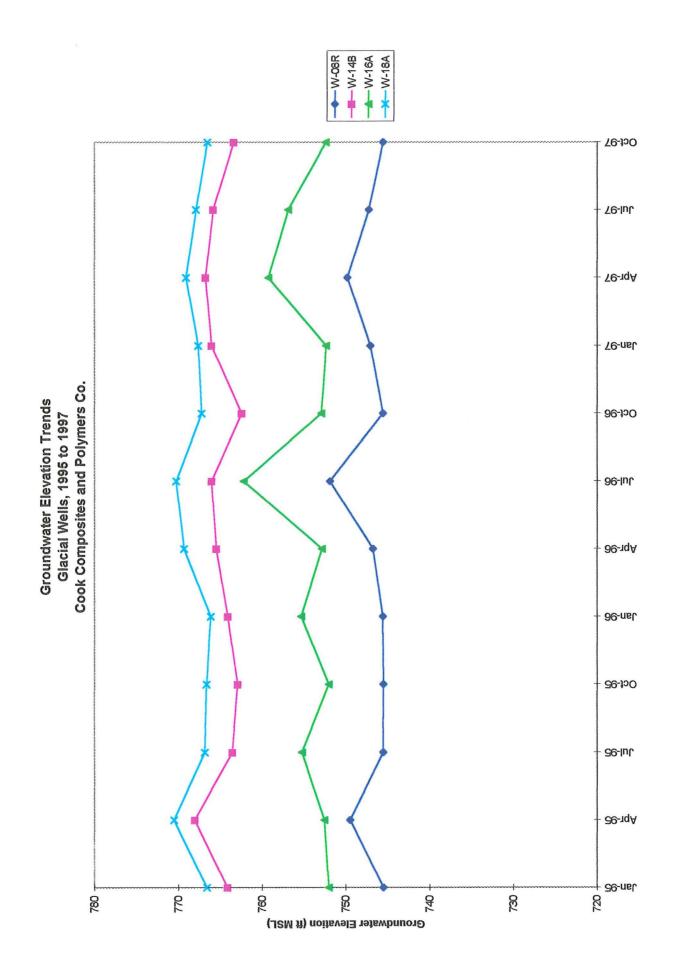
Indicates concentration in exceedance of Preventative Action Limit Indicates concentration in exceedance of Enforcement Standard

Appendix B Trend Plots

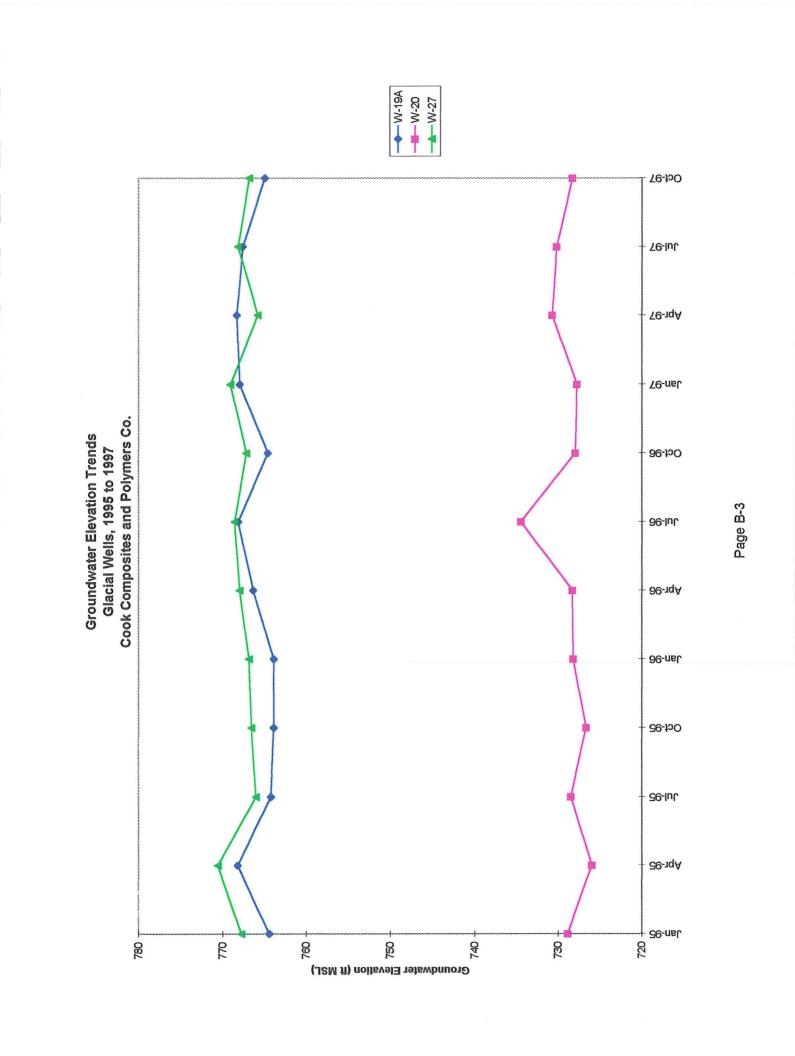
Groundwater Elevation Trends		
Glacial Drift Wells		
	Page B-1	W-01A, W-03B, W-04A, W-06A
	Page B-2	W-08R, W-14B, W-16A, W-18A
	Page B-3	W-19A, W-20, W-27
	Page B-4	W-41, W-42, W-43, W-44
	Page B-5	W-46, W-47, W-48
Shallow Dolomite Wells		
	Page B-6	W-03A, W-07, W-21A, W-22
	Page B-7	W-23,W-24A, W-25, W-28
	Page B-8	W-29, W-38, W-39, W-40
Deep Dolomite Wells		
	Page B-9	PW-08, W-30
Total VOC Trends		
Glacial Drift Wells		•
Perimeter	Page B-10	W-01A, W-03B, W-04A, W-08, W-20, W-27
Remediation Progress	Page B-11	W-19A, W-41
	Page B-12	W-06A, W-42, W-43, W-47
Dolomite Wells		
Perimeter	Page B-13	W-03A, W-07, W-22
	Page B-14	W-23, PW-08
Remediation Progress	Page B-15	W-21A, W-29, W-38
iconiculation 11051633	Page B-16	W-24A, W-28, W-30,
	- 450 10	" = "12, " = = 0, " = 00,

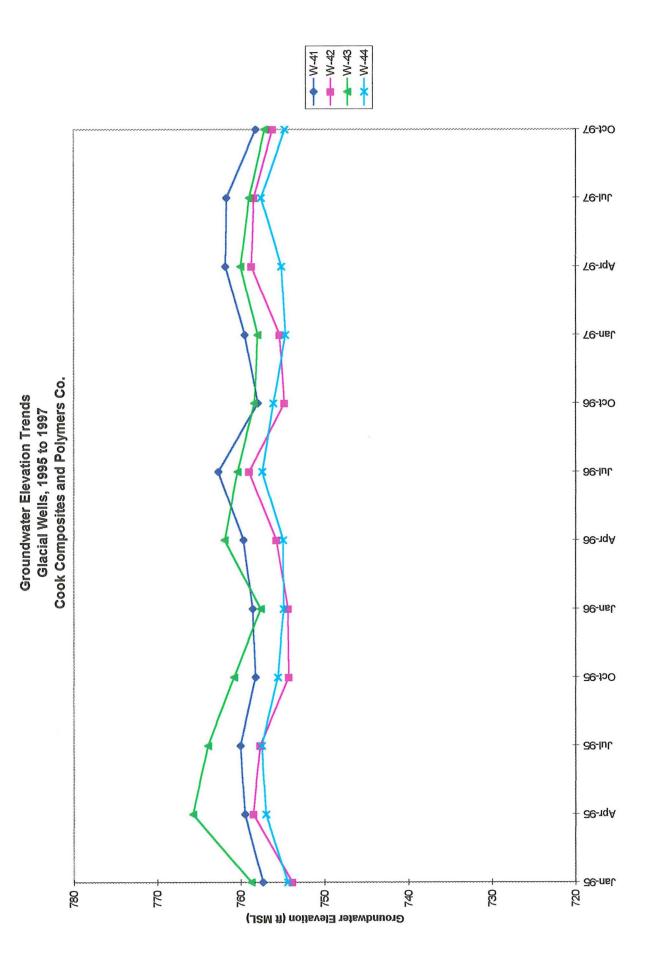


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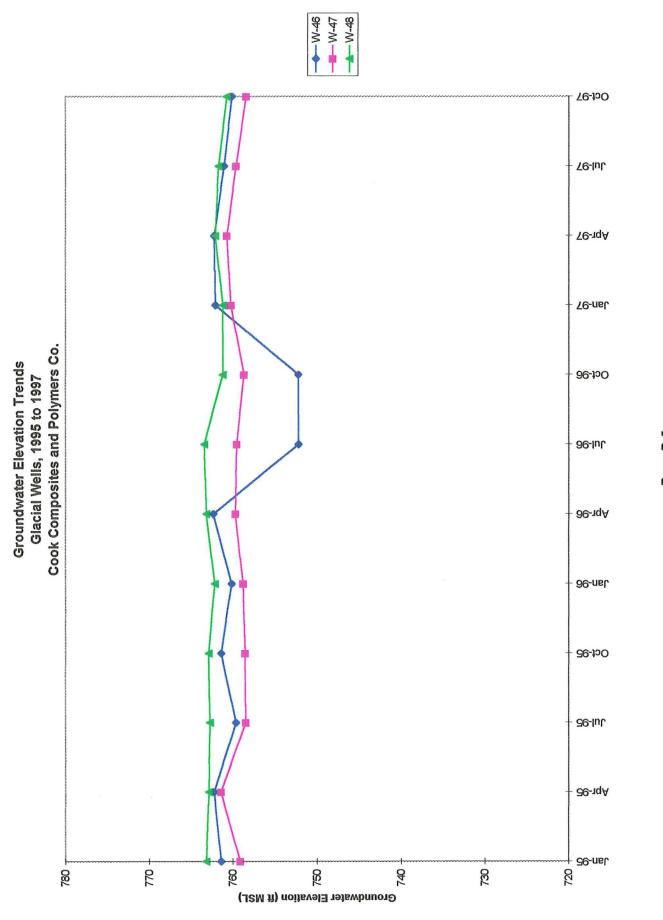


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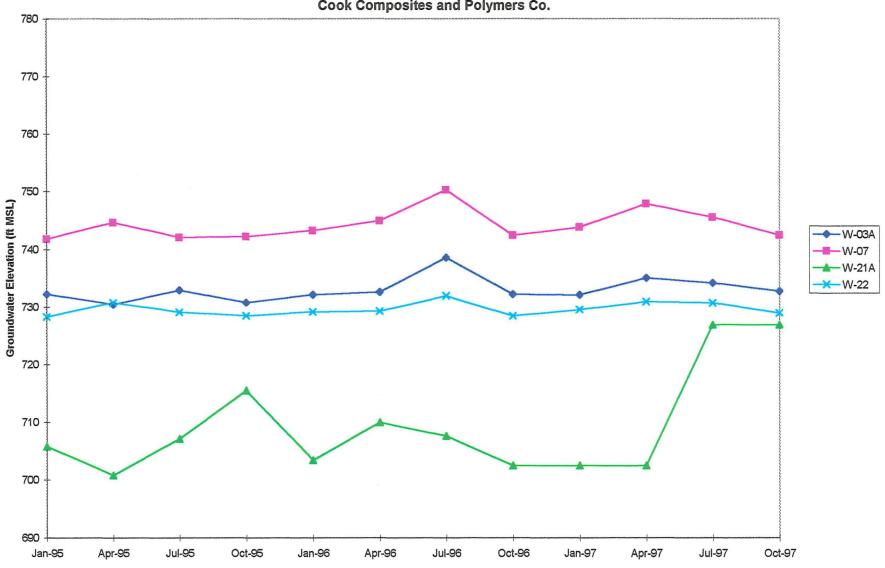


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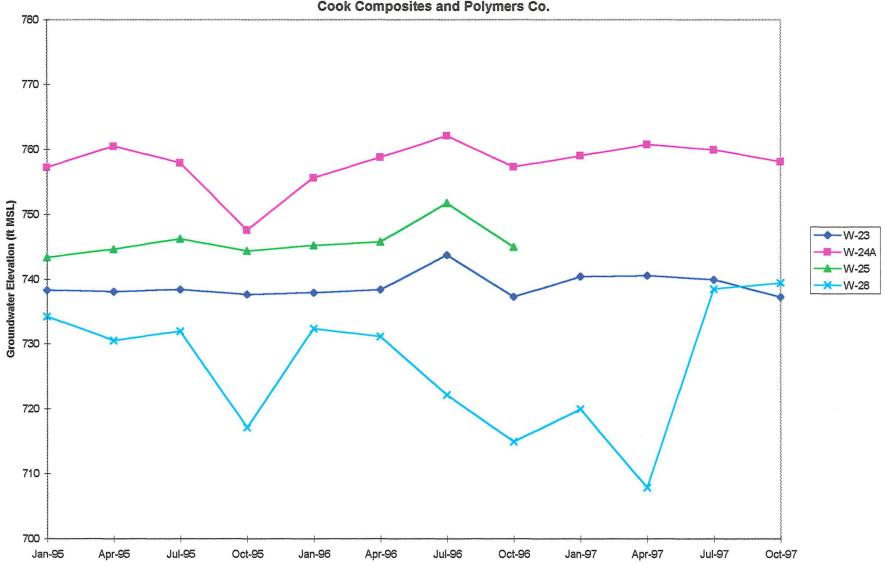
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Groundwater Elevation Trends Shallow Dolomite Wells, 1995 to 1997 Cook Composites and Polymers Co.

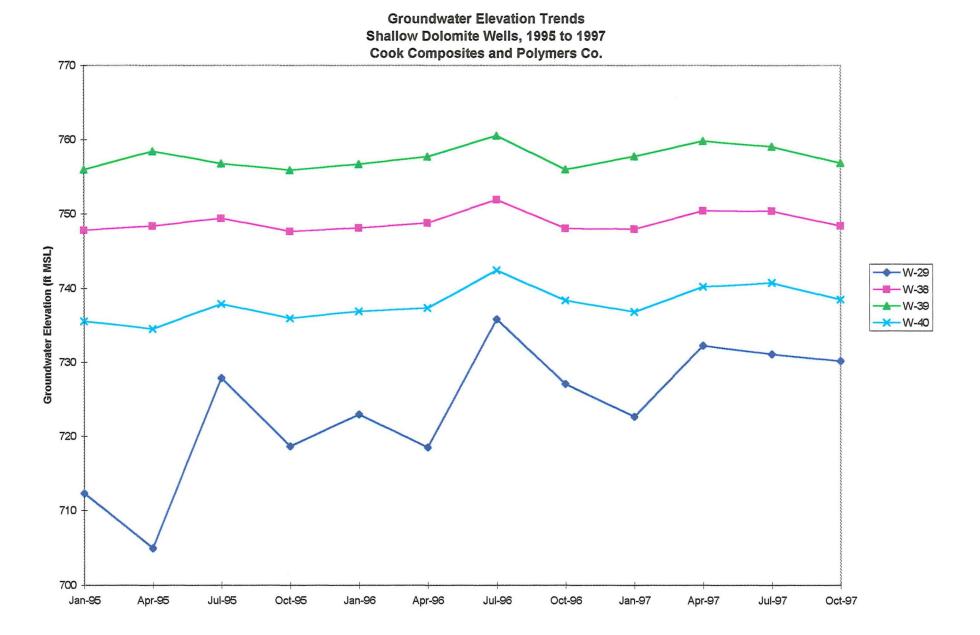


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Groundwater Elevation Trends Shallow Dolomite Wells, 1995 to 1997 Cook Composites and Polymers Co.

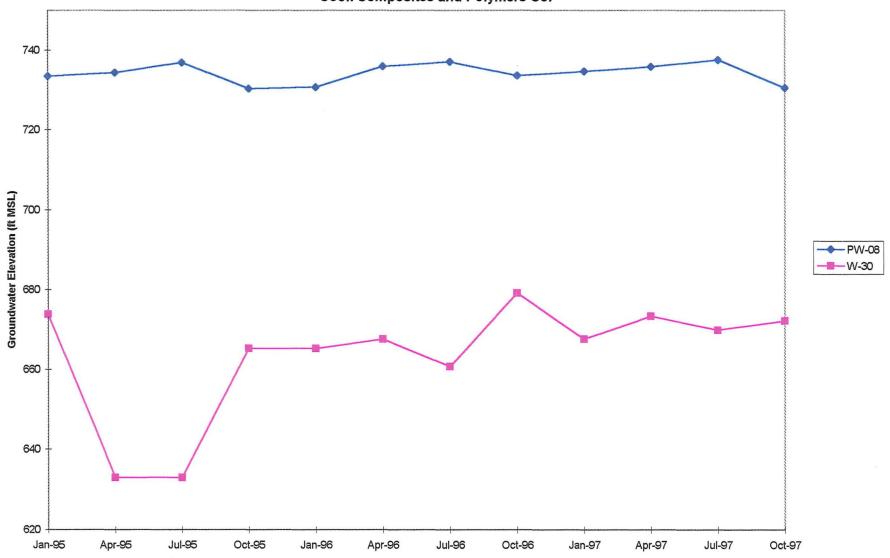


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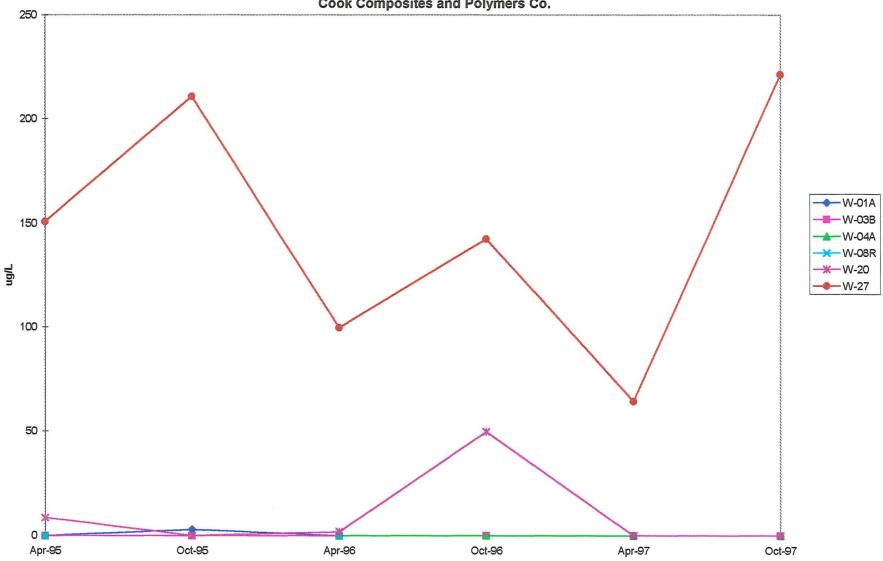
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Groundwater Elevation Trends
Deep Dolomite Wells, 1995 to 1997
Cook Composites and Polymers Co.

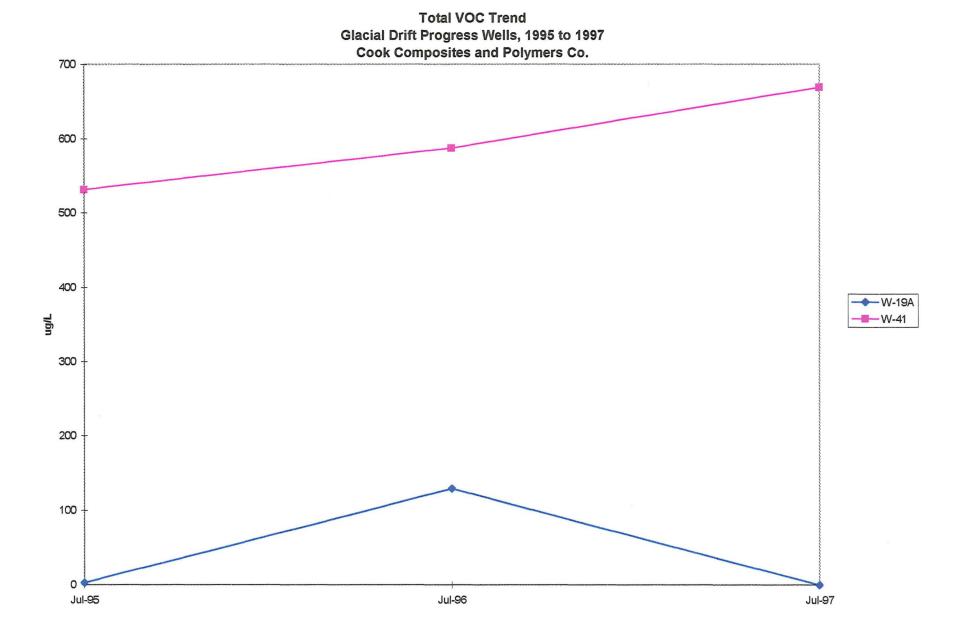


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Total VOC Trends
Perimeter Glacial Wells, 1995 to 1997
Cook Composites and Polymers Co.

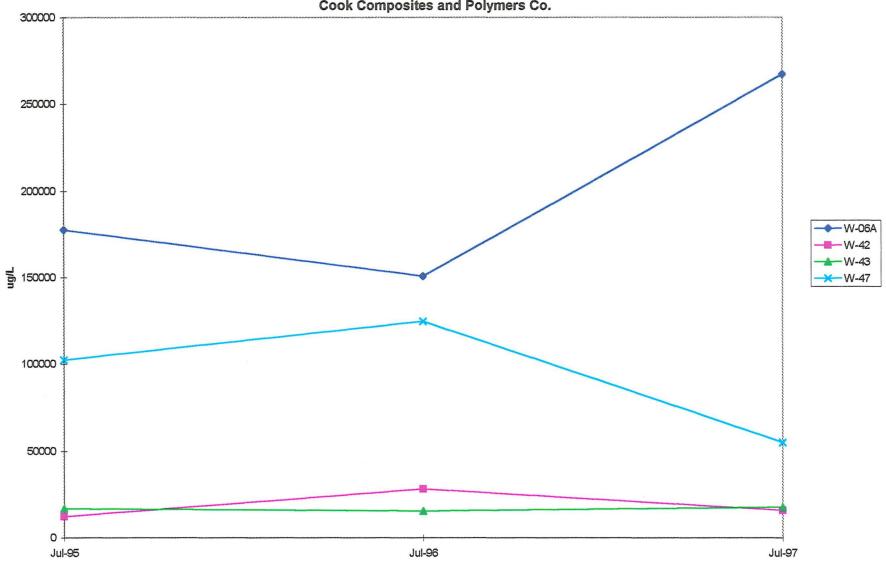


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Total VOC Trends
Glacial Drift Progress Wells, 1995 to 1997
Cook Composites and Polymers Co.

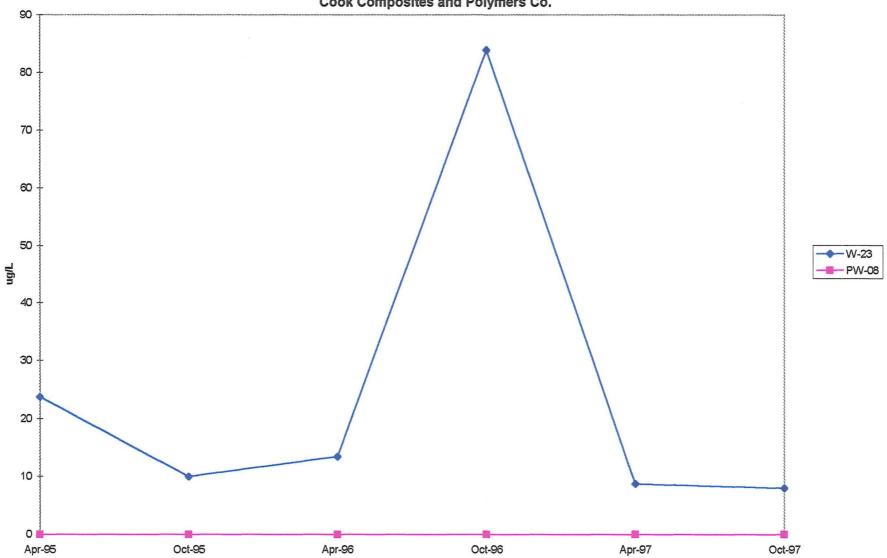


Perimeter Dolomite Wells, 1995 to 1997 Cook Composites and Polymers Co. 3.5 -3 + 2.5 7/6n 2 **★**-W-22 1.5 1 0.5 Apr-95 Oct-95 Apr-96 Oct-96 Apr-97 Oct-97

Total VOC Trends

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Total VOC Trends
Perimeter Dolomite Wells, 1995 to 1997
Cook Composites and Polymers Co.



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Dolomite Progress Wells, 1995 to 1997 Cook Composites and Polymers Co. 1600 1400 1200 -1000 → W-24A 10 800 mg/ **→** W-30 600 400 200 Jul-96 Jul-95 Jul-97

Total VOC Trends

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