

**INSTALLATION RESTORATION PROGRAM  
TWIN CITIES ARMY AMMUNITION PLANT**

*1988*  
**ANNUAL MONITORING REPORT - VOLUME I**

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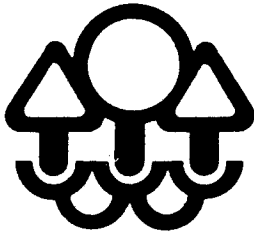
**Commander  
Twin Cities Army Ammunition Plant  
New Brighton, Minnesota  
55112-5000**

**Prepared for:**

**Commander  
Twin Cities Army Ammunition Plant  
ATTN: SMCTC-CO  
New Brighton, Minnesota 55112-5000**

**Commander  
U.S. Army Toxic & Hazardous Materials Agency  
ATTN: CETHA-CO  
Aberdeen Proving Ground, Maryland 21010-5401**

**SEPTEMBER 1989**



# Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Telephone (612) 296-6300



July 17, 1990

Mr. Martin McCleery  
Remedial Project Manager  
Twin Cities Army Ammunition Plant  
New Brighton, Minnesota 55112-5000

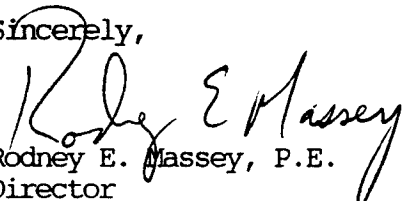
Dear Mr. McCleery,


RE: 1988 Annual Monitoring Report

We are writing to advise you that the 1988 Monitoring Report for the Twin Cities Army Ammunition Plant has passed the Consistency Test in accordance with Section IV of the Federal Facility Agreement.

If you have any questions feel free to contact Mark Schmitt of the Minnesota Pollution Control Agency at (612)-296-7776 or Art Kleinrath of the U.S. Environmental Protection Agency at (312)-886-7254.

Sincerely,

  
Rodney E. Massey, P.E.  
Director  
Ground Water and Solid Waste Division

  
Art Kleinrath  
Remedial Project Manager  
U.S. Environmental Protection  
Agency, Region 5

REM:pk

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H-2 01L811 01U806 01U805 01U808 01U803  
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I-1 03L002 03U021 03F305 03U700 03F304 03U671  
I-2 03L010 03U011 03U082 03U022 03U023  
I-3 03L012 03U025 03U083 03U088 03U089  
I-4 03L014 03L081 03L086 03U099 03U006 03L005  
I-5 03L028 03U647 03U659 03U658 03U004 03L832  
I-6 03L029 03U301 03U674 03L003 03U672  
I-7 03L078 03F303 03U703 03F302 03L079 03U710  
I-8 03L806 03U711 03U804 03U801 03L802  
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I-13 03U009 03U008 03U129 03U707 03U111 03U097  
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J-1 04U001 04U701 04U702 04U077 04U806 04U709  
J-2 04U002 04U711 04U802 04U003 04U673  
J-3 04U843 04U821 409595 04U861  
J-4 04U847 04U841 04U848  
J-5 04U850 04U877 04U851 04U852  
J-6 04U859 04U845 04U854 04U860  
J-7 04U875 04U880 04U881 04U882  
J-8 04U879 04U871 04U872 04U883  
J-9 409595 409598 117NB 409596 04U844 04U832  
J-10 PJ#74 PJ#508 04U020 04U027  
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K-1 01L821 03U821 04U821  
K-2 01L822 03L822 03U822  
K-3 01U011 03U011  
K-4 01U012 03L012 03M012 03U012 04U012  
K-5 01U624B 01U624D 01U624C  
K-6 01U625A 01U625B 01U625C 01U625D  
K-7 01U626A 01U626B 01U626C 01U626D  
K-8 01U627A 01U627B 01U627C 01U627D  
K-9 01U628A 01U628B 01U628C 01U628D  
K-10 01U803 03U803  
K-11 03L001 03M001 03U001 04U001  
K-12 03L002 03M002 03U002 04U002  
K-13 03L003 03M003 03U003 04U003 PJ#003  
K-14 03L004 03M004 03U004  
K-15 03L005 03M005 03U005  
K-16 03L007 03M007 03U007 04U007  
K-17 03L010 03M010 03U010  
K-18 03L013 03M013 03U013  
K-19 03L014 03U014  
K-20 03L017 03M017 03U017  
K-21 03L018 03U018  
K-22 03L020 03M020 03U020 04U020  
K-23 03L021 03U021

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K-24 03L027 03U027 04U027 PJ#027  
K-25 03L028 03U028  
K-26 03L077 03U077 04U077  
K-27 03L078 03U078  
K-28 03L802 03M802 04U802 PJ#802  
K-29 03L806 03M806 03U806 04U806 PJ#806  
K-30 03L832 03U832 04U832  
K-31 03L841 04U841  
K-32 03L848 03M848 04U848  
K-33 03L859 04U859  
K-34 03L860 04U860  
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## PURPOSE

The Twin Cities Army Ammunition Plant (TCAAP) water supply was found to be contaminated with Volatile Organic Compounds (VOC's) in July 1981. The New Brighton/Arden Hills area was assigned a Hazardous Ranking System (HRS) score of 43 on the National Priorities List (NPL) of the U.S. Environmental Protection Agency (EPA) in July 1981. At that time, the available data and information at the site were insufficient to develop, screen, and evaluate remedial action alternatives. The need for basic data at TCAAP to determine the magnitude and extent of surface and subsurface contamination resulted in an organized sampling program which began in the fall of 1983. However data before the fall of 1986, quarter (Q12), are not being used for analysis because of questionable quality control. These issues were addressed in the 1988 Quality Assurance Project Plan (QAPP) which is being used for all data collected from Q12 to date. Federal Cartridge Company (FCC) and its subcontractors collected these data for the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) in support of the Remedial Investigation/Feasibility studies at the site.

The Federal Facilities Agreement (FFA), effective December 31, 1987, contains a provision which requires the Army to prepare an annual report summarizing data collection. This is the first such report which covers data from Q17 through Q20 as required. Q16 was added because it represents the most recent comprehensive round of data collection and it is the one on which the Remedial Investigations (RI's) are based. Other project data collected from Q12 through Q15 are not addressed here but are available in the USATHAMA database.

The scope of this presentation includes only the sampling done by the Army on and near TCAAP. The purpose of this report is to present and analyze the sampling data and to recommend future sampling activities. Water level and quality data are

presented in the form of tables, histograms, and aerial contouring. Other data by Honeywell, Conestoga-Rovers and Associates (CRA), and the Minnesota Pollution Control Agency (MPCA) has been collected coincidentally but is not presented here.

## INTRODUCTION

### LOCATION OF HISTORY

TCAAP is located in New Brighton, Minnesota, about 13 miles north of the Minneapolis-St. Paul metropolitan area. The 2,370-acre site, constructed in 1941, has seven major production buildings with numerous auxiliary buildings and supporting utilities. Major production occurred from late 1941 to mid-1946, from 1950 to late 1958, and from late 1966 to 1970.

TCAAP is currently in a standby status. Presently, several commercial and government organizations are tenants at the site. The two major tenants are: (1) Honeywell, Inc. which has manufactured fuzes and ammunition for the Army since the late 1950's, and (2) Minnesota Mining and Manufacturing Company which has manufactured self-luminous, medical, and static eliminator products since the late 1950's.

### GEOLOGIC SETTING

Surficial: The Twin Cities area in which TCAAP is located is characterized by till plains, lakes, lacustrine plains, and moraines. TCAAP exhibits all of these features. Marsden lake, a shallow marsh, occupies the eastern area of TCAAP. A kame is present in the center of the site. To the north, Rice Creek drains a relatively flat area which is underlain by a glacial till referred to as the Twin Cities Formation. That till, referred to as Unit 2, acts as an aquitard between the surficial deposits, referred to as Unit 1, and sand deposits (Unit 3). The absence of that till in the central and southwestern areas of the site allows a direct hydraulic connection between the surface and the Unit 3 sands.

Bedrock Geology: TCAAP is located in an area known as the Twin Cities Basin which has been subjected to repeated glaciation. As a result, overburdens have been removed, bedrock valleys have formed and filled, and outwash and till deposits are common. All of this is overlain by sediments resulting from fluvial, eolian, and lacustrine processes. The major water bearing bedrocks are the St. Peter Sandstone, the Prairie du Chien Formation, the Jordan Sandstone, the Franconia Formation, the Ironton and Galesville Sandstone, and the Mt. Simon and Hinkley Sandstones. The site is characterized by the presence of the Prairie du Chien Formation and the Jordan Sandstone, referred to as Unit 4, immediately below the Arsenal and Hillside sands (Unit 3). A geologic valley exists in the southwestern portion of the site. It cuts through the Prairie du Chien and Jordan running from the northwest to the southeast.

## **HYDROGEOLOGY**

Three water bearing formations exist on the site. The uppermost of these is in Unit 1. It is present only when underlain by Unit 2 which forms an aquitard. In general, this condition exists around the periphery of the site and flow directions vary in response to the slope of Unit 2. Argonne National Laboratory (ANL) has estimated a range of horizontal hydraulics conductivities ranging from  $2.5 \times 10^{-6}$  to  $7.8 \times 10^{-6}$  cm/s in this formation. Units 3 and 4 appear to be hydraulically connected on the site and flowing in a southwesterly direction. Based on pump tests by CRA, a transmissivity (T) value of 30,000 ft<sup>2</sup>/day has been estimated. However, the conductivity of Unit 3 appears to be about twice that of Unit 4. As water moves to the southwest, the sands pinch out as the St. Peter Sandstone emerges. As a result, the hydraulic gradient steepens as the water is forced into Unit 4 and flow directions while basically southwest exhibits local variations. In this area the Minnesota Pollution Control Agency (MPCA) has estimated a T value in the Jordan Sandstone of 2,000 to 3,000 ft<sup>2</sup>/day (conductivity 40). In the Prairie du Chien Formation, MPCA estimates a T value of approximately 60,000 ft<sup>2</sup>/day

(conductivity about 200). Water measurements and groundwater (MPCA and Argonne) modeling in these areas suggest that these two formations are not well connected hydraulically.

## **THE PROBLEM**

TCAAP is a source of regional contamination of groundwater. In 1978, the Army began assessing the potential for environmental contamination as a result of activities at the Twin Cities Army Ammunition Plant (TCAAP). In that year, the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) performed an "Installation Assessment of TCAAP" which did not discover volatile organic compounds (VOCs) groundwater contamination. However, the issue of solvent disposal was not addressed in any detail. That issue was raised by Bionetics, a U.S. EPA contractor, in a series of three reports: an "Installation Assessment" in May 1981 and two reports on "Potential Groundwater Contamination Sources" in August 1982 and November 1985.

Concern about potable water supplies at TCAAP began in July 1981. Samples taken during the summer of 1981 showed 1,1,1-trichloroethane (111 TCE) and trichloroethylene as high as 5,700 and 10,000 parts per billion (ppb) equivalent to micrograms per liter (ug/L) in four of the six production wells. This prompted the Minnesota Department of Health (MDH) to declare TCAAP water unsafe on July 17, 1981. As a result, the use of water from the production wells was suspended on that date and bottled water was used instead. By July 21, 1981, a plan was being implemented to purge the distribution system and to restrict pumping at TCAAP to production wells 1 and 2, which were fairly clean.

In late July 1981 the municipal supplies at St. Anthony, Mounds View, and Shoreview were tested and found to be clean. However, a mobile home park just southwest of

TCAAP showed contamination levels of about 70 ppb of 111 TCE. Bottled water was provided until a new clean water supply could be developed.

On August 11, 1981, New Brighton's City Manager and Director of Public Works jointly alerted their city council to low levels (111 TCE as high as 29 ppb and 1,1,2-TRCLE as high as 130) of solvent contamination in five of the six municipal wells. This alert was in response to a July 21, 1981 MDH recommendation to consider alternatives for a clean water supply and to establish a monitoring program. The options presented to council included interconnection to the City of Minneapolis water supply, treatment of the existing wells, plus drilling new wells.

USATHAMA commissioned a report in May 1981 by Environmental Photographic Interpretation Center (EPIC). That report did not conclusively link TCAAP to the New Brighton problem. However, the Minnesota Pollution Control Agency was concerned and asked that the New Brighton area be added to the National Priorities List (NPL), which was done in December 1982.

In 1982, contamination discoveries continued. St. Anthony discovered low level contamination in municipal well #3. This problem was documented in a "Report on Water Supply System for St. Anthony, Minn. 1983" by Bonestroo, Rosene, Anderlik & Associates and Barr Engineering. That report recommended using well #3 on a standby basis, identifying funding of anticipated future expenses, monitoring, and conducting a study of new wells and/or treatment for existing supplies.

In early 1983, six private wells southwest of TCAAP were discovered to be contaminated with VOCs. All users were provided bottled water until clean, permanent sources could be assured.



By the spring of 1984, the Department of Health recommended a shutdown of St. Anthony municipal well #4. An interconnection with the St. Paul Water Utility assured a clean supply.

## **INVESTIGATIONS - HONEYWELL**

In June 1984, Honeywell, in cooperation with the Minnesota Pollution Control Agency, announced plans to conduct a three-phase investigation of the area outside the TCAAP boundary. The objectives were: (1) Phase I-Groundwater Investigation in the area bounded by Highways 96, 10 and 8 (triangle area), (2) Phase II-Investigations at four potential off-TCAAP source areas, and (3) Phase III-Plume Definition Study to the southwest of TCAAP.

Phase I: This study, released in October 1985, concluded that two plumes were migrating from TCAAP. The north plume identified by Conestoga-Rovers Associates (CRA) is present in the Hillside Sand, Prairie du Chien, and Jordan Formations. It is characterized by trichloroethylene, 1,1,1-trichlorethane and 1,1-dichloroethane. Its southern and westerly extents were not delineated. The south plume was found to be present in the upper Hillside Sand Formation (Unit 3) and was made up of predominantly trichloroethylene and 1,1-dichloroethylene. Honeywell and CRA believe that the south plume originated from Building 502.

Phase II: The purpose of this project was to gather data at three potential VOC sources off-TCAAP. The results, summarized below, were published in a series of three data reports in 1987.

The **Herbst Landfill** operated from approximately 1930 into the 1970's; first as a farm dump and later a demolition dump. The EPA investigated the site in 1982 and installed five Unit 1 monitor wells. The analysis of water samples taken from the EPA wells revealed acetone, 2-Butanone, Benzene, and Toluene. The Honeywell investigation of the Herbst landfill consisted of installing four monitor wells into the Unit 1 Formation and another five wells into the Hillside Sand (Unit 3) Formation.

The **Old Northwest Refinery Site** was located on property owned by the Minnesota Transfer Railway from 1944 to 1967. In 1980, 16 soil borings and 11 monitor wells, 10 Unit 1 and one Unit 3 were installed by Soil Exploration Company for the city of New Brighton and the Minnesota Transfer Railway Company. The wells were not tested for VOC's during this investigation. Sampling in 1982 by the EPA under the Field Investigation Teams (FIT) program detected the following compounds in parts per billion (ppb).

1,2-Dichloroethylene	30 ppb
Trichloroethylene	500 to 11,000 ppb
Tetrachloroethylene	4.4 ppb
Toluene	1,200 ppb
Methylene Chloride	1.1 to 51 ppb
1,1,1-Trichloroethane	160 to 8,400 ppb

In April 1986, Honeywell installed a total of eight monitor wells at the Old Northwest Refinery site. Three of the wells were installed into the (Unit 1) Formation, four into the Hillside Sand (Unit 3) Formation, and one installed into the Prairie du Chien (Unit 4) Formation. Volatiles were detected in groundwater samples during two rounds of sampling. The ranges of values are summarized below:

	ROUND ONE	ROUND TWO
Trichloroethylene	10 to 970 ppb	6.4 to 720 ppb
1,2-Dichloroethylene	5.2 to 120 ppb	2.0 to 280 ppb
Tetrachloroethylene	210 ppb	0.8 to 1.1 ppb
Toluene	5 ppb	-- ppb
Chloroform	7.8 ppb	1.2 to 1.3 ppb
1,1,1-Trichloroethane	8 to 240 ppb	-- ppb
Methylene Chloride	8 to 20 ppb	8 to 20 ppb

In 1982, the Environmental Protection Agency installed five Unit 1 wells at the Old Miller Dump Site under the FIT program. No VOC's were detected in the groundwater samples taken from the wells. In September 1986, Honeywell excavated eight test pits located by CRA, Honeywell, and the Minnesota Pollution Control Agency on the basis of suspected contamination identified in aerial photographs. In general, VOC's were not detected in samples from the test pits.

In 1986, six Unit 1 wells were installed at the dump site by the owner. Sampling found 1,2-dichloroethylene ranging from 0.34 to 0.76 ppb and 1,1-dichloroethane at 0.23 ppb. In April 1986, three monitor wells were installed into the Hillside Sand (Unit 3) Formation and another installed into the Prairie due Chien (Unit 4) Formation. Sampling of these wells showed trichloroethylene ranging from 0.3 to 48 ppb, 1,1,1-trichloroethane ranging from 9 to 11 ppb and methylene chloride ranging from 5 to 6 ppb.

Phase III The goals of this study were:

- (1) Summarize studies and response actions conducted within the study area;
- (2) Provide a regional assessment of geology and groundwater hydrology;
- (3) Provide a data base of groundwater VOC data;

- (4) Provide an evaluation of four potential source areas (Old Northwest Refinery, Old Miller Dump, Herbst Landfill, and Butcher's Spur); and
- (5) Provide an interpretation of VOC plumes identified within the study area.

The Phase III Honeywell project included the installation of four Hillside Sand (Unit 3) Formation and 10 Prairie du Chien (Unit 4) Formation wells. The scope was amended to include all Unit 3 and Unit 4 wells installed southwest of TCAAP under the MPCA Phase IA Remedial Investigation which amounted to an additional five wells. The report, completed in August 1987 concluded the following:

- (1) Two plumes originate from TCAAP. A north plume originates from Sites D and G and extends into New Brighton. A south plume originates from Site I and extends approximately 4,000 feet south of the TCAAP boundary;
- (2) The north plume and south plume are differentiated geographically, hydraulically and chemically and are therefore independent of each other;
- (3) VOC's observed in the St. Anthony municipal well field did not migrate from the south plume but could have migrated from the north plume; and
- (4) The Herbst Landfill, the Old Miller Dump Site, the Old Northwest Refinery Site and butcher's Spur are not the source of contamination for the north and south plume.

#### **INVESTIGATIONS - MINNESOTA POLLUTION CONTROL AGENCY**

In 1984, the Minnesota Pollution Control Agency, through funds made available by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) initiated a study to investigate the groundwater contamination problem identified in the New Brighton/Arden Hills, Minnesota area. The investigation consists of two phases, the first of which includes providing a general description of the geology

and hydrology, and interpretation of the possible sources and a definition of the horizontal and vertical extent of the contamination. In May 1985, the Phase I report identified four potential VOC contamination source areas. The two on TCAAP are: (1) sources within TCAAP that lie above the Twin Cities till and (2) sources within TCAAP disposal sites that are located within the Kame. The sites identified adjacent to TCAAP include: (1) an industrial area along Old Highway 8 north of Interstate 694 and (2) a commercial/industrial area to the north of Rush Lake.

Phase II was renamed Phase Ia in July 1985 and is intended to identify the magnitude of each source, and identify and assess on- and off-site remedial measures. To that end, the study will conduct the following tasks:

- (1) An extensive review and analysis of existing data;
- (2) Geophysical investigation;
- (3) Monitor well construction program;
- (4) Water level and water quality surveys; and
- (5) Data interpretation using groundwater flow and contaminant transport models.

## **INVESTIGATIONS - ARMY**

### **CERCLA**

The federal Superfund Amendments and Reauthorization Act of 1986 (SARA) specifically addressed federal facilities. This set the stage for an Army/EPA/MPCA Federal Facilities Agreement effective on December 31, 1987. As a result of these events, the CERCLA Remedial Investigation (RI) and Feasibility Study (FS) process was initiated. ANL, on behalf of the Army, completed a Preliminary Assessment (PA)

for TCAAP and a supplemental PA, covering Honeywell and Champion Motors, on May 19, 1988. They completed the RI Work Plan on November 7, 1988 and the QAAP on January 5, 1989. Two RI's are scheduled to be completed in 1990. The Army's (ANL) addresses On-TCAAP issues. The EPA and MPCA are completing the Off-TCAAP RI, also known as Phase Ia. The Army's RI will:

- (1) Identify and quantify contamination present on the 14 disposal sites;
- (2) Identify potential pathways of migration of contaminants from the sites;
- (3) Identify sensitive receptors of contamination from the sites;
- (4) Quantify the risk associated with no remediation (the no-action alternative) of on-site and off-site contamination after the initial removal action at the site;
- (5) Verify the previous work performed on geologic and hydrogeologic conditions at the TCAAP site and identify potentially affected site areas;
- (6) Identify general response actions applicable to known site conditions and prescreen remedial technologies applicable to the general response actions; and
- (7) Provide sufficient data to conduct detailed evaluations of potential remedial alternatives.

The Army will complete the FS in 1991 which will:

- (1) Develop and evaluate remedial action alternatives;
- (2) Recommend cost-effective remedial alternative(s) for the site; and
- (3) Prepare a conceptual design of the recommended remedial alternative(s).

### Interim Response Actions

- (1) Sewers - Remedial work included relining 5,671 feet with polyethylene pipe, sealing joints which failed testing, and sealing of seven manholes.
- (2) Sumps - Remedial work has been completed in areas where breaks were evident.
- (3) ISV at Sites D and G - The sites began operating on January 29 and February 20, 1986, respectively. As of August 1989, a total VOC removal is estimated to be 93,000 and 89,400 pounds, respectively, at the two sites.
- (4) PCB Contaminated Soils Site D - The feasibility Study was approved by the MPCA December 28, 1987. The Remedial Action Plan/Closure Plan (RAP/CP) was finalized on July 14, 1988. A public information meeting was held on July 28, 1988 to discuss the thermal treatment project. A letter from MPCA was received February 27, 1989 indicating that the proposed system was adequate. The Record of Decision (ROD) was completed and put on public notice May 22, 1989. An additional public meeting was held June 15, 1989. An additional public meeting was held June 15, 1989. The ROD has been signed by the Army and EPA. The operation began on August 14, 1989.
- (5) Site F Closure (RCRA Site) - Field work is complete. Following the preparation of an investigation report, a Remedial Action Plan/Closure Plan remains to be completed in 1989.
- (6) Groundwater Treatment at Buildings 103/402 - The systems have been operational since August 15, 1986. Monitoring is being performed.
- (7) The Boundary Groundwater Recovery System (BGRS) - The BGRS was dedicated on October 19, 1987. The Health, Safety and Security (HSS) Plans for the Groundwater Treatment System at the TCAAP were prepared by Honeywell-CRA and distributed on April 23, 1987. The deliverables

required by Record of Decision, as approved by EPA included a BGRS Monitoring Plan, Quality Assurance Project Plan and Gravel Pit Study. They were completed by Honeywell and approved in the spring of 1988. A Performance Assessment (PAR) report was approved on July 6, 1988. Based on the PAR, additional extraction wells and a fourth air stripping tower for a modified BGRS/TGRS was completed January 31, 1989. The BGRS Annual Monitoring Report per Attachment 2 of the FFA was distributed June 7, 1989. The Contingency Plan for TCAAP water supply once the BGRS/TGRS water is used for plant supply was distributed June 7, 1989.

- (8) Site G Closure Certification - Approval was received from the MPCA May 12, 1988 of the Site G Certifications by the Army, Federal Cartridge Company, and Honeywell in accordance with Part XIII of the FFA. Site G is therefore not subject to RCRA closure requirements.
- (9) Site A IRA - A Groundwater Extraction/Treatment System was constructed at the northern boundary of the TCAAP and became operation on September 13, 1988.
- (10) New Brighton - A temporary activated carbon treatment system was installed on wells #5 and #6 in the summer of 1988. A permanent system which will include wells #3 and #4 was under construction in the summer of 1989. Funding for these activities was the result of an agreement between New Brighton and the Army.
- (11) St. Anthony - A temporary activated carbon treatment system was installed in the summer of 1988. A permanent system was under design in the summer of 1989. The EPA Superfund is funding these two projects.



## EXPLANATION OF REPORT

The TCAAP Annual Monitoring Report has been prepared in accordance with the guidelines given in the Federal Facility Agreement (FFA) signed by the Environmental Protection Agency, the Minnesota Pollution Control Agency (MPCA) and the U.S. Army dated December 31, 1987. The specific requirements which discuss the TCAAP Annual Groundwater Monitoring Report are listed in Sections 3.7.2 (attachment 2) and 3.8 (attachment 3) of the FFA.

The requirements of the report were modified at a meeting between the MPCA, the U.S. Army, Federal Cartridge Company (FCC) and Wenck Associates on September 20, 1989. The following changes were agreed to for the 1988 Annual Groundwater Report:

- Water chemistry isoconcentration maps for the metals are replaced by concentration maps which will not include contour mapping.
- The map scale for the TCAAP site, excluding blown-up sections are 1:18,000.
- Metals which are mapped are; copper, nickel, lead, and mercury. Cyanide and radionuclides are also mapped.
- The report contains no data interpretation but will instead be a data presentation report.
- The report will include Q16 as well as Q17, Q18, Q19 and Q20.

- The report includes plots of trichloroethylene in the form of isoconcentration maps for the upper, middle, and lower unit 3 and total volatile organic compounds (VOC's) will plot the highest concentration from each unit 3 well nest.

The annual monitoring report has been split into four volumes which will be briefly described below. Volume I contains the monitor well locations maps for the unit 1, unit 3, and unit 4 wells located on TCAAP. Volume I also contains groundwater levels. Unit 1 also contains water quality tables for unit 1, unit 3 and unit 4 for quarters 16, 17, 18, 19, and 20. Water level data is also included as section C of Volume I for units 1, 3, and 4 for quarters mentioned above. The last section in Volume I contains tables of data analysis which were above the action limits for that particular contaminant. One table exists for groundwater and another for surface water in this section.

Volume II contains maps of the water levels for the unit 1, unit 3, and unit 4. Specifically, unit 1 has water level maps created for the TCAAP site as a whole, the site A area on the north end of TCAAP, and the area near Honeywell Building 103, all areas where extensive unit 1 monitoring has been conducted. Unit 3 water levels have been created for the site and for the Boundary Groundwater Recovery System (BGRS). This BGRS area is located on the southwest border of TCAAP and consists of extraction wells installed into the Unit 3 which pump contaminated groundwater from the boundary, treat the water, and return it to a discharge area located in the north central portion of TCAAP. Unit 4 groundwater level maps are created for TCAAP as a whole. All the groundwater maps have been created for quarters 16, 17, 18, 19, and 20 and are listed in the Volume II as sections E, F, and G, respectively. Volume II also contains groundwater hydrographs (groundwater level versus time) for Units 1, 3, and 4. Specific wells are listed in the Volume II table of contents in the Unit 1, Unit 3, and Unit 4 and are listed in sections H, I, J, respectively. Section K

consists of hydrographs created of the monitor well nests located on TCAAP. These nests consist of wells installed in the same location, but extending to different depths and/or different aquifers.

The following Unit 3 groundwater hydrograph were plotted to specifically examine the groundwater fluctuations and the boundary groundwater recovery system (BGRS) extraction boundary:

03S307  
03U701  
03U702  
03F306  
03L002  
03F305  
03U671  
03F304  
03L021  
03L078  
03F303  
03U703  
03F302

Maps F-2, F-4, F-6, F-8 and F-10 all show the area being examined.

Volume II also contains isoconcentration maps for unit 1, unit 3, and unit 4 wells.

Unit 1 wells have been segregated into the site A area and Honeywell Building 103 area and the site as a whole and the TCAAP site as a whole. Section L contains plots for both total VOC's and trichloroethylene for the maps discussed. Section M is made up of Unit 3 isoconcentration maps and includes separate maps for the upper, middle, lower Unit 3 for plotting trichloroethylene concentrations. A map also exists for Total Volatile Organic compounds for the whole Unit 3. This map was created by plotting the highest concentration from each well nest. For ease of viewing, the monitoring well location maps (section A) plot only one well from each monitor well nest.

Section N in Volume II contains isoconcentration maps for Unit 4, one of which is for Total VOC's and the other for trichlorethylene. Section O begins the plots or maps of the inorganics. Section O specifically is for Unit 1 groundwater quality and consists of any concentrations which were detected in the wells for quarters 16-20. Likewise, Section P contains plots of all inorganics detected during quarters 16-20. Section Q contains all the organics detected in monitor wells (Unit 4) in quarters 16-20 period. It is possible that maps are included which have no detected concentrations listed on the map. These plots also show which wells were sampled for during each period. These plots also show wells that were sampled for specific contaminants but not necessarily detected. The last section in Volume II contains maps showing the location of the quarterly surface water sampling spots.

Volume III and Volume IV contain Appendices which will be described below:

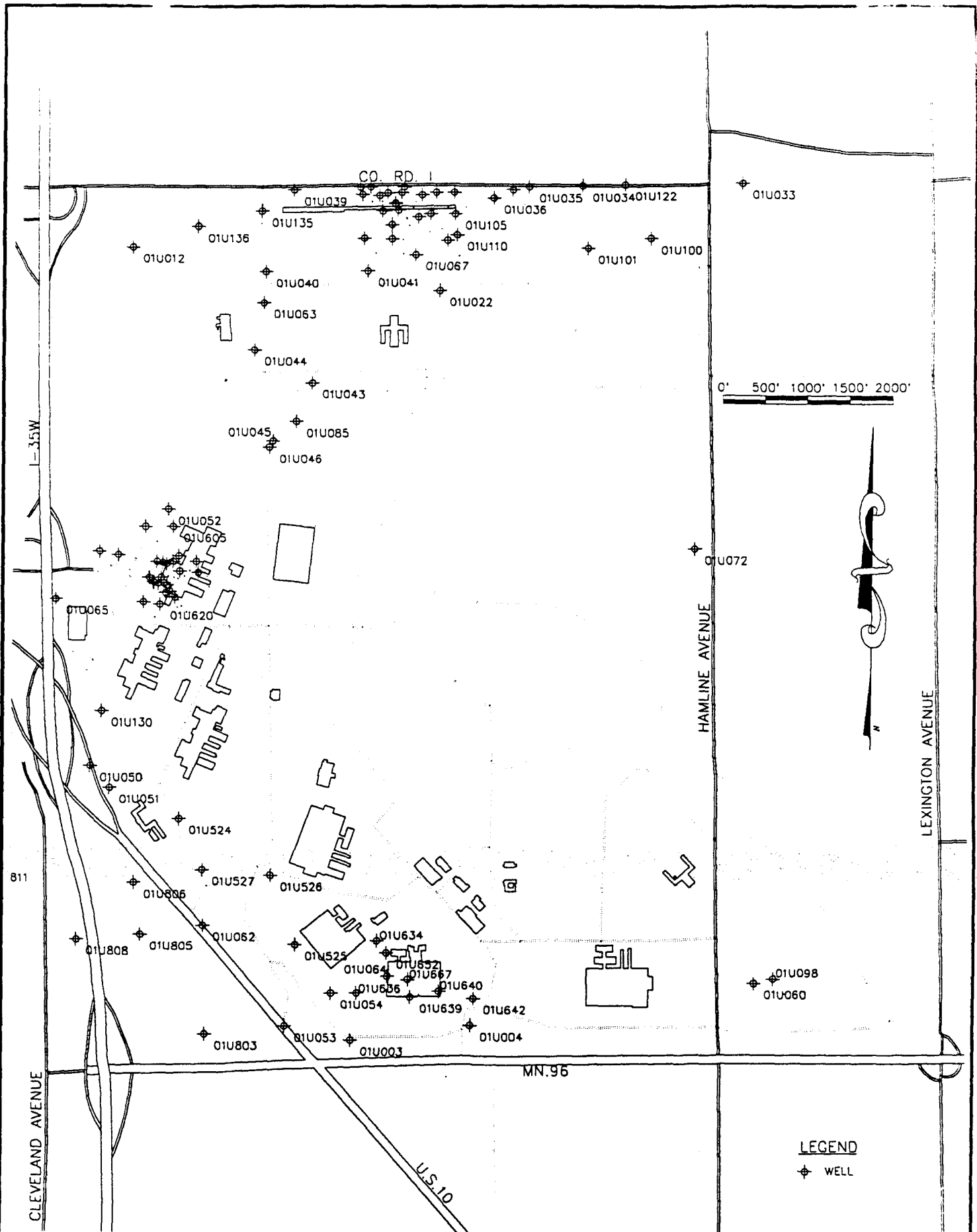
Appendices A, B, C, and D are the scopes of work for the groundwater and surface water monitoring plans. This scope of work contains a list of which monitor wells and surface water locations were sampled for those particular quarters. Appendix E is enclosed in a pocket which contains a Federal Cartridge map of the TCAAP on-site monitor well locations. This map is not to scale but is included to give general locations for the wells. Appendix F is a cross reference list of the monitor wells and in three different designations. Included in this cross reference list is the United States Army Toxic and Hazardous Materials Agency (USATHAMA) Installation Restoration Data Management System (IRDMS) monitor well code. Also included on this cross reference list are the Minnesota Unique Number and the Common Well Designation. Appendix G is a map which shows the sample locations for the NPDES sampling which was done on-site. Appendix H was included at the request of the MPCA and is a copy of the analytical results for all of the quarterly surface water and NPDES sampling

which was done on TCAAP for quarters 16, 17, 18, 19 and 20. Appendix I is split into three sections (Unit 1, Unit 3, Unit 4) and contains groundwater quality trends for the on-site monitor wells. A list of the monitor wells which have groundwater quality trends is included as a list at the beginning of Appendix I.

The following Unit 3 groundwater hydrographs were plotted to specifically examine the boundary groundwater recovery system (BGRS) discharge at 03U706, 03U705, 03U704, 03U701, 03U129.

All maps showing concentrations are given in micrograms per liter or parts per billion (ppb).

**A. MONITOR WELL LOCATION MAPS**



TWIN CITIES ARMY AMMUNITION PLANT

Monitor Well Location Map - Unit 1



Wenck Associates, Inc.

Consulting Engineers

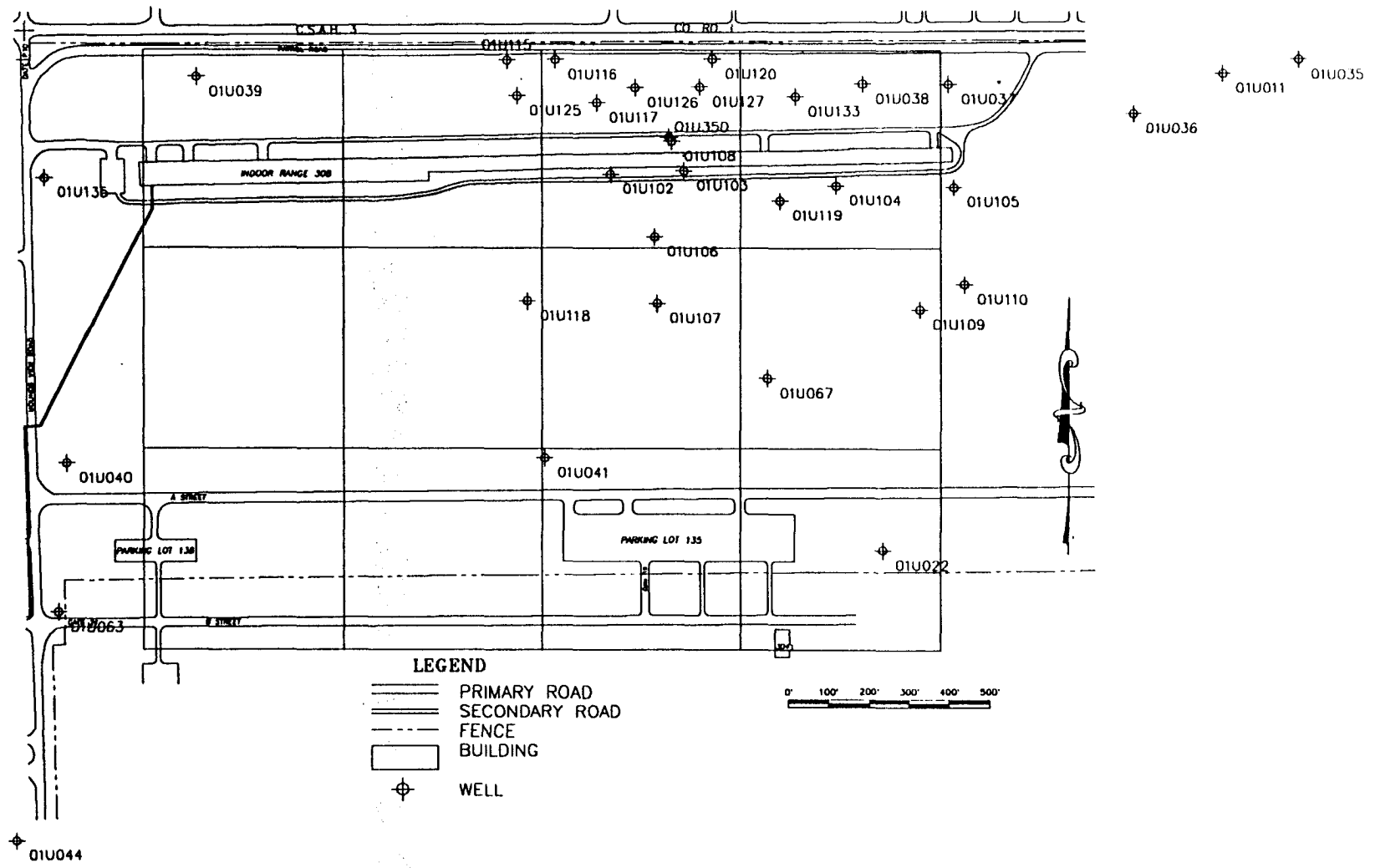
Twelve Oaks Center  
15500 Wayzata Blvd.  
Wayzata, MN 55391

SEP 1989

Fig. A-1

LEGEND

◆ WELL



TWIN CITIES ARMY AMMUNITION PLANT

Monitoring Well Location Maps - Unit 1 (Site A)



Wenck Associates, Inc.

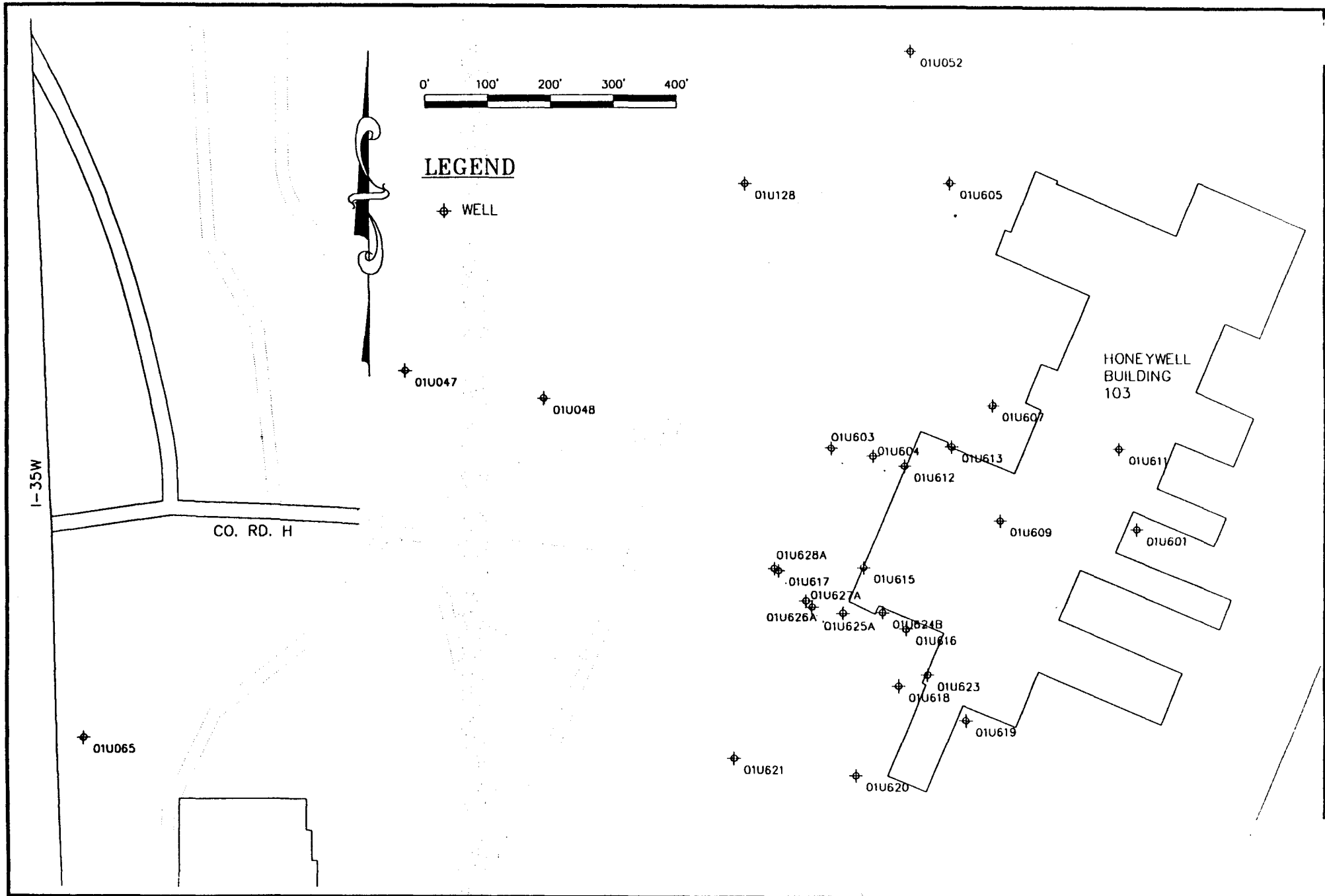
Consulting Engineers

Twelve Oaks Center  
15500 Wayzata Blvd.  
Wayzata, MN 55391

SEP 1989

Fig. A-2





TWIN CITIES ARMY AMMUNITION PLANT

Monitor Well Location Maps - Unit 1 (Honeywell Building 103 Area)



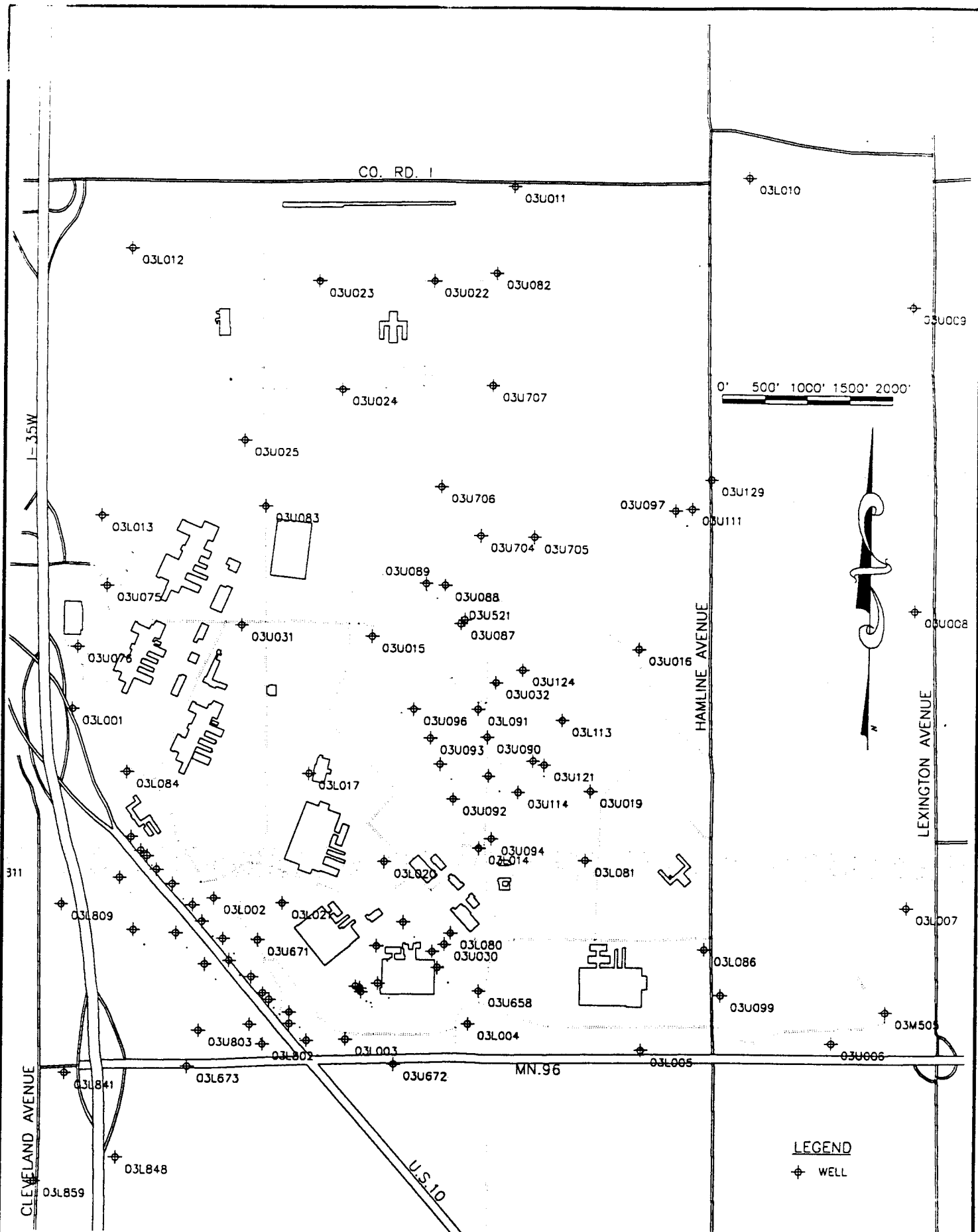
Wenck Associates, Inc.

Consulting Engineers

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15500 Wayzata Blvd.  
Wayzata, MN 55391

SEP 1989

Fig. A-3



**TWIN CITIES ARMY AMMUNITION PLANT**

**Monitor Well Location Map - Unit 3**



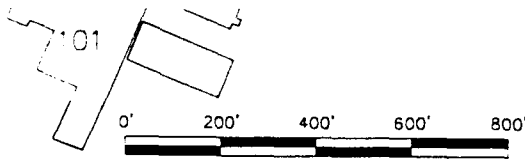
**Wenck Associates, Inc.**

**Consulting Engineers**

**Twelve Oaks Center  
15500 Wayzata Blvd.  
Wayzata, MN 55391**

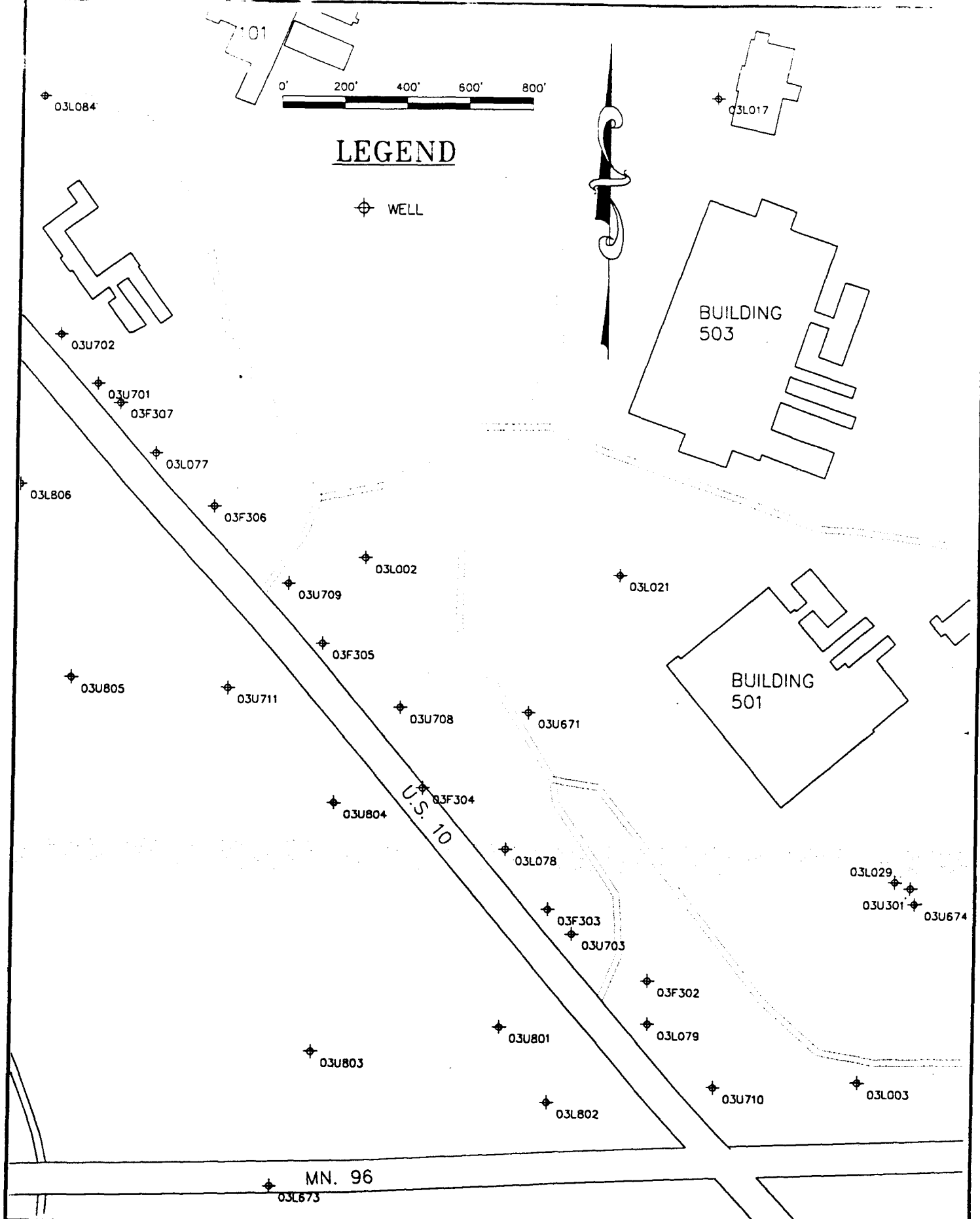
**SEP 1989**


**Fig. A-4**

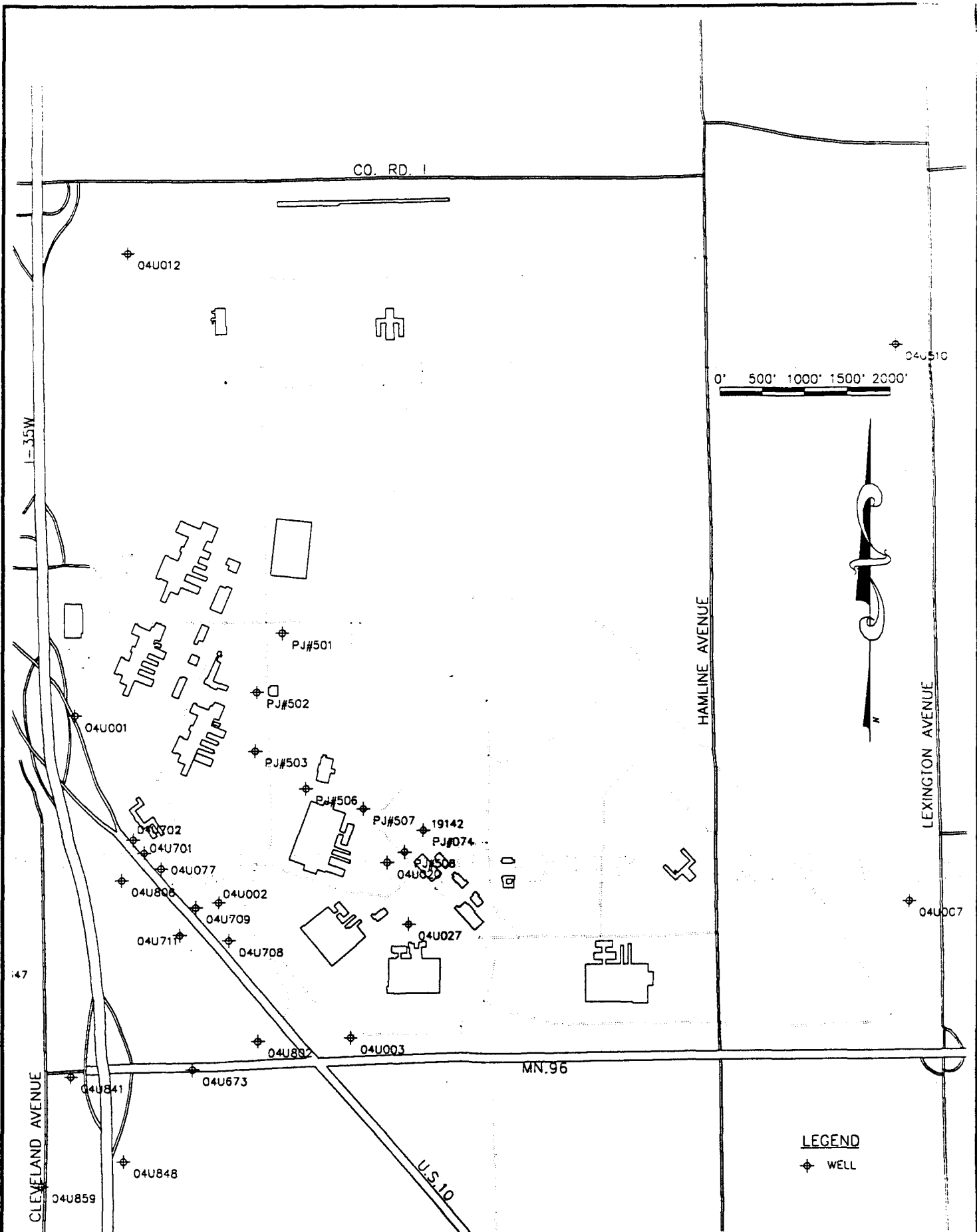


**LEGEND**

⊕ WELL



<p>TWIN CITIES ARMY AMMUNITION PLANT</p>	 <p>Consulting Engineers</p>	<p>SEP 1989</p>
<p>Monitor Well Location Map - Unit 3 (BGRS)</p>	<p>Twelve Oaks Center 15500 Wayzata Blvd. Wayzata, MN 55391</p> <p>Wenck Associates, Inc.</p>	<p>Fig. A-5</p>



**TWIN CITIES ARMY AMMUNITION PLANT**

**Monitor Well Location Map - Unit 4**



**Wenck Associates, Inc.**

**Consulting Engineers**

**Twelve Oaks Center  
15500 Wayzata Blvd.  
Wayzata, MN 55391**

**SEP 1989**

**Fig. A-6**

**B. GROUNDWATER QUALITY**

01-Oct-89

## TCAAP - GROUNDWATER QUALITY (VOC), ug/l - UNIT 1

PAGE: 1

Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCLE	1,2-DI CHLORO ETHENE 12DCE	1,2-DI CHLORO ETHANE 12DCLE	BENZENE C6H6	METHY LENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	TOLUENE / METHYL BENZENE MEC6H5	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEB	TRI CHLORO ETHENE TRCLE	TOTAL XYLENES TXYLEN
RAL		200	14	7.0	810	70	3.8	7.0	48	57	2420	70	6.6	31	400
01U022	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U034	11/11/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	1.20
01U034	11/14/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U035	11/14/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U036	11/11/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
01U036	11/14/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U037	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U038	04/06/88	<1.00	<1.00	<1.00		<0.50	<0.50	1.61		<0.72	<0.87		<1.00	<0.50	<8.28
01U039	04/06/88	<1.00	<1.00	<1.00		0.93	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U040	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U041	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U045	08/08/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U050	11/16/87	2.26	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	6.88	<1.17
01U050	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U050	08/15/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U050	11/21/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U051	11/16/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	2.39	<1.17
01U051	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U051	08/15/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U051	11/21/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U053	11/16/87	<0.81	<0.99	0.94	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
01U053	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U053	08/15/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U053	11/21/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U054	11/16/87	5.92	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	16.10	<1.17
01U054	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U054	08/15/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U054	11/21/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U060	11/19/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	22.70	<15.00	<10.00	<20.00	<1.17
01U060	04/11/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U060	11/17/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U062	11/16/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
01U062	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U062	08/16/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U062	11/21/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28

01-Oct-89

## TCAAP - GROUNDWATER QUALITY (VOC), ug/l - UNIT 1

PAGE: 2

Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCE	1,2-DI CHLORO ETHENE 12DCE	1,2-DI CHLORO ETHANE 12DCE	BENZENE C6H6	METHY LENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	TOLUENE / METHYL BENZENE MEC6H5	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEB	TRI CHLORO ETHENE TRCLE	TOTAL XYLENES TXYLEN
RAL		200	14	7.0	810	70	3.8	7.0	48	57	2420	70	6.6	31	400
01U063	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U067	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U072	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U085	11/11/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
01U085	08/10/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U085	11/17/88	<5.00	<5.00	<5.00		<5.00	<5.00	<5.00		<5.00	25.00		<5.00	<5.00	30.00
01U098	11/19/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
01U098	04/11/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U098	11/17/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U100	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U101	11/14/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U102	08/08/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U102	11/11/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U103	11/11/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	1.48
01U103	08/08/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U103	11/11/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U107	04/08/88	<1.00	<1.00	<1.00		1.49	<0.50	<0.41		<0.72	<0.87		<1.00	0.54	<8.28
01U107	08/08/88	<1.00	<1.00	<1.00		1.04	<0.50			<0.72			<1.00	<0.50	
01U107	11/15/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			2.42	0.94	
01U108	11/16/87	<20.00	<5.00	<15.00	<15.00	670.00	<20.00	<5.00	<40.00	<5.00	<3.39	500.00	260.00	200.00	<1.17
01U108	04/11/88	<1.00	<1.00	<1.00		870.00	<0.50	4.50		<0.72	<0.87		990.00	590.00	<8.28
01U108	08/25/88	<1.00	<1.00	<1.00		720.00	<0.50			<0.72			1000.00	750.00	
01U108	11/15/88	<1.00	<1.00	<1.00		300.00	<0.50			<0.72			640.00	480.00	
01U109	04/08/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U110	04/08/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U115	11/11/87	<20.00	<5.00	<15.00	<15.00	43.00	<20.00	<5.00	<40.00	<5.00	<3.39	45.00	<10.00	12.00	<1.17
01U115	04/11/88	<1.00	<1.00	<1.00		35.60	<0.50	<0.41		<0.72	<0.87		<1.00	14.10	<8.28
01U115	08/09/88	<1.00	<1.00	<1.00		24.40	<0.50			<0.72			<1.00	6.04	
01U115	11/15/88	<1.00	<1.00	<1.00		20.30	<0.50			<0.72			1.34	10.40	
01U116	11/11/87	<0.81	<0.99	<0.49	<0.72	24.70	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	2.65	<1.17
01U116	04/06/88	<1.00	<1.00	<1.00		11.20	<0.50	<0.41		<0.72	<0.87		<1.00	2.38	<8.28
01U116	08/09/88	<1.00	<1.00	<1.00		9.12	<0.50			<0.72			<1.00	4.15	
01U116	11/15/88	<1.00	<1.00	<1.00		4.59	<0.50			<0.72			<1.00	4.60	
01U117	11/11/87	<20.00	<5.00	<15.00	<15.00	51.00	<20.00	<5.00	<40.00	<5.00	<3.39	43.00	22.00	7.00	<1.17
01U117	04/06/88	<1.00	<1.00	<1.00		48.40	<0.50	<0.41		<0.72	<0.87		55.40	24.60	<8.28
01U117	08/09/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	

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## TCAAP - GROUNDWATER QUALITY (VOC), ug/l - UNIT 1

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCLE	1,2-DI CHLORO ETHENE 12DCE	1,2-DI CHLORO ETHANE 12DCLC	BENZENE C6H6	METHY LENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	TOLUENE / METHYL BENZENE MEC6H5	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLE	TRI CHLORO ETHENE TRCLE	TOTAL XYLENES TXYLEN
RAL		200	14	7.0	810	70	3.8	7.0	48	57	2420	70	6.6	31	400
01U117	11/15/88	<1.00	<1.00	<1.00		43.50	<0.50			<0.72			58.40	23.40	
01U118	11/11/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09		<0.41	<3.39		<0.88	<1.10	<1.17
01U118	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	1.41	<8.28
01U118	08/09/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U118	11/15/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U119	11/11/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
01U119	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	0.82	<8.28
01U119	08/12/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U119	11/15/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U120	11/11/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
01U120	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	2.39	<8.28
01U120	08/12/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U120	11/15/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U122	12/09/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	30.00	<10.00	<20.00	<1.17
01U122	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U122	08/08/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	1.11	
01U122	11/11/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U125	12/08/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
01U125	04/11/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U125	08/12/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U125	11/17/88	<5.00	<5.00	<5.00		<5.00	<5.00	<5.00		<5.00	14.00		<5.00	<5.00	13.00
01U126	12/08/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	25.00	31.00	<1.17
01U126	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		41.50	0.85	<8.28
01U126	08/12/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			30.80	<0.50	
01U126	11/17/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			34.70	2.11	
01U127	12/11/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
01U127	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U127	08/12/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U127	11/14/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U128	12/09/87	<20.00	<5.00	<15.00	<15.00	41.00	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
01U128	04/05/88	<1.00	<1.00	<1.00		34.00	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U128	08/08/88	<1.00	<1.00	<1.00		41.30	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U128	11/16/88	<1.00	<1.00	<1.00		30.70	<0.50	<0.41		<0.72	17.00		<1.00	<0.50	22.60
01U130	12/07/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
01U130	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U130	08/15/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U130	11/21/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U133	12/11/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
01U133	08/12/88	<1.00	<1.00	<1.00		0.67	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U133	11/14/88	<1.00	<1.00	<1.00		0.62	<0.50			<0.72			<1.00	<0.50	



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## TCAAP - GROUNDWATER QUALITY (VOC), ug/l - UNIT 1

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCLE	1,2-DI CHLORO ETHENE 12DCE	1,2-DI CHLORO ETHANE 12DCLE	BENZENE C6H6	METHY LENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	TOLUENE / METHYL BENZENE MEC6H5	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEE	TRI CHLORO ETHENE TRCLE	TOTAL XYLENES TXYLEN
RAL		200	14	7.0	810	70	3.8	7.0	48	57	2420	70	6.6	31	400
01U524	11/17/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
01U524	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U524	08/16/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U524	11/21/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U525	11/16/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
01U525	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U525	08/15/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U525	11/14/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U526	11/17/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	2.80	<1.17
01U526	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	0.99	<8.28
01U526	08/15/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	1.16	<8.28
01U526	11/14/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	1.74	
01U527	11/17/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
01U527	04/11/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U527	08/25/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
01U527	11/21/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
01U601	12/07/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	3.60	<1.17
01U604	12/07/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
01U611	12/08/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	120000.00	<1.17
01U615	12/07/87	<0.81	<0.99	<0.49	<0.72	490.00	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	1500.00	<1.17
01U617	08/19/88	<1.00	<1.00	<1.00		6.29	<0.50	<0.41		<0.72	<0.87		<1.00	1.72	<8.28
01U618	08/19/88	<1.00	<1.00	<1.00		1.21	<0.50	<0.41		<0.72	<0.87		<1.00	3.96	<8.28
01U619	08/19/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	1.74	<8.28

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## TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 1

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Well	Date	SILVER AG	ARSENIC AS	BARIUM BA	CADMIUM CD	CHROMIUM CR	COPPER CU	CYANIDE CYN	MANGANESE MN	NICKEL NI	LEAD PB	ANTIMONY SB	SELENIUM SE	THALLIUM TL	ZINC ZN
RAL		50.0 (MCL)	50	1500	5.0	120	1300	154	50.0 (SEC)	150	20		45		5000 (SEC)
01U022	04/05/88		<6.01	570.00	<0.37	<2.50				5.02	<1.26				
01U034	11/11/87	<1.93	<4.81	<20.00	0.19	<2.18	1.49		910.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
01U034	11/14/88		<6.01	177.00	<0.37	<2.50				8.66	<1.26				
01U035	11/14/88		<6.01	78.90	<0.37	<2.50				<5.32	<1.26				
01U036	11/11/87	<1.93	<4.81	24.50	0.53	<2.18	1.53		47.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
01U036	11/14/88		<6.01	26.80	0.67	<2.50				<5.32	<1.26				
01U037	04/07/88		<6.01	80.10	<0.37	<2.50				<5.32	<1.26				
01U038	04/06/88		<6.01	148.00	<0.37	<2.50				<5.32	<1.26				
01U039	04/06/88		<6.01	41.50	<0.37	<2.50				<5.32	<1.26				
01U040	04/05/88		<6.01	142.00	<0.37	<2.50				5.07	<1.26				
01U041	04/05/88		<6.01	49.10	0.66	<2.50				<5.32	<1.26				
01U045	08/08/88		<6.01	160.00	0.36	<2.50		<8.17		<5.32	<1.26				<25.00
01U050	11/16/87	2.13	8.25	<20.00	0.34	<2.18	1.49	<8.35	8500.00	<5.94	<2.65	<10.00	<3.06	<2.70	
01U050	04/07/88		<6.01	200.00	<0.37	<2.50				<5.32	<1.26				
01U050	08/15/88		<6.01	190.00	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
01U050	11/21/88														
01U051	11/16/87	2.57	<4.81	<20.00	0.68	3.54	1.39		12.70	<5.94	4.18	<10.00	<3.06	3.94	<29.40
01U051	04/07/88		<6.01	112.00	<0.37	<2.50				<5.32	<1.26				<25.00
01U051	08/15/88		<6.01	69.50	<0.37	<2.50		<8.17		<5.32	<1.26				
01U051	11/21/88														
01U053	11/16/87	2.38	6.19	<20.00	0.53	2.78	1.93	<8.35	1800.00	<5.94	3.06	<10.00	<3.06	<2.70	<29.40
01U053	04/07/88														
01U053	08/15/88		<6.01	99.00	0.36	<2.50		<8.17		<5.32	<1.26				<25.00
01U053	11/21/88														
01U054	11/16/87	<1.93	5.67	<20.00	0.92	2.88	3.12		4000.00	<5.94	<2.65	<10.00	<3.06	<2.70	
01U054	04/07/88														
01U054	08/15/88		<6.01	53.50	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
01U054	11/21/88														
01U060	11/19/87	<1.93	10.30	270.00	0.63	<2.18	1.44		6000.00	14.00	<2.65	<10.00	<3.06	<2.70	67.10
01U060	04/11/88		<6.01	300.00	1.12	<2.50				9.44	<1.26				
01U060	11/17/88														
01U062	11/16/87	2.38	<4.81	<20.00	0.68	3.74	2.62		16.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
01U062	04/07/88		<6.01	130.00	<0.37	<2.50				<5.32	<1.26				
01U062	08/16/88		<6.01	150.00	0.38	<2.50		<8.17		<5.32	<1.26				<25.00
01U062	11/21/88														
01U063	04/05/88		<6.01	82.50	<0.37	<2.50		<8.17		<5.32	<1.26				

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Well	Date	SILVER AG	ARSENIC AS	BARIUM BA	CADMIUM CD	CHROMIUM CR	COPPER CU	CYANIDE CYN	MANGANESE MN	NICKEL NI	LEAD PB	ANTIMONY SB	SELENIUM SE	THALLIUM TL	ZINC ZN
RAL		50.0 (MCL)	50	1500	5.0	120	1300	154	50.0 (SEC)	150	20		45		5000 (SEC)
01U067	04/05/88		<6.01	60.50	<0.37	<2.50				<5.32	<1.26				
01U072	04/07/88		<6.01	60.00	<0.37	<2.50		<8.17		14.50	<1.26				
01U085	11/11/87	3.12	16.50	530.00	0.19	2.73	2.08		2000.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
01U085	08/10/88		43.90	500.00	<0.37	<2.50				<5.32	<1.26				25.00
01U085	11/17/88														
01U098	11/19/87	4.01	<4.81	<20.00	0.34	6.67	3.32		140.00	12.90	3.47	<10.00	<3.06	<2.70	<29.40
01U098	04/11/88		<6.01	190.00	0.71	<2.50				<5.32	<1.26				
01U098	11/17/88														
01U100	04/07/88		<6.01	290.00	<0.37	<2.50				9.05	<1.26				
01U101	11/14/88		<6.01	177.00	0.40	<2.50				<5.32	<1.26				
01U102	08/08/88														
01U102	11/11/88														
01U103	11/11/87	3.91	<4.81	<20.00	0.34	3.79	2.92		62.00	14.50	2.86	14.60	6.38	<2.70	<29.40
01U103	08/08/88														
01U103	11/11/88														
01U107	04/08/88		<6.01	170.00	0.58	<2.50				<5.32	<1.26				
01U107	08/08/88														
01U107	11/15/88														
01U108	11/16/87	<1.93	<4.81	<20.00	<0.10	<2.18	1.98	<8.35	2000.00	8.28	<2.65	<10.00	<3.06	<2.70	<29.40
01U108	04/11/88		<6.01	121.00	<0.37	<2.50		<8.17		5.72	<1.26				
01U108	08/25/88														
01U108	11/15/88														
01U109	04/08/88		<6.01	107.00	<0.37	<2.50				<5.32	<1.26				
01U110	04/08/88		<6.01	35.00	<0.37	<2.50				<5.32	<1.26				
01U115	11/11/87	<1.93	<4.81	70.60	<0.10	<2.18	3.61		120.00	<5.94	2.70	<10.00	<3.06	<2.70	<29.40
01U115	04/11/88		<6.01	25.90	<0.37	<2.50		<8.17		<5.32	<1.26				
01U115	08/09/88														
01U115	11/15/88							<8.17							
01U116	11/11/87	<1.93	6.19	125.00	<0.10	<2.18	3.17		280.00	<5.94	3.16	<10.00	<3.06	<2.70	<29.40
01U116	04/06/88		6.63	102.00	<0.37	<2.50				<5.32	<1.26				
01U116	08/09/88														
01U116	11/15/88							<8.17							
01U117	11/11/87	3.61	<4.81	<20.00	0.19	3.74	2.97		950.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
01U117	04/06/88		<6.01	200.00	<0.37	<2.50		<8.17		<5.32	<1.26				
01U117	08/09/88														
01U117	11/15/88							<8.17							
01U118	11/11/87	<1.93	<4.81	83.30	0.15	<2.18	1.93		18.50	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
01U118	04/07/88		<6.01	57.40	<0.37	<2.50		<8.17		<5.32	<1.26				

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Well	Date	SILVER AG	ARSENIC AS	BARIUM BA	CADMIUM CD	CHROMIUM CR	COPPER CU	CYANIDE CYN	MANGANESE MN	NICKEL NI	LEAD PB	ANTIMONY SB	SELENIUM SE	THALLIUM TL	ZINC ZN
RAL		50.0 (MCL)	50	1500	5.0	120	1300	154	50.0 (SEC)	150	20		45		5000 (SEC)
01U118	08/09/88														
01U118	11/15/88							<8.17							
01U119	11/11/87	3.51	<4.81	<20.00	0.39	3.89	1.98		1200.00	<5.94	2.76	<10.00	<3.06	<2.70	<29.40
01U119	04/07/88		<6.01	140.00	<0.37	<2.50		<8.17		<5.32	<1.26				
01U119	08/12/88														
01U119	11/15/88							<8.17							
01U120	11/11/87	<1.93	<4.81	40.20	0.34	<2.18	2.18		180.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
01U120	04/07/88		<6.01	31.20	<0.37	<2.50		<8.17		<5.32	<1.26				
01U120	08/12/88														
01U120	11/15/88							<8.17							
01U122	12/09/87	<1.93	<4.81	240.00	0.21	<2.18	2.72		610.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
01U122	04/05/88		<6.01	128.00	<0.37	<2.50				<5.32	<1.26				
01U122	08/08/88														
01U122	11/11/88														
01U125	12/08/87	<1.93	<4.81	45.10	0.15	3.54	2.03		9.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
01U125	04/11/88		<6.01	18.30	<0.37	<2.50		<8.17		<5.32	<1.26				
01U125	08/12/88														
01U125	11/17/88							<8.17							
01U126	12/08/87	<1.93	<4.81	98.00	0.18	<2.18	2.62		390.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
01U126	04/06/88		<6.01	60.30	<0.37	<2.50		<8.17		<5.32	<1.26				
01U126	08/12/88														
01U126	11/17/88							<8.17							
01U127	12/11/87	<1.93	5.67	99.00	0.23	2.53	1.98		9.50	<5.94	<2.65	10.80	<3.06	<2.70	<29.40
01U127	04/06/88		<6.01	56.90	<0.37	<2.50		<8.17		<5.32	<1.26				
01U127	08/12/88														
01U127	11/14/88							<8.17							
01U128	12/09/87	<1.93	20.60	280.00	0.38	2.53	1.53		4500.00	<5.94	3.57	<10.00	<3.06	<2.70	<29.40
01U128	04/05/88		15.10	330.00	<0.37	<2.50				<5.32	<1.26				25.80
01U128	08/08/88		19.90	290.00	<0.37	6.01		<8.17		<5.32	<1.26				<25.00
01U128	11/16/88														41.40
01U130	12/07/87	<1.93	5.15	500.00	0.29	3.03	3.22		7500.00	7.76	<2.65	<10.00	<3.06	<2.70	<29.40
01U130	04/07/88														
01U130	08/15/88		<6.01	240.00	0.58	<2.50		<8.17		<5.32	<1.26				<25.00
01U130	11/21/88														
01U133	12/11/87	<1.93	5.67	320.00	1.17	<2.18	5.94		600.00	13.50	<2.65	12.30	<3.06	<2.70	85.20
01U133	08/12/88		<6.01	240.00	<0.37	<2.50				<5.32	<1.26				
01U133	11/14/88							<8.17							
01U524	11/17/87	3.22	<4.81	<20.00	0.68	4.45	2.48	<8.35		<5.94	2.86	<10.00	<3.06	3.83	<29.40
01U524	04/07/88		<6.01	130.00	<0.37	<2.50		<8.17		<5.32	<1.26				
01U524	08/16/88		<6.01	200.00	<0.37	<2.50				<5.32	<1.26				<25.00
01U524	11/21/88														
01U525	11/16/87	<1.93	<4.81	<20.00	0.44	2.33	3.22		35.00	<5.94	3.06	<10.00	<3.06	<2.70	<29.40

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Well	Date	SILVER AG	ARSENIC AS	BARIUM BA	CADMIUM CD	CHROMIUM CR	COPPER CU	CYANIDE CYN	MANGANESE MN	NICKEL NI	LEAD PB	ANTIMONY SB	SELENIUM SE	THALLIUM TL	ZINC ZN
RAL		50.0 (MCL)	50	1500	5.0	120	1300	154	50.0 (SEC)	150	20		45		5000 (SEC)
01U525	04/07/88		<6.01	81.00	<0.37	<2.50				<5.32	<1.26				
01U525	08/15/88		<6.01	200.00	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
01U525	11/14/88														
01U526	11/17/87	2.92	<4.81	<20.00	0.92	5.46	2.57	10.50	20.00	6.21	<2.65	<10.00	4.32	<2.70	<29.40
01U526	04/07/88		<6.01	84.00	<0.37	<2.50				<5.32	<1.26				
01U526	08/15/88		<6.01	69.90	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
01U526	11/14/88														
01U527	11/17/87	<1.93	<4.81	270.00	0.19	3.29	1.63		42.00	<5.94	<2.65	<10.00	<3.06	5.11	<29.40
01U527	04/11/88		<6.01	420.00	<0.37	<2.50				<5.32	<1.26				<25.00
01U527	08/25/88		<6.01	260.00	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
01U527	11/21/88														
01U601	12/07/87	<1.93	9.28	120.00	0.20	<2.18	14.90		150.00	6.73	<2.65	<10.00	<3.06	<2.70	1010.00
01U604	12/07/87	<1.93	<4.81	310.00	0.46	5.06	3.37	<8.35	4500.00	98.00	5.10	<10.00	<3.06	<2.70	1440.00
01U611	12/08/87	<1.93	7.73	250.00	0.28	2.53	2.67		290.00	9.32	<2.65	<10.00	<3.06	<2.70	50.10
01U615	12/07/87	<1.93	<4.81	193.00	<0.10	3.03	2.87		960.00	7.25	<2.65	<10.00	<3.06	<2.70	50.10
01U617	08/19/88		<6.01	134.00	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
01U618	08/19/88		<6.01	106.00	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
01U619	08/19/88		<6.01	49.40	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00

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TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 1

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Well	Date	ALPHAG ALPHAG	BETAG BETAG
RAL			
01U022	04/05/88		
01U034	11/11/87		
01U034	11/14/88		
01U035	11/14/88		
01U036	11/11/87		
01U036	11/14/88		
01U037	04/07/88		
01U038	04/06/88		
01U039	04/06/88		
01U040	04/05/88		
01U041	04/05/88		
01U045	08/08/88		
01U050	11/16/87	<1.00	6.00
01U050	04/07/88		
01U050	08/15/88		
01U050	11/21/88		
01U051	11/16/87		
01U051	04/07/88		
01U051	08/15/88		
01U051	11/21/88		
01U053	11/16/87		
01U053	04/07/88		
01U053	08/15/88		
01U053	11/21/88		
01U054	11/16/87	<1.00	<1.00
01U054	04/07/88		
01U054	08/15/88		
01U054	11/21/88		
01U060	11/19/87		
01U060	04/11/88		
01U060	11/17/88		
01U062	11/16/87		
01U062	04/07/88		
01U062	08/16/88		
01U062	11/21/88		
01U063	04/05/88		

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TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 1

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Well	Date	ALPHAG ALPHAG	BETAG BETAG
RAL			
01U067	04/05/88		
01U072	04/07/88		
01U085	11/11/87		
01U085	08/10/88		
01U085	11/17/88		
01U098	11/19/87		
01U098	04/11/88		
01U098	11/17/88		
01U100	04/07/88		
01U101	11/14/88		
01U102	08/08/88		
01U102	11/11/88		
01U103	11/11/87		
01U103	08/08/88		
01U103	11/11/88		
01U107	04/08/88		
01U107	08/08/88		
01U107	11/15/88		
01U108	11/16/87		
01U108	04/11/88		
01U108	08/25/88		
01U108	11/15/88		
01U109	04/08/88		
01U110	04/08/88		
01U115	11/11/87		
01U115	04/11/88		
01U115	08/09/88		
01U115	11/15/88		
01U116	11/11/87		
01U116	04/06/88		
01U116	08/09/88		
01U116	11/15/88		
01U117	11/11/87		
01U117	04/06/88		
01U117	08/09/88		
01U117	11/15/88		
01U118	11/11/87		
01U118	04/07/88		

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TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 1

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Well	Date	ALPHAG ALPHAG	BETAG BETAG
RAL			
01U118	08/09/88		
01U118	11/15/88		
01U119	11/11/87		
01U119	04/07/88		
01U119	08/12/88		
01U119	11/15/88		
01U120	11/11/87		
01U120	04/07/88		
01U120	08/12/88		
01U120	11/15/88		
01U122	12/09/87		
01U122	04/05/88		
01U122	08/08/88		
01U122	11/11/88		
01U125	12/08/87		
01U125	04/11/88		
01U125	08/12/88		
01U125	11/17/88		
01U126	12/08/87		
01U126	04/06/88		
01U126	08/12/88		
01U126	11/17/88		
01U127	12/11/87		
01U127	04/06/88		
01U127	08/12/88		
01U127	11/14/88		
01U128	12/09/87		
01U128	04/05/88		
01U128	08/08/88		
01U128	11/16/88		
01U130	12/07/87	1.60	1.50
01U130	04/07/88		
01U130	08/15/88		
01U130	11/21/88		
01U133	12/11/87		
01U133	08/12/88		
01U133	11/14/88		
01U524	11/17/87	3.50	4.40
01U524	04/07/88		
01U524	08/16/88		
01U524	11/21/88		
01U525	11/16/87		



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TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 1

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Well	Date	ALPHAG ALPHAG	BETAG BETAG
RAL			
01U525	04/07/88		
01U525	08/15/88		
01U525	11/14/88		
01U526	11/17/87	2.50	6.80
01U526	04/07/88		
01U526	08/15/88		
01U526	11/14/88		
01U527	11/17/87		
01U527	04/11/88		
01U527	08/25/88		
01U527	11/21/88		
01U601	12/07/87		
01U604	12/07/87		
01U611	12/08/87		
01U615	12/07/87		
01U617	08/19/88		
01U618	08/19/88		
01U619	08/19/88		

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TCAAP - GROUNDWATER QUALITY (VOC), ug/l - UNIT 3

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCLE	1,2-DI CHLORO ETHENE 12DCE	1,2-DI CHLORO ETHANE 12DCLE	BENZENE C6H6	METHY LENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	TOLUENE / METHYL BENZENE MEC6H5	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEE	TRI CHLORO ETHENE TRCLE	TOTAL XYLENES TXYLEN
RAL		200	14	7.0	810	70	3.8	7.0	48	57	2420	70	6.6	31	400
03L001	11/16/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03L002	11/17/87	260.00	<0.99	61.00	190.00	38.00	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	1100.00	<1.17
03L003	11/19/87	4.75	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03L003	08/11/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03L004	11/18/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03L004	08/09/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03L005	11/23/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03L005	08/10/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03L007	11/09/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03L007	11/10/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	<1.17
03L010	11/09/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03L010	11/10/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	<1.17
03L012	11/09/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03L012	11/11/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	<1.17
03L013	11/10/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03L014	11/23/87	2.34	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	2.77	<1.17
03L014	08/10/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03L017	11/10/87	200.00	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	540.00	<1.17
03L018	11/23/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	2.54	<1.17
03L018	04/08/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	1.06	<8.28
03L018	08/22/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	2.70	<8.28
03L018	11/18/88	1.64	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	3.02		<1.00	6.52	<8.28
03L020	12/07/87	4200.00	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	14000.00	<1.17
03L020	08/17/88	1300.00	<1.00	280.00		520.00	<0.50	<0.41		<0.72	1.27		<1.00	4700.00	<8.28
03L029	12/03/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03L077	12/04/87	610.00	<0.99	61.00	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	1600.00	<1.17
03L078	11/23/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03L078	08/18/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	2.69	<8.28
03L079	12/04/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03L079	08/18/88	<5.00	<5.00	<5.00		<5.00	<5.00	0.69		<5.00	<5.00		<5.00	0.84	<8.28
03L084	12/08/87	7.10	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	30.00	<1.17
03L086	08/11/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28

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## TCAAP - GROUNDWATER QUALITY (VOC), ug/l - UNIT 3

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCLE	1,2-DI CHLORO ETHENE 12DCE	1,2-DI CHLORO ETHANE 12DCLE	BENZENE C6H6	METHY LENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	TOLUENE / METHYL BENZENE MEC6H5	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEE	TRI CHLORO ETHENE TRCLE	TOTAL XYLENES TXYLEN
RAL		200	14	7.0	810	70	3.8	7.0	48	57	2420	70	6.6	31	400
03L091	12/03/87	24.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03L091	08/25/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03L113	11/18/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03L113	04/06/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	0.76	<8.28
03L113	08/09/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03L113	11/18/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41		<0.72	0.98		<1.00	<0.50	<8.28
03L802	12/03/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41			<0.88	13000.00	
03L806	12/02/87	1700.00	<0.99	260.00	340.00	<0.56	<0.51		<1.80	<0.41			<0.88	5100.00	
03M001	11/16/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03M002	11/17/87	1500.00	<0.99	200.00	220.00	170.00	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	4100.00	<1.17
03M003	11/19/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03M003	08/11/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03M004	11/18/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41			<0.88	<1.10	
03M004	08/09/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41		<0.72	<0.87		1.68	<0.50	<8.28
03M005	12/08/87	0.98	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	8.49	<1.17
03M005	04/06/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	1.27	<8.28
03M005	08/11/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03M005	11/10/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50			<0.72			<1.00	0.87	
03M013	11/10/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03M017	11/10/87	1000.00	<5.00	100.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	1500.00	<1.17
03M020	08/18/88	3700.00	<1.00	420.00		260.00	<0.50	<0.41		100.00	<0.87		<1.00	7700.00	<8.28
03M505	11/09/87							<3.09			<3.39				<1.17
03M802	12/03/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41			<0.88	8900.00	
03M806	12/02/87	140.00	<0.99	27.00	47.00	<0.56	<0.51		<1.80	<0.41			<0.88	890.00	
03U001	11/16/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U002	11/17/87	45.00	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	16.00	<1.17
03U003	11/19/87	95.00	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	1300.00	<1.17
03U003	08/11/88	51.90	<1.00	22.90		24.40	1.72	<0.41		2.16	<0.87		<1.00	540.00	<8.28
03U004	11/18/87	<0.81	<0.99	<0.49	<0.72	0.93	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03U004	08/09/88	3.44	<1.00	<1.00		3.02	<0.50	<0.41		<0.72	<0.87		<1.00	1.59	<8.28
03U005	11/23/87	<0.81	<0.99	<0.49	<0.72	4.21	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03U005	04/06/88	<1.00	<1.00	<1.00		4.95	<0.50	<0.41		<0.72	<0.87		<1.00	3.61	<8.28

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## TCAAP - GROUNDWATER QUALITY (VOC), ug/l - UNIT 3

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCLE	1,2-DI CHLORO ETHENE 12DCE	1,2-DI CHLORO ETHANE 12DCLE	BENZENE C6H6	METHY LENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	TOLUENE / METHYL BENZENE MEC6H5	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEE	TRI CHLORO ETHENE TRCLE	TOTAL XYLENES TXYLEN
RAL		200	14	7.0	810	70	3.8	7.0	48	57	2420	70	6.6	31	400
03U005	08/10/88	<1.00	<1.00	<1.00		2.00	<0.50	<0.41		<0.72	<0.87		<1.00	0.65	<8.28
03U005	11/10/88	<1.00	<1.00	<1.00		4.80	<0.50			<0.72			<1.00	2.11	
03U007	11/09/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03U007	11/07/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
03U008	11/09/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		1.06	<1.10	<1.17
03U008	11/10/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
03U009	11/20/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U009	11/14/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
03U010	11/09/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03U010	11/10/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
03U012	11/09/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U012	11/11/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
03U013	11/10/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U014	12/04/87	6400.00	<5.00	<15.00	<15.00	1500.00	<20.00	<5.00	5400.00	<5.00	<3.39	<15.00	<10.00	13000.00	<1.17
03U014	08/17/88	9500.00	<1.00	670.00		3300.00	<0.50	<0.41		<0.72	<0.87		<1.00	12000.00	<8.28
03U015	11/17/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U015	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03U015	08/09/88	<1.00	<1.00	<1.00		48.80	<0.50			<0.72			44.90	20.70	
03U015	11/16/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
03U017	11/10/87	480.00	<0.99	20.00	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	600.00	<1.17
03U018	12/04/87	3300.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	11000.00	<1.17
03U018	08/22/88	2100.00	1.68	103.00		26.70	<0.50	<0.41		1.57	<0.87		<1.00	3600.00	<8.28
03U019	11/23/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U019	08/12/88	1.29	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03U020	12/07/87	6000.00	<0.99	250.00	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	11000.00	<1.17
03U020	08/17/88	4100.00	<1.00	450.00		740.00	<0.50	<0.41		<0.72	<0.87		<1.00	5200.00	<8.28
03U022	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03U023	11/10/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
03U023	11/15/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03U024	08/10/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03U025	08/10/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	1.92		<1.00	<0.50	<8.28
03U026	11/18/87	42.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	16.00	<3.39	<15.00	<10.00	36.00	<1.17
03U026	04/08/88	35.70	<1.00	2.44		<0.50	<0.50	<0.41		21.40	<0.87		<1.00	23.10	<8.28
03U026	08/22/88	32.20	<1.00	<1.00		<0.50	<0.50	<0.41		15.30	<0.87		<1.00	31.10	<8.28

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCB	1,1-DI CHLORO ETHANE 11DCLE	1,2-DI CHLORO ETHENE 12DCB	1,2-DI CHLORO ETHANE 12DCLE	BENZENE C6H6	METHY LENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	TOLUENE / METHYL BENZENE MEC6H5	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEE	TRI CHLORO ETHENE TRCLE	TOTAL XYLENES TXYLEN
RAL		200	14	7.0	810	70	3.8	7.0	48	57	2420	70	6.6	31	400
03U026	11/16/88	36.00	<1.00	1.97		<0.50	<0.50	<0.41		35.40	4.66		<1.00	29.40	<8.28
03U027	11/20/87	21.00	23.00	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41			<0.88	46.00	
03U027	08/16/88	24.50	16.10	4.91		1.50	<0.50	<0.41		1.90	<0.87		<1.00	40.10	<8.28
03U028	12/03/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41			<0.88	310.00	
03U028	08/22/88	76.00	<5.00	<5.00		44.00	<5.00	<5.00		<5.00	<5.00		<5.00	540.00	<8.28
03U029	12/03/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	1400.00	<1.17
03U029	08/17/88	180.00	<5.00	<5.00		390.00	<5.00	<5.00		<5.00	<5.00		<5.00	2100.00	<8.28
03U030	12/03/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<10.00	<15.00	<10.00	25.00	
03U030	08/22/88	1.64	<5.00	<5.00		<5.00	<5.00	2.47		<5.00	1.04		<5.00	11.50	<8.28
03U031	08/10/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	0.63	<8.28
03U032	11/20/87	16.00	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	15.00	<1.17
03U032	04/08/88	9.60	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	2.99	<8.28
03U032	08/22/88	25.50	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	1.00		<1.00	37.90	<8.28
03U075	11/10/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U075	08/18/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	1.04	<8.28
03U076	11/10/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U076	08/18/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	1.03	<8.28
03U078	11/23/87	<0.81	<0.99	<0.49	<0.72	8.30	<0.51	<3.09	<1.80	<0.41	<3.39		27.00	100.00	<1.17
03U078	08/18/88	8.44	<1.00	1.44		12.30	<0.50	<0.41		3.11	2.54		22.30	49.80	<8.28
03U079	12/04/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	7000.00	<1.17
03U079	08/18/88	28.70	<1.00	13.00		290.00	<0.50	<0.41		2.68	<0.87		<1.00	11000.00	<8.28
03U083	08/10/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03U084	11/23/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U087	11/20/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U087	04/11/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	0.90	<8.28
03U087	08/24/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	1.67	
03U087	11/17/88	<5.00	<5.00	<5.00		<5.00	<5.00	<5.00		<5.00	7.00		<5.00	1.41	16.00
03U088	11/17/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U088	04/05/88	1.57	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		1.34	5.86	<8.28
03U088	08/08/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		4.16	<0.50	
03U088	11/16/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		3.87	0.55	
03U089	11/20/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		0.91	<1.10	<1.17
03U089	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		2.08	1.68	<8.28
03U089	08/08/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		2.00	0.95	
03U089	11/17/88	<5.00	<5.00	<5.00		<5.00	<5.00	<5.00		<5.00	<5.00		1.58	1.20	<5.00

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## TCAAP - GROUNDWATER QUALITY (VOC), ug/l - UNIT 3

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCL	1,2-DI CHLORO ETHENE 12DCE	1,2-DI CHLORO ETHANE 12DCL	BENZENE C6H6	METHY LENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	TOLUENE / METHYL BENZENE MEC6H5	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLE	TRI CHLORO ETHENE TRCLE	TOTAL XYLENES TXYLEN
RAL		200	14	7.0	810	70	3.8	7.0	48	57	2420	70	6.6	31	400
03U090	11/19/87	1.95	<5.00	<15.00	<15.00	9.45	<20.00	<5.00	<40.00	2.83	<3.39	<15.00	<10.00	6.17	<1.17
03U090	04/06/88	2.17	<1.00	<1.00	<1.00	8.51	<0.50	<0.41	<0.41	10.30	<0.87	<1.00	<1.00	1.15	<8.28
03U090	08/16/88	1.59	<1.00	<1.00	<1.00	10.40	<0.50	<0.41	<0.41	3.33	<0.87	<1.00	<1.00	0.66	<8.28
03U090	11/18/88	2.08	<1.00	<1.00	<1.00	11.20	<0.50	<0.41	<0.41	4.72	1.33	<1.00	<1.00	0.75	<8.28
03U092	11/23/87	16.50	<0.99	0.63	<0.72	<0.56	<0.51	<3.09	<1.80	1.13	<3.39	<1.00	<0.88	13.80	<1.17
03U092	04/08/88	29.60	<1.00	3.24	<1.00	<0.50	<0.50	<0.41	<0.41	3.85	<0.87	<1.00	<1.00	21.50	<8.28
03U092	08/25/88	17.70	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	6.07	<0.87	<1.00	<1.00	8.32	<8.28
03U092	11/16/88	24.90	<1.00	1.21	<1.00	<0.50	<0.50	2.43	<0.41	4.40	31.20	<1.00	<1.00	12.10	13.30
03U093	12/04/87	9300.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	400000.00	<1.17
03U093	08/17/88	8700.00	<1.00	480.00	<1.00	630.00	<0.50	<0.41	<0.41	<0.72	17.20	<1.00	<1.00	30000.00	<8.28
03U094	12/04/87	9100.00	<5.00	<15.00	830.00	2300.00	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	18000.00	<1.17
03U094	08/25/88	5600.00	<1.00	<1.00	<1.00	1200.00	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	6900.00	<8.28
03U096	12/04/87	830.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	1200.00	<1.17
03U096	08/25/88	2500.00	<1.00	110.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	2300.00	<8.28
03U097	11/20/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	8.85	<1.17
03U097	04/07/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	0.73	<8.28
03U097	08/11/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	<0.50	<8.28
03U097	11/17/88	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
03U099	11/19/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U099	04/11/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	<0.50	<8.28
03U099	08/12/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	<0.50	<8.28
03U099	11/17/88	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	9.00	<5.00	<5.00	<5.00	10.00
03U111	11/20/87	0.85	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	3.98	<1.17
03U111	04/07/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	1.41	<8.28
03U111	08/11/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	<0.50	<8.28
03U111	11/17/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	<0.50	<8.28
03U112	11/20/87	11.00	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	8.60	<3.39	<1.00	<0.88	35.00	<1.17
03U112	04/08/88	25.20	<1.00	1.60	<1.00	<0.50	<0.50	<0.41	<0.41	19.60	<0.87	<1.00	<1.00	29.10	<8.28
03U112	08/16/88	25.20	<1.00	2.16	<1.00	<0.50	<0.50	<0.41	<0.41	27.90	<0.87	<1.00	<1.00	43.60	<8.28
03U112	11/18/88	21.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	17.70	3.69	<1.00	<1.00	27.70	<8.28
03U113	11/18/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U113	04/06/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	0.68	<8.28
03U113	08/09/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	<0.50	<8.28
03U113	11/18/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	4.06	<1.00	<1.00	<0.50	<8.28
03U114	11/23/87	1000.00	<5.00	29.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	1500.00	<1.17
03U114	04/11/88	680.00	<1.00	66.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	110.00	<8.28
03U114	08/09/88	1100.00	<1.00	120.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	240.00	<8.28
03U114	11/16/88	1200.00	<1.00	95.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	20.00	<1.00	<1.00	260.00	<8.28
03U121	12/08/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	5.51	<1.17
03U121	04/08/88	<1.00	<1.00	<1.00	<1.00	<0.50	<0.50	<0.41	<0.41	<0.72	<0.87	<1.00	<1.00	<0.50	<8.28

Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCLE	1,2-DI CHLORO ETHENE 12DCE	1,2-DI CHLORO ETHANE 12DCLE	BENZENE C6H6	METHY LENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	TOLUENE / METHYL BENZENE MEC6H5	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEE	TRI CHLORO ETHENE TRCLE	TOTAL XYLENES TXYLEN
RAL		200	14	7.0	810	70	3.8	7.0	48	57	2420	70	6.6	31	400
03U121	08/16/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03U121	11/18/88	61.60	<1.00	1.63		<0.50	<0.50	<0.41		<0.72	1.88		<1.00	12.20	<8.28
03U124	02/18/88	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41			<0.88	18.00	
03U124	04/08/88	71.00	<1.00	3.28		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	13.60	<8.28
03U124	08/18/88	130.00	<1.00	4.28		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	31.40	<8.28
03U129	12/08/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	2.49	<1.17
03U129	04/07/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	1.44	<8.28
03U129	08/11/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
03U129	11/18/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
03U521	11/20/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	2.70	<1.17
03U521	04/11/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	<0.50	<8.28
03U521	08/24/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	1.66	
03U521	11/18/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
03U671	12/04/87	30.00	<0.99	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41			15.00	280.00	
03U671	08/22/88	50.00	<1.00	9.20		13.00	<0.50	<0.41		11.00	<0.87		29.00	230.00	<8.28
03U704	11/10/87	<20.00	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	<20.00	<1.17
03U704	04/05/88	<1.00	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	4.36	<8.28
03U704	08/08/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	
03U704	11/16/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	1.09	
03U801	12/03/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41			<0.88	4800.00	
03U803	12/01/87	<0.81	<0.99		<0.72	<0.56	<0.51		<1.80					<1.10	
03U804	12/01/87		<0.99		<0.72	<0.56	<0.51						<0.88		
03U805	12/01/87		<0.99	<0.49	<0.72		<0.51			<0.41			<0.88		
03U806	12/02/87	18.60	<0.99	2.88	15.50	<0.56	<0.51		<1.80	<0.41			<0.88	<1.10	

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## TCAA - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 3

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Well	Date	SILVER AG	ARSENIC AS	BARIUM BA	CADMIUM CD	CHROMIUM CR	COPPER CU	CYANIDE CYN	MANGANESE MN	NICKEL NI	LEAD PB	ANTIMONY SB	SELENIUM SE	THALLIUM TL	ZINC ZN
RAL		50.0 (MCL)	50	1500	5.0	120	1300	154	50.0 (SEC)	150	20		45		5000 (SEC)
03L001	11/16/87	<1.93	<4.81	<20.00	<0.10	<2.18	1.14		280.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L002	11/17/87	<1.93	<4.81	<20.00	<0.10	<2.18	1.39		1800.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L003	11/19/87	<1.93	<4.81	170.00	<0.10	<2.18	1.14		520.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L003	08/11/88		<6.01	101.00	<0.37	<2.50				<5.32	<1.26				
03L004	11/18/87	<1.93	<4.81	86.00	<0.10	<2.18	1.14		580.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L004	08/09/88		<6.01	78.80	<0.37	<2.50				<5.32	<1.26				
03L005	11/23/87	<1.93	<4.81	160.00	<0.10	<2.18	1.49		700.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L005	08/10/88		<6.01	73.40	<0.37	<2.50				<5.32	<1.26				
03L007	11/09/87	<1.93	6.19	240.00	<0.10	<2.18	2.08		380.00	<5.94	<2.65	<10.00	<3.06	5.32	<29.40
03L007	11/10/88														
03L010	11/09/87	<1.93	<4.81	31.40	<0.10	<2.18	1.09		2.65	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L010	11/10/88														
03L012	11/09/87	<1.93	<4.81	164.00	<0.10	<2.18	1.34		800.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L012	11/11/88														
03L013	11/10/87	<1.93	<4.81	190.00	<0.10	<2.18	1.49		960.00	<5.94	3.47	<10.00	<3.06	<2.70	<29.40
03L014	11/23/87	<1.93	<4.81	180.00	0.12	<2.18	15.80	<8.35	900.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L014	08/10/88		<6.01	111.00	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
03L017	11/10/87	<1.93	<4.81	124.00	<0.10	<2.18	1.49		360.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L018	11/23/87	<1.93	<4.81	130.00	<0.10	<2.18	2.08	<8.35	470.00	<5.94	<2.65	<10.00	<3.06	<2.70	30.10
03L018	04/08/88		<6.01	67.00	<0.37	<2.50		<8.17		<5.32	<1.26				
03L018	08/22/88		<6.01	91.10	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
03L018	11/18/88														
03L020	12/07/87	<1.93	33.50	440.00	<0.10	3.03	1.29		1800.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L020	08/17/88		29.30	320.00	<0.37	<2.50				<5.32	<1.26				
03L029	12/03/87	<1.93	<4.81	270.00	<0.10	<2.18	1.44		380.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L077	12/04/87	<1.93	<4.81	220.00	<0.10	<2.18	1.40		160.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L078	11/23/87	<1.93	<4.81	150.00	<0.10	<2.18	13.40		500.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L078	08/18/88		<6.01	93.90	<0.37	<2.50				<5.32	<1.26				
03L079	12/04/87	<1.93	<4.81	220.00	<0.10	<2.18	1.59		430.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L079	08/18/88		<6.01	93.90	<0.37	<2.50				<5.32	<1.26				
03L084	12/08/87	<1.93	<4.81	250.00	<0.10	2.53	1.40		200.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L086	08/11/88		<6.01	81.00	<0.37	<2.50				<5.32	<1.26				
03L091	12/03/87	<1.93	<4.81	175.00	0.14	<2.18	1.34	<8.35	230.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03L091	08/25/88		<6.01	75.30	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00



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## TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 3

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Well	Date	SILVER AG	ARSENIC AS	BARIUM BA	CADMIUM CD	CHROMIUM CR	COPPER CU	CYANIDE CYN	MANGANESE MN	NICKEL NI	LEAD PB	ANTIMONY SB	SELENIUM SE	THALLIUM TL	ZINC ZN
RAL		50.0 (MCL)	50	1500	5.0	120	1300	154	50.0 (SEC)	150	20		45		5000 (SEC)
03L113	11/18/87	<1.93	<4.81	67.60	<0.10	<2.18	<0.50	<8.35	350.00	<5.94	<2.65	<10.00	<3.06		<29.40
03L113	04/06/88		<6.01	39.70	<0.37	<2.50		<8.17		<5.32	<1.26				
03L113	08/09/88		<6.01	41.00	<0.37	<2.50				<5.32	<1.26				<25.00
03L113	11/18/88														
03L802	12/03/87														
03L806	12/02/87														
03M001	11/16/87	<1.93	<4.81	26.50	0.15	<2.18	<0.50		<1.19	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03M002	11/17/87	<1.93	<4.81	111.00	0.15	4.15	2.08		2.55	7.25	<2.65	<10.00	3.86	<2.70	<29.40
03M003	11/19/87	<1.93	<4.81	100.00	<0.10	<2.18	1.73		200.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03M003	08/11/88		<6.01	81.60	<0.37	<2.50				<5.32	<1.26				
03M004	11/18/87	<1.93	<4.81	<20.00	<0.10	<2.18	1.44		540.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03M004	08/09/88		<6.01	120.00	<0.37	<2.50				<5.32	<1.26				
03M005	12/08/87	<1.93	<4.81	250.00	<0.10	3.03	2.03		410.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03M005	04/06/88		<6.01	110.00	<0.37	<2.50				<5.32	<1.26				
03M005	08/11/88		<6.01	106.00	<0.37	<2.50				<5.32	<1.26				
03M005	11/10/88														
03M013	11/10/87	<1.93	<4.81	142.00	<0.10	<2.18	1.49		400.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03M017	11/10/87	<1.93	<4.81	63.70	0.10	2.63	2.28		5.50	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03M020	08/18/88		<6.01	167.00	<0.37	<2.50				<5.32	<1.26				
03M505	11/09/87	<1.93	<4.81	122.00	<0.10	<2.18	1.24		220.00	<5.94	<2.65	<10.00	<3.06	3.19	<29.40
03M802	12/03/87														
03M806	12/02/87														
03U001	11/16/87	<1.93	<4.81	59.80	0.10	<2.18	1.24		14.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U002	11/17/87	2.62	<4.81	<20.00	<0.10	2.48	1.78		1000.00	<5.94	4.49	<10.00	<3.06	<2.70	<29.40
03U003	11/19/87	<1.93	<4.81	99.00	<0.10	3.19	1.68			<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U003	08/11/88		<6.01	57.10	<0.37	<2.50				<5.32	<1.26				
03U004	11/18/87	2.08	<4.81	65.70	<0.10	2.93	1.68		2.60	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U004	08/09/88		<6.01	27.00	<0.37	<2.50				<5.32	<1.26				
03U005	11/23/87	3.22	26.80	340.00	0.11	<2.18	16.30		750.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U005	04/06/88		21.30	180.00	<0.37	<2.50				<5.32	<1.26				
03U005	08/10/88		13.90	160.00	<0.37	<2.50				<5.32	<1.26				
03U005	11/10/88														
03U007	11/09/87	<1.93	6.19	280.00	<0.10	<2.18	1.78		320.00	<5.94	<2.65	<10.00	5.14	47.90	<29.40

WENCK ASSOCIATES, INC.

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## TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 3

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Well	Date	SILVER AG	ARSENIC AS	BARIUM BA	CADMIUM CD	CHROMIUM CR	COPPER CU	CYANIDE CYN	MANGANESE MN	NICKEL NI	LEAD PB	ANTIMONY SB	SELENIUM SE	THALLIUM TL	ZINC ZN
RAL		50.0 (MCL)	50	1500	5.0	120	1300	154	50.0 (SEC)	150	20		45		5000 (SEC)
03U007	11/07/88														
03U008	11/09/87	<1.93	20.60	370.00	<0.10	<2.18	1.53		760.00	<5.94	<2.65	<10.00	<3.06	4.26	<29.40
03U008	11/10/88														
03U009	11/20/87	<1.93	<4.81	190.00	<0.10	<2.18	14.80		110.00	6.73	<2.65	<10.00	<3.06	<2.70	<29.40
03U009	11/14/88														
03U010	11/09/87	<1.93	<4.81	125.00	<0.10	<2.18	1.68		200.00	<5.94	2.70	<10.00	<3.06	<2.70	<29.40
03U010	11/10/88														
03U012	11/09/87	1.98	6.19	220.00	<0.10	3.49	3.56		200.00	<5.94	6.43	<10.00	<3.06	5.32	<29.40
03U012	11/11/88														
03U013	11/10/87	<1.93	7.73	120.00	<0.10	<2.18	2.52		160.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U014	12/04/87	<1.93	<4.81	180.00	0.11	3.03	1.40	<8.35	8.50	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U014	08/17/88		<6.01	138.00	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
03U015	11/17/87	<1.93	<4.81	59.80	0.15	4.15	2.33	<8.35	2.70	<5.94	<2.65	<10.00	3.29	<2.70	<29.40
03U015	04/05/88		<6.01	40.00	<0.37	<2.50		<8.17		<5.32	<1.26				
03U015	08/09/88														
03U015	11/16/88														
03U017	11/10/87	<1.93	<4.81	51.50	<0.10	3.19	2.43		9.60	<5.94	4.59	<10.00	<3.06	<2.70	<29.40
03U018	12/04/87	<1.93	<4.81	89.20	0.17	3.03	2.13	<8.35	2.20	6.15	<2.65	<10.00	<3.06	<2.70	<29.40
03U018	08/22/88		<6.01	46.00	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
03U019	11/23/87	2.67	<4.81	110.00	0.13	3.03	18.30	<8.35	7.00	<5.94	<2.65	<10.00	<3.06	<2.70	30.10
03U019	08/12/88		<6.01	95.80	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
03U020	12/07/87	<1.93	<4.81	179.00	0.13	4.04	1.58		3.60	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U020	08/17/88		<6.01	81.60	<0.37	<2.50				<5.32	<1.26				
03U022	04/05/88		<6.01	129.00	0.56	<2.50				<5.32	<1.26				
03U023	11/10/87	<1.93	<4.81	58.80	<0.10	<2.18	0.79		12.50	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U023	11/15/88		<6.01	38.40	<0.37	<2.50				<5.32	<1.26				
03U024	08/10/88		<6.01	173.00	<0.37	<2.50				<5.32	<1.26				
03U025	08/10/88		<6.01	118.00	<0.37	<2.50				<5.32	<1.26				<25.00
03U026	11/18/87	3.32	<4.81	80.00	<0.10	4.25	1.93	<8.35	4.45	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U026	04/08/88		<6.01	55.70	<0.37	<2.50		<8.17		<5.32	<1.26				
03U026	08/22/88		<6.01	66.20	<0.37	4.10		<8.17		<5.32	<1.26				<25.00
03U026	11/16/88														
03U027	11/20/87	2.97	<4.81	240.00	0.10	2.53	1.39		350.00	9.32	4.08	<10.00	<3.06	<2.70	<29.40
03U027	08/16/88		<6.01	154.00	<0.37	<2.50				<5.32	<1.26				
03U028	12/03/87	<1.93	<4.81	72.50	0.22	4.04	3.42		2.20	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40

Well	Date	SILVER AG	ARSENIC AS	BARIUM BA	CADMIUM CD	CHROMIUM CR	COPPER CU	CYANIDE CYN	MANGANESE MN	NICKEL NI	LEAD PB	ANTIMONY SB	SELENIUM SE	THALLIUM TL	ZINC ZN
RAL		50.0 (MCL)	50	1500	5.0	120	1300	154	50.0 (SEC)	150	20		45		5000 (SEC)
03U028	08/22/88		<6.01	39.40	<0.37	2.90		<8.17		<5.32	<1.26				<25.00
03U029	12/03/87	<1.93	<4.81	81.40	<0.10	<2.18	2.62		7.20	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U029	08/17/88		<6.01	53.90	<0.37	<2.50		8.67		<5.32	<1.26				<25.00
03U030	12/03/87	<1.93	<4.81	220.00	0.12	3.03	1.33		75.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U030	08/22/88		<6.01	260.00	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
03U031	08/10/88		<6.01	50.20	<0.37	<2.50				<5.32	<1.26				
03U032	11/20/87	<1.93	<4.81	29.40	0.11	3.03	3.02		3.15	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U032	04/08/88		<6.01	20.50	<0.37	<2.50				<5.32	<1.26				
03U032	08/22/88		<6.01	<9.10	<0.37	3.53		<8.17		<5.32	<1.26				<25.00
03U075	11/10/87	<1.93	<4.81	51.00	<0.10	<2.18	0.99		6.40	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U075	08/18/88		<6.01	45.10	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
03U076	11/10/87	<1.93	<4.81	133.00	<0.10	<2.18	1.24	<8.35	110.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U076	08/18/88		<6.01	61.40	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
03U078	11/23/87	6.53	<4.81	100.00	<0.10	5.06	1.53		6.50	6.21	<2.65	<10.00	<3.06	<2.70	<29.40
03U078	08/18/88		<6.01	47.40	<0.37	<2.50				<5.32	<1.26				
03U079	12/04/87	<1.93	<4.81	82.40	<0.10	<2.18	1.44		5.20	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U079	08/18/88		<6.01	41.50	<0.37	<2.50				<5.32	<1.26				
03U083	08/10/88		<6.01	98.80	<0.37	<2.50				<5.32	<1.26				
03U084	11/23/87	<1.93	<4.81	177.00	<0.10	<2.18	2.48		160.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U087	11/20/87	<1.93	<4.81	67.60	<0.10	4.04	2.87		<1.19	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U087	04/11/88		<6.01	24.70	<0.37	<2.50				<5.32	<1.26				
03U087	08/24/88		<6.01												
03U087	11/17/88		<6.01	45.60	<0.37	2.64				<5.32	<1.26				
03U088	11/17/87	2.72	<4.81	98.00	0.15	5.61	2.08	<8.35	4.30	<5.94	<2.65	<10.00	4.27	<2.70	<29.40
03U088	04/05/88		<6.01	54.60	<0.37	3.51		<8.17		<5.32	<1.26				
03U088	08/08/88														
03U088	11/16/88														
03U089	11/20/87	3.66	<4.81	80.40	0.12	28.00	1.44	<8.35	5.50	8.80	<2.65	<10.00	<3.06	<2.70	<29.40
03U089	04/05/88		<6.01	88.20	<0.37	44.40		<8.17		<5.32	<1.26				
03U089	08/08/88														
03U089	11/17/88														
03U090	11/19/87	1.93	<4.81	61.80	<0.10	4.04	1.88	<8.35	1.50	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U090	04/06/88		<6.01	40.20	<0.37	<2.50		<8.17		<5.32	<1.26				
03U090	08/16/88		<6.01	53.00	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
03U090	11/18/88														
03U092	11/23/87	2.97	<4.81	220.00	<0.10	<2.18	2.28	<8.35	190.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U092	04/08/88		<6.01	115.00	<0.37	<2.50		<8.17		<5.32	<1.26				
03U092	08/25/88		<6.01	144.00	<0.37	<2.50		16.70		<5.32	<1.26				<25.00

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## TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 3

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Well	Date	SILVER AG	ARSENIC AS	BARIUM BA	CADMIUM CD	CHROMIUM CR	COPPER CU	CYANIDE CYN	MANGANESE MN	NICKEL NI	LEAD PB	ANTIMONY SB	SELENIUM SE	THALLIUM TL	ZINC ZN
RAL		50.0 (MCL)	50	1500	5.0	120	1300	154	50.0 (SEC)	150	20		45		5000 (SEC)
03U092	11/16/88														
03U093	12/04/87	<1.93	<4.81	220.00	0.19	<2.18	1.29	<8.35	1800.00	6.21	<2.65	<10.00	<3.06	<2.70	<29.40
03U093	08/17/88		<6.01	100.00	0.54	<2.50		<8.17		<5.32	<1.26				<25.00
03U094	12/04/87	<1.93	<4.81	240.00	0.14	3.03	1.39	<8.35	66.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U094	08/25/88		<6.01	92.90	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
03U096	12/04/87	<1.93	<4.81	41.20	0.11	3.54	1.87	<8.35	2.20	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U096	08/25/88		<6.01	34.10	<0.37	3.21		<8.17		<5.32	<1.26				<25.00
03U097	11/20/87	<1.93	<4.81	290.00	<0.10	<2.18	1.63		380.00	7.25	<2.65	<10.00	<3.06	<2.70	<29.40
03U097	04/07/88		<6.01	130.00	<0.37	<2.50		<8.17		<5.32	<1.26				
03U097	08/11/88														
03U097	11/17/88														
03U099	11/19/87	3.32	<4.81	46.10	<0.10	2.78	2.03		350.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U099	04/11/88		<6.01	32.80	<0.37	<2.50				<5.32	<1.26				
03U099	08/12/88														
03U099	11/17/88														
03U111	11/20/87	<1.93	10.80	470.00	0.13	<2.18	3.66		850.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U111	04/07/88		9.84	320.00	<0.37	<2.50		<8.17		<5.32	<1.26				
03U111	08/11/88														
03U111	11/17/88														
03U112	11/20/87	2.48	<4.81	82.40	<0.10	4.04	2.08	<8.35	3.75	6.73	<2.65	<10.00	<3.06	<2.70	<29.40
03U112	04/08/88		<6.01	51.30	<0.37	<2.50		<8.17		<5.32	<1.26				
03U112	08/16/88		<6.01	61.20	<0.37	2.65		<8.17		<5.32	<1.26				<25.00
03U112	11/18/88														
03U113	11/18/87	<1.93	<4.81	53.90	<0.10	<2.18	2.23	<8.35	7.20	<5.94	2.76	<10.00	<3.06	<2.70	<29.40
03U113	04/06/88		<6.01	36.40	<0.37	<2.50		<8.17		<5.32	<1.26				
03U113	08/09/88		<6.01	25.90	<0.37	2.55		<8.17		<5.32	<1.26				<25.00
03U113	11/18/88														
03U114	11/23/87	<1.93	<4.81	52.90	0.33	4.04	12.40	<8.35	2.25	<5.94	5.10	<10.00	<3.06	<2.70	<29.40
03U114	04/11/88		<6.01	25.20	<0.37	<2.50		<8.17		22.90	<1.26				
03U114	08/09/88		<6.01	33.90	<0.37	2.93		<8.17		<5.32	<1.26				<25.00
03U114	11/16/88														
03U121	12/08/87	<1.93	<4.81	33.30	<0.10	<2.18	2.52	<8.35	100.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U121	04/08/88		<6.01	29.90	<0.37	<2.50		<8.17		<5.32	<1.26				
03U121	08/16/88		<6.01	39.40	<0.37	<2.50		<8.17		<5.32	<1.26				<25.00
03U121	11/18/88														
03U124	02/18/88														
03U124	04/08/88		<6.01	25.80	<0.37	<2.50				<5.32	<1.26				
03U124	08/18/88		<6.01	38.00	<0.37	4.88		<8.17		<5.32	<1.26				<25.00
03U129	12/08/87	<1.93	9.28	370.00	0.17	<2.18	4.95		380.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U129	04/07/88		<6.01	160.00	<0.37	<2.50		<8.17		<5.32	<1.26				
03U129	08/11/88														

Well	Date	SILVER AG	ARSENIC AS	BARIUM BA	CADMIUM CD	CHROMIUM CR	COPPER CU	CYANIDE CYN	MANGANESE MN	NICKEL NI	LEAD PB	ANTIMONY SB	SELENIUM SE	THALLIUM TL	ZINC ZN
RAL		50.0 (MCL)	50	1500	5.0	120	1300	154	50.0 (SEC)	150	20		45		5000 (SEC)
03U129	11/18/88														
03U521	11/20/87	1.98	<4.81	33.30	<0.10	2.53	2.97		4.45	6.21	4.59	<10.00	<3.06	<2.70	<29.40
03U521	04/11/88		<6.01	19.40	<0.37	<2.50				<5.32	<1.26				
03U521	08/24/88														
03U521	11/18/88		<6.01	16.80	<0.37	<2.50				<5.32	<1.26				
03U671	12/04/87	<1.93	<4.81	95.10	<0.10	3.54	2.03		14.80	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U671	08/22/88		<6.01	42.10	<0.37	<2.50				<5.32	<1.26				
03U704	11/10/87	<1.93	<4.81	45.10	1.46	<2.18	1.93	<8.35	140.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
03U704	04/05/88		<6.01	30.10	<0.37	<2.50		<8.17		<5.32	<1.26				
03U704	08/08/88														
03U704	11/16/88														
03U801	12/03/87														
03U803	12/01/87														
03U804	12/01/87														
03U805	12/01/87														
03U806	12/02/87														

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TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 3

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Well	Date	ALPHAG ALPHAG	BETAG BETAG
RAL			
03L001	11/16/87		
03L002	11/17/87		
03L003	11/19/87		
03L003	08/11/88		
03L004	11/18/87		
03L004	08/09/88		
03L005	11/23/87		
03L005	08/10/88		
03L007	11/09/87		
03L007	11/10/88		
03L010	11/09/87		
03L010	11/10/88		
03L012	11/09/87		
03L012	11/11/88		
03L013	11/10/87		
03L014	11/23/87		
03L014	08/10/88		
03L017	11/10/87		
03L018	11/23/87		
03L018	04/08/88		
03L018	08/22/88		
03L018	11/18/88		
03L020	12/07/87		
03L020	08/17/88		
03L029	12/03/87		
03L077	12/04/87		
03L078	11/23/87		
03L078	08/18/88		
03L079	12/04/87		
03L079	08/18/88		
03L084	12/08/87		
03L086	08/11/88		
03L091	12/03/87		
03L091	08/25/88		

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TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 3

PAGE: 8

Well	Date	ALPHAG ALPHAG	BETAG BETAG
RAL			
03L113	11/18/87		
03L113	04/06/88		
03L113	08/09/88		
03L113	11/18/88		
03L802	12/03/87		
03L806	12/02/87		
03M001	11/16/87		
03M002	11/17/87		
03M003	11/19/87		
03M003	08/11/88		
03M004	11/18/87		
03M004	08/09/88		
03M005	12/08/87		
03M005	04/06/88		
03M005	08/11/88		
03M005	11/10/88		
03M013	11/10/87		
03M017	11/10/87		
03M020	08/18/88		
03M505	11/09/87		
03M802	12/03/87		
03M806	12/02/87		
03U001	11/16/87		
03U002	11/17/87		
03U003	11/19/87		
03U003	08/11/88		
03U004	11/18/87		
03U004	08/09/88		
03U005	11/23/87		
03U005	04/06/88		
03U005	08/10/88		
03U005	11/10/88		
03U007	11/09/87		

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TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 3

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Well	Date	ALPHAG ALPHAG	BETAG BETAG
RAL			
03U007	11/07/88		
03U008	11/09/87		
03U008	11/10/88		
03U009	11/20/87		
03U009	11/14/88		
03U010	11/09/87		
03U010	11/10/88		
03U012	11/09/87		
03U012	11/11/88		
03U013	11/10/87		
03U014	12/04/87	<3.00	1.70
03U014	08/17/88		
03U015	11/17/87		
03U015	04/05/88		
03U015	08/09/88		
03U015	11/16/88		
03U017	11/10/87		
03U018	12/04/87	<1.70	<1.00
03U018	08/22/88		
03U019	11/23/87		
03U019	08/12/88		
03U020	12/07/87		
03U020	08/17/88		
03U022	04/05/88		
03U023	11/10/87		
03U023	11/15/88		
03U024	08/10/88		
03U025	08/10/88		
03U026	11/18/87		
03U026	04/08/88		
03U026	08/22/88		
03U026	11/16/88		
03U027	11/20/87		
03U027	08/16/88		
03U028	12/03/87		



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TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 3

PAGE: 10

Well	Date	ALPHAG ALPHAG	BETAG BETAG
RAL			
03U028	08/22/88		
03U029	12/03/87		
03U029	08/17/88		
03U030	12/03/87		
03U030	08/22/88		
03U031	08/10/88		
03U032	11/20/87	2.80	3.50
03U032	04/08/88		
03U032	08/22/88		
03U075	11/10/87		
03U075	08/18/88		
03U076	11/10/87		
03U076	08/18/88		
03U078	11/23/87		
03U078	08/18/88		
03U079	12/04/87		
03U079	08/18/88		
03U083	08/10/88		
03U084	11/23/87		
03U087	11/20/87		
03U087	04/11/88		
03U087	08/24/88		
03U087	11/17/88		
03U088	11/17/87		
03U088	04/05/88		
03U088	08/08/88		
03U088	11/16/88		
03U089	11/20/87		
03U089	04/05/88		
03U089	08/08/88		
03U089	11/17/88		
03U090	11/19/87		
03U090	04/06/88		
03U090	08/16/88		
03U090	11/18/88		
03U092	11/23/87		
03U092	04/08/88		
03U092	08/25/88		

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TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 3

PAGE: 11

Well	Date	ALPHAG ALPHAG	BETAG BETAG
RAL			
03U092	11/16/88		
03U093	12/04/87		
03U093	08/17/88		
03U094	12/04/87	<3.60	<2.20
03U094	08/25/88		
03U096	12/04/87		
03U096	08/25/88		
03U097	11/20/87		
03U097	04/07/88		
03U097	08/11/88		
03U097	11/17/88		
03U099	11/19/87		
03U099	04/11/88		
03U099	08/12/88		
03U099	11/17/88		
03U111	11/20/87		
03U111	04/07/88		
03U111	08/11/88		
03U111	11/17/88		
03U112	11/20/87		
03U112	04/08/88		
03U112	08/16/88		
03U112	11/18/88		
03U113	11/18/87	4.20	2.70
03U113	04/06/88		
03U113	08/09/88		
03U113	11/18/88		
03U114	11/23/87		
03U114	04/11/88		
03U114	08/09/88		
03U114	11/16/88		
03U121	12/08/87		
03U121	04/08/88		
03U121	08/16/88		
03U121	11/18/88		
03U124	02/18/88		
03U124	04/08/88		
03U124	08/18/88		
03U129	12/08/87		
03U129	04/07/88		
03U129	08/11/88		

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TCAAP - GROUNDWATER QUALITY (INORGANIC), ug/l - UNIT 3

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Well	Date	ALPHAG ALPHAG	BETAG BETAG
RAL			
03U129	11/18/88		
03U521	11/20/87		
03U521	04/11/88		
03U521	08/24/88		
03U521	11/18/88		
03U671	12/04/87		
03U671	08/22/88		
03U704	11/10/87		
03U704	04/05/88		
03U704	08/08/88		
03U704	11/16/88		
03U801	12/03/87		
03U803	12/01/87		
03U804	12/01/87		
03U805	12/01/87		
03U806	12/02/87		

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## TCAAP - GROUNDWATER QUALITY (VOC), ug/l - UNIT 4

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCE	1,2-DI CHLORO ETHENE 12DCE	1,2-DI CHLORO ETHANE 12DCE	BENZENE C6H6	METHY LENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	TOLUENE / METHYL BENZENE MEC6H5	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCL4E	TRI CHLORO ETHENE TRCLE	TOTAL XYLENES TXYLEN
RAL		200	14	7.0	810	70	3.8	7.0	48	57	2420	70	6.6	31	400
04U001	11/16/87							<3.09			<3.39				<1.17
04U001	08/23/88	5.63	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	13.20	<1.17
04U002	11/17/87	8.10	<5.00	<15.00	<15.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	80.00	<1.17
04U003	11/19/87	1.11	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	1.66	<1.17
04U007	11/09/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
04U007	11/10/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	<1.17
04U012	11/09/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
04U012	11/11/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	<1.17
04U020	12/07/87	210.00	<0.99	<0.49	130.00	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	1500.00	<1.17
04U020	08/17/88	130.00	<1.00	67.00		84.00	<0.50	<0.41		<0.72	<0.87		<1.00	710.00	<8.28
04U077	12/04/87	490.00	<5.00	46.00	82.00	<0.56	<20.00	<5.00	<40.00	<5.00	<3.39	<15.00	<10.00	1800.00	<1.17
04U510	11/18/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
04U510	11/15/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	<0.50	<1.17
04U802	12/02/87		<0.99	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41	<3.39		<0.88	3.20	<1.17
04U802	08/24/88	<1.00	<1.00	<1.00		<0.50	<0.50			<0.72			<1.00	1.80	<1.17
04U806	12/02/87	820.00	<0.99	110.00	160.00	<0.56	<0.51		<1.80	<0.41	<3.39		<0.88	2500.00	<1.17
04U841	11/25/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
PJ#003	11/19/87	0.85	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	6.83	<1.17
PJ#027	11/20/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
PJ#074	12/03/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
PJ#074	08/19/88	1.99	<1.00	<1.00		<0.50	<0.50	<0.41		<0.72	<0.87		<1.00	7.99	<8.28
PJ#502	11/18/87	1.71	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	7.65	<1.17
PJ#503	11/18/87	29.00	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	130.00	<1.17
PJ#506	11/19/87	180.00	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	890.00	<1.17
PJ#507	11/18/87	190.00	<0.99	<0.49	<0.72	<0.56	<0.51	<3.09	<1.80	<0.41	<3.39		<0.88	890.00	1.46
PJ#508	08/23/88	250.00	<1.00	44.20		22.50	<0.50	<0.41		<0.72	<0.87		<1.00	710.00	<8.28
PJ#802	12/02/87	<0.81	<0.99	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41	<3.39		<0.88	<1.10	<1.17
PJ#806	12/02/87	250.00	<0.99	<0.49	<0.72	<0.56	<0.51		<1.80	<0.41	<3.39		<0.88	990.00	<1.17

Well	Date	SILVER AG	ARSENIC AS	BARJUM BA	CADMIUM CD	CHROMIUM CR	COPPER CU	CYANIDE CYN	MANGANESE MN	NICKEL NI	LEAD PB	ANTIMONY SB	SELENIUM SB	THALLIUM TL	ZINC ZN
RAL		50.0 (MCL)	50	1500	5.0	120	1300	154	50.0 (SEC)	150	20		45		5000 (SEC)
04U001	11/16/87	<1.93	<4.81	<20.00	<0.10	<2.18	1.19		280.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
04U001	08/23/88														
04U002	11/17/87	<1.93	<4.81	<20.00	<0.10	<2.18	<0.50		360.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
04U003	11/19/87	<1.93	<4.81	130.00	<0.10	<2.18	<0.50		210.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
04U007	11/09/87	<1.93	<4.81	186.00	<0.10	<2.18	1.68		400.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
04U007	11/10/88														
04U012	11/09/87	<1.93	<4.81	490.00	<0.10	2.33	1.24		520.00	<5.94	<2.65	<10.00	<3.06	5.22	<29.40
04U012	11/11/88														
04U020	12/07/87	<1.93	21.10	910.00	<0.10	<2.18	1.53		1100.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
04U020	08/17/88		21.20	570.00	<0.37	<2.50				<5.32	1.84				
04U077	12/04/87	<1.93	<4.81	240.00	<0.10	<2.18	1.34		200.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
04U510	11/18/87	<1.93	<4.81	<20.00	<0.10	<2.18	2.28		270.00	<5.94	3.78	<10.00	<3.06	<2.70	71.10
04U510	11/15/88														
04U802	12/02/87														
04U802	08/24/88														
04U806	12/02/87														
04U841	11/25/87														
PJ#003	11/19/87	<1.93	<4.81	130.00	<0.10	<2.18	<0.50		330.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
PJ#027	11/20/87	<1.93	<4.81	190.00	<0.10	<2.18	1.49		250.00	6.21	<2.65	<10.00	<3.06	<2.70	<29.40
PJ#074	12/03/87	<1.93	<4.81	220.00	0.15	<2.18	1.10		410.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
PJ#074	08/19/88		<6.01	134.00	<0.37	<2.50				<5.32	<1.26				
PJ#502	11/18/87	<1.93	<4.81	<20.00	<0.10	<2.18	1.73		240.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
PJ#503	11/18/87	<1.93	<4.81	<20.00	<0.10	<2.18	1.53		360.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
PJ#506	11/19/87	<1.93	<4.81	<20.00	<0.10	<2.18	<0.50		560.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
PJ#507	11/18/87	<1.93	<4.81	<20.00	0.10	<2.18	1.39		680.00	<5.94	<2.65	<10.00	<3.06	<2.70	<29.40
PJ#508	08/23/88		8.04	320.00	<0.37	<2.50				<5.32	<1.26				
PJ#802	12/02/87														
PJ#806	12/02/87														

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PAGE: 2

Well	Date	ALPHAG ALPHAG	BETAG BETAG
RAL			
04U001	11/16/87		
04U001	08/23/88		
04U002	11/17/87		
04U003	11/19/87		
04U007	11/09/87		
04U007	11/10/88		
04U012	11/09/87		
04U012	11/11/88		
04U020	12/07/87	<1.60	<1.00
04U020	08/17/88		
04U077	12/04/87		
04U510	11/18/87		
04U510	11/15/88		
04U802	12/02/87		
04U802	08/24/88		
04U806	12/02/87		
04U841	11/25/87		
PJ#003	11/19/87		
PJ#027	11/20/87		
PJ#074	12/03/87	3.50	5.30
PJ#074	08/19/88		
PJ#502	11/18/87		
PJ#503	11/18/87		
PJ#506	11/19/87		
PJ#507	11/18/87		
PJ#508	08/23/88		
PJ#802	12/02/87		
PJ#806	12/02/87		

**C. GROUNDWATER LEVEL**

Quarter:	16	17	17	17	18	18	19	20	20	20	20	20	Count
WELL	11/01/87	01/26/88	01/27/88	01/28/88	04/13/88	04/14/88	08/30/88	11/22/88	11/23/88	12/06/88	12/13/88	12/20/88	12
01L811			894.2				893.5	893.1					4
01L813			815.1		815.7		813.5	814.4					4
01L816			869.7		870.0		869.0	876.5					4
01L821		871.4			872.0		870.3	868.4					4
01L822		867.4			868.2		866.5	867.7					4
01L823		871.9			872.3		871.4	871.4					4
01U003	934.2	934.1											2
01U004	940.7		939.2			941.8	940.1	940.6					5
01U011	892.0	891.1			892.0		890.2	890.1					5
01U012	875.2		875.0		875.4		874.5	874.8					5
01U022	894.3		893.2		895.2		891.4	892.2		893.1	893.2	893.3	8
01U033	885.3	885.7			885.4		883.4	884.8					5
01U034	896.2	894.7			891.9		894.3	894.2					5
01U035	895.3	894.1			894.5		893.3	892.8					5
01U036	894.8	893.7			893.8		892.6	892.1		892.3	892.9	892.1	8
01U037	892.3	891.8			888.3		890.6	890.0		890.1	890.1	890.0	8
01U038	891.7	891.3			891.6		890.0	889.3		889.4	889.4	889.4	8
01U039	884.1						882.4	882.0		882.0	882.0	881.9	6
01U040	882.9		882.1				881.2	880.5		880.5	880.5	880.4	8
01U041	891.1		890.6		891.9		888.9			888.9	888.9	888.8	7
01U043	882.8		882.2			884.1	881.0	881.6					5
01U044	878.4		877.9		878.2		880.7	877.3					5
01U045	880.4	880.3			881.3		879.4	880.0					5
01U046	879.6	879.6			879.7		878.9	879.5					5
01U047	873.2		872.9		873.8		872.2	872.7					5
01U048	873.4		873.1		875.7		872.9	873.1					5
01U050	885.6		885.3		887.1		885.9	887.0					5
01U051	889.2		888.8		889.0		888.9	889.2					5
01U052	873.4		873.2		874.2		872.9	873.2					5
01U053	906.9		905.8		907.0		906.6	906.9					5
01U054	932.0		929.9		933.0		930.4	932.4					5
01U060	935.5		935.4		935.8		934.7	934.7					5
01U062	904.1		904.1		904.3		902.7	903.8					5
01U063	882.0		880.7		882.5		879.9	879.4					5
01U064	944.0		943.8			943.8	943.6	943.3					5
01U065	873.1		872.7			873.4	872.6	872.6					5
01U067	892.9			891.9	893.6		890.2	889.5		889.8	889.9	889.9	8
01U072	902.3		900.7		904.2		897.5	897.8					5
01U085	882.4	882.9			883.4		880.2	880.6					5
01U098	937.1	936.2			941.7		935.6	933.6					5
01U100	899.1		898.1		901.1								3
01U101	898.0		897.4		899.1		893.7	893.5		894.0	894.1	893.9	8
01U102	890.4	889.8			888.9		888.5	887.7		887.6	887.6	887.5	8
01U103	890.8	890.2			890.1		889.1	887.6		886.5	887.6	887.6	8
01U104	892.8	892.2			892.9		890.5	889.9		890.1	890.1	890.0	8
01U105	894.3	893.6			893.6		892.1	891.6		891.8	891.8	891.7	8
01U106	890.7	890.0			889.4		888.9	887.9		887.8	887.8	887.7	8
01U107	891.4	890.8			890.9		889.6	888.8		888.5	888.5	888.7	8
01U108	890.4	889.9			889.7		888.8	885.9		886.0	886.1	886.1	8
01U109	894.3	893.2			895.4		891.1	891.2		891.4	891.4	891.4	8
01U110	894.2	893.1			892.4		891.2	891.3		891.4	891.4	891.3	8
01U115	888.2	887.6			886.9		886.4	885.8		885.8	885.8	884.8	8
01U116	888.4	887.9				887.2	886.7	886.1		886.1	886.1	886.0	8
01U117	888.9	888.8			887.7		887.2	886.6		886.6	886.5	886.5	8
01U118	889.6		889.0		887.3		887.3	887.1		887.0	886.9	886.9	8
01U119	892.3		891.7		892.3		890.1	889.4		889.5	889.4	889.4	8
01U120	890.1	889.4			888.6		888.4	887.6		887.6	887.6	887.5	8
01U122	897.5	895.9			898.3		893.8	894.9					5
01U125	888.4	887.8			887.1		886.7	886.1		886.1	886.1	886.1	8
01U126	888.9	888.3			887.3		887.2	886.6		886.5	886.5	886.5	8
01U127	890.1	889.6			888.9		888.6	887.5		887.5	887.5	887.4	8
01U128	873.3		872.8		874.1		872.4	873.1					5
01U130	880.6		880.3		880.8		880.7	880.8					5
01U133	891.4	891.0			891.2		889.7	887.9		889.0	889.1	888.9	8
01U135								881.0					1
01U136								877.6					1
01U350								879.4					4
01U524	906.9		904.9		906.8		904.9	906.0		877.4	878.0	878.2	4
01U525	932.6				935.6		932.9						5
01U526	929.6		928.7		930.0		928.9			933.2	929.2		4
01U527	908.9		905.8		908.2		907.9			908.9			5
01U601	883.8		883.4			884.0	883.7						4
01U603	876.8		875.9			875.1	875.3						4
01U604	877.6		875.7			875.1	875.4						4
01U605	876.2					876.7	876.3						3



TABLE C-1

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## TCAAP - GROUNDWATER ELEVATIONS, FT - UNIT 1

PAGE: 2

Quarter:	16	17	17	17	18	18	19	20	20	20	20	20	Count
WELL	11/01/87	01/26/88	01/27/88	01/28/88	04/13/88	04/14/88	08/30/88	11/22/88	11/23/88	12/06/88	12/13/88	12/20/88	12
01U607	884.4		881.4			885.2	884.6	885.5					5
01U609	882.9		882.7			883.1	883.0	883.0					5
01U611						883.4	883.3	883.4					3
01U612	878.0		877.0			876.8	876.5	876.9					5
01U613	883.5		883.7			883.8	884.1	884.3					5
01U615	881.4		878.3			878.0	878.3	878.2					5
01U616	880.2		879.3			878.5	879.2	878.6					5
01U617	877.5		875.2			875.0	875.3	875.2					5
01U618	878.8		877.6			877.2	877.9	877.3					5
01U619	881.1		880.7			881.4	881.7		881.5				5
01U620	878.3		876.4			876.0	876.6						4
01U621	877.9		876.1			875.9	876.2		876.0				5
01U623	877.7		877.6			876.1	876.2		876.2				5
01U624B				867.8		867.4	867.9		869.5				4
01U624C				867.7		867.4	867.9		868.9				4
01U624D				867.8		867.4	867.9		869.3				4
01U625A				867.4		867.3	867.6		869.0				4
01U625B				867.4		867.2	867.6		868.6				4
01U625C				867.4		867.3	867.6		868.6				4
01U625D				867.4		867.2	867.6		868.6				4
01U626A		866.4				865.9	866.2		867.5				4
01U626B		866.0				865.9	866.2		866.8				4
01U626C		866.1				866.0	866.3		866.8				4
01U626D		866.2				866.1	866.3		867.4				4
01U627A		868.0				867.6	867.8		868.7				4
01U627B		867.0				866.9	867.1		868.7				4
01U627C		867.0				866.8	867.1		868.5				4
01U627D		867.0				866.8	867.1		867.4				4
01U628A		868.1				867.9	868.1		869.2				4
01U628B		867.8				867.7	867.9		868.3				4
01U628C		867.5				867.4	867.6		868.5				4
01U628D		867.5				867.4	867.5		868.8				4
01U634	948.9					949.0			951.0				3
01U636	939.7					940.1	939.7		939.7				4
01U639	946.1					948.4			950.5				3
01U640							948.1		948.1				2
01U642	954.4		952.0			954.0	953.8		954.9				5
01U652	948.3		947.7			946.6	947.8		948.0				5
01U667	946.3		946.0			949.0	946.5		946.2				5
01U803	893.0	891.8					892.1		893.0				5
01U805	901.0	899.5			901.3		899.3		899.4				5
01U806	902.9		901.6		901.6		901.6						4
01U808	891.5	891.9			891.2		890.9		891.0				5
01U813	868.6				868.7		866.0		867.1				5
Count	89	36	64	8	66	47	112	74	36	29	29	29	619

Quarter: WELL	16 11/01/87	17 01/26/88	17 01/27/88	17 01/28/88	18 04/13/88	18 04/14/88	19 08/30/88	20 11/22/88	20 11/23/88	20 11/25/88	20 12/06/88	20 12/13/88	20 12/20/88	Count 13
03F302	844.5			837.3		865.6	860.6			863.4				5
03F303	830.8			847.4		857.8	852.9							4
03F304	848.6			849.2		856.8	852.0							5
03F305	844.7			844.3		848.3	843.5							4
03F306	841.7			824.9		847.6	842.1							5
03F307	823.3			830.2		839.5	833.9							5
03L001	849.5		849.5		850.5		845.3			846.6				5
03L002	850.4				853.1		847.9			848.5				5
03L003	852.1	852.2				853.9	849.1							5
03L004	855.4	855.6				856.3	852.2			851.6				5
03L005	857.1	857.2				857.6	853.6			853.1				5
03L007	859.4	859.5			859.9		854.9			855.4				5
03L010	865.6	865.8			865.6		859.2			861.4				5
03L012	859.8		860.2		859.7		854.4			855.7				5
03L013	852.4		852.4		852.9		848.0			848.9				5
03L014	857.0	857.0				857.3	853.0			853.8				5
03L017			854.3		855.1		850.5			850.6				5
03L018	856.5		856.7			857.0	852.6			852.4				5
03L020	854.3		854.6			855.4	850.8			850.8				5
03L021	852.3			852.5		854.2	849.0			849.5				5
03L027	854.6		854.7			855.6	851.1			850.9				5
03L028	854.3		854.4			855.5	850.9			851.0				5
03L029	853.4		853.4			854.9	850.2			850.2				5
03L077	848.6		848.7		852.7		845.2			847.4				5
03L078	850.3		850.6		853.5		847.4			848.8				5
03L079	850.0		850.1			853.2	846.9			848.5				5
03L080	854.6		855.5			856.3	851.9			851.5				5
03L081	857.5		857.7			857.9	854.7			853.3				5
03L084	850.0	849.9				851.4	847.3			846.9				5
03L086	857.7	857.8				858.1	853.9			853.6				5
03L091	857.8	857.9				857.9	853.5			853.3				5
03L113	858.2		858.4			858.3	855.0			853.8				5
03L306							829.7			832.6				2
03L673	826.8		827.0		828.4		823.7			824.3				5
03L802	853.5	851.7			854.0		848.6			848.3				5
03L806	848.0		847.9		850.4		844.6			846.2				5
03L809	847.0	847.2			848.9		843.5			844.9				5
03L811			846.2		847.5		842.4			843.8				4
03L813			843.7		844.6		839.6			841.1				4
03L822		837.3			837.9		833.3			834.6				4
03L832		836.2			836.5		831.8			833.3				4
03L841	844.3	844.4			847.3		841.0			841.8				5
03L848		844.9			846.1		841.7			842.2				4
03L853		838.1			838.7		834.1			835.4				4
03L854		840.4			841.2		836.8			837.4				4
03L856		842.1			842.9		837.9			838.5				4
03L858		898.6			898.6		898.2			903.7				4
03L859		840.8			841.8		837.4			838.1				4
03L860		840.4			841.4		837.1			838.0				4
03L861		838.9			839.6		835.0			835.3				4
03M001	849.5		849.5		850.5		845.3			846.6				5
03M002	850.3		850.5		853.0		847.9			848.5				5
03M003	852.4	852.5				854.3	849.6			849.4				5
03M004	855.4		855.6			856.3	852.2			851.6				5
03M005	856.7	856.8				857.1	853.1			852.6				5
03M007	859.7				860.3		855.2			855.6				5
03M010	865.9	866.2			865.9		859.5			861.7				5
03M012	859.8		860.0		859.7		854.4			855.7				5
03M013	852.6		852.6		852.7		848.1			849.0				5
03M017			854.3		855.0		850.5			850.6				4
03M020	854.3		854.6			855.4	850.8			850.2				5
03M505	858.8			859.0		859.1	854.2							4
03M802	850.1				849.7		846.8			847.7				5
03M806	848.1		848.0		850.5		844.7			846.3				5
03M843		838.1			838.7		834.1			835.4				4
03M848		844.3			845.4		841.0			841.5				4
03U001	849.5				850.4		845.2	846.6						5
03U002	850.9		851.1		853.1		847.7	848.4						5
03U003	852.4	852.5				854.2	849.7	849.3						5
03U004			856.0			856.6	852.7	852.0						5
03U005	857.2	857.2				857.6	853.7	853.2						5
03U006	858.3	858.5			859.1		854.9	854.4						5
03U007	859.7	859.9			860.3		855.1	855.6						5
03U008	864.1	864.4			864.4		857.7	859.8						5
03U009	865.9	866.2			866.0		859.4	861.7						5
03U010	865.9	866.1			865.8		859.4	861.6						5
03U011	863.4	866.5			862.3		857.5	858.8						5
03U012	859.8		860.0		859.7		854.5	855.8						5
03U013	852.7		852.7		853.1		848.2	849.1						5
03U014	856.8	856.7				857.2	853.1	851.4						5

Quarter:	16	17	17	17	18	18	19	20	20	20	20	20	20	Count
WELL:	11/01/87	01/26/88	01/27/88	01/28/88	04/13/88	04/14/88	08/30/88	11/22/88	11/23/88	11/25/88	12/06/88	12/13/88	12/20/88	13
03U015	857.0				857.1		852.6	852.7						5
03U016	859.3		859.4		859.3		854.8	854.8						5
03U017	854.4		854.3		855.1		850.6	850.6						5
03U018	856.7		856.8			857.0	852.8	852.4						5
03U019	857.8		858.1			858.2	854.1	853.6						5
03U020	854.3		854.6			855.5	850.9	850.8						5
03U021	852.7			852.8		854.3	849.3							4
03U022	860.7		860.9		860.4		855.4	856.0			856.2	856.3	856.3	8
03U023	860.5		860.7		860.3		855.1	856.1			856.3	856.4	856.4	8
03U024	859.4		859.5			859.0	854.5	854.8						5
03U025	857.6	857.7			855.2		852.7	853.4						5
03U026	857.4	857.5				857.7	853.5	853.1						5
03U027	854.7		854.8			855.8	851.3	851.0						5
03U028	854.1		854.2			855.3	850.7	850.8						5
03U029	852.5		853.6			855.0	849.3	850.1						5
03U030	855.3		855.4			856.1	851.8	851.7						5
03U031	855.8	856.0			857.5		851.4	852.1						5
03U032	858.0	858.2				858.1	853.8	853.6						5
03U075	852.2		852.0			852.4	847.5	848.3						5
03U076	850.6		850.4			850.9	846.0	847.2						5
03U077	846.7		849.8		851.7		846.1	847.3						5
03U078	849.9		850.4		854.0		848.0	848.9						5
03U079	849.5		849.8			853.8	847.3	848.8						5
03U082	863.9		863.2		862.7		857.3	858.4			858.5	858.5	858.6	8
03U083	857.8	857.9			857.9		853.1	853.5						5
03U084	849.9		850.0		851.4		846.2	847.2						5
03U087	858.2	858.4			858.2		853.8	853.6						5
03U088	858.5	858.7			858.3		854.0	853.8						5
03U089	858.5	858.6			858.3		853.9	853.8						5
03U090	857.4	857.0				857.7	853.4	853.0						5
03U092	856.8		856.9			857.2	853.1	852.6						5
03U093	856.7		856.8			857.0	852.8	852.5						5
03U094	857.0	857.0				857.3	853.2	852.7						5
03U096	856.7		856.8			857.0	852.6	852.5						5
03U097	861.9		862.1		861.5		856.7	857.3						5
03U099	857.9	858.0			858.6		854.7	853.9						5
03U111	861.9		862.1		861.7		856.7	857.3						5
03U112	857.8	857.9				858.1	853.9	851.4						5
03U113	858.3		858.5			858.8	854.5	854.1						5
03U114	857.5	857.7				857.9	853.8	853.3						5
03U121	857.4	857.6				857.6	853.4	852.9						5
03U124						857.9	853.5	856.9						3
03U129	862.3		862.5		862.1		856.9	857.7						5
03U301			854.8			855.5	842.4							3
03U521	858.2	858.4			858.1		853.7	853.6						5
03U647	855.0		855.0			855.9	851.5			851.4				5
03U648	854.9		855.0			855.8	851.4			851.3				5
03U658	855.5		855.6			856.3	852.1			852.9				5
03U659	853.8		854.0			855.2	850.6			850.6				5
03U671	851.6			851.7	853.9		848.6	848.9						5
03U672	853.2			853.4	854.8		850.5	850.0						5
03U673	846.1		846.2		847.6		843.6	844.8						5
03U674	853.4		854.2		855.6		850.3	851.0						5
03U701	849.3		849.4		851.1		845.6	846.9						5
03U702	849.0		849.0		850.6		845.2	846.6						5
03U703	849.6		849.7		853.9		847.9	849.6						5
03U704	859.6		859.8		856.5		854.8	854.5						5
03U705	859.9		860.2		858.9		855.1							4
03U706	859.8		860.0		859.1		854.9			854.9				5
03U707	860.2		860.4		859.3		855.1			855.4				5
03U708	850.9		851.2		853.6		848.1			848.6				5
03U709			850.3		852.6		847.1			848.0				5
03U710	851.4		850.7		854.1		848.8			849.0				5
03U711		849.7			852.4		846.7			847.8				4
03U801	849.9	850.0			853.1		847.4			848.4				5
03U803	848.9	848.9			850.9		846.7			846.8				5
03U804	849.5	849.7			852.6		847.0			848.0				5
03U805	848.2		848.1		850.8		845.1			846.5				5
03U806	848.5		848.4		850.3		844.9			846.1				5
03U811			847.2		848.6		843.5			844.9				4
03U815		838.9			839.7		835.0			835.5				4
03U821		837.6			838.2		833.6			834.9				4
03U822		837.3			837.9		833.3			834.6				4
03U824		837.4			838.0		833.4			834.5				4
03U831		837.3			837.9		833.2							3
03U832		836.3			835.1		832.0			833.4				4
Count	130	63	80	11	94	61	156	57	88	4	3	3	3	753

Quarter:	16	17	17	17	18	18	19	20	20	Count
WELL	11/01/87	01/26/88	01/27/88	01/28/88	04/13/88	04/14/88	08/30/88	11/23/88	11/25/88	9
0117NB					873.4		873.7	873.9		3
01U510	867.9		868.1		867.1		861.4		863.5	5
04U001	849.4				850.5		845.2		846.5	4
04U002	850.4		850.6		853.0		847.8		848.5	5
04U003	849.6	849.7				851.1	846.5		847.0	5
04U007	859.0	859.3			859.5		854.7		854.9	5
04U012	859.8		860.0		859.7		855.4		855.7	5
04U020	853.9		853.2			854.3	849.6		850.4	5
04U027	853.7		853.8			854.7	849.8		850.3	5
04U077	847.6		849.6		852.7		846.5		848.0	5
04U673	845.4		845.6		846.9		842.2		842.9	5
04U701	849.0		849.1		851.2		845.5		847.2	5
04U702	849.2		849.3		851.2		845.6		846.9	5
04U708	849.9		850.0		852.6		847.5		847.8	5
04U709	849.7		849.6		852.6		847.3		848.0	5
04U711				848.9	851.4		845.6		847.1	4
04U802	849.2	849.4			851.3		846.2		846.8	5
04U806	847.9		847.7		850.0		844.4		845.8	5
04U821		837.5			838.0		833.4		834.8	4
04U832		836.4			837.4		832.6		834.2	4
04U841		845.8			847.1		842.3		843.2	4
04U843		837.5			838.0		833.5		834.7	4
04U844		836.0			836.3		831.6		833.0	4
04U845					838.3		833.6		835.0	3
04U846		833.0			833.2		828.8		830.1	4
04U847		845.6			846.9		841.9		843.1	4
04U848		842.4			843.6		839.0		839.7	4
04U849		833.2			833.4		829.0		830.0	4
04U850		832.7			829.9		828.6		829.8	4
04U851		832.3			832.4		827.6		829.4	4
04U852		832.3			832.2		827.1		829.7	4
04U854		836.8			836.9		832.1		833.7	4
04U855		835.1			835.5		831.3		832.1	4
04U859		843.5			844.7		840.1		840.9	4
04U860		836.5			836.8		831.8		830.4	4
04U861		836.7			837.1		832.2		831.1	4
04U871							814.5		816.1	2
04U872							811.9		813.8	2
04U875							813.3		814.8	2
04U877							827.5		828.6	2
04U879							826.9		827.1	2
04U880							806.8		808.4	2
04U881									807.4	1
04U882									801.2	1
04U883									800.2	1
191942		838.2			838.7		834.1		835.4	4
409595		837.5			838.0		833.4	834.5		4
409596		837.8								1
409597		837.7			838.2		833.6	834.9		4
409598		837.4			838.0		833.4	834.1		4
PJ#003	848.8		848.9			850.1	845.4		845.9	5
PJ#027	853.3		853.4			854.4	849.5		849.9	5
PJ#074	854.1			854.2		854.9	850.2		850.5	5
PJ#501	856.0		854.1			854.7	850.0		850.0	5
PJ#502			853.7			854.3	849.8		849.8	4
PJ#503	852.2		853.7			854.3	849.9		849.9	5
PJ#506	854.5		854.2			855.1	850.5		850.5	5
PJ#507	854.1		853.9			854.6	850.2		850.2	5
PJ#508	854.0		856.0			854.5	850.2		850.2	5
PJ#802	848.9	849.0			848.4		845.8		846.4	5
PJ#806	848.0		847.8		848.4		844.5		846.0	5
Count	26	26	21	2	39	12	57	4	56	243

**D. CONTAMINANT "ACTION EXCEEDANCE"**

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCE	1,2-DI CHLORO ETHENE 12DCE	BIS(2-ETHYL HEXYL) PHTHALATE B2EHP	BENZENE C6H6	METHYLENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	MANGA NESE MN	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEE	TRI CHLORO ETHENE TRCLE
Action Criteria Level		22	6.1	0.24	810	70	40	0.7	48	0.19	50.0 (SEC)	70	0.7	2.8
01U034	11/11/87										910.00			
01U038	04/06/88						1.61							
01U050	11/16/87										8500.00			6.88
01U053	11/16/87			0.94							1800.00			
01U054	11/16/87										4000.00			16.10
01U060	11/19/87						77.00				6000.00			
01U085	11/11/87										2000.00			
01U098	11/19/87										140.00			
01U103	11/11/87										62.00			
01U107	11/15/88												2.42	
01U108	11/16/87					670.00					2000.00	500.00	260.00	200.00
01U108	04/11/88					870.00		4.50					990.00	590.00
01U108	08/25/88					720.00							1000.00	750.00
01U108	11/15/88					300.00							640.00	480.00
01U115	11/11/87										120.00			12.00
01U115	04/11/88													14.10
01U115	08/09/88													6.04
01U115	11/15/88												1.34	10.40
01U116	11/11/87										280.00			4.15
01U116	08/09/88													4.60
01U116	11/15/88													
01U117	11/11/87										950.00		22.00	7.00
01U117	04/06/88												55.40	24.60
01U117	11/15/88												58.40	23.40
01U119	11/11/87										1200.00			
01U120	11/11/87										180.00			
01U122	12/09/87										610.00			
01U126	12/08/87										390.00		25.00	31.00
01U126	04/06/88												41.50	
01U126	08/12/88												30.80	
01U126	11/17/88												34.70	
01U128	12/09/87										4500.00			

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCLE	1,2-DI CHLORO ETHENE 12DCE	BIS(2-ETHYL HEXYL) PHTHALATE B2EHP	BENZENE C6H6	METHYLENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	MANGA NESE MN	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEE	TRI CHLORO ETHENE TRCLE
Action Criteria Level		22	6.1	0.24	810	70	40	0.7	48	0.19	50.0 (SEC)	70	0.7	2.8
01U130	12/07/87										7500.00			
01U133	12/11/87						73.00				600.00			
01U526	11/17/87													2.80
01U601	12/07/87										150.00			3.60
01U604	12/07/87										4500.00			
01U611	12/08/87										290.00			120000.00
01U615	12/07/87					490.00					960.00			1500.00
01U618	08/19/88													3.96
03L001	11/16/87										280.00			
03L002	11/17/87	260.00		61.00							1800.00			1100.00
03L003	11/19/87										520.00			
03L004	11/18/87										580.00			
03L005	11/23/87										700.00			
03L007	11/09/87										380.00			
03L012	11/09/87										800.00			
03L013	11/10/87										960.00			
03L014	11/23/87										900.00			
03L017	11/10/87	200.00									360.00			540.00
03L018	11/23/87										470.00			6.52
03L018	11/18/88													
03L020	12/07/87	4200.00									1800.00			14000.00
03L020	08/17/88	1300.00		280.00		520.00								4700.00
03L029	12/03/87										380.00			
03L077	12/04/87	610.00		61.00							160.00			1600.00
03L078	11/23/87										500.00			
03L079	12/04/87										430.00			
03L084	12/08/87										200.00			30.00

WENCK ASSOCIATES, INC.

Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCLE	1,2-DI CHLORO ETHENE 12DCE	BIS(2-ETHYL HEXYL) PHTHALATE B2EHP	BENZENE C6H6	METHYLENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	MANGA NESE MN	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEE	TRI CHLORO ETHENE TRCLE
Action Criteria Level		22	6.1	0.24	810	70	40	0.7	48	0.19	50.0 (SEC)	70	0.7	2.8
03L091	12/03/87	24.00									230.00			
03L113	11/18/87										350.00			
03L802	12/03/87													13000.00
03L806	12/02/87	1700.00		260.00										5100.00
03M002	11/17/87	1500.00		200.00		170.00								4100.00
03M003	11/19/87										200.00			
03M004	11/18/87										540.00			
03M004	08/09/88												1.68	
03M005	12/08/87										410.00			8.49
03M013	11/10/87										400.00			
03M017	11/10/87	1000.00		100.00										1500.00
03M020	08/18/88	3700.00		420.00		260.00				100.00				7700.00
03M505	11/09/87										220.00			
03M802	12/03/87													8900.00
03M806	12/02/87	140.00		27.00										890.00
03U002	11/17/87	45.00									1000.00			16.00
03U003	11/19/87	95.00												1300.00
03U003	08/11/88	51.90		22.90						2.16				540.00
03U005	11/23/87										750.00			
03U005	04/06/88													3.61
03U007	11/09/87										320.00			
03U008	11/09/87										760.00		1.06	
03U009	11/20/87										110.00			
03U010	11/09/87										200.00			
03U012	11/09/87										200.00			
03U013	11/10/87										160.00			
03U014	12/04/87	6400.00				1500.00			5400.00					13000.00



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## TCAAP - GROUNDWATER "ACTION" EXCEEDANCE DATA - ug/l

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCE	1,2-DI CHLORO ETHENE 12DCE	BIS(2-ETHYL HEXYL) PHTHALATE B2EHP	BENZENE C6H6	METHYLENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	MANGA NESE MN	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEE	TRI CHLORO ETHENE TRCLE
Action Criteria Level		22	6.1	0.24	810	70	40	0.7	48	0.19	50.0 (SEC)	70	0.7	2.8
03U014	08/17/88	9500.00		670.00		3300.00								12000.00
03U015	08/09/88												44.90	20.70
03U017	11/10/87	480.00		20.00										600.00
03U018	12/04/87	3300.00												11000.00
03U018	08/22/88	2100.00		103.00					1.57					3600.00
03U020	12/07/87	6000.00		250.00										11000.00
03U020	08/17/88	4100.00		450.00		740.00								5200.00
03U026	11/18/87	42.00								16.00				36.00
03U026	04/08/88	35.70		2.44						21.40				23.10
03U026	08/22/88	32.20								15.30				31.10
03U026	11/16/88	36.00		1.97						35.40				29.40
03U027	11/20/87		23.00								350.00			46.00
03U027	08/16/88	24.50	16.10	4.91					1.90					40.10
03U028	12/03/87													310.00
03U028	08/22/88	76.00												540.00
03U029	12/03/87													1400.00
03U029	08/17/88	180.00				390.00								2100.00
03U030	12/03/87										75.00			25.00
03U030	08/22/88						2.47							11.50
03U032	11/20/87													15.00
03U032	04/08/88													2.99
03U032	08/22/88	25.50												37.90
03U076	11/10/87										110.00			
03U078	11/23/87												27.00	100.00
03U078	08/18/88			1.44					3.11				22.30	49.80
03U079	12/04/87													7000.00
03U079	08/18/88	28.70		13.00		290.00			2.68					11000.00
03U084	11/23/87										160.00			
03U088	04/05/88												1.34	5.86
03U088	08/08/88												4.16	
03U088	11/16/88												3.87	
03U089	11/20/87												0.91	
03U089	04/05/88												2.08	
03U089	08/08/88												2.00	
03U089	11/17/88												1.58	

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCLE	1,2-DI CHLORO ETHENE 12DCE	BIS(2-ETHYL HEXYL) PHTHALATE B2EHP	BENZENE C6H6	METHYLENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	MANGA NESE MN	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEE	TRI CHLORO ETHENE TRCLE
Action Criteria Level		22	6.1	0.24	810	70	40	0.7	48	0.19	50.0 (SEC)	70	0.7	2.8
03U090	11/19/87									2.83				6.17
03U090	04/06/88									10.30				
03U090	08/16/88									3.33				
03U090	11/18/88									4.72				
03U092	11/23/87			0.63						1.13	190.00			13.80
03U092	04/08/88	29.60		3.24						3.85				21.50
03U092	08/25/88									6.07				8.32
03U092	11/16/88	24.90		1.21				2.43		4.40				12.10
03U093	12/04/87	9300.00									1800.00			40000.00
03U093	08/17/88	8700.00		480.00		630.00								30000.00
03U094	12/04/87	9100.00			830.00	2300.00					66.00			18000.00
03U094	08/25/88	5600.00				1200.00								6900.00
03U096	12/04/87	830.00												1200.00
03U096	08/25/88	2500.00		110.00										2300.00
03U097	11/20/87										380.00			8.85
03U099	11/19/87										350.00			
03U111	11/20/87										850.00			3.98
03U112	11/20/87									8.60				35.00
03U112	04/08/88	25.20		1.60						19.60				29.10
03U112	08/16/88	25.20		2.16						27.90				43.60
03U112	11/18/88									17.70				27.70
03U113	11/18/87						41.00							
03U114	11/23/87	1000.00		29.00										1500.00
03U114	04/11/88	680.00		66.00										110.00
03U114	08/09/88	1100.00		120.00										240.00
03U114	11/16/88	1200.00		95.00										260.00
03U121	12/08/87										100.00			5.51
03U121	11/18/88	61.60		1.63										12.20
03U124	02/18/88													18.00
03U124	04/08/88	71.00		3.28										13.60
03U124	08/18/88	130.00		4.28										31.40
03U129	12/08/87										380.00			
03U671	12/04/87	30.00											15.00	280.00
03U671	08/22/88	50.00		9.20					11.00				29.00	230.00
03U704	11/10/87										140.00			

WENCK ASSOCIATES, INC.

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## TCAAP - GROUNDWATER "ACTION" EXCEEDANCE DATA - ug/l

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Well	Date	1,1,1-TRI CHLORO ETHANE 111TCE	1,1,2-TRI CHLORO ETHANE 112TCE	1,1-DI CHLORO ETHENE 11DCE	1,1-DI CHLORO ETHANE 11DCE	1,2-DI CHLORO ETHENE 12DCE	BIS(2-ETHYL HEXYL) PHTHALATE B2EHP	BENZENE C6H6	METHYLENE CHLORIDE CH2CL2	CHLORO FORM CHCL3	MANGA NESE MN	TRANS-1,2 DICHLORO ETHENE T12DCE	TETRA CHLORO ETHENE TCLEB	TRI CHLORO ETHENE TRCLE
Action Criteria Level		22	6.1	0.24	810	70	40	0.7	48	0.19	50.0 (SEC)	70	0.7	2.8
03U704	04/05/88													4.36
03U801	12/03/87													4800.00
03U806	12/02/87			2.88										
04U001	11/16/87										280.00			
04U001	08/23/88													13.20
04U002	11/17/87										360.00			80.00
04U003	11/19/87										210.00			
04U007	11/09/87										400.00			
04U012	11/09/87										520.00			
04U020	12/07/87	210.00									1100.00			1500.00
04U020	08/17/88	130.00		67.00		84.00								710.00
04U077	12/04/87	490.00		46.00							200.00			1800.00
04U510	11/18/87										270.00			
04U802	12/02/87													3.20
04U806	12/02/87	820.00		110.00										2500.00
PJ#003	11/19/87										330.00			6.83
PJ#027	11/20/87										250.00			
PJ#074	12/03/87										410.00			
PJ#074	08/19/88													7.99
PJ#502	11/18/87										240.00			7.65
PJ#503	11/18/87	29.00									360.00			130.00
PJ#506	11/19/87	180.00									560.00			890.00
PJ#507	11/18/87	190.00									680.00			890.00
PJ#508	08/23/88	250.00		44.20										710.00
PJ#806	12/02/87	250.00												990.00