Five-Year Review Report

Second Five-Year Review Report

for

Former Plant 83/General Electric Operable Unit
South Valley Superfund Site

Albuquerque

Bernalillo County, New Mexico

PREPARED BY:

Water Equipment Services, Inc.
General Electric Company

In concert with

US EPA REGION VI
And
New Mexico Environment Department

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List of Acronyms

µg/kg Microgram per kilogram

µg/l Microgram per liter

1,1-DCA 1,1-dichloroethane

1,1-DCE 1,1-dichloroethene

1,2-DCA 1,2- dichloroethane

AMAFCA Albuquerque Metropolitan Arroyo and Flood Control Authority

AO Administrative Order

ARAR Applicable or Relevant and Appropriate Requirement

BDLPZ Below deep low-permeability zone

Canonie Canonie Environmental Services, Corp.

CERCLA Comprehensive Environmental Response, Compensation and Liability Act

DD Deep deep zone

DI Deep intermediate zone

DNAPL dense non-aqueous phase liquid

DLPZ Deep low-permeability zone

DS Deep shallow zone

EDB Ethylene dibromide

EPA U.S. Environmental Protection Agency

Ft bgs Feet below ground surface

GE General Electric

GEAE General Electric Aircraft Engines

H+GCL Hydrometrics and Geosciences Consultants Limited

HLA Harding Lawson Associates

I-25 Interstate 25

Kg Kilogram

Msl Mean sea level

MTBE Methyl tertiary butyl ether

NCP National Oil and Hazardous Substances Contingency Plan

NMED New Mexico Environment Department

OU Operable unit

PCE Tetrachloroethene

PCMP Performance and Compliance Monitoring Plan

Plant 83 OU Former Air Force Plant 83/GE Operable Unit

ppb Part per billion

PRP Potentially Responsible Party

RCRA Resource Conservation and Recovery Act

ROD Record of Decision

SCADA Supervisory Control and Data Acquisition

SCL Silty clay layer

SJ-6 San Jose-6

Smith Smith Environmental Technology, Corp.

SP-425 Sample Port No. 425

TCE Trichloroethene

TDS Total dissolved solid

VC Vinyl chloride

VES Vacuum extraction system

VOC Volatile organic compound

WES Water Equipment Services, Inc.

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Executive Summary

This Second Five Year Review Report summarizes the remedial activities undertaken from June 2000 through June 2005 by General Electric (GE) under the provisions of the Former Air Force Plant 83/General Electric (GE) Operable Unit (Plant 83 OU) Record of Decision (ROD) (EPA, 1988) and the San Jose-6 Operable Unit (SJ-6 OU) ROD (EPA, 1988) of the South Valley Superfund Site (the Site), Albuquerque, New Mexico.

This is the second Five-Year Review Report (Report) for this site and is issued at this time based on the issue date of the first Five Year Review Report. This Report is required because pollutants remain in areas of the site above levels that would allow unlimited use and unrestricted exposure.

Pursuant to §121 of CERCLA, the SJ-6 ROD required cleaning and sealing abandoned wells and performing groundwater monitoring for 30 years. GE cleaned and abandoned the selected wells, established a groundwater monitoring program, and conducts yearly sampling for this monitoring well program.

The Plant 83 ROD required the following:

- Continued groundwater extraction, treatment to designated levels, and reinjection of treated water back to the saturated portion of the Shallow Zone Aquifer proximate to Plant 83 buildings and adjacent properties
- Continued groundwater extraction, treatment to designated levels, and reinjection of treated water back to the Deep Zone Aquifer east of the Plant 83 facility
- Soil vapor extraction of the vadose zone

Based on requirements of the Administrative Orders issued to GE for these operable units (EPA, 1989), GE has compiled investigative data, characterized the associated plumes, conducted engineering designs, and implemented the requisite remedial actions. These activities have been fully documented in monthly activity reports, quarterly quality assurance reports, semi-annual reports, annual reports, engineering design reports, and as-built construction reports. Details of each system can be reviewed in one or more or these reports.

This Second Five Year Review Report has been prepared to provide a summary of remedial activities between June 2000 through June 2005 and to demonstrate that remedial activities have been and continue to be effective in protecting human health and the environment.

In summary:

- Remedial systems have and are operating as designed
- Contaminant levels are declining and the horizontal and vertical extents are shrinking
- Remedial actions are both flexible and dynamic (e.g. addition of new extraction wells, injection wells, monitoring wells)
- Remedial actions are protective of human health and the environment

Second Five-Year Review Report
June 2000 through June 2005

1.0 Introduction

The United States Environmental Protection Agency (EPA) Region VI and the New Mexico Environment Department (NMED) has conducted a Five-Year Review (the Review) of the remedial actions implemented at the Former Plant 83/General Electric Aircraft Engine Operable Unit and SJ-6 Operable Unit, South Valley Superfund Site (Site), Albuquerque, New Mexico. The Site is located in the south area of Albuquerque, just west of Interstate 25.

1.1 The Purpose of the Review

The purpose of this Five-Year Review is to summarize the remedial actions at the Site during the five-year period from June 2000 through June 2005, evaluate the effectiveness of the remedial actions, and demonstrate the remedy at this site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in this Five-Year Review Report (Report). In addition, this Report identifies issues found during the review, if any, and recommendations to address them.

1.2 Authority for Conducting the Five-Year Review

The EPA is preparing this Review pursuant to §121(c) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, and Section 300.430 (f)(4)(ii) of the National Contingency Plan (NCP). CERCLA §121 states:

> *If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The EPA interpreted this requirement further in the National Contingency Plan (NCP); 40 CFR §300.430(f)(4)(ii) states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

The EPA in concert with the NMED, conducted this Review of the remedial actions implemented at the Former Plant 83/General Electric and SJ-6 Operable Units, South Valley Superfund Site, Albuquerque, New Mexico (Site). This review covers the period from June 2000 through June 2005. This report documents the results of the review, with supporting information provided by GE and its remediation contractor, Water Equipment Services, Inc. (WES).

This is the second Five-Year Review for the Site. The triggering action for the review is the submittal date of the last Five-Year Review Report (September 15, 2000). This Review is required because pollutants or contaminants (hereinafter termed contaminants) are present in the groundwater at the Site at concentrations above levels that allow for unrestricted use and unrestricted exposure.

The areas reviewed by this Review include the characterization and remediation programs for the Former Plant 83/General Electric and SJ-6 Operable Units (collectively termed Plant 83 OU). Work for the Shallow Aquifer work is conducted under Plant 83 OU No. 5 and work for the Deep Aquifer is conducted under Plant 83 OU No. 6. Also included is the groundwater monitoring program conducted for the San Jose 6 Operable Unit No. 2 (SJ6 OU). For expedience, groundwater monitoring for the SJ6 OU has been coordinated with the groundwater monitoring conducted for the Plant 83 OU Numbers 5 and 6.

The following provides a synopsis of work conducted to date at the three operable units identified above:

SJ6 OU No. 2:

- Abandoned and plugged municipal wells SJ-3 and SJ-6. Also abandoned and plugged selected monitoring wells, established a groundwater monitoring program, and conducted yearly sampling for this monitoring well program. Municipal wells SJ-3 and SJ-6 were abandoned and plugged in September 1994.

Plant 83 OU No. 5:

- Completed the pilot soil vapor vacuum extraction to remove volatile organic compounds from unsaturated Shallow Zone Aquifer soils proximate to Plant 83 buildings (completed June 1993). The EPA and NMED allowed the system to be terminated as the concentrations of VOCs in the soil did not pose a threat to human health and the environment.
- Completed characterizing impacts to the unsaturated and saturated portions of the Shallow Zone Aquifer. Initiated groundwater extraction, treatment to applicable or relevant and appropriate requirements (ARARs) as identified in the System Monitoring Plan (Canonie 1993) and Revised Performance and Compliance Monitoring Plan (Revised PCMP) (HLA, 2000), and reinjection of treated water back to the Shallow Zone Aquifer. This remedial work continues to date.
- Ongoing monitoring of groundwater levels and pollutant concentrations in the Shallow Zone Aquifer.
- Ongoing operation and maintenance of the Shallow Zone Groundwater Remediation System. Work began when construction work was completed in May 1994 and continues to date.

Plant 83 OU No. 6:

- Completed characterizing impacts to the unsaturated and saturated portions of the Deep Zone Aquifer. Initiated groundwater extraction, treatment to ARARs as identified in the Revised PCMP (HLA, 2000), and reinjection of treated water back to the Deep Zone Aquifer. This remedial work continues to date.
- Ongoing monitoring of groundwater levels and pollutant concentrations in the Deep Zone Aquifer
- Ongoing operation and maintenance of the Deep Zone Groundwater Remediation System. Work began when construction work was completed in March 1996 and continues to date.

Replacement Well OU No. 1:

In addition to the foregoing work, other remedial actions directly related to the OU No. 1, include:

- The NMED and EPA installed a new groundwater supply extraction well (Burton IV) for the City of Albuquerque to replace municipal well SJ No. 6. This work was completed April 1987.

2.0 Site Chronology

Table 1: Chronology of Site Events

Event	Date
Initial discovery of problem or contamination	1979
Pre-NPL responses	1981, City of Albuquerque took municipal wells SJ-3 and SJ-6 off-line
NPL listing	September 8, 1983
Removal actions	None
Remedial Investigation/Feasibility Study complete	1988
ROD signature	September 30, 1988
ROD Amendments or ESDs	None for OU 1, OU 2, OU 5, OU 6
Section 106 Unilateral Administrative Order	1989
Remedial design start	• 1991 for Plant 83 soil vacuum extraction system • 1992 for Shallow Groundwater Remediation System • 1994 for Deep Zone Groundwater Remediation System
Remedial design complete	• 1992 for Plant 83 soil vacuum extraction system • 1993 for Shallow Groundwater Remediation System • 1995 for Deep Zone Groundwater Remediation System

Table 1: Chronology of Site Events

Event	Date
Construction start dates	• 1992 for Plant 83 soil vacuum extraction system • 1993 for Shallow Groundwater Remediation System • 1995 for Deep Zone Groundwater Remediation System
Construction completion dates	• 1992 for Plant 83 soil vacuum extraction system • 1994 for Shallow Groundwater Remediation System • 1996 for Deep Zone Groundwater Remediation System
Actual remedial action start dates	• June 1992 for Plant 83 soil vacuum extraction system • May 1994 for Shallow Groundwater Remediation System • March 1996 for Deep Zone Groundwater Remediation System Cold Start and Hot Start and Prove-Out • April 1996 for Deep Zone Groundwater Remediation System dedication ceremony and full time operation
Final Close-out Report	• 1993 for Plant 83 soil vacuum extraction system
Deletion from NPL	
Previous five-year reviews	September 2000

3.0 Background

3.1 Physical Characteristics

The Former Air Force Plant 83 facility (Plant 83) is located proximate to the intersection of South Broadway and Woodward Road, Albuquerque, New Mexico (Figure 1-1). The Plant 83 facility consisted of two facilities; North Plant 83 was located north of Woodward Road. This facility was demolished in October 1997. South Plant 83 is located south of Woodward Road and is in use today. Both facilities have been used for manufacturing purposes since the 1950s, first by Eidel Manufacturing, followed by the Atomic Energy Commission through its contractor American Car Foundry (ACF), followed by U.S. Air Force through its contractor GE, and finally by GE as facility owner since 1984.

There are a number of other industrial facilities that have been and still are proximate to Plant 83. These include Whitfield Trucking, Texaco Terminal (Texaco merged with Chevron), Chevron Terminal, ATA Pipeline, and Univar. Remedial actions at the Univar Site are handled under different Operable Units (OU Numbers 3 and 4). Remedial actions at the Whitfield, Texaco Terminal, Chevron Terminal, ATA Pipeline, and Duke City Petroleum are handled under separate hydrocarbon agreements with New Mexico Environment Department.

3.2 Site Hydrogeology

Groundwater is located in the Santa Fe Group Aquifer immediately below Plant 83 and adjoining areas. To facilitate communication among various parties and subsequent remediation, the Santa Fe Group Aquifer was delineated into three basic units, the shallow zone, the intermediate zone, and the deep zone. For purposes of remediation, this aquifer has been divided by convention into the Shallow Zone Aquifer and the Deep Zone Aquifer. The Deep Zone Aquifer includes both the Intermediate Zone and Deep Zone referred to in the ROD (EPA, 1988). The Plant 83 OU No. 5 addresses impacts to the Shallow Zone Aquifer located proximate to the South Plant 83 and North Plant 83, and north of North Plant 83 beneath a portion of the San Jose residential neighborhood.

The Plant 83 OU No. 6 addresses impacts to portions of the Deep Zone Aquifer found east of the Plant 83 facilities, south of Woodward Road and east of South Broadway (Figure 1-2). Descriptions of the Shallow Zone and Deep Zone Aquifers are provided below.

Shallow Zone Aquifer

By convention, the Shallow Zone Aquifer groundwater refers to groundwater that is above the relatively continuous silty clay layer and/or above an elevation of 4,900 feet above mean sea level (amsl) (Canonie, 1993). In the North Plant 83 area, there is a continuous silty clay layer underneath the aquifer. Accordingly, the Shallow Zone Aquifer groundwater is primarily perched. Perched groundwater does not to have a uniform flow direction, but rather flows in directions dictated by undulating surface of the underlying silty clay layer.

In the South Plant 83 area, the silty clay layer underneath the aquifer is not continuous. Hence, the groundwater generally flows west to east.

The Shallow Zone formation consists of layers of coarse-grained sands, silty sands, clays, and silty clays. This Shallow Zone Aquifer generally extends to a depth of approximately 20 to 25 feet below ground surface (ft bgs). The Shallow Zone formation is underlain by a relatively continuous silty clay layer, except at the south end of South Plant 83 where it is absent or does not provide hydraulic separation from the Deep Zone Aquifer [General Electric Aircraft Engines Plant 83 Shallow Groundwater Investigation, by Hydrometrics and Geosciences Consultants Limited (H+GCL, 1993)].

Deep Zone Aquifer

By convention, the Deep Zone Aquifer refers to the aquifer below an elevation of 4,900 feet amsl (Canonie, 1993). The following text describes the Deep Zone Aquifer geology as characterized and reported previously (H+GCL, 1993).

> In summary, the geology consists of unconsolidated alluvial units of the older Santa Fe Group. These sediments (down to approximately 4,300 feet above msl) are primarily ancestral Rio Grande-related, braided fluvial deposits. These sediments contain lenticular deposits of finer grained, relatively lower conductivity sands, silts, and clays.
>
> Sediments within the upper 600 to 700 feet of the Deep Zone Aquifer (the area where groundwater is being remediated) are characterized by high proportions of sands and gravels that form extensive and locally high-conductivity units across the site. Discontinuous silts and clays are present within this interval, and the cumulative effect of many of these lower conductivity layers is to limit the downward rate of contaminant movement in the vertical direction. Note that these silts and clays form confining layers in upper portions of the aquifer, but these confining layers are not laterally extensive. There is no evidence to suggest a laterally extensive confining layer east of the Albuquerque Metropolitan Arroyo and Flood Control Authority (AMAFCA) South Diversion Channel, in the area of interest.

3.3 Land and Resource Use

The South Valley Superfund Site encompasses vacant land, industrialized areas, and a residential area. Industrial properties associated with the South Valley Superfund Site include GE Aircraft Engines (Plant 83), Chevron Terminal, Texaco Terminal (now operated by Giant Petroleum), Duke City, Whitfield Tank Lines, ATA Pipeline, and Univar (also known as VWR or Edmunds Street property). Land use surrounding the Plant 83 properties has not significantly changed since the ROD was signed.

At the time the Records of Decision (RODs) for the Plant 83 was issued (September 30, 1988), North Plant 83 and South Plant 83 were used to manufacture aircraft engine parts. Currently, industrial activities at Plant 83 are limited to manufacturing aircraft engine parts only at South Plant 83. North Plant 83 was demolished in 1997 and the area now functions as a parking lot.

Reports that describe land and resource use at the former Texaco Terminal, Chevron Terminal, Duke City, ATA Pipeline, and Whitfield Tank Lines properties are provided by others under negotiated agreements with the New Mexico Environment Department. Reports that describe land and resource use at the Univar property are provided by others under the Record of Decision for the South Valley Operable Units 3 and 4.

The residential areas affected by the SJ-6 and Shallow Groundwater Plant 83 OU No. 5 includes an area immediately north of the former North Plant 83, north to Abajo Street, west to Topeka, east along Abajo to the local arroyo.

In addition, there is a small area immediately northeast of the intersection of Broadway Road and Woodward Road, north to Wesmeco (Figure 3-1). All of the residential and industrial properties are connected to City of Albuquerque water. There are monitoring wells used to characterize water quality in areas within and around the residential area north of North Plant 83, around the area proximate to South Plant 83, and the area east of North and South Plant 83.

3.4 History of Contamination

There were two City of Albuquerque municipal water wells near the intersection of Woodward Road and Broadway Road. These water wells were two of several water wells in the San Jose Well Field and were known as San Jose No. 3 (SJ3) and San Jose 6 (SJ6). SJ6 was located just southeast of the intersection of Woodward Road and Broadway Road. SJ3 is about 1/2 mile northwest of North Plant 83 area. Dissolved VOCs were discovered in these two water wells and both were taken out of service by the City of Albuquerque in 1981. A replacement well, Burton 4, was installed by the EPA and NMED as required

under the SJ6 ROD in April 1987. Both SJ3 and SJ6 wells were plugged and abandoned in 1994 as part of the remedial action under the SJ-6 ROD.

At the time the RODs were signed (September 30, 1988), remedial investigations detected volatile organic compounds (VOCs):

- In the unsaturated portion of the Shallow Zone Aquifer at the north end of North Plant 83 and the south end of South Plant 83
- In the Shallow Zone Aquifer at the north end of North Plant 83, and north of North Plant 83 beneath a residential neighborhood
- In the groundwater proximate to the south end of South Plant 83
- In the Intermediate Zone (140 to 160 feet below ground surface) in well DMW-2 located west of the intersection of Broadway and Woodward Road (see ROD Figure 4).

No free-phase solvents [i.e. dense non-aqueous phase liquids (DNAPLs) or light non-aqueous phase liquids (LNAPLs)] were ever discovered during any of the investigations conducted at the GE/Plant 83 property.

The Plant 83 ROD called for additional characterization to refine the location of contaminants in both the Shallow Zone and Deep Zone Aquifers to be remediated as part of the design process. Additional characterization was conducted as part of Shallow Zone Aquifer Remediation Design and VOCs were detected in the unsaturated and saturated portions of the Shallow Zone Aquifer to an elevation of about 4900 feet above mean sea level.

Additional characterization was also conducted as part of Deep Zone Aquifer Remediation Design and VOCs were detected in the saturated portions of the Deep Zone Aquifer to an elevation of about 4600 feet above mean sea level.

3.5 Initial Response

As described above, dissolved VOCs were discovered in the SJ3 and SJ6 municipal wells in 1979, and the City of Albuquerque took both municipal wells out of service in 1981. The EPA and NMED installed a replacement well, Burton 4, as required under OU No. 1 in April 1987. GE plugged and abandoned both SJ3 and SJ6 wells in 1994.

Initial investigations on the GE/Plant 83 property were conducted in 1984 and 1985. A second round investigation was conducted in 1987 and 1988 forming the basis of data used in preparing the Former Plant 83/GE Operable Unit ROD, which was signed in September 1988.

Subsequent to issuing the ROD, GE conducted further investigations as part of the remedial design process. These investigations spanned several years and their results are documented in investigation reports, quarterly reports, and annual reports.

Elements of these investigations included installing numerous monitoring wells, conducting a pilot-scale vacuum extraction program, a full-scale aquifer test, a pilot-scale groundwater treatment system, and numerous rounds of groundwater level and groundwater quality sampling. Each report and its data was considered within the design for the three remedial systems required by the Plant 83 ROD (i.e. unsaturated and saturated portions of the Shallow Zone Aquifer, and the Deep Zone Aquifer).

3.6 Basis for Taking Action

This section describes the contaminants found in the unsaturated portion of the Shallow Zone Aquifer, the saturated portion of the Shallow Zone Aquifer, and the Deep Zone Aquifer. The ROD set the ARAR standards for groundwater that essentially reflected drinking water standards per federal and state law. For the Shallow Zone Aquifer, the ARARs were initially listed in the System Monitoring Plan, Appendix B of the Remedial Design Plan (Canonie 1993, revised 1994). When the Deep Zone Remediation System became operational, the Shallow Zone ARARs were incorporated into Table 1 of the Performance and Compliance Monitoring Plan that governed both remedial action systems (Canonie 1996, revised by HLA in 2000). For convenience, the ARARs are listed in Table 3-2 of this report.

3.6.1 Unsaturated Portion of the Shallow Zone Aquifer

VOCs were detected in the unsaturated portion of the Shallow Zone Aquifer (also known as the vadose zone). Though concentrations of VOCs detected in the soil did not pose a health threat, VOCs could be mobilized from the unsaturated portion to the saturated portion of the Shallow Zone Aquifer unit. Accordingly, the EPA required that soil vapor extraction be used to remove the VOCs from the unsaturated soil.

As part of the site characterization, soil cleanup levels (i.e. action levels) were derived for the VOCs that were detected using two EPA approved methods (Proposed Cleanup Goals Volatile Organic Compounds in Soil General Electric Aircraft Engines Plant 83/GE Operable Unit, Canonie, April 1993). Vapor samples were collected during the operation of the pilot vacuum extraction system conducted in 1991 and 1992, and when compared to the derived soil cleanup levels, GE demonstrated that the vacuum extraction system was successful in removing the vapor-phase VOCs from the vadose zone. The EPA's Ada Oklahoma laboratory determined that the VOC concentrations in the soil did not pose a threat to human health or ground water and that no further action was required. Based on that, the EPA authorized in writing the termination of the vacuum extraction system and that system was decommissioned in mid-1993.

3.6.2 Saturated Portion of the Shallow Zone Aquifer

The following dissolved VOCs were detected in the saturated portion of the Shallow Zone Aquifer above applicable or relevant and appropriate requirements (ARARs) prior to groundwater remediation (Canonie Remedial Design Plan, Shallow Zone Ground Water Extraction and Treatment System, 1993):

- 1,1-dichloroethane (1,1-DCA)
- 1,1-dichloroethene (1,1-DCE)
- 1,2-dichloroethane (1,2-DCA)
- Trichloroethylene (TCE)
- Tetrachloroethylene (perchloroethylene, PCE)
- Vinyl chloride (VC)

As of June 2005, the only VOC detected above ARARs in the saturated portion of the Shallow Zone Aquifer is:

- 1,1-DCA (monitoring well SW-08)
- 1,1-DCE (monitoring well SMW-10)

All other VOCs in the Shallow Zone Aquifer groundwater have been remediated to levels below their respective ARARs, or are not detected at all in any of the monitoring wells and extraction wells (Figures 3-2, 3-3, and 3-4).

3.6.3 Saturated Portion of the Deep Zone Aquifer

The following dissolved VOCs were detected in the saturated portion of the Deep Zone Aquifer above ARARs prior to groundwater remediation (BDM, Annual Report, 1996):

- 1,1-dichloroethane (1,1-DCA)
- 1,1-dichloroethene (1,1-DCE)
- 1,2-dichloroethane (1,2-DCA)
- Trichloroethylene (TCE)
- Tetrachloroethylene (perchloroethylene, PCE)
- Vinyl chloride (VC)
- Methyl-tert butyl ether (MTBE)

As of June 2005, the following VOCs were detected above ARARs:

- 1,2-DCA
- 1,1-DCE
- TCE
- PCE

All other VOCs in the Deep Zone Aquifer groundwater have been remediated to levels below their respective ARARs, or are not detected at all in any of the monitoring wells and extraction wells (Figures 4-7 through 4-11).

4.0 Remedial Actions

The Plant 83 OU ROD (EPA 1988) required the following:

- Further characterize the lateral extent of VOCs in the unsaturated portion of the Shallow Zone Aquifer, and the lateral extent of VOCs in groundwater through the installation of additional monitoring wells.
- Soil vapor extraction of VOCs from soils from the surface down to the water table in the areas known as Hazardous Waste Storage Areas 1, 3, and 4 (north end of North Plant 83 and south end of South Plant 83). Treatment of the extracted air via vapor-phase activated carbon.
- Groundwater in the shallow groundwater zone above the clay aquitard at approximately 30 feet below the ground surface will be extracted and treated via liquid-phase activated carbon. Treatment will continue until the levels of contamination fall below State and Federal regulatory standards.
- Groundwater to a depth of about 160 feet below the ground surface will be extracted and treated via air stripping and liquid-phase activated carbon. Treatment will continue until the levels of contamination fall below State and Federal regulatory standards.

4.1 Soil Vapor Extraction

The removal of VOCs from the unsaturated portion of the Shallow Zone Groundwater Aquifer proximate to the North Plant 83 and South Plant 83 buildings was conducted as required. Except for post-remediation confirmation sampling, all of this work was completed prior to June 1993. The following activities were conducted:

- Characterization of impacts by soil sampling
- Design the locations of soil vapor extraction wells and establish baseline conditions prior to the remediation efforts
- Soil vacuum extraction work was conducted as a pilot project during two separate phases. Both phases were complete by June 1993
- Post remediation soil sampling to evaluate remediation effectiveness

Conclusion

The pilot project vacuum extraction system was effective in removing VOCs, and post-remediation VOC concentrations in the soil were significantly below the EPA accepted cleanup criteria (Proposed Cleanup Goals Volatile Organic Compounds in Soil General Electric Aircraft Engines Plant 83/GE Operable Unit, Canonie, April 1993). Accordingly, the EPA concluded no further soil VES remediation was required as the pilot remedial action accomplished the objectives of being protective of human health and the environment. The EPA approved the termination of the pilot project VES and removal of the VES equipment in the EPA letter dated June 21, 1994.

4.2 VOC Removal from the Shallow Zone Aquifer

The Plant 83 OU ROD (EPA, 1988) required the characterization and removal of VOCs in the groundwater within the saturated portion of the Shallow Zone Groundwater Aquifer proximate to the North Plant 83 and South Plant 83 buildings. The ROD required groundwater extraction with treatment by carbon adsorption to remediate the impacted groundwater.

By July 1993, GE completed subsurface investigations to delineate VOC impacted groundwater via groundwater monitoring wells. Based on data collected in the post-ROD further characterization investigation, no dense non-aqueous phase liquids (i.e. DNAPLs or pure phase solvents) or other source of VOCs was located.

Hence, the Shallow Zone Groundwater Remediation System was designed and constructed to address dissolved VOCs in groundwater. Subsequent remedial activities for the Plant 83 OU No. 5 included the engineering design, construction, and ongoing operation and maintenance of the treatment system. Current remedial activities also include periodic sampling and analysis of groundwater from monitoring wells and effluent from the treatment system (collectively the Shallow Zone Groundwater Remediation System).

Figure 3-1 illustrates the locations of the wells associated with the Shallow Zone Groundwater Remediation System.

This work was conducted consistent with the EPA approved Remedial Design Plan, Shallow Zone Ground Water Extraction and Treatment System (Canonie, 1993) and the System Monitoring Plan (Canonie, originally issued in 1993, revised 1994, and incorporated into the Revised Performance and Compliance Monitoring Plan, HLA 2000).

4.2.1 Shallow Zone Groundwater Remediation System Goals

The remediation of the Shallow Zone Aquifer had three objectives (Canonie, 1993):

- North Plant 83 area was to be remediated by enhancing the natural dewatering process by strategically locating extraction wells to contain and remove groundwater with VOCs above federal and state standards (i.e. ARARs). Extraction Wells SEW-01 through SEW-06, and SEW-11 were located for this purpose.

- South Plant 83 area was to be remediated by placement of an extraction well to contain and remove groundwater with localized occurrences of VOCs above federal and state standards (i.e. ARARs). Extraction Well SEW-10 was located for this purpose.

- Where dewatering was not possible or practical, the Shallow Zone Aquifer was to be remediated by removing VOCs via flushing to levels below federal and state standards (i.e. ARARs).

Therefore, the primary goals of the system are to either reduce VOC concentrations below the ARARs or to contain the plume until the Shallow Zone Aquifer is dewatered by the extraction wells or a decline in the natural groundwater level occurs within the project area.

4.2.2 Shallow Zone Groundwater Remediation Standards

The ARARs were established by reference in the ROD (EPA, 1988). The System Monitoring Plan (revised Appendix B of the Remedial Design Plan, Shallow Zone Ground Water Extraction and Treatment System, Canonie, 1994) was developed to provide a mechanism to monitor the effectiveness of the Shallow Zone Groundwater Remediation System in meeting the remediation objectives. The System Monitoring Plan has since been incorporated into the Revised Performance and Compliance Monitoring Plan (HLA, 2000). ARARs for this site are listed in Table 3-2.

4.2.3 Shallow Zone Groundwater Remediation System Process

The Shallow Zone Groundwater Remediation System includes 30 monitoring wells, 8 extraction wells, 1 injection well, and a groundwater treatment system (Table 3-1). Figure 3-1 illustrates the location of the Shallow Zone Groundwater Remediation System wells and the treatment plant building.

Until early 2000, the Shallow Zone Groundwater Remediation System consisted of seven extraction wells to remove the perched groundwater from the Shallow Zone Aquifer. To improve the efficiency of the Shallow Zone Groundwater Remediation System and with EPA approval, GE installed an additional extraction well (SEW-11) to the extraction well network near monitoring well P83-03S. Extraction well SEW-11 became operational February 2000. As part of improving the efficiency, GE also installed an injection well (SIW-01) near the Shallow Zone treatment plant building (Figure 3-1). Injection well SIW-01 has been operational since May 2000.

The Shallow Zone Groundwater Remediation System works by extracting groundwater from eight extraction wells (SEW-01, SEW-02, SEW-03, SEW-04, SEW-05, SEW-06, SEW-10, and SEW-11). The extracted groundwater is conveyed through a dual-contained pipe (a pipe within a pipe) to the treatment system and is treated using liquid-phase granulated activated carbon to adsorb the VOCs. Following treatment, the groundwater is then discharged. The effectiveness of the system is evaluated by periodically sampling the treated water to ensure compliance with ARARs, and also by collecting groundwater from extraction and monitoring wells and comparing the data to ARARs.

From the start of the system on May 16, 1994, until October 1997, treated water was discharged to three evaporative cooling towers and used as process make-up water for GE's North Plant 83, prior to discharge to the City of Albuquerque sewer system. However, GE removed the North Plant 83 from service and treated groundwater was no longer discharged to the cooling towers. From October 1997 to May 2000, the treated groundwater was collected in an effluent holding tank inside the treatment plant building and then was transported via pickup truck to the Deep Zone Groundwater Treatment Plant located about one mile away. This treated water was treated again at the Deep Zone treatment plant and discharged to the Deep Zone Aquifer via the existing injection well network.

Because the groundwater has already been treated, no special transport license was required. GE installed an injection well near the treatment building in January 2000 to improve the efficiency of the Shallow Zone Groundwater Remediation System, Injection Well SIW-01 became operational in May 2000, and since that time treated water from the Shallow Zone Treatment System has been reinjected directly into the shallow aquifer.

4.2.4 Modifications and Maintenance to the Shallow Zone Remediation System

Aside from normal maintenance, such as changing the granulated activated carbon or replacing malfunctioning equipment, there have been no additions or

modifications to the Shallow Zone Remediation System during the last five-year reporting period (i.e. since June 2000).

4.2.5 Performance - Shallow Zone Groundwater Remediation System

The performance of the Shallow Zone Groundwater Remediation System has been and continues to be evaluated based on the following monitoring data collected during system operation:

- Groundwater quality at the extraction and monitoring wells
- Influent and effluent water quality monitoring of the groundwater treatment system
- Water-level monitoring in the extraction wells and selected monitoring wells
- Flow monitoring at each of the extraction wells and the combined flow of the treatment system

The following sections provide a brief description of each data set collected to evaluate the performance of the Shallow Zone Groundwater Remediation System.

4.2.5.1 Groundwater Quality Monitoring Data

Groundwater quality monitoring has been performed in accordance with the Revised PCMP (HLA, 2000) for the purpose of obtaining accurate, representative, complete, and comparable data for assessing changes in constituent concentrations, compliance with discharge criteria, and performance of the groundwater extraction and treatment system.

Consistent with previous reports, the VOCs identified as constituents of concern in the ROD include 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), 1,2- dichloroethane (1,2-DCA), tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride as these compounds have been detected above their respective ARARs.

Groundwater samples were collected from the extraction and monitoring wells listed in Table 3-1 and shown in Figure 3-1. Monitoring Wells P83-01S, P83-02S, P83-03S, P83-05S, P83-13S, P83-14S, P83-15S, SMW-09 through SMW-14, and S-01 and Extraction Wells SEW-01 through SEW-06 and SEW-11 were designated for water quality monitoring near the North Plant 83 building. Monitoring Well SW-08 and Extraction Well SEW-10 were designated for water quality monitoring near the South Plant 83 building.

From startup of the system in May 1994 through the fourth quarter of 1999, groundwater was sampled and analyzed semiannually from monitoring wells and quarterly from extraction wells. As a result of the Design Review Committee meeting held on August 26, 1999, and a letter request by GE dated November 19, 1999, the EPA approved several modifications to the existing monitoring program for the Shallow Zone Remediation System. In its letter dated December 29, 1999, the EPA approved switching to collecting groundwater quality data from a quarterly interval to a semi-annual interval across the South Valley Superfund Site. Groundwater level data will continue to be collected on a quarterly basis, but will be reported to the EPA on a semi-annual schedule concurrent with groundwater quality data reports.

In the November 19, 1999 letter to EPA and based on historical data, GE requested that the water quality sampling for six shallow zone monitoring wells (i.e. P83-05S, P83-13S, P83-15S, S-01, SMW-13, and SMW-14) be amended from a semi-annual to annual interval schedule. The EPA approved this request in its letter dated December 29, 1999. These modifications were implemented beginning first quarter 2000.

Monitoring Wells TX-14, TX-23, SW-01, SW-06, SW-07, and SPG-03 were in the original in the well sampling program but were subsequently dropped from the monitoring program with the approval of EPA in April 1996. This was approved because these wells did not contain groundwater with concentrations of compounds in excess of ARARs for at least eight consecutive quarterly sampling events. These wells are not identified in Table 3-1 or on Figure 3-1.

Groundwater samples from both monitoring and extraction wells are analyzed for VOCs using a modified version of EPA Method 8260. The modification was requested by the EPA in its letter dated October 3, 1996, and consists of lowering the reporting limit to 1 microgram per liter (µg/l) for most of the VOCs on the list of analytes. Table 3-2 provides a list of the VOCs and reporting limits used for this analysis program.

4.2.5.2 Treatment System Treated Water Quality Data

The Shallow Zone Treatment System uses liquid-phase granulated activated carbon to remove the VOCs from the extracted groundwater. The treatment system includes a flow equalization tank followed by three stages of granulated activated carbon units connected in series to provide redundant capacity and to allow higher VOC loading on the granulated activated carbon. To assess treatment and to prevent discharge of water containing VOCs, sample ports were installed on the influent line to the treatment system before the first carbon unit, between the first and second carbon units, between the second and third carbon units, and on the effluent discharge line.

As prescribed in the Revised PCMP (HLA, 2000) samples of treated groundwater are collected to demonstrate performance of the treatment system and compliance with applicable discharge requirements.

Treatment System Performance Sampling

Performance monitoring samples of the treated groundwater are collected from the effluent line of the primary granulated activated carbon unit. The purpose of performance monitoring is to establish when the primary granulated activated carbon unit (Unit No. 1) needs to be removed from service and the other units moved forward in the series. For example, when Unit No. 1 becomes loaded, Unit No. 2 becomes Unit No. 1, Unit No. 3 becomes Unit No. 2, and a new unit is brought online to become Unit No. 3.

By operating the granulated activated carbon units this way, the granulated activated carbon units become loaded and sufficient redundancy remains to ensure no water containing VOCs is discharged. The granulated activated carbon unit change occurs when analytical results of the effluent from the primary granulated activated carbon unit indicate the presence of a VOC above its respective laboratory detection limit. This is referred to as breakthrough.

Performance samples are collected when granulated activated carbon Unit No. 1 has treated 25,000 gallons, 50,000 gallons, and 60,000 gallons. Once the system has treated 60,000 gallons, the granulated activated carbon units are changed. When changed, the intervals of performance sampling began again when 25,000 gallons have been extracted and treated.

Treatment System Compliance Sampling

GE initially collected treatment system compliance monitoring samples at the effluent line of the tertiary granulated activated carbon unit (Unit No. 3) on a quarterly basis. Since August 2000, GE collects treatment system compliance samples on a monthly basis as required by the Pollution Protection Section of the NMED Ground Water Quality Bureau.

Since the beginning of the Shallow Zone Groundwater Treatment System operations, treated groundwater quality has always been below the established ARARs for both organic and inorganic compounds.

Accordingly, the data collected to date indicate this system has been effective in removing VOCs from the extracted groundwater.

4.2.5.3 Groundwater-Level Monitoring Data

Groundwater-level monitoring data are collected at the extraction and monitoring wells listed in Table 3-1 and shown on Figure 3-1 to evaluate the groundwater levels in the Shallow Zone Aquifer in response to treatment system operations.

Static water levels at monitoring wells were measured on a semi-annual schedule during the second and fourth calendar year quarters, and on a quarterly basis at extraction wells.

4.2.5.4 Flow Monitoring Data

The extracted groundwater flows are monitored for the following purposes:

- Estimate the mass of VOCs removed and to evaluate the treatment system performance
- Record flows required by the State Engineers Office
- Record operating conditions

Cumulative flow measurements are recorded at the extraction wells, and treatment system cumulative and instantaneous flow measurements are recorded in the treatment plant on the effluent line of granulated activated carbon Unit No. 3.

Table 3-5 provides a summary of the monthly process flows since system startup. From system startup through June 2005, approximately 880,696 gallons of groundwater have been extracted and treated from the Shallow Zone Aquifer.

4.2.6 Effectiveness - Shallow Zone Groundwater Remediation System

This section of the report provides an evaluation of the effectiveness of the Shallow Zone groundwater extraction and treatment system. The following performance elements were assessed using data and conditions at the time the treatment system was first started (baseline, June 1994), first Five Year Review Report (June 2000), and current conditions (June 2005):

- Groundwater level and Saturated Thickness
- Aerial extent of dissolved VOCs in the Shallow Zone Aquifer
- Contaminant concentration trends

4.2.6.1 Groundwater Level and Saturated Thickness

Water-level monitoring data were collected at the extraction wells and monitoring wells listed in Table 3-1 and shown in Figure 3-1. Water-level data were used to evaluate the performance of the Shallow Zone Groundwater Remediation System with respect to the design objectives (i.e., enhance dewatering of the Shallow Zone Aquifer, if practical).

Figures 3-5I through 3-5M illustrate the groundwater levels and saturated thickness of the groundwater aquifer at five monitoring wells (P83-02S, P83-03S, SMW-09, SMW-11, and SW-08). These monitoring wells were chosen as these wells contained VOCs in the groundwater above ARARs during the first Five Year Review Report. Of these wells, only monitoring wells SMW-10 and SW-08 continue to exhibit VOCs in the groundwater above ARARs.

As shown in these figures, the groundwater surface has risen substantially. In some cases, the groundwater levels have risen to levels approximately equal to those levels encountered prior to the start of remediation. Accordingly, GE installed a new extraction well and injection well in 2000 to promote increased flushing of VOCs from the perched groundwater.

Based on data collected to date, the following observations are made:

- The groundwater level within the Shallow Zone Aquifer had been steadily declining. However, recharge from precipitation and potential unknown sources such as leaking municipal pipes have caused the groundwater level to rise to approximately pre-remediation levels.
- The groundwater level is directly related to the amount of water that can be pumped, and this is related to the amount of VOCs that can be removed.
- To improve flushing the VOCs from the Shallow Zone Aquifer, extraction well SEW-11 and injection well SIW-01 was installed and were operational in May 2000.
- Given the fluctuations in groundwater levels, extracting groundwater from the Shallow Zone Aquifer to dewater the aquifer is not practical.

4.2.6.2 Aerial Extent of VOC Plumes

Figures 3-2, 3-3, and 3-4 illustrate the plumes associated with the compounds of 1,1-DCA, 1,1-DCE, and TCE, respectively, for the North Plant 83 area. As shown in the figures and listed in Table 3-7, TCE was not detected above its laboratory detection limit of 1.0 ppb and 1,1-DCA is below its ARAR of 25 ppb. Currently, there are no plumes shown above ARARs for 1,1-DCA and TCE depicted in the figures. The VOC 1,1-DCE was detected in the groundwater from SMW-10 at 5.2 ppb, barely above its ARAR of 5.0 ppb. Accordingly, a small VOC plume is depicted in the area of SMW-10. Based on historical groundwater sample concentration trends (illustrated in the figures), the Shallow Zone Groundwater Remediation System is working as designed and reducing the VOC concentrations in the Shallow Zone groundwater.

In the area adjacent to South Plant 83, there were only two wells (extraction well SEW-10 and monitoring well SW-08) that had VOCs above their respective ARARs at the beginning of groundwater remediation in May, 1994. Figures were not prepared as there are only two data points and therefore would not be meaningful.

From 1994 to current date, concentrations of site related contaminants in the groundwater from SW-08 have significantly decreased. Initially, 1,1-DCA was found at a concentration of 920 ppb and is now between 61 to 100 ppb (its ARAR is 25 ppb). Initially, 1,1-DCE was detected at 99 ppb and is now detected between 1.0 to 1.2 ppb (its ARAR is 5 ppb). Similarly, TCE was initially detected at a concentration of 93 ppb but is now between 1.1 to 1.3 ppb (its ARAR is 5 ppb). Vinyl chloride was initially detected at 16 ppb and is now below its detection limit of 1.0 ppb (its ARAR is 1.0 ppb). Accordingly, the Shallow Zone System is operating as designed and is reducing the VOCs in the groundwater from the Shallow Zone Aquifer.

During the most recent sampling round (April 2005), the VOC toluene was detected in the groundwater from conventional monitoring wells including SW-08, but not in the extraction wells. Toluene was not detected in these monitoring wells including SW-08 in any past sampling rounds. Since toluene was not detected in the past from any well, and was only detected in the wells where a portable sampling pump was used, GE elected to resample the conventional wells.

GE changed the sampling equipment including the pump, hose, and all associated decontamination equipment. Once the sampling equipment was changed, a new sampling equipment blank was taken to confirm the absence of toluene in the water from the new sampling equipment. The Shallow Zone conventional wells were then resampled and toluene was not detected in the groundwater from any well except for well SW-08 at a concentration of 2 ppb. This indicates that the detections of toluene were an anomaly. Both sample event results are presented in Table 3-7.

4.2.6.3 Contaminant Concentration Trends

Groundwater quality in the extraction wells and monitoring wells was evaluated to assess VOC concentration trends. As shown in Tables 3-3 and 3-4, VOC concentrations in the groundwater from the extraction and monitoring wells have been steadily decreasing. This indicates that the Shallow Zone Groundwater Remediation System is working as designed.

Conclusions based on the data collected to date include the following:

- Concentrations of VOCs in groundwater extracted from the Shallow Zone Aquifer continue to decrease following system startup. At present, concentrations of contaminants of concern range from below ARARs to below laboratory reporting limits, with two exceptions:
    - 1,1-DCE at a concentration of 5.2 ppb (ARAR is 5 ppb) in well SMW-10
    - 1,1-DCA at a concentration of 100 ppb (ARAR is 5 ppb) in well SW-08
- In the North Plant 83 plume area, the horizontal extent of the 1,1-DCA and TCE VOC plumes are below ARARs (Figures 3-2 and 3-4). 1,1-DCE is the only VOC above its ARAR, and was detected at a concentration of 5.2 ppb which is above its ARAR of 5.0 ppb in only one well (SMW-10). Since April 2003, 1,1-DCE has fluctuated from below laboratory reporting limits to 5.2 ppb.
- In the South Plant 83 plume area, only 1,1-DCA remains above its ARAR in monitoring well SW-08 (Table 3-4).
- Groundwater levels have not decreased as originally expected and therefore dewatering the Shallow Zone Aquifer above the silty clay layer is not practical. Flushing of VOCs from the aquifer via groundwater extraction remains the primary remediation mechanism.

4.2.6.4 VOC Mass Extracted by the Treatment System

VOC mass removal is used to evaluate the Shallow Zone Remediation System performance by quantifying the cumulative mass of VOCs removed from the aquifer. The VOC mass removal by the system is calculated based on the volume of treated groundwater and the average total VOC concentrations removed by the treatment plant. Total VOC concentrations were computed as the sum of all detectable VOCs.

Since the system was started, through June 2005 approximately 392.8 grams (less than one pound) of VOC mass have been removed (Table 3-6).

4.2.6.5 VOC Reduction by the Treatment System

The following table provides a summary of the reduction of VOCs by the Shallow Zone Groundwater Treatment System:

Year	Maximum Influent Concentration (ppb)	Average Influent Concentration (ppb)	Maximum Effluent Concentration (ppb)
1994	285.1	251.8	ND (see note 1
1995	234.0	165.0	ND
1996	96.7	90.2	ND
1997	130.5	84.8	ND
1998	53.4	47.7	ND
1999	55.4	49.9	ND
2000	58.7	48.5	ND
2001	44.2	36.6	ND
2002	17.4	17.3	ND
2003	11.3	10.5	ND
2004	10.8	8.5	ND
2005	7.6	7.6	ND

Note 1: ND – indicates VOCs not detected at laboratory reporting limits

4.2.7 Conclusions and Recommendations

1. The Shallow Zone Groundwater Remediation System has been effective in reducing the concentrations of VOCs in groundwater. Groundwater from two monitoring wells show concentrations of VOCs above ARAR's: Monitoring well SW-08 (1,1-DCA) and monitoring well SMW-10 (1,1-DCE). Monitoring well SW-08 is located proximate to the east side of South Plant 83 and SMW-10 is located proximate to the demolished North Plant 83 facility North of Woodward.

2. The Shallow Zone Groundwater Remediation System has removed VOCs from the groundwater within all of the extraction and monitoring wells located within the neighborhood to the north of the former North Plant 83 to levels below their respective ARARs (well SMW-10 is the only exception).
3. The Shallow Zone Groundwater Remediation System has not been effective in dewatering the saturated thickness of the perched groundwater. Groundwater levels continue to fluctuate depending on factors that include natural precipitation. Flushing continues to be the primary mechanism by which the VOCs are removed from the Shallow Zone Aquifer versus removal of perched groundwater.
4. The VOC concentration data from the monitoring wells indicates an asymptotic removal rate (i.e., less and less VOC removal with time). As such, further review of system operations should evaluate natural attenuation or other remedial/regulatory options.
5. A significant number of groundwater samples from monitoring wells in the Shallow Zone Groundwater Remediation System network have not had a detection of a VOC above its respective ARAR for at least 8 consecutive quarters (Table 3-4). Accordingly, GE recommends these wells should be removed from the monitoring program and considered for abandonment.

4.3 VOC Removal from the Deep Zone Aquifer

The Plant 83 OU ROD (EPA, 1988) also required removal of VOCs from the Deep Zone Groundwater Aquifer east of the Plant 83 facility. The EPA required groundwater extraction, treatment by air stripping and carbon adsorption to remove the VOCs from the impacted groundwater, and then injection of treated water to the Deep Zone Aquifer. The extraction and injection wells, treatment system, and monitoring program collectively make up the Deep Zone Groundwater Remediation System.

Work completed since the ROD was issued in 1988 until June 2005 included:

- delineation of chemicals in the deep zone aquifer east of Plant 83 (Deep Zone Plume)
- design, construction, operation, and maintenance of the Deep Zone Aquifer groundwater extraction and treatment system
- sampling and analysis of groundwater from monitoring wells and process water from the treatment system
- addition of new extraction well, two new injection wells, and new monitoring wells to the Deep Zone groundwater extraction and treatment system

This work was conducted as specified in the 100-Percent Design Report, Deep Zone Ground Water Remediation System (Canonie, 1995) and the Revised Performance and Compliance Monitoring Plan (Revised PCMP) (HLA, 2000). Figure 4-1 illustrates the locations of the wells associated with the Deep Zone Groundwater Remediation System.

The Deep Zone Groundwater Remediation System currently consists of four high volume extraction wells that remove groundwater with concentrations of VOCs in excess of ARARs, a treatment system that removes the VOCs from the extracted water by air stripping followed by redundant treatment using liquid-phase granulated activated carbon. When treated, the water is returned to the Deep Zone Aquifer via 12 injection wells. Monitoring wells are located within and proximate to the extraction and injection area to provide a means to monitor the progress of the remediation.

4.3.1 Deep Zone Groundwater Remediation System Goals

The remedial design objectives approved by the EPA and outlined in the 100% Design Report, Deep Zone Ground Water Remediation System (Canonie, 1995) include but are not limited to the following:

- Meet the requirements of the ROD (EPA, 1988)
- Delineate the Deep Zone Plume
- Provide hydraulic control of the Deep Zone Plume
- Remediate impacted groundwater within the Deep Zone Plume via flushing to concentrations less than the ARARs (EPA approved ARARs for this site are listed in Table 4-2)
- Operate the GE remedial system to avoid detrimental effects to nearby remediation systems operated by others
- Provide adequate safeguards within the system to prevent detrimental system failures

As of June 2005, 3,669,150,280 gallons of water have been extracted and treated to levels below ARARs. Groundwater extraction and treatment continue to date.

4.3.2 Deep Zone Groundwater Remediation Standards

The ARARs were established by reference in the ROD (EPA, 1988). The EPA and NMED approved the Performance and Compliance Monitoring Plan (Canonie 1996) and Revised Performance and Compliance Monitoring Plan (HLA 2000) and provides:

- The list of ARARs for this site
- The means and procedures to monitor the effectiveness of the Deep Zone Groundwater Remediation System in meeting the remediation goals, including ARARs

The ARARs for this site are listed in Table 4-2 of this report.

4.3.3 Deep Zone Groundwater Remediation System Process

The EPA and NMED approved Deep Zone Groundwater Remediation System includes monitoring wells, extraction wells, injection wells, and a groundwater treatment system that removes the VOCs from the extracted groundwater to levels below the ARARs. Table 4-1 provides a list of the 4 extraction wells, 12 injection wells, and the 79 groundwater quality monitoring well points. Note that Westbay wells have multiple sample ports associated with each well. For example, Westbay Well WB-04 has ports 1, 2, 3, 4, 5, 10, 11, and 12 that are sampled to monitor the effectiveness of the Deep Zone Groundwater Remediation System. Figure 4-1 illustrates the location of the wells and the treatment plant building.

The Deep Zone Groundwater Remediation System operates by extracting groundwater from four large diameter extraction wells, and conveys this groundwater via dual-contained pipe to the treatment system located on the northwest intersection of Woodward Road and the AMAFCA South Diversion Channel (Figure 4-1). Dual-contained pipe is a pipe located within a larger pipe that mitigates the potential for a leak to be released to the subsurface.

The extracted groundwater is brought into the treatment plant via separate pipelines and is then combined in the influent tank. A linear phosphate (AquaMag™) is added to the water to prevent scaling of minerals during treatment and injection. AquaMag™ is approved for use in drinking water and drinking water-supply aquifers.

From the influent tank, the groundwater is then pumped through two air-stripping towers where the VOCs are removed. This water then flows through two granulated activated carbon vessels for redundant removal of residual VOCs and is then piped into a single effluent holding tank. From the effluent tank, the treated water is piped through a filter system to remove particles, and then it is conveyed via a single-contained pipe to 12 injection wells where it is returned to the Deep Zone Aquifer at about the same elevation where it was removed. Carbon dioxide is added to the treated water just after the filter system to lower the pH of the water. Monitoring wells are used to monitor the progress of the remediation in both the horizontal and vertical extent within and outside of the plume boundary.

In addition to the treatment of the groundwater for remediation purposes, a potable water treatment system was built inside the Deep Zone Groundwater Remediation System treatment plant. A portion of the treated water from the effluent tank is diverted to provide a potable water supply for the facilities at the treatment plant. The quantity of water diverted for this purpose is monitored, and a record of this is provided to the State Engineers Office once per month.

A complete description of this system is provided in the 100% Design Report, Deep Zone Ground Water Remediation System, Plant 83/General Electric Operable Unit, South Valley Superfund Site, Albuquerque, New Mexico (Canonie, 1995).

4.3.4 Modifications and Maintenance to the Deep Zone Remediation System

During the course of operating and maintaining the Deep Zone Groundwater Remediation System, GE monitors and evaluates data from the treatment plant equipment, extraction wells, injection wells, and monitoring wells. In reviewing this data, GE noticed an increase in the VOC concentration levels in monitoring wells WB-02 screen 4 and WB-04 screen 5 during the April 2001 sampling round (see Figure 4-1 for these locations).

With prior approval of the EPA and State of New Mexico, GE conducted the following response actions:

- Evaluate Westbay™ Wells WB-002 screen 4 and WB-04 screen 5
- Installed and sampled groundwater from monitoring wells P83-19D-2 and P83-22D-2 (See Figure 4-1)

Based on the results of the diagnostic work on the Westbay™ wells and the results of the two new installed monitoring wells P83-19D-2 and P83-22D-2, the following was conducted:

- Submitted a Technical Memorandum (June 19, 2002) that proposed a new extraction well and injection well
- Installed extraction well EW-004 and injection wells IW-641 and IW-642
- Upgraded the Deep Zone Groundwater Treatment Plant to accommodate the new extraction well and injection wells

The following describes the work as outlined above.

4.3.4.1 Evaluate Westbay™ Wells WB-02 Screen 4 and WB-04 Screen 5

WB-04 Screen 5

GE contacted Westbay™ factory personnel and they conducted a site visit June 26 and 27, 2001 to evaluate the mechanical integrity of the various port and packer seals within WB-04 well. The objective of the seal tests were to determine if there was leaking from one part of the well to another part of the well, causing the concentrations of VOCs in the groundwater to increase. Based on data collected during the diagnostic seal tests, there was no indication of leaks in the ports or packers associated with screen 5. Thereafter, GE purged the groundwater from the casing interval around WB-04 screen 5 and resampled the groundwater.

On July 11, 2001, GE purged three casing volumes of groundwater from the casing interval associated with WB-04 screen 5. Parameters for temperature, pH, and conductivity were recorded, consistent with the SOPs within the Revised PCMP (HLA, 2000) for sampling conventional wells. A groundwater sample was then collected using the SOP for Westbay™ wells and analyzed consistent with the groundwater monitoring program. On July 30, GE collected another groundwater sample from WB-04 screen 5.

Data from the groundwater samples before and after the purge process confirmed that VOCs were present in this screen interval. Concentration levels of VOCs were lower following the completed purge process. The only compound above its ARAR in Westbay™ WB-04 screen 5 after the purge process was TCE at a level of 6 ppb (ARAR is 5 ppb). VOCs were not detected above the laboratory reporting limit in WB-04 screens 6 and 7 that are below WB-04 screen 5.

Well WB-02 Screen 4

At the time diagnostics were conducted, the only compound detected above its ARAR of 5 ppb in this screen interval was 1,1 DCE at a concentration of 7.8 ppb. GE reviewed the pressure profile for this well and the field data confirmed a vertical upward hydraulic gradient is present due to the three operating extraction wells. Hence, the groundwater associated with this screen interval is captured and treated by the Deep Zone Groundwater Remediation System. VOCs were not detected in screen intervals 5, 6, 7, and 8 that are below screen WB-02 screen 4.

Analytical data and detailed discussions about Westbay™ Wells WB-02 Screen 4 and WB-04 Screen 5 are found in the 2000-2001 Annual Report and Semi-annual Quality Assurance Report Deep Zone Groundwater Remediation System Plant 83/General Electric Operable Unit South Valley Superfund Site, Appendix G

4.3.4.2 Two New Monitoring Wells

GE proposed and the EPA and NMED approved installation of two new monitoring wells in their letter dated December 6, 2001. Well P83-19D-2 was installed proximate to the other wells within the P83-19 well cluster and P8-322D-2 was installed south but proximate to the P83-22 well cluster. Both new monitoring wells were installed with 30-foot long screens, with the screen mid-points approximately coincident with the Well WB-04 Screen 5 (elevation 4570 feet amsl). Drilling using mud rotary techniques began February 12, and was completed March 4, 2002. Appendix F contains the summary well completion and well development logs for each of these two new wells. Figure 4-1 illustrates the locations of these and other wells used to monitor the effectiveness of the Deep Zone Remediation System.

Data from these new monitoring wells confirm groundwater quality in the area north and east of WB-04 (5). Water level data collected from these wells confirm the presence of an upward gradient and capture of groundwater from this area by the existing Deep Zone Remediation System.

Groundwater Quality

Groundwater quality data was obtained from both new monitoring wells upon completion. P83-22D-2 was also sampled about three weeks after completion. Data indicated that no VOCs were detected above laboratory reporting limits in the down gradient monitoring well P83-19D-2. Data did indicate VOCs above ARARs in the newly installed monitoring well P83-22D-2.

At the request of the EPA and NMED, GE conducted passive bag sampling of groundwater from P83-22D-2. This sampling was conducted to evaluate differences in VOC concentrations, if any, from the bottom, middle, and top of the screen interval of P83-22D-2. Passive bag sampling consists of placing polyethylene bags filled with laboratory grade deionized water at specific intervals of the well screen. The passive-diffusion bag samplers were installed in the well for a period of approximately 30 days prior to collection for subsequent sampling.

GE installed three sets of passive-diffusion bags (a total of five bags were sampled) across three intervals of the screen in P83-22D-2 on May 17, 2002, which were removed June 18, 2002. Water from each bag was poured into 40 ml vials and taken to the laboratory for analysis, consistent with the EPA 8260 list, including EDB by EPA method 504.1. Concentration values of VOCs 1,1-DCE, PCE and TCE were in close agreement for the bottom, middle, and top of the screen portion of P83-22D-2. Acetone was detected in the sample and duplicate sample taken from the bottom screen portion of P83-22D-2 at concentrations of 16 and 15 ppb, respectively.

Groundwater Level (Total Head)

Groundwater level (i.e. total head or total energy) data was collected from these two new wells. Groundwater total head data from the P83-22 well cluster and WB-04 well confirmed an upward gradient at wells WB-04(5) and P83-22D-2, indicating groundwater continued to be captured in this area. Nevertheless, GE proposed installing a new extraction well to further enhance capture of groundwater impacted by VOCs.

Analytical data and detailed discussions about the two new monitoring wells are found in the 2001-2002 Annual Report and Semi-annual Quality Assurance Report Deep Zone Groundwater Remediation System Plant 83/General Electric Operable Unit South Valley Superfund Site, Appendix F.

4.3.4.3 Technical Memorandum for a New Extraction Well and New Injection Wells

In its Technical Memorandum dated June 19, 2002, GE recommended a fourth extraction well be installed as part of the Deep Zone Groundwater Remediation System to enhance capture below 4600 feet amsl that is accomplished with the three existing extraction wells. The original design allowed for the possible addition of a fourth extraction well. Accordingly, the groundwater flow model that was calibrated upon completion of the Deep Zone Groundwater Treatment Plant (Smith, 1996b), was updated as a tool to assess capture options.

The groundwater flow model was reviewed and the calibration was confirmed using current groundwater level data, and pumping data from nearby municipal wells, the Univar (i.e. VW&R) remediation system, and the Deep Zone Groundwater Remediation System. The groundwater flow model grid was further refined by adding rows and columns to obtain better resolution in the area proximate to the proposed groundwater extraction well EW-004. Aquifer properties already present within each model layer were carried forward into the newly added rows and columns.

The proposed EW-004 was selected approximately 100 feet east of the newly installed P83-22D-2 monitoring well. Groundwater flow modeling results indicated a 30-foot screen interval and a pumping rate of 120 gpm provided optimal capture of groundwater below elevation 4600 feet amsl, with significant capture of groundwater below 4550 feet amsl.

A Technical Memorandum transmitted to EPA and NMED presented results of this groundwater flow modeling effort (General Electric Aircraft Engines, June 19, 2002). The EPA and NMED met with GE July 18, 2002 and approved the installation of the proposed extraction well EW-004 and injection well IW-641 with the understanding that additional injection well(s) may be recommended.

4.3.4.4 New Extraction Well and Two New Injection Wells

As part of the initial remedial design of the Deep Zone Groundwater Remediation System, flexibility to add new extraction and injection wells were contemplated. Based on the Technical Memorandum discussed above and approvals from EPA and NMED, GE installed extraction well EW-004 and injection wells IW-641 and IW-642. Extraction well EW-004 was complete August 24, 2002, injection well IW-641 was complete August 8, 2002, and injection well IW-642 was complete September 1, 2002. The newly installed EW-004 and IW-641 wells were operational and placed into service August 30, 2002. Injection well IW-642 was placed into service September 2, 2002.

On December 5, 2002, GE met with NMED and EPA to review recent operational data. Data reviewed included groundwater chemistry from the two new injection wells and capture effected by the enhanced groundwater extraction and injection system. Groundwater chemistry data confirmed VOCs were not detected above laboratory reporting limits in the groundwater at the new injection well locations before the injection wells being put into service.

Groundwater level (i.e. total head) data taken from monitoring wells confirmed a significant upward gradient (below elevation 4550 amsl) in the area of extraction well EW-004 (screen interval 4585 to 4555 feet amsl). Measured total head data was also in close agreement to total heads predicted by groundwater flow model, further confirming capture of groundwater by the system.

By letter dated December 9, 2002, NMED approved the modified Discharge Plan, DP-1065, incorporating EW-004 and Injection Wells IW-641 and IW-642 as part of the Deep Zone System.

Analytical data and detailed discussions about the new extraction well and new injection wells are found in the 2002 Semi-Annual Quality Assurance Report Deep Zone Groundwater Remediation System Plant 83/General Electric Operable Unit South Valley Superfund Site, Appendix H.

4.3.4.5 Deep Zone Groundwater Treatment Plant Modifications

As a component of the approved Technical Memorandum and in the manner contemplated in the EPA and NMED approved design for future expansion (Canonie 100% Design Report, 1995) piping and controls for the newly installed extraction and injection wells were installed in the Deep Zone Groundwater Treatment Plant. New flow meters were placed on each extraction and injection wells, and several new valves and meters were replaced within the Deep Zone Groundwater Treatment Plant at this time, as well. In addition, the Deep Zone Groundwater Treatment Plant Supervisory Control and Data Acquisition System was upgraded to include the new extraction and injection well controls. These facility modifications were complete and placed into service August 30, 2002.

4.3.4.6 One New Down Gradient Monitoring Well

During the December 5, 2002 meeting discussed above, the installation of an additional monitoring well upgradient of the existing down gradient sentry monitoring well cluster P82-19 was discussed. By letter dated January 31, 2003, the EPA and NMED approved GE's recommendation to install the new monitoring well, and the work plan for this work was approved by letter dated June 23, 2003.

GE proposed the location of the new monitoring well P83-30D-2 within the State of New Mexico Department of Transportation right-of-way, east of I-25. Accordingly, the schedule for installing and sampling this well was subject to obtaining permission to access the proposed monitoring well location. Access permission was provided to GE June 13, 2003 and field work began June 25, 2003.

The new monitoring well P83-30D-2, obtains groundwater quality data up gradient of the P83-19 sentry well cluster. The 30-foot long screen interval is coincident with the screen intervals in extraction well EW-004, and monitoring wells P8-19D-2, and P83-22D-2 (elevation 4585 to 4555 amsl).

Installation of P83-30D-2 was completed on July 12, 2003 and an initial groundwater sample was collected following development on July 14, 2003. A second groundwater sample was collected two weeks later on July 28, 2003. The analytical results for both samples reported that no VOCs were detected above laboratory reporting limits.

Analytical data and detailed discussions about the new extraction well and new injection wells are found in the 2002-2003 Annual Report and Semi-Annual Quality Assurance Report Deep Zone Groundwater Remediation System Plant 83/General Electric Operable Unit South Valley Superfund Site, Appendix F.

Information contained in the design groundwater flow model (presented in the Technical Memorandum, June 2002), along with the groundwater level data taken every calendar quarter, and VOC analytical data taken twice a year, all indicate that the Deep Zone Ground Water Remediation System is an effective hydraulic control, and operates as designed to maintain capture of impacted ground water in the Deep Zone plume.

4.3.4.7 Supplemental Investigation

During the December 5, 2002 meeting, GE recommended and EPA and NMED approved a supplemental investigation of the area down gradient of known

disposal of VOCs on the VWR facility (also referred to as Vopak and/or Edmunds Street Property). The EPA and NMED approved the work plan in their letter dated June 23, 2003 and the investigation consisted of installing and sampling three new monitoring wells (P83-31S, -31M, -31D-2).

Soil Borings Near VWR

Field work included installing a soil boring, P83-31B-1 to collect a continuous core sample via rotary sonic drilling methods to a depth of about 220 feet below ground surface (about elevation 4800 feet amsl). The purpose of the soil boring was to confirm the presence or absence of a distinct confining layer or aquitard between elevations 4840 and 4800 feet amsl, as previously theorized by Van Waters and Rodgers prior investigations (Geraghty & Miller, Inc, Remedial Investigation Report, June 1989).

Soil core was recovered continuously during the installation of the soil boring, placed in plastic bags, and stored in wooden core boxes. Ms. Susan Morris of the NMED was present at the site when the core material was retrieved from about elevation 4840 to about 4800 feet amsl. This work was completed and described in the June 2003 Monthly Progress Report.

With EPA's and NMED's verbal approval, a second boring, P83-31B-2, was completed (about 13 feet from P83-31B-1) via rotary sonic drilling methods to a depth of about 240 feet bgs (about elevation 4781 amsl). As was the approved procedure for the first soil boring, soil core material was retrieved continuously from the ground surface to the completion depth. Mr. Greg Lyssy, EPA Region VI, was present at the site when soil core material was retrieved from about elevation 4800 to about 4781 feet amsl. This work was completed and described in the July 2003 Monthly Report.

Field inspection of the two cores did not reveal a distinct confining layer or aquitard as represented by bedded clay soils within the upper 240 feet of alluvium below ground surface as theorized by Van Waters and Rodgers in prior investigations (Geraghty & Miller, Inc, Remedial Investigation Report, June 1989). Geotechnical samples were also collected from the core material at certain intervals for laboratory tests including sieve analysis, hydrometer, and Atterberg Limits. The core material was retrieved, placed in plastic bags, stored in wooden boxes, and are stored within the Deep Zone Groundwater Treatment Plant for future reference.

A drive-tip groundwater sample was collected from the P83-31B-1 soil boring at about elevation 4860 feet amsl. The laboratory results identified several VOCs in the groundwater at this elevation. A copy of the laboratory report associated with this sample is included in Appendix G of this Report.

A drive-tip groundwater sample was also collected from the P83-31B-2 soil boring at about elevation 4777 amsl. Similar to the results from the drive tip sample taken from P83-31B-1, the laboratory results identified several VOCs in the groundwater at this elevation. A copy of the laboratory report associated with this sample included in Appendix G of this Report.

Each of the two soil boring locations was abandoned with Barroid Hole Plug and a high solids bentonite mixture, as approved by EPA and NMED.

Monitoring Well P83-31D-2

Field work to install the new monitoring well P83-31D-2, the deepest well of the three well cluster (approved work plan June 23, 2003), began July 13, 2003 and was complete July 26, 2003. This monitoring well was installed in stages by first installing a steel casing from the ground surface to an elevation of about 4810 feet amsl. A second steel casing was installed from the ground surface to an elevation about 4580 feet amsl. Finally, a 5-inch diameter stainless steel casing and screen was installed, with the 50-foot screen interval set at elevation 4570 to 4520 feet amsl. In accordance with approved procedures, the drilling fluid was changed at the beginning of each interval, prior to drilling the next interval.

Southwest Geophysical was engaged to complete a geophysical log on each of the three intervals of this monitoring well. The geophysical log for this monitoring well is included in Attachment G of this report. This log, like the core soil samples taken from borings P83-31B-1 and P83-31B-2, provides no evidence of a confining layer or aquitard as represented by bedded clay soils within the upper 240 feet of alluvium below ground surface as theorized by Van Waters and Rodgers in prior investigations (Geraghty & Miller, Inc, Remedial Investigation Report, June 1989).

In accordance with the approved technical specifications, well development was complete July 26, 2003. A groundwater sample was collected shortly after the well was developed and the laboratory reported no VOCs were detected at or above laboratory reporting limits. Per the approved protocols, groundwater samples were collected post-development and again two weeks following well development. A copy of the laboratory reports associated with these samples is included in Appendix G of this Report.

Monitoring Well P83-31S

Work began on the shallow monitoring well P83-31S on July 27, 2003, and was complete August 2, 2003. In review of the data collected from the two soil borings, and the geophysical log from the P83-31D-2 monitoring well, EPA and NMED approved placement of the 30-foot long well screen at elevation 4800 to 4770 amsl. Consistent with the approved procedures, the drilling fluid was changed at the beginning of each interval, prior to drilling the next interval. Consistent with the sampling protocol, a groundwater sample was collected post-development and another groundwater sample was collected two weeks later. A copy of the laboratory reports associated with these samples is included in Appendix G of this Report.

Monitoring Well P83-31M

GE installed P83-31M following the procedures set forth in the approved work plan. Monitoring well completion details and sampling data was submitted to

EPA and NMED in the August 2003 monthly report and the February 15, 2004 Semi-Annual Quality Assurance Report. In a conference call with Mr. Greg Lyssy (EPA Region VI) on August 1, 2003, the EPA and NMED verbally approved placement of the screen interval for this well from elevation 4700 to 4670 feet amsl. Groundwater was sampled from this well post-development and two weeks after the well was developed. A copy of the laboratory reports associated with these samples is included in Appendix G of this Report.

Analytical data and detailed discussions about the new extraction well and new injection wells, including the geotechnical analysis are found in the 2002-2003 Annual Report and Semi-Annual Quality Assurance Report Deep Zone Groundwater Remediation System Plant 83/General Electric Operable Unit South Valley Superfund Site, Appendix G.

This monitoring well cluster is not a part of the Plant 83 OU No.s 5 and 6, and therefore will not be sampled routinely.

4.3.4.8 Other Maintenance Activities

Rehabilitating Extraction Wells and Injection Wells

Consistent with planned maintenance activities, GE rehabilitated the extraction wells and injection wells. Rehabilitation was conducted by removing all down-hole appurtenances, injecting acid to reduce the pH, swabbing to remove scale, and purging to remove silt and scale. Water collected from these activities were field filtered and taken to the Deep Zone Groundwater Treatment Plant for further filtering and treatment, prior to injection back into the aquifer. Groundwater levels are monitored continuously in the injection wells to evaluate when further rehabilitation may be necessary.

Granulated Activated Carbon

GE sampled the granulated activated carbon in the two 20,000 pound carbon canisters, in anticipation of changing the carbon contained in each vessel. The granulated activated carbon was analyzed by SW-846 Method 8260 for VOCs, and by toxicity characteristic leaching procedure (TCLP) for VOCs, semi volatile organic compounds (SVOCs), and inorganic compounds. The TCLP results were below RCRA action levels and confirmed that the granulated activated carbon was non-hazardous. The granulated activated carbon was changed in each of the two 20,000 pound carbon canisters in November of 2002.

Soil Materials from New Monitoring Wells

Soil materials generated during the installation of the two new monitoring wells consisted of drill cuttings and excess bentonite clay slurry used to stabilize the

boring during drilling. The soil and bentonite slurry materials were containerized in tanks and plastic-lined roll-off boxes during the well installation program. Soil materials generated during the well rehabilitation program included fine sand and clay material. These materials were also containerized in tanks and plastic-lined roll-off boxes.

When the containers were full, representative materials were sampled and analyzed by TCLP VOC methods. All soil and solid bentonite slurry sample results indicated non-detect levels of VOCs and were RCRA non-hazardous. These materials were transported to a municipal landfill for disposal. Certain portions of the bentonite slurry materials contained too much liquid to dispose of in the municipal landfill. These materials were pumped via tanker truck and taken to a nearby engineered drying bed to reduce liquid by air-drying methods prior to landfill disposal.

4.3.5 Performance - Deep Zone Groundwater Remediation System

The performance of the Deep Zone Groundwater Remediation System was evaluated based on monitoring data collected during the baseline event (April 1996) and subsequent events and include the following:

- Water-level monitoring in the extraction wells injection wells and selected monitoring wells
- Groundwater quality at the extraction wells and monitoring wells
- Effluent water quality monitoring
- Flow monitoring at each of the extraction wells, injection wells, and the combined flow of the treatment system

In a letter to the EPA dated November 19, 1999, GE proposed several modifications to the water quality sampling program of the Deep Zone Groundwater Remediation System based on historical information collected to date. The EPA approved GE's request to modify groundwater quality sampling from a quarterly event to a semi-annual event in a letter dated December 29, 1999. Semi-annual sampling coincides with the second and fourth calendar year quarters. This change in protocol was implemented first quarter 2000 and continues presently. As stated in the letter, groundwater level measurements will continue to be collected on a quarterly basis, with semi-annual reporting.

The following sections provide a summary of collected data, a comparison of data with time, and an evaluation of the performance of the remedy.

4.3.5.1 Groundwater Level Monitoring Data

Groundwater levels are measured at the monitoring wells, extraction wells, and injection wells to observe the groundwater total head (total energy) fluctuations in response to operating the Deep Zone Groundwater Remediation System. The design objectives of the Deep Zone Groundwater Remediation System include hydraulic control of the Deep Zone Plume and flushing the VOCs from the Deep Zone Aquifer to meet ARARs.

The total head at various locations and depths allows the Deep Zone Groundwater Remediation System operator to evaluate hydraulic control imposed by the extraction and injection wells. Figures 4-2, 4-3, 40-4, 4-5, and 4-6 illustrate total head and/or contours for the Deep Zone Groundwater Remediation System in the different depth intervals for April 1996, April 2000, and April 2005.

Appendix D-2 provides a summary table of well completion information. Groundwater-level data and hydrographs from conventional monitoring wells are summarized in Appendix C-1. The Westbay™ groundwater-level data and hydrographs are tabulated in Appendix C-2. Extraction and injection well groundwater-level data and hydrographs are tabulated in Appendix C-3.

4.3.5.2 Groundwater Quality Monitoring Data

Groundwater quality monitoring is performed for the purpose of obtaining accurate, representative, complete, and comparable data for assessing changes in constituent concentrations, compliance with discharge criteria, and performance of the groundwater extraction and treatment system. Data collection activities for both the Plant 83 OU and the SJ-6 OU are specified in the Revised PCMP (HLA, 2000).

The laboratory analytical results are used for the following purposes:

- Monitor the time-related changes of VOC concentrations in the groundwater
- Evaluate when VOC concentrations in the Deep Zone Aquifer are below ARARs
- Determine when the granulated activated carbon treatment units have become loaded with VOCs requiring a change of carbon

During the sample events, groundwater quality samples are collected at the conventional wells, Westbay™ wells, and piezometers listed in Table 4-1. A conventional well is a well that has only casing and one screen interval and a Westbay™ well has one casing, but several screen intervals. A piezometer is a well that has one casing and one screen interval but the screen interval is

relatively short and is used primarily for measuring fluctuations in the groundwater table.

The groundwater quality samples are analyzed for the VOCs listed in the Modified Method 8260 list, plus 1,2-dibromoethane (also known as ethylene dibromide or EDB), and Methyl tert butyl ether (MTBE). This list is an extended EPA Method 8240 list amended to accommodate Method 8260 detection limits. The compounds EDB and MTBE were added to monitor impacts to the groundwater Deep Zone Plume. The EDB and MTBE compounds are specifically related to petroleum hydrocarbon compounds and petroleum storage activities not associated with Plant 83 operations. Table 4-2 provides a summary of the analytes, EPA methods, and reporting limits.

As described earlier, annual groundwater monitoring for the SJ-6 OU has been combined into the groundwater monitoring program for the Plant 83 OU. Groundwater samples collected during the second calendar year quarter for the SJ-6 OU annual monitoring event are analyzed for VOCs as shown in Table 4-1.

VOC concentration data with time for conventional wells that are a part of this monitoring program are shown in Appendix E-1. VOC concentration data with time for the Westbay™ wells that are a part of this monitoring program are shown in Appendix E-2. VOC concentration data for the extraction and injection wells are shown in Appendix E-3.

4.3.5.3 Treatment System Water Quality Data

During routine operations, treatment system compliance samples are collected to verify compliance with the State of New Mexico discharge permit issued to GE on December 21, 1995 (with updates). Compliance samples are collected monthly, as required by the discharge permit, at the effluent Sample Port No. 425 (SP-425) of the groundwater treatment system located between the injection filters and injection wells.

As specified in the Revised PCMP (HLA, 2000), the monthly treatment system compliance samples are analyzed for VOCs. Also specified, the inorganic compounds iron, manganese, and total dissolved solids (TDS) are analyzed once per year. In addition, once per year the compound EDB, is analyzed by EPA Method 504.1 to a minimum detection limit of 0.1 μg/l (or ppb) since its ARAR is 0.5 μg/l.

Since March 1996 when the Deep Zone Groundwater Treatment Plant began operations, all treated groundwater samples have been below ARARs or not detected at all and therefore have met all applicable regulatory criteria.

4.3.5.4 Flow Monitoring Data

Groundwater flow recovery from the extraction wells (influent to the treatment plant) and discharge to the injection wells (effluent from the treatment plan) are monitored to:

- Assess hydrologic capture and contaminant removal performance of the remediation system
- Verify compliance with both the State of New Mexico Drill and Use Permit issued December 29, 1995; the State of New Mexico Permit to Appropriate Underground Waters issued January 24, 1996

Extraction and injection flow are monitored via totalizing flow meters located at the discharge line of each extraction well, the inlet line of each injection well, and downstream of the potable water treatment unit. The total flow from the extraction wells to the treatment plant and from the treatment to the injection wells is recorded continuously during treatment plant operations by the Supervisory Control and Data Acquisition (SCADA) computer control system. The total flow of effluent diverted to the potable water treatment system is monitored continuously and recorded manually once per week.

Table 4-3 summarizes the extraction well and injection well flows for each month and also provides a monthly volume of water diverted from the Deep Zone Aquifer for remediation and sanitary purposes since the start-up of operations.

4.3.6 Effectiveness - Deep Zone Groundwater Treatment System

This section of the Report provides an evaluation of the effectiveness of the Deep Zone Groundwater Remediation System. The remedial design objectives for the Deep Zone consisted of three parts:

1. Provide hydraulic control of the Deep Zone Plume
2. Remediate impacted groundwater via flushing to concentrations less than the ARARs
3. Operate the remedial system to avoid detrimental effects to nearby remediation systems operated by other potentially responsible parties (PRPs) that address impacts to the Deep Zone Aquifer

Accordingly, the following elements were assessed to evaluate the effectiveness of the Deep Zone Groundwater Remediation System:

- Groundwater elevation trends
- Contaminant concentration trends
- Treatment system water quality
- VOC mass extracted by the groundwater extraction and treatment system

These elements of the evaluation are presented in accordance with the Revised PCMP (HLA 2000).

4.3.6.1 Groundwater Elevation Trends

GE measured the depth to water in the conventional monitoring wells, piezometers, and extraction/injection wells and recorded hydrostatic pressure in Westbay™ monitoring wells during the baseline and subsequent groundwater monitoring events. Because monitoring wells are screened at various elevations throughout the Deep Zone Aquifer, groundwater elevation or potentiometric surface (total head) contour maps were prepared for the four upper evaluation intervals. These intervals include Elevation 4840 to 4900, Elevation 4790 to 4840, Elevation 4660 to 4790, Elevation 4600 to 4660, and Elevation 4500 to 4600.

For comparison purposes, total head data were plotted in plan view for the baseline event in April 1996 (i.e., second quarter 1996 data), the second quarter 2000 data, and the second quarter 2005 data. The second quarter monitoring events were chosen to give the same temporal snapshots of the groundwater level conditions and to be consistent with previous reports. These three events are shown to demonstrate the effectiveness of the system at 5-Year Review Report periods. The figures depicting total head within their respective elevation intervals include:

Figure No.	Total Head in Elevation Interval (feet above mean sea level)
Figure 4-2	4840 to 4900
Figure 4-3	4790 to 4840
Figure 4-4	4660 to 4790
Figure 4-5	4600 to 4660
Figure 4-6	4500 to 4600

Based on data collected to date, the Deep Zone Remediation System has maintained capture and mitigated the migration of groundwater impacted with VOCs. As shown in the figures identified above, groundwater flow converges toward the extraction wells forming a capture zone of the VOC plume. In reviewing these figures, the groundwater flow patterns in the extraction and injection wells have not changed significantly since the system was started.

Based on these figures, there is hydraulic capture along the direction of groundwater flow eastward to Interstate I-25. Data illustrated in these figures also demonstrate hydraulic capture from the injection wells along the north side of the plume proximate to monitoring well D-02, to the injection wells located on the south side of the plume proximate to Monitoring Well WB-05. These recorded groundwater data confirm the expected result predicted by the design groundwater flow model (Canonie, 1995).

Accordingly, the Deep Zone Groundwater Remediation System is meeting its design objective of maintaining hydraulic capture of groundwater impacted by VOCs above ARARs.

4.3.6.2 Contaminant Concentration Trends

Prior to the start of the Deep Zone Groundwater Treatment System, the extent of impacts to groundwater in the Deep Zone Plume and SJ-6 OU was delineated in both the horizontal and vertical directions based on groundwater sampling results from May 1992 through April 1996. These results have been published in previous reports and formed the basis of the Deep Zone Groundwater Remediation System design (Canonie, 1995).

To assess the effectiveness of the Deep Zone Groundwater Remediation System, results from second quarter 1996, 2000, and 2005 are presented. The second quarter 1996 results are pre-remediation and therefore, provide a baseline for comparison purposes. During these reporting periods, the following compounds were detected in the groundwater above their respective ARARs:

- TCE
- PCE
- 1,1-DCE
- 1,1-DCA
- 1,2-DCA
- Vinyl chloride
- Methyl tert butyl ether (MTBE)

The compounds 1,2-DCA and MTBE are additives to petroleum products, and are not associated with Plant 83 operations. The compounds listed above have been detected above ARARs in the Deep Zone Plume area.

Of the compounds listed above, only the following compounds were detected above their respective ARARs during the latest sample round (April 2005):

- TCE
- PCE
- 1,1-DCE

Data analyses indicate that since the startup of the Deep Zone Groundwater Remediation System, the VOCs are declining in concentration and the aerial extent is shrinking. In addition, no VOCs have ever been detected above their respective ARARs in the down gradient sentry wells P83-30D-2, P83-19U, -19M, -19LR, and -19D-2. Please refer to Tables 4-6 through 4-10 for a summary of VOC data taken in April 1996, April 2000, and April 2005.

For comparison purposes, VOC concentration data were plotted in plan view for the baseline event in April 1996 (i.e., second quarter 1996 data), the second quarter 2000 data, and the second quarter 2005 data. The second quarter monitoring events were chosen to give the same temporal snapshots of the VOC concentration data and to be consistent with previous reports. These three events are shown to demonstrate the effectiveness of the system at 5-Year Review Report periods.

Figure No.	VOCs Above ARARs in Elevation Interval (feet above mean sea level)
Figure 4-7	4840 to 4900
Figure 4-8	4790 to 4840
Figure 4-9	4660 to 4790
Figure 4-10	4600 to 4660
Figure 4-11	4500 to 4600

Also for comparison purposes, VOC concentration data were plotted in cross-section view for the April through June periods 2001 through 2005.

Figure No.	VOCs Above ARARs in Cross-Section
Figure 4-14	2001
Figure 4-15	2002
Figure 4-16	2003
Figure 4-17	2004
Figure 4-18	2005

Based on these figures, the aerial extent of the Deep Zone Plume is shrinking, and concentrations have reduced significantly since the Deep Zone Plant became operational in March 1996. Accordingly, the Deep Zone Groundwater Remediation System is accomplishing another of its primary objectives (i.e., hydraulic capture and flushing to reduce VOCs to levels at or below ARARs).

The following table provides the most notable remarks about the presence of VOCs in the Deep Zone Aquifer before and after the Deep Zone Groundwater Remediation System became operational:

Summary Table of VOC Compounds Detected in the Deep Zone Aquifer			
Elevation Interval	VOCs Above ARARs 1996	VOCs Above ARARs 2000	VOCs Above ARARs 2005
4840-4900 ft amsl	1,2-DCA, MTBE, PCE, TCE	None	None
4790-4840 ft amsl	1,1-DCA, 1,1-DCE, 1,2-DCA, MTBE, PCE, TCE	1,1-DCE, PCE, TCE	1,1-DCE, PCE, TCE
4660-4790 ft amsl	1,1-DCA, 1,1- DCE, 1,2-DCA, PCE, TCE,VC	1,1-DCA, 1,1-DCE, PCE, TCE	1,1-DCE, 1,2-DCA, PCE
4600-4660 ft amsl	1,1-DCA, 1,1-DCE, 1,2-DCA, PCE,TCE	1,1-DCE, TCE	None
4500-4600 ft amsl	1,1-DCE	1,1-DCE, TCE	1,1-DCE, PCE,TCE

VOC concentrations over time were plotted for the Deep Zone Groundwater Remediation System monitoring wells that are part of the Deep Zone Plume groundwater monitoring program. These time series plots are included in Appendix E. VOC data are plotted for each well since sampling began at each respective well location.

4.3.6.3 Treatment System Water Quality

Water quality samples are routinely collected and analyzed to verify compliance with the State of New Mexico discharge permit issued to GE on December 21, 1995. Compliance samples were collected monthly, as required by the discharge

permit, at the effluent SP-425 of the groundwater treatment system located between the injection filters and injection wells. Sample collection frequency and analysis were conducted as prescribed in the PCMP (Smith, 1996). As required by the PCMP (Smith, 1996), the compound EDB was analyzed by EPA Method 504.1 to a lower detection limit.

During the system startup, the compound MTBE was detected in the influent groundwater from the extraction wells. This compound is a fuel additive (i.e., an oxygenating agent) in gasoline. However, the Deep Zone Groundwater Treatment System effectively removed MTBE from the groundwater to levels significantly below its ARAR of 100 ug/L (part per billion or ppb).

On two occasions since the Deep Zone Plant became operational, VOCs other than MTBE were detected in the treated effluent sample. The compounds chloromethane and trichloroethene were detected at concentrations of 2 and 1.2 µg/l respectively in the treated effluent collected during the October 1999 compliance sample event (SP-425). In the June 2002 compliance sample the compound Xylenes was detected at a concentration of 1µg/l. However, confirmatory samples contained no detectable concentrations of any VOCs. Accordingly, this data is considered suspect. In addition, the concentration levels reported for these two compounds, if valid, are significantly below their respective ARARs.

4.3.6.4 VOC Mass Extracted by the Treatment System

VOC mass removal is used to evaluate the Deep Zone Remediation System performance by quantifying the cumulative mass of VOCs removed from the aquifer. The VOC mass removal by the system is calculated based on the volume of treated groundwater and the average total VOC concentrations removed by the treatment plant. Total VOC concentrations were computed as the sum of all detectable VOCs, of which the most common were 1,1-DCA, 1,1-DCE, 1,2-DCA, MTBE, PCE, and TCE.

Table 4-4 summarizes the mass of VOCs removed by the Deep Zone Remediation System since startup. Since the system was started, through June 2005 approximately 1,383.9 pounds of VOC mass have been removed.

4.3.6.5 VOCs Removed by the Treatment System

The following table provides a summary of the reduction of VOCs by the Deep Zone Groundwater Treatment System:

Year	Maximum Influent Concentration (ppb)	Average Influent Concentration (ppb)	Maximum Effluent Concentration (ppb)
1996	143.8	102.9	ND (see note 1)
1997	96.0	84.7	ND
1998	73.8	55.6	ND
1999	62.4	54.2	ND
2000	62.4	41.1	ND
2001	39.3	38.1	ND
2002	36.8	34.2	1 (see note 2)
2003	36.8	28.5	ND
2004	23.1	20.3	ND
2005	16.0	15.1	ND

Note 1: ND – Not detected above laboratory reporting limits
Note 2: 1 ppb of xylene (total) was detected in the compliance sample taken from the compliance sample port June 3, 2002. The sample was collected again to confirm this detect on June 19, 2002 and that sample result reported ND for all VOCs. Accordingly, this sample detect of 1 ppb of xylene is considered an anomaly

4.3.6.6 Treatment Plant On-line Efficiency

Since the full system startup, the Deep Zone treatment plant has been fully operational 24 hours per day except for routine maintenance and unplanned stoppages. Routine maintenance is conducted to avoid prolonged unplanned stoppages due to equipment failure and/or to conduct plant inspections.

The unplanned stoppages since startup of the system has been related to the following issues:

- High water levels in the injection wells
- Repairs to the pumps in extraction wells
- Repairs and rehabilitation of extraction and injection wells
- Lightning that causes erroneous signals to the plant control room
- Weather that interfered with the air stripper blowers

Aside from unpredictable weather issues, regular inspection and maintenance has kept the treatment plant operational. From startup through June 2000, the plant run-time has had an efficiency of 88.3 percent. From June 2000 through June 2005, the plant run-time has had an efficiency of 93.37%. Table 4-5 provides a summary of run-time for the treatment plant.

4.3.6.7 Overall Effectiveness and System Optimization

GE expended a significant effort during the design of the Deep Zone Groundwater Remediation System to maximize the effectiveness of the system, in terms of maximizing capture and minimizing flow rate. During the design, over 300 runs were made with the groundwater flow model to design the system and ensure effectiveness.

GE has always looked for continuous improvements in the efficiency of the current system. GE has rehabilitated injection wells and maintained other treatment plant equipment to reduce the amount of time the system is down due to unplanned stoppages. In addition, GE has scheduled other maintenance while the plant was already down to improve efficiency of the overall treatment system. GE will continue to explore ways to make the system operate more efficiently.

4.3.7 Conclusions and Recommendations

The following conclusions were derived from data and observations collected to date regarding the Deep Zone Groundwater Remediation System:

- A complete lateral capture zone has been maintained from the upgradient (i.e. near Monitoring Well WB-07) eastward to I-25 and north-south between the injection wells (Figures 4-2, 4-3, 4-4, 4-5 and 4-6). A complete vertical capture zone has been created by pumping and maintained from an elevation of 4,840 feet above msl to an elevation of about 4,570 feet above msl.
- The VOC plume has been captured by the Deep Zone Remediation System. Flushing continues to reduce the extent and concentration of the VOC plume.

- There have been no VOCs above ARARs in the down gradient sentry wells that include P83-30D-2, and the cluster P83-19U, -19M, -19LR, and -19D-2. Accordingly, the plume has been captured and migration has been mitigated (Figures 4-7, 4-8, 4-9, 4-10, 4-11, Tables 4-6, 4-7, 4-8, 4-9, and 4-10).
- The treatment system has been effective in removing constituents to concentrations below the ARARs, and water injected back into the Deep Zone Aquifer is in compliance with the applicable discharge requirements. VOCs continue to be removed to below detection limits by the treatment plant (Table in Section 4.3.6.5 above).
- Approximately 3.7 billion gallons of groundwater has been extracted, treated, and injected since system startup through June 2005 (Table 4-3).
- Since the system startup through June 2005, approximately 1384 pounds of VOC mass have been removed (Table 4-4).
- The Deep Zone Groundwater Remediation System has had an average on-line efficiency of approximately 92 percent (Table 4-5).

4.4 Treatment System Operation and Maintenance Costs

Since March 1996 when the Deep Zone Groundwater Remediation System was started, annual operation and maintenance costs have averaged about $700,000 per year. This figure includes the O&M for both the Shallow Zone and Deep Zone Groundwater Remediation Systems, and includes the utilities, permits, groundwater sampling, and the other costs associated with operating these two treatment systems.

5.0 Progress Since the Last Review

5.1 Protectiveness Statements from the Last Five-Year Review

During the first Five Year Review, all remedial actions at the Former Plant 83/GE Operable Unit of the South Valley Superfund Site were found to be protective of human health and the environment. No items were identified in the last 5 Year Review that indicated a need for follow up.

The EPA and NMED stated in their letter for the first Five Year Review (letter dated September 21, 2000):

> "This memorandum approves the September 2000 Five-Year Review reports for the South Valley Superfund Site Operable Unit (OU) #2, #3, #5, and #6. The second five-year review for OU #3 was prepared by ARCADIS Geraghty & Miller for Van Waters and Rogers Inc., (VWR), and is included as Attachment A. The first five-year review for OU #2, OU #5, and OU #6 was prepared by Harding Lawson Associates for General Electric Aircraft Engines (GEAE), and is included as Attachment B. **Based on the five-year review reports, the remedial actions are protective of human health and the environment.**" (emphasis added)

Further, the letter was specific to each OU associated with the Plant 83 OUs. Salient citations from the letter are cited below:

OU #2 – Plugging and Abandoning Private Wells and Monitoring for 30 Years

> "The requirements of the GEAE OU #2 ROD also included performing groundwater monitoring for 30 tears, which is being conducted. The groundwater monitoring program was designed to monitor the effectiveness of the remedial action. The analysis of the data shows that the plugging and abandonment program was effective."
>
> **"The results of the five-year review indicate that the remedy for OU #2 has been, and is expected to continue to be, protective of human health and the environment."** (emphasis added)

OU #5 – Unsaturated and Saturated Portions of the Shallow Zone Aquifer

> "Vapor phase VOCs in the unsaturated portion of the Shallow Zone Aquifer have been remediated to regulatory cleanup levels and pose no threat to human health or the environment"

"The shallow zone groundwater remediation system has mitigated the migration of VOCs in the saturated portion of the shallow zone aquifer and the size of the contaminant plume is decreasing."

"Flushing of the VOCs appears to be the primary mechanism by which VOC impacts to the shallow zone aquifer are being remediated. Flushing via groundwater extraction system continues to reduce the concentration of VOCs in the saturated portion of the shallow zone aquifer. The concentrations of the contaminants in the groundwater monitoring wells are steadily decreasing."

"**The results of the five-year review indicate that the remedy for OU #5 has been, and is expected to continue to be, protective of human health and the environment.**(emphasis added) The remedial actions have been functioning as designed, and have been operated and maintained in an appropriate manner. On-going optimization of the remedial system is continuing."

OU #6 –VOC Removal for Groundwater within the Deep Zone Aquifer

"A complete lateral capture zone has been maintained from up-gradient near Well WB-07, eastward to I-25, and in the north-south direction between the injection wells. A Complete vertical capture zone has been maintained from an elevation of 4,840 feet above mean sea level (msl) to an elevation of about 4,600 feet above msl. In other words, the deep groundwater remediation system has been effective in capturing the entire groundwater contaminant plume associated with OU #6."

"The deep zone groundwater remediation system is operating as designed, has maintained capture of impacted groundwater in the deep zone plume, and has reduced concentrations of VOCs within the area influenced by the remediation system. VOCs above ARARs have not been detected in any monitoring or water supply well down-gradient of the remediation system."

"**The results of the five-year review indicate that the remedy for OU #5 has been, and is expected to continue to be, protective of human health and the environment.**(emphasis added) The remedial actions have been functioning as designed, and have been operated and maintained in an appropriate manner. It is recommended that GEAE continue to pursue the use of innovative technologies which may enhance future system performance of the remedial activities."

5.2 Status of recommendations and follow-up actions from last review

For OU #2, groundwater continues to be monitored as specified in the Revised PCMP (HLA 2000). Accordingly, there were no changes to this program resulting from the first Five-Year Review Report. There were no follow-up actions identified in the last Five-Year Review and groundwater will continue to be monitored as required.

For OU #5, groundwater continues to be extracted and treated, and flushing continues to be the primary means of removing VOCs from the Shallow Zone Aquifer. There were no follow-up actions identified in the last Five-Year Review and groundwater will continue to be extracted and treated until VOCs have been removed to below ARARs in the Shallow Zone Aquifer.

For OU #6, groundwater continues to be extracted and treated, and flushing continues to be the primary means of removing VOCs from the Deep Zone Aquifer. GE did add a fourth extraction well and two additional injection wells to further enhance system performance. Further, GE added another down gradient monitoring well to enhance the remediation monitoring well network. There continues to be no VOCs identified in the groundwater down gradient of the Deep Zone Groundwater Remediation System. Accordingly, capture of VOC impacted groundwater has been and will continue to be maintained. GE will continue to pursue innovative technologies that may enhance future system performance of the remedial activities. Groundwater will continue to be extracted and treated until VOCs have been removed to below ARARs in the Deep Zone Aquifer.

6.0 Technical Assessment

6.1 Question A: Is the remedy functioning as intended by the decision documents?

6.1.1 OU #2

Yes. The ROD required private wells to be abandoned and groundwater to be monitored. As described in Section 4.0 above, private wells were abandoned and groundwater continues to be monitored as specified in the Revised PCMP (HLA 2000). Accordingly, the remedy is functioning as intended.

The cost associated with the ongoing work for this OU #2 is associated with groundwater monitoring only. There are 9 monitoring wells (16 sample points as WB-06 has 8 sample points) in the monitoring well network. None of the wells identified have had a detection of VOCs in the groundwater for at least two years. Optimization of the monitoring program associated with this OU #2 could include a change in the sample interval from semi-annual to longer, such as annual or bi-annual (one sample every two years), or migrating the monitoring requirements of OU No. 2 to the monitoring program for OU No. 6.

6.1.2 OU #5

Unsaturated Portion of the Shallow Zone Aquifer

Yes. The ROD required that VOCs in the unsaturated portion of the Shallow Zone Aquifer be removed by vacuum extraction and that VOCs in the saturated portion be removed via groundwater extraction and treated to levels below ARARs.

Vacuum extraction was applied to the unsaturated portion of the Shallow Zone and removed VOCs to levels significantly below cleanup levels. Accordingly, the EPA and NMED determined that the remedy functioned as intended, was effective, and ROD requirement had been met for this portion of OU #5. The vacuum extraction system was decommissioned in 1993.

Saturated Portion of the Shallow Zone Aquifer

Yes. Groundwater continues to be extracted and treated, and flushing continues to be the primary means of removing VOCs from the Shallow Zone Aquifer. VOCs are present in the groundwater in only two monitoring wells in the latest sampling round (April 2005). 1,1-DCA was present in monitoring well SW-08 at a

level of 100µg/l (ARAR is 25µg/l), and 1,1-DCE was present in monitoring well SMW-10 at a level of 5.2µg/l (ARAR is 5µg/l).

With the exception of only those two monitoring wells identified above, VOCs have been removed from the saturated portion of the Shallow Zone Aquifer and therefore, the remedy is working as intended. Since VOCs are still present above ARARs, groundwater will continue to be extracted and treated until VOCs have been removed to below ARARs in the Shallow Zone Aquifer in the monitoring wells.

The cost associated with the ongoing work for this OU #5 is associated with operating and maintaining the groundwater extraction, treatment, and injection system, as well as the groundwater monitoring program. Aside from adding the extraction well SEW-11 and the injection well SIW-01, there have been no extraordinary costs associated with this OU #5.

Optimization of the operation and maintenance program associated with this OU #5 could include the following:

- Addition of another technology to improve the removal of VOCs from the Shallow Zone Aquifer
- Change in the groundwater monitoring program sample interval for many of the current monitoring wells from semi-annual to longer, such as annual or bi-annual (one sample every two years)
- Abandon and plug monitoring wells that are no longer needed
- Change in the way the system pumps water to improve the removal of VOCs from the Shallow Zone Aquifer
- Further evaluation of potential infiltration of water into the aquifer from leaking municipal system pipelines.

Changes to the Shallow Zone Groundwater Remediation System would be made only after approval from the EPA and NMED.

6.1.3 OU #6

The ROD required that groundwater containing VOCs above ARARs be extracted and treated to levels below ARARs. There are VOCs in the groundwater above ARARs in the Deep Zone Aquifer; however, the aerial extent of impacts has been significantly reduced. Only 8 monitoring wells continue to have groundwater impacted with VOCs above ARARs, compared to 27 monitoring wells at the start of the Deep Zone Aquifer remediation. There continues to be no VOCs identified in the groundwater down gradient of the Deep Zone Groundwater Remediation System. Accordingly, capture of VOC impacted

groundwater has been and will continue to be maintained and the remedy continues to be functioning as intended.

Groundwater continues to be extracted and treated, and flushing continues to be the primary means of removing VOCs from the Deep Zone Aquifer. GE did add a fourth extraction well and two additional injection wells to further enhance system performance. Further, GE added another down gradient monitoring well to enhance the remediation monitoring well network. GE will continue to pursue innovative technologies that may enhance future system performance of the remedial activities. Groundwater will continue to be extracted and treated until VOCs have been removed to below ARARs in the Deep Zone Aquifer.

The cost associated with the ongoing work for this OU #6 is associated with operating and maintaining the groundwater extraction, treatment, and injection system, as well as the groundwater monitoring program. GE added extraction well EW-004 and the injection wells IW-641 and IW-642 to the Deep Zone Groundwater Treatment Plant, and also rehabilitated the extraction and injection wells to prolong their useful life.

Optimization of the operation and maintenance program associated with this OU #6 could include the following:

- Change in the groundwater monitoring program sample interval for many of the current monitoring wells from semi-annual to longer, such as annual or bi-annual (one sample every two years)
- Abandon and plug monitoring wells that are no longer needed
- Change in the way the system pumps water to improve the removal of VOCs from the Deep Zone Aquifer
- Minor improvements to the mechanical works of the Deep Zone Treatment Plant such as changing older pumps, valves, etc

Changes to the Deep Zone Groundwater Remediation System would be made only after approval from the EPA and NMED.

6.2 Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of remedy selection still valid?

Yes, the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives are still valid for OU #2, OU #5, and OU #6. There have been no changes in land use or potential exposure pathways in the areas associated with these OUs. The remedial work associated with these OUs continues to be protective of human health and the environment.

6.3 Question C: Has any other information come to light that could call into question, the protectiveness of the remedy?

No. No information has come to light that could call the protectiveness of the remedies into question for the OUs #2, #5, and #6. The remedies enacted for these OUs are still valid and are protective of human health and environment.

7.0 Issues

Based on a complete review of the data associated with OUs No. 2, No. 5, and No. 6, the remedies are working as designed and are protective of human health and the environment. From discussions with the EPA, NMED, and other stakeholders at the South Valley Superfund Site (e.g. City of Albuquerque, general public), no issues have been identified that affect current or future protectiveness.

8.0 Recommendations and Follow-up Actions

8.1 OU Specific Recommendations

Recommendations for each OU discussed above are listed below:

OU #2 – Plugging and Abandoning Private Wells and Monitoring for 30 Years

- Consider lengthening the interval between sampling rounds from the current annual interval to a bi-annual or tri-annual interval. None of the monitoring wells have had a detection of a VOC above an ARAR since July 1994.

- Consider abandoning certain monitoring wells as they are no longer required

OU #5 – Unsaturated and Saturated Portions of the Shallow Zone Aquifer

- Consider lengthening the interval between sampling rounds from the current semi-annual interval to an annual (or longer) interval for most of the monitoring wells in this network. There are 17 monitoring wells in this network, and 10 of these have not had a detection of a VOC above an ARAR for at least two years.

- Consider abandoning certain monitoring wells as they are no longer required

- Consider another technology to improve the removal of VOCs from the Shallow Zone Aquifer. For example, vacuum extraction may be added to the existing groundwater extraction system to remove additional VOCs.

OU #6 –VOC Removal for Groundwater within the Deep Zone Aquifer

- Consider lengthening the interval between sampling rounds from the current semi-annual interval to an annual (or longer) interval for most of the monitoring wells in this network. There are 79 monitoring wells in this network, and 38 of these have not had a detection of a VOC above an ARAR for at least two years.

- Consider abandoning certain monitoring wells as they are no longer required

8.2 Global Recommendations

Recommendations that apply to all of the OUs include the following:

- Revise elements of the Revised Performance and Compliance Monitoring Plan (Revised PCMP, HLA 2000). This plan has not been revised since 2000.

- Continue to consider new or different innovative technologies that may improve the removal of VOCs from the Shallow Zone and Deep Zone Aquifers

TABLES

Table 3-1: Summary of Sampling Events (a)
Second Five Year Review Report
Shallow Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Ground Water Quality Monitoring

Extraction Wells (performed quarterly through December 1999 [performed semi-annually starting January 2000 (b)]	Monitoring Wells [performed semi-annually (b)]	
SEW-1	P83-01S	SMW-10
SEW-2	P83-02S	SMW-11
SEW-3	P83-03S	SMW-12
SEW-4	P83-14S	SW-06 (d)
SEW-5	SMW-09	SW-07 (d)
SEW-6		SW-08
SEW-10		
SEW-11		
	Monitoring Wells [performed semi-annually through December 1999] [performed annually starting January 2000(c)]	
SIW-01	P83-05S	S-01
	P83-13S	SMW-13
	P83-15S	SMW-14

Ground Water Level Monitoring

Extraction Wells [performed quarterly]	Monitoring Wells [performed quarterly]		
SEW-1	P83-01S	P83-16S	SMW-13
SEW-2	P83-02S	P83-17S	SMW-14
SEW-3	P83-03S	P83-18S	SMW-16
SEW-4	P83-04S	S-01	SMW-17
SEW-5	P83-05S	S-04	SMW-18
SEW-6	P83-12S	SMW-09	SMW-19
SEW-10	P83-13S	SMW-10	SW-02
SEW-11	P83-14S	SMW-11	SW-03
	P83-15S	SMW-12	SW-04
Injection Well [performed quarterly]			SW-06 (d)
			SW-07 (d)
SIW-01			SW-08

Treatment System Performance Sampling

Performed at effluent side of primary carbon vessel

25,000 gallons following carbon changeout
50,000 gallons following carbon changeout
60,000 gallons following carbon changeout
>60,000 gallons - Changeout carbon vessel

Treatment System Compliance Sampling

Performed monthly at effluent side of tertiary carbon vessel through July 2005

Notes:
a. This table reflects modifications to the sampling program based on the EPAs letter dated 12-29-99 regarding agency approval of monitoring program modifications
b. Semi-annual sampling is performed during the second and fourth calendar year quarters
c. Annual sampling is performed during the second calendar year quarter
d. Wells added for 4th quarter 1998 sampling event at GEAE's request; wells were originally dropped after second quarter 1996 because the were dry at that time.

Table 3-2: List of Analytes, EPA Methods, and Reporting Limits, and ARARs
Second Five Year Review Report
Shallow Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]

Analyte	EPA Method	Reporting Limit	ARAR
Organics			
1,1,1-Trichloroethane	8260	1	60
1,1,2,2-Tetrachloroethane	8260	1	10
1,1,2-Trichloroethane	8260	1	5
1,1-Dichloroethane	8260	1	25
1,1-Dichloroethene	8260	1	5
1,2-Dichloroethane	8260	1	5
1,2-Dichloropropane	8260	1	5
2-Chloroethyl vinyl ether	8260	10	*
2-Hexanone	8260	10	*
4-Methyl 2-pentanone (MIBK)	8260	10	*
Acetone	8260	10	*
Benzene	8260	1	5
Bromoform	8260	1	80
Bromomethane	8260	1	*
Carbon disulfide	8260	1	*
Carbon tetrachloride	8260	1	5
Chlorobenzene	8260	1	80
Chloroethane	8260	1	*
Chloroform	8260	1	80
Chloromethane	8260	1	2300000
cis-1,3-Dichloropropene	8260	1	*
Dibromochloromethane	8260	1	80
Dichlorobromomethane	8260	1	80
Ethylbenzene	8260	1	700
Ethylene dibromide (EDB)	8260	1	0.05
Methyl ethyl ketone (2-butanone)	8260	10	*
Methyl tertiary butyl ether (MTBE)	8260	1	100
Methylene chloride	8260	1	5
Tetrachloroethene	8260	1	5
Toluene	8260	1	750
trans-1,2-Dichloroethene	8260	1	100
trans-1,3-Dichloropropene	8260	1	*
Trichloroethene	8260	1	5
Trichlorofluoromethane	8260	1	*
Vinyl chloride	8260	1	1
Xylenes (total)	8260	1	620

Note:
Analytes under EPA 8260 list are site specific constituents of concern for the shallow zone groundwater remediation system.

Table 3-3: Summary of Selected Organic Analytical Results for Extraction Wells
Second Five Year Review Report
Shallow Zone Groundwater Extraction and Treatment System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]

Reported Name	Sampling Date	Detection Limit	ARAR	Extraction Wells SEW-01	SEW-02	SEW-03	SEW-04	SEW-05	SEW-06	SEW-10	SEW-11(a)
1,1-Dichloroethane	Apr-94	5	25	150	43	110	75	560	ND	310	-
	Jul-94	5	25	120	260	110	ND	600	7	420	-
	Aug-94	5	25	120	260	84	60	770	ND	400	-
	Sep-94	5	25	110	210	90	71	710	ND	350	-
	Nov-94	5	25	93	160	85	66	520	ND	270	-
	Dec-94	5	25	76	200	94	67	520	ND	280	-
	Feb-95	5	25	54	210	88	50	530	-	260	-
	Mar-95	5	25	-	140	73	38	440	ND	250	-
	May-95	5	25	60	140	100	39	380	ND	190	-
	Jul-95	5	25	58	190	97	32	320	ND	180	-
	Sep-95	5	25	42	140	-	7	260	ND	190	-
	Feb-96	1	25	27	130	71	36	75	ND	160	-
	Jul-96	1	25	-	85	96	38	79	7	180	-
	Oct-96	1	25	-	44	90	23	110	ND	130	-
	Jan-97	1	25	-	150	77	92	140	ND	170	-
	Apr-97	1	25	12	110	120	16	140	ND	160	-
	Jul-97	1	25	7.8	44	71	7.7	76	6.2	110	-
	Oct-97	1	25	14	47	82	5.8	74	-	100	-
	Jan-98	1	25	8.2	26	54	7.2	46	-	98	-
	Mar-98	1	25	6	16	53	8	49	-	100	-
	Jul-98	1	25	9.9	50	47	9.6	34	-	95	-
	Nov-98	1	25	4.9	59	56	7.9	17	ND	91	-
	Jan-99	1	25	2.9	68	45	11	17	33	82	-
	Apr-99	1	25	ND	76	44	8.3	70	1.1	86	-
	Jul-99	1	25	ND	88	38	5	22	ND	76	-
	Oct-99	1	25	ND	65	30	4.7	25	ND	74	-
	Apr-00	1	25	ND	49	24	1.5	30	ND	54	140
	Oct-00	1	25	3.4	15	14	1.9	4.3	N/A	30	94
	Apr-01	1	25	ND	21	16	3	26	ND	40	120
	Oct-01	1	25	3.4	15	14	4.5	4.3	N/A	30	94
	Apr-02	1	25	1.4	8.2	8.9	1.9	17	1.4	17	53
	Oct-02	1	25	N/A	7	8.7	13	4.6	N/A	20	35
	Apr-03	1	25	ND	4.7	9.1	10	6.6	ND	13	40
	Oct-03	1	25	N/A	3.7	5.1	13	3.2	3	15	22
	Apr-04	1	25	ND	3	3.8	9.3	3.8	ND	10	9.8
	Oct-04	1	25	7.7	2.8	2.4	ND	1.7	ND	17	13
	Apr-05	1	25	4.7	1.7		ND	1.1	ND		9.4
1,1-Dichloroethene	Apr-94	5	5	26	190	31	16	120	ND	29	-
	Jul-94	5	5	11	34	18	11	56	ND	ND	-
	Aug-94	5	5	14	49	26	11	84	ND	32	-
	Sep-94	5	5	10	47	26	13	100	ND	32	-
	Nov-94	5	5	9	41	24	11	90	ND	30	-
	Dec-94	5	5	8	35	23	10	88	ND	26	-
	Feb-95	5	5	ND	30	25	7	80	-	21	-
	Mar-95	5	5	-	21	21	ND	61	ND	21	-
	May-95	5	5	ND	20	29	7	62	ND	17	-
	Jul-95	5	5	ND	25	26	7	61	ND	17	-
	Sep-95	5	5	ND	22	-	ND	28	ND	10	-
	Feb-96	1	5	ND	20	21	4	14	ND	10	-
	Jul-96	1	5	-	17	23	4	16	ND	11	-
	Oct-96	1	5	-	9	26	2	18	ND	7	-
	Jan-97	1	5	-	17	20	22	20	ND	8	-
	Apr-97	1	5	ND	26	30	ND	28	ND	8	-
	Jul-97	1	5	ND	6.2	15	ND	13	ND	5	-
	Oct-97	1	5	ND	5.3	18	ND	16	-	4	-
	Jan-98	1	5	ND	3.5	6.4	ND	11	-	3.9	-
	Mar-98	1	5	ND	4	7	ND	12	-	4	-
	Jul-98	1	5	ND	7.9	11	ND	11	-	4	-
	Nov-98	1	5	ND	9.1	14	ND	12	ND	4.1	-

Table 3-3: Summary of Selected Organic Analytical Results for Extraction Wells
Second Five Year Review Report
Shallow Zone Groundwater Extraction and Treatment System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]

Reported Name	Sampling Date	Detection Limit	ARAR	Extraction Wells SEW-01	SEW-02	SEW-03	SEW-04	SEW-05	SEW-06	SEW-10	SEW-11(a)
1,1-Dichloroethene (Continued)	Jan-99	1	5	ND	15	9.9	ND	12	5	3.3	-
	Apr-99	1	5	ND	14	10	ND	19	ND	3.4	-
	Jul-99	1	5	ND	19	6.8	ND	11	ND	3.3	-
	Oct-99	1	5	ND	16	10	ND	19	ND	3.4	-
	Apr-00	1	5	ND	11	7.5	ND	20	ND	1.8	3.7
	Oct-00	1	5	ND	8.2	6.2	ND	12	ND	1.6	ND
	Apr-01	1	5	ND	4.1	5	ND	18	ND	ND	3.5
	Oct-01	1	5	ND	2.4	3.9	ND	8.4	NA	ND	2.7
	Apr-02	1	5	ND	1.6	4.2	ND	3.4	ND	ND	2.1
	Oct-02	1	5	N/A	1.3	2.4	ND	2.9	N/A	ND	ND
	Apr-03	1	5	ND	ND	3.3	ND	1.7	ND	ND	ND
	Oct-03	1	5	NA	ND	1.4	ND	1.7	ND	ND	ND
	Apr-04	1	5	ND	ND	1.6	ND	2.3	ND	ND	ND
	Oct-04	1	5	ND	ND	1.4	ND	1.4	ND	ND	ND
	Apr-05	1	5	ND	ND		ND	3.8	ND		ND
1,2-Dichloroethane	Apr-94	5	5	ND	ND	ND	ND	ND	ND	ND	-
	Jul-94	5	5	ND	ND	ND	66	6	ND	ND	-
	Aug-94	5	5	ND	ND	ND	ND	7	ND	ND	-
	Sep-94	5	5	ND	ND	ND	ND	7	ND	ND	-
	Nov-94	5	5	ND	ND	ND	ND	7	ND	ND	-
	Dec-94	5	5	ND	ND	ND	ND	7	ND	ND	-
	Feb-95	5	5	ND	ND	ND	ND	7	-	ND	-
	Mar-95	5	5	-	ND	ND	ND	6	ND	ND	-
	May-95	5	5	ND	ND	ND	ND	ND	ND	ND	-
	Jul-95	5	5	ND	ND	ND	ND	ND	ND	ND	-
	Sep-95	5	5	ND	ND	-	ND	ND	ND	ND	-
	Feb-96	1	5	ND	ND	ND	ND	ND	ND	ND	-
	Jul-96	1	5	-	2	2	ND	ND	ND	ND	-
	Oct-96	1	5	-	ND	2	ND	ND	ND	ND	-
	Jan-97	1	5	-	ND	ND	2	ND	ND	ND	-
	Apr-97	1	5	ND	2	2	ND	ND	ND	ND	-
	Jul-97	1	5	ND	ND	1.5	ND	ND	ND	ND	-
	Oct-97	1	5	ND	ND	1.7	ND	ND	-	ND	-
	Jan-98	1	5	ND	ND	1.3	ND	ND	-	ND	-
	Mar-98	1	5	ND	ND	ND	ND	ND	-	ND	-
	Jul-98	1	5	ND	ND	ND	ND	ND	-	ND	-
	Nov-98	1	5	ND	ND	1.1	ND	ND	ND	ND	-
	Jan-99	1	5	ND	ND	ND	ND	ND	ND	ND	-
	Apr-99	1	5	ND	ND	ND	ND	1.6	ND	ND	-
	Jul-99	1	5	ND	ND	ND	ND	1.1	ND	ND	-
	Oct-99	1	5	ND	ND	ND	ND	2	ND	ND	-
	Apr-00	1	5	ND	ND	ND	ND	1.8	ND	ND	ND
	Oct-00	1	5	ND	ND	ND	ND	1.6	ND	ND	ND
	Apr-01	1	5	ND	ND	ND	ND	2.2	ND	ND	ND
	Oct-01	1	5	ND	ND	ND	ND	1.2	ND	ND	ND
	Apr-02	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-02	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-03	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-03	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-04	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-04	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-05	1	5	ND	ND		ND	ND	ND		ND
Trichloroethene	Apr-94	5	5	6	28	ND	ND	ND	ND	17	-
	Jul-94	5	5	7	11	ND	ND	ND	ND	25	-
	Aug-94	5	5	6	11	ND	ND	ND	ND	31	-
	Sep-94	5	5	ND	8	ND	ND	ND	ND	35	-
	Nov-94	5	5	ND	7	ND	ND	ND	ND	40	-
	Dec-94	5	5	ND	ND	ND	ND	ND	ND	26	-

Table 3-3: Summary of Selected Organic Analytical Results for Extraction Wells
Second Five Year Review Report
Shallow Zone Groundwater Extraction and Treatment System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]

Reported Name	Sampling Date	Detection Limit	ARAR	Extraction Wells SEW-01	SEW-02	SEW-03	SEW-04	SEW-05	SEW-06	SEW-10	SEW-11(a)
Trichloroethene (Continued)	Feb-95	5	5	ND	ND	ND	ND	ND	-	21	-
	Mar-95	5	5	-	ND	ND	ND	ND	ND	24	-
	May-95	5	5	ND	ND	ND	ND	ND	ND	20	-
	Jul-95	5	5	ND	ND	ND	ND	ND	ND	19	-
	Sep-95	5	5	ND	ND	-	ND	ND	ND	9	-
	Feb-96	1	5	ND	3	ND	ND	ND	ND	7	-
	Jul-96	1	5	-	ND	ND	ND	2	ND	4	-
	Oct-96	1	5	-	ND	ND	ND	2	ND	2	-
	Jan-97	1	5	-	ND	ND	ND	ND	ND	2	-
	Apr-97	1	5	ND	ND	ND	ND	ND	ND	ND	-
	Jul-97	1	5	ND	ND	ND	ND	1.4	ND	ND	-
	Oct-97	1	5	ND	ND	ND	ND	1.2	-	ND	-
	Jan-98	1	5	ND	ND	ND	ND	ND	-	ND	-
	Mar-98	1	5	ND	ND	ND	ND	ND	-	ND	-
	Jul-98	1	5	ND	1	ND	ND	ND	-	1.2	-
	Nov-98	1	5	ND	1.3	7.2	ND	ND	ND	ND	-
	Jan-99	1	5	ND	1.3	ND	ND	1	ND	ND	-
	Apr-99	1	5	ND	1.2	ND	ND	1	ND	ND	-
	Jul-99	1	5	ND	ND	ND	ND	ND	ND	ND	-
	Oct-99	1	5	ND	1.2	ND	ND	ND	ND	ND	-
	Apr-00	1	5	ND	ND	ND	ND	1	ND	ND	ND
	Oct-00	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-01	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-01	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-02	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-02	1	5	N/A	ND	ND	ND	ND	N/A	ND	ND
	Apr-03	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-03	1	5	N/A	ND	ND	ND	ND	ND	ND	ND
	Apr-04	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-04	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-05	1	5	ND	ND		ND	ND	ND		ND

(a) Extraction Well SEW-11 was installed in January 2000 and became operational in February 2000, therefore, first sampling event was April 2000

Notes:
ND = Not Detected above the reporting limit.
N/A = Not Analyzed
ARAR = Applicable or Relevant and Appropriate Requirements
ARAR is based on the lowest existing standard for the constituent
Shaded cells indicate an exceedance of the ARAR
- (Dash) = Well was not sampled for ground water quality

Table 3-4: Summary of Organic Analytical Results for Monitoring Wells
Second Five Year Review Report
Shallow Zone Groundwater Remediation System
Formal Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]

Reported Name	Sampling Date	Detection Limit	ARAR	Monitoring Wells							
				P83-01S	P83-02S	P83-03S	P83-05S	P83-13S	P83-14S	P83-15S	S-01
1,1-Dichloroethane	Apr-94	5	25	ND	230	470	ND	ND	85	ND	ND
	Aug-94	5	25	90	150	370	-	-	72	-	-
	Nov-94	5	25	60	130	290	-	-	67	-	-
	Feb-95	5	25	56	130	250	-	-	66	-	-
	May-95	5	25	51	140	270	ND	ND	50	ND	ND
	Sep-95	5	25	32	160	280	-	-	59	-	-
	Feb-96	1	25	38	110	220	-	-	47	-	-
	Jul-96	1	25	46	65	ND	ND	ND	20	ND	ND
	Oct-96	1	25	44	140	240	ND	ND	37	ND	ND
	Apr-97	1	25	34	170	270	ND	ND	30	ND	ND
	Oct-97	1	25	11	110	190	ND	ND	16	ND	ND
	Mar-98	1	25	10	89	200	ND	ND	8	ND	2
	Nov-98	1	25	1.4	94	260	ND	ND	8.9	ND	1
	Apr-99	1	25	7.8	55	300	ND	ND	2.6	ND	ND
	Oct-99	1	25	7.8	74	260	ND	ND	1.8	ND	ND
	Apr-00	1	25	4.7	69	200	ND	ND	1.5	ND	ND
	Oct-00	1	25	1.7	20	110	-	-	-	-	-
	Apr-01	1	25	ND	30	140	ND	ND	-	ND	ND
	Oct-01	1	25	ND	20	110	-	-	-	-	-
	Apr-02	1	25	1.5	13	89	ND	ND	ND	ND	1.4
	Oct-02	1	25	ND	15	87	-	-	-	-	-
	Apr-03	1	25	ND	11	50	ND	ND	ND	ND	ND
	Oct-03	1	25	ND	9.1	50	-	-	-	-	-
	Apr-04	1	25	ND	6.9	24	ND	ND	-	ND	ND
	Oct-04	1	25	ND	5.4	24	-	-	-	-	-
	Apr-05	1	25	ND	2.6	16	ND	ND	-	ND	ND
1,1-Dichloroethene	Apr-94	5	5	ND	62	46	ND	ND	12	ND	ND
	Aug-94	5	5	14	40	33	-	-	8	-	-
	Nov-94	5	5	8	32	25	-	-	5	-	-
	Feb-95	5	5	8	31	16	-	-	ND	-	-
	May-95	5	5	7	40	18	ND	ND	ND	ND	ND
	Sep-95	5	5	ND	36	6	-	-	ND	-	-
	Feb-96	1	5	6	28	7	-	-	2	-	-
	Jul-96	1	5	9	31	ND	ND	ND	ND	ND	ND
	Oct-96	1	5	7	30	7	ND	ND	1	ND	ND
	Apr-97	1	5	7	48	9	ND	ND	ND	ND	ND
	Oct-97	1	5	3	22	5.1	ND	ND	ND	ND	ND
	Mar-98	1	5	3	19	7	ND	ND	ND	ND	ND
	Nov-98	1	5	1	24	11	ND	ND	ND	ND	ND
	Apr-99	1	5	3.1	13	8.8	ND	ND	ND	ND	ND
	Oct-99	1	5	5.9	23	8.6	ND	ND	ND	ND	1.3
	Apr-00	1	5	6.4	21	6.1	ND	ND	ND	ND	ND
	Oct-00	1	5	5.9	17	4.7	-	-	-	-	-
	Apr-01	1	5	3.4	9.3	4.2	ND	ND	-	ND	ND
	Oct-01	1	5	4.3	7.3	2.8	-	-	-	-	-
	Apr-02	1	5	4.6	4.9	3.9	ND	ND	ND	ND	ND
	Oct-02	1	5	5.3	4.4	3.4	-	-	-	-	-
	Apr-03	1	5	2.9	3.3	1.5	ND	ND	ND	ND	ND
	Oct-03	1	5	2.4	2.8	1.8	-	-	-	-	-
	Apr-04	1	5	1.5	2.1	ND	ND	ND	-	ND	ND
	Oct-04	1	5	2.4	1.7	ND	-	-	-	-	-
	Apr-05	1	5	1.6	1	ND	ND	ND	-	ND	ND

Table 3-4: Summary of Organic Analytical Results for Monitoring Wells
Second Five Year Review Report
Shallow Zone Groundwater Remediation System
Formal Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]

Reported	Sampling	Detection		Monitoring Wells							
Name	Date	Limit	ARAR	P83-01S	P83-02S	P83-03S	P83-05S	P83-13S	P83-14S	P83-15S	S-01
1,2-Dichloroethane	Apr-94	5	5	ND	ND	ND	ND	ND	ND	ND	ND
	Aug-94	5	5	ND	ND	ND	-	-	ND	-	-
	Nov-94	5	5	ND	ND	ND	-	-	ND	-	-
	Feb-95	5	5	ND	ND	ND	-	-	ND	-	-
	May-95	5	5	ND	ND	ND	ND	ND	ND	ND	ND
	Sep-95	5	5	ND	ND	ND	-	-	ND	-	-
	Feb-96	1	5	ND	ND	1	-	-	ND	-	-
	Jul-96	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-96	1	5	ND	1	ND	ND	ND	ND	ND	ND
	Apr-97	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-97	1	5	ND	ND	1.3	ND	ND	ND	ND	ND
	Mar-98	1	5	ND	ND	2	ND	ND	ND	ND	ND
	Nov-98	1	5	ND	ND	1.8	ND	ND	ND	ND	ND
	Apr-99	1	5	ND	ND	1.8	ND	ND	ND	ND	ND
	Oct-99	1	5	ND	ND	1.9	ND	ND	ND	ND	ND
	Apr-00	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-00	1	5	ND	ND	1.3	-	-	-	-	-
	Apr-01	1	5	ND	ND	ND	ND	ND	-	ND	ND
	Oct-01	1	5	ND	ND	ND	-	-	-	-	-
	Apr-02	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-02	1	5	ND	ND	ND	-	-	-	-	-
	Apr-03	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-03	1	5	ND	ND	ND	-	-	-	-	-
	Apr-04	1	5	ND	ND	ND	ND	ND	-	ND	ND
	Oct-04	1	5	ND	ND	ND	-	-	-	-	-
	Apr-05	1	5	ND	ND	ND	ND	ND	-	ND	ND
Tetrachloroethene	Apr-94	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Aug-94	5	5	ND	ND	ND	-	-	ND	-	-
	Nov-94	5	5	ND	ND	ND	-	-	ND	-	-
	Feb-95	5	5	ND	ND	ND	-	-	ND	-	-
	May-95	5	5	ND	ND	ND	ND	ND	ND	ND	ND
	Sep-95	5	5	ND	ND	ND	-	-	ND	-	-
	Feb-96	1	5	ND	ND	ND	-	-	ND	-	-
	Jul-96	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-96	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-97	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-97	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Mar-98	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Nov-98	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-99	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-99	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-00	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-00	1	5	ND	ND	ND	-	-	-	-	-
	Apr-01	1	5	ND	ND	ND	ND	ND	-	ND	ND
	Oct-01	1	5	ND	ND	ND	-	-	-	-	-
	Apr-02	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-02	1	5	ND	ND	ND	-	-	-	-	-
	Apr-03	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-03	1	5	ND	ND	ND	-	-	-	-	-
	Apr-04	1	5	ND	ND	ND	ND	ND	-	ND	ND
	Oct-04	1	5	ND	ND	ND	-	-	-	-	-
	Apr-05	1	5	ND	ND	ND	ND	ND	-	ND	ND

Table 3-4: Summary of Organic Analytical Results for Monitoring Wells
Second Five Year Review Report
Shallow Zone Groundwater Remediation System
Formal Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]

Reported	Sampling	Detection		Monitoring Wells							
Name	Date	Limit	ARAR	P83-01S	P83-02S	P83-03S	P83-05S	P83-13S	P83-14S	P83-15S	S-01
Trichloroethene	Apr-94	5	5	ND	ND	7	ND	ND	ND	ND	ND
	Aug-94	5	5	ND	ND	5	-	-	ND	-	-
	Nov-94	5	5	ND	ND	ND	-	-	ND	-	-
	Feb-95	5	5	ND	ND	ND	-	-	ND	-	-
	May-95	5	5	ND	ND	ND	ND	ND	ND	ND	ND
	Sep-95	5	5	ND	ND	ND	-	-	ND	-	-
	Feb-96	1	5	1	2	2	-	-	ND	-	-
	Jul-96	1	5	1	1	ND	ND	ND	ND	ND	ND
	Oct-96	1	5	1	2	2	ND	ND	ND	ND	ND
	Apr-97	1	5	ND	ND	2	ND	ND	ND	ND	ND
	Oct-97	1	5	ND	ND	1.4	ND	ND	ND	ND	ND
	Mar-98	1	5	ND	2	2	ND	ND	ND	ND	ND
	Nov-98	1	5	ND	2.2	2.3	ND	ND	ND	ND	ND
	Apr-99	1	5	ND	1	1.9	ND	ND	ND	ND	ND
	Oct-99	1	5	ND	1.4	1.8	ND	ND	ND	ND	ND
	Apr-00	1	5	ND	ND	1.2	ND	ND	ND	ND	ND
	Oct-00	1	5	ND	ND	ND	-	-	-	-	-
	Apr-01	1	5	ND	ND	ND	ND	ND	-	ND	ND
	Oct-01	1	5	ND	ND	ND	-	-	-	-	-
	Apr-02	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-02	1	5	ND	ND	ND	-	-	-	-	-
	Apr-03	1	5	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-03	1	5	ND	ND	ND	-	-	-	-	-
	Apr-04	1	5	ND	ND	ND	ND	ND	-	ND	ND
	Oct-04	1	5	ND	ND	ND	-	-	-	-	-
	Apr-05	1	5	ND	ND	ND	ND	ND	-	ND	ND
Vinyl chloride	Apr-94	10	1	ND	ND	ND	ND	ND	ND	ND	ND
	Aug-94	10	1	ND	ND	ND	-	-	ND	-	-
	Nov-94	10	1	ND	ND	ND	-	-	ND	-	-
	Feb-95	10	1	ND	ND	ND	-	-	ND	-	-
	May-95	10	1	ND	ND	ND	ND	ND	ND	ND	ND
	Sep-95	10	1	ND	ND	ND	-	-	ND	-	-
	Feb-96	1	1	ND	ND	ND	-	-	ND	-	-
	Jul-96	1	1	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-96	1	1	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-97	1	1	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-97	1	1	ND	ND	ND	ND	ND	ND	ND	ND
	Mar-98	1	1	ND	ND	ND	ND	ND	ND	ND	ND
	Nov-98	1	1	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-99	1	1	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-99	1	1	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-00	1	1	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-00	1	1	ND	ND	ND	-	-	-	-	-
	Apr-01	1	1	ND	ND	ND	ND	ND	-	ND	ND
	Oct-01	1	1	ND	ND	4.5	-	-	-	-	-
	Apr-02	1	1	ND	ND	1.4	ND	ND	ND	ND	ND
	Oct-02	1	1	ND	ND	2.1	-	-	-	-	-
	Apr-03	1	1	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-03	1	1	ND	ND	ND	-	-	-	-	-
	Apr-04	1	1	ND	ND	ND	ND	ND	-	ND	ND
	Oct-04	1	1	ND	ND	ND	-	-	-	-	-
	Apr-05	1	1	ND	ND	ND	ND	ND	-	ND	ND

Table 3-4: Summary of Organic Analytical Results for Monitoring Wells
Second Five Year Review Report
Shallow Zone Groundwater Remediation System
Formal Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]

Reported Name	Sampling Date	Detection Limit	ARAR	Monitoring Wells								
				SMW-09	SMW-10	SMW-11	SMW-12	SMW-13	SMW-14	SW-06	SW-07	SW-08
1,1-Dichloroethane	Apr-94	5	25	470	1100	145	14	ND	96			-
	Aug-94	5	25	310	360	140	11	ND	-			920
	Nov-94	5	25	-	480	100	7	ND	-			470
	Feb-95	5	25	73	600	90	-	ND	-			360
	May-95	5	25	-	790	73	ND	ND	ND			360
	Sep-95	5	25	150	590	88	-	ND	-			340
	Feb-96	1	25	72	380	67	-	ND	-			290
	Jul-96	1	25	30	130	40	ND	ND	ND			160
	Oct-96	1	25	51	360	39	4	ND	ND			270
	Apr-97	1	25	46	200	110	3	ND	ND			280
	Oct-97	1	25	16	69	41	2.6	ND	ND			220
	Mar-98	1	25	17	59	52	ND	ND	ND			240
	Nov-98	1	25	28	8.9	41	1.2	ND	ND	1.1	30	190
	Apr-99	1	25	26	5.5	32	1.7	ND	ND	ND	20	120
	Oct-99	1	25	21	22	19	1.4	ND	1.2	-	15	140
	Apr-00	1	25	15	5.6	16	1.1	ND	3.3	-	-	120
	Oct-00	1	25	21	16	8.2	1	-	-	-	-	120
	Apr-01	1	25	-	6.8	-	1	ND	-	-	-	120
	Oct-01	1	25	-	16	8.2	ND	-	-	-	-	120
	Apr-02	1	25	-	30	8.4	1.7	-	-	-	-	140
	Oct-02	1	25	-	-	12	1.2	-	-	-	-	150
	Apr-03	1	25	-	2.9	7.9	ND	-	-	-	-	150
	Oct-03	1	25	-	-	9.2	ND	-	-	-	-	100
	Apr-04	1	25	-	ND	7.2	ND	ND	ND	-	-	85
	Oct-04	1	25	-	1.8	7	ND	-	-	-	-	61
	Apr-05	1	25	-	2.5	3.9	7.2	ND	-	-	-	100
1,1-Dichloroethene	Apr-94	5	5	24	116	9	ND	ND	13			-
	Aug-94	5	5	24	56	8	ND	ND	-			99
	Nov-94	5	5	-	75	5	ND	ND	-			64
	Feb-95	5	5	ND	77	6	-	ND	-			49
	May-95	5	5	-	130	ND	ND	ND	ND			42
	Sep-95	5	5	9	71	ND	-	ND	-			37
	Feb-96	1	5	4	38	3	-	ND	-			30
	Jul-96	1	5	2	19	3	ND	ND	ND			23
	Oct-96	1	5	2	37	ND	ND	ND	ND			25
	Apr-97	1	5	ND	24	6	ND	ND	ND			20
	Oct-97	1	5	ND	9.2	ND	ND	ND	ND			13
	Mar-98	1	5	ND	10	ND	2	ND	ND			15
	Nov-98	1	5	1.1	3.5	ND	ND	ND	ND	ND	3.1	12
	Apr-99	1	5	1.8	1.4	ND	ND	ND	ND	ND	2.9	6.8
	Oct-99	1	5	1.8	5.4	ND	ND	ND	ND	-	2.7	10
	Apr-00	1	5	1	2.2	ND	ND	ND	ND	-	-	8.9
	Oct-00	1	5	ND	ND	ND	ND	-	-	-	-	7.3
	Apr-01	1	5	-	18	-	ND	ND	-	-	-	4.9
	Oct-01	1	5	-	ND	ND	ND	-	-	-	-	3.3
	Apr-02	1	5	-	4.3	ND	ND	-	-	-	-	5.4
	Oct-02	1	5	-	-	ND	ND	-	-	-	-	4.4
	Apr-03	1	5	-	ND	ND	ND	-	-	-	-	4.3
	Oct-03	1	5	-	-	ND	ND	-	-	-	-	2.2
	Apr-04	1	5	-	ND	ND	ND	ND	-	-	-	1.6
	Oct-04	1	5	-	ND	ND	ND	-	-	-	-	1
	Apr-05	1	5	-	5.2	ND	ND	ND	-	-	-	1.6

Table 3-4: Summary of Organic Analytical Results for Monitoring Wells
Second Five Year Review Report
Shallow Zone Groundwater Remediation System
Formal Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]

Reported Name	Sampling Date	Detection Limit	ARAR	Monitoring Wells								
				SMW-09	SMW-10	SMW-11	SMW-12	SMW-13	SMW-14	SW-06	SW-07	SW-08
1,2-Dichloroethane	Nov-94	5	5	-	6	ND	ND	ND	-			ND
	Feb-95	5	5	ND	7	ND	-	ND	-			ND
	May-95	5	5	-	9	ND	ND	ND	ND			ND
	Sep-95	5	5	ND	9	ND	-	ND	-			ND
	Feb-96	1	5	2	5	ND	-	ND	-			ND
	Jul-96	1	5	ND	2	ND	ND	ND	ND			ND
	Oct-96	1	5	1	5	ND	ND	ND	ND			ND
	Apr-97	1	5	ND	ND	ND	ND	ND	ND			ND
	Oct-97	1	5	ND	1.4	ND	ND	ND	ND			ND
	Mar-98	1	5	ND	ND	ND	ND	ND	ND			ND
	Nov-98	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Apr-99	1	5	ND	ND	ND	ND	ND	ND	-	ND	ND
	Oct-99	1	5	ND	ND	ND	ND	ND	ND	-	ND	ND
	Apr-00	1	5	ND	ND	ND	ND	ND	ND	-	-	ND
	Oct-00	1	5	ND	ND	ND	ND	-	-	-	-	ND
	Apr-01	1	5	-	3.4	-	ND	ND	-	-	-	ND
	Oct-01	1	5	-	ND	ND	ND	-	-	-	-	ND
	Apr-02	1	5	-	1.9	ND	ND	-	-	-	-	ND
	Oct-02	1	5	-	-	ND	ND	-	-	-	-	ND
	Apr-03	1	5	-	ND	ND	ND	-	-	-	-	ND
	Oct-03	1	5	-	-	ND	ND	-	-	-	-	ND
	Apr-04	1	5	-	ND	ND	ND	ND	-	-	-	ND
	Oct-04	1	5	-	ND	ND	ND	-	-	-	-	ND
	Apr-05	1	5	-	ND	ND	ND	ND	-	-	-	ND
Tetrachloroethene	Apr-94	1	5	ND	ND	ND	ND	ND	ND			-
	Aug-94	5	5	ND	ND	ND	14	ND	-			ND
	Nov-94	5	5	-	ND	6	30	ND	-			ND
	Feb-95	5	5	ND	ND	ND	-	ND	-			ND
	May-95	5	5	-	ND	ND	16	ND	ND			ND
	Sep-95	5	5	ND	ND	ND	-	ND	-			ND
	Feb-96	1	5	ND	ND	3	-	ND	-			ND
	Jul-96	1	5	ND	ND	2	16	ND	ND			ND
	Oct-96	1	5	ND	ND	ND	3	ND	ND			ND
	Apr-97	1	5	ND	ND	ND	9	ND	ND			ND
	Oct-97	1	5	ND	ND	ND	3.2	ND	ND			ND
	Mar-98	1	5	ND	ND	ND	2	ND	ND			ND
	Nov-98	1	5	ND	ND	ND	10	ND	ND	2.2	ND	ND
	Apr-99	1	5	ND	ND	ND	4.3	ND	ND	ND	ND	ND
	Oct-99	1	5	ND	ND	1.4	2.4	ND	ND	ND	ND	ND
	Apr-00	1	5	ND	ND	ND	ND	ND	ND	ND	-	ND
	Oct-00	1	5	ND	ND	ND	4.4	ND	ND	ND	ND	ND
	Apr-01	1	5	-	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-01	1	5	-	ND	ND	1.3	ND	ND	ND	ND	ND
	Apr-02	1	5	-	ND	ND	ND	-	-	-	-	ND
	Oct-02	1	5	-	-	ND	ND	-	-	-	-	ND
	Apr-03	1	5	-	ND	ND	ND	-	-	-	-	ND
	Oct-03	1	5	-	-	ND	ND	-	-	-	-	ND
	Apr-04	1	5	-	ND	ND	ND	ND	-	-	-	ND
	Oct-04	1	5	-	ND	ND	ND	-	-	-	-	ND
	Apr-05	1	5	-	ND	1.4	2	ND	-	-	-	ND

Table 3-4: Summary of Organic Analytical Results for Monitoring Wells
Second Five Year Review Report
Shallow Zone Groundwater Remediation System
Formal Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]

Reported	Sampling	Detection		Monitoring Wells								
Name	Date	Limit	ARAR	SMW-09	SMW-10	SMW-11	SMW-12	SMW-13	SMW-14	SW-06	SW-07	SW-08
Trichloroethene	Apr-94	5	5	ND	6	12	ND	ND	ND			-
	Aug-94	5	5	ND	ND	11	ND	ND	-			93
	Nov-94	5	5	-	ND	9	ND	ND	-			69
	Feb-95	5	5	ND	ND	8	-	ND	-			43
	May-95	5	5	-	ND	7	ND	ND	ND			32
	Sep-95	5	5	ND	ND	7	-	ND	-			24
	Feb-96	1	5	ND	2	5	-	ND	-			15
	Jul-96	1	5	ND	ND	3	2	ND	ND			11
	Oct-96	1	5	ND	2	ND	1	ND	ND			10
	Apr-97	1	5	ND	ND	2	2	ND	ND			ND
	Oct-97	1	5	ND	ND	ND	ND	ND	ND			5.5
	Mar-98	1	5	ND	ND	ND	ND	ND	ND			7
	Nov-98	1	5	ND	ND	ND	2.9	ND	ND	1	1.3	4.5
	Apr-99	1	5	ND	ND	ND	1	ND	ND	ND	ND	2.1
	Oct-99	1	5	ND	ND	ND	1.5	ND	ND	-	ND	2.1
	Apr-00	1	5	ND	ND	ND	ND	ND	ND	-	-	2.1
	Oct-00	1	5	ND	ND	ND	ND	ND	ND	-	-	1.7
	Apr-01	1	5	-	ND	ND	ND	-	-	-	-	1.4
	Oct-01	1	5	-	ND	-	ND	ND	-	-	-	ND
	Apr-02	1	5	-	ND	ND	ND	-	-	-	-	1.7
	Oct-02	1	5	-	-	ND	ND	-	-	-	-	2.1
	Apr-03	1	5	-	ND	1.8	ND	-	-	-	-	2.1
	Oct-03	1	5	-	-	ND	ND	-	-	-	-	1.3
	Apr-04	1	5	-	ND	ND	ND	ND	-	-	-	1.1
	Oct-04	1	5	-	ND	ND	ND	-	-	-	-	
	Apr-05	1	5	-	ND	ND	ND	ND	-	-	-	1.3
Vinyl chloride	Apr-94	10	1	ND	ND	ND	ND	ND	ND			-
	Aug-94	10	1	ND	ND	ND	ND	ND	-			16
	Nov-94	10	1	ND	ND	ND	ND	ND	-			ND
	Feb-95	10	1	ND	ND	ND	-	ND	-			ND
	May-95	10	1	ND	12	ND	ND	ND	ND			ND
	Sep-95	10	1	ND	10	ND	-	ND	-			ND
	Feb-96	1	1	ND	4	ND	-	ND	-			3
	Jul-96	1	1	ND	ND	ND	ND	ND	ND			ND
	Oct-96	1	1	ND	4	ND	ND	ND	ND			ND
	Apr-97	1	1	ND	ND	ND	ND	ND	ND			ND
	Oct-97	1	1	ND	ND	ND	ND	ND	ND			1.5
	Mar-98	1	1	ND	ND	ND	ND	ND	ND			2
	Nov-98	1	1	ND	ND	ND	ND	ND	ND	ND	ND	1.3
	Apr-99	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-99	1	1	ND	ND	ND	ND	ND	ND	-	ND	ND
	Apr-00	1	1	ND	ND	ND	ND	ND	ND	-	-	1.2
	Oct-00	1	1	ND	ND	ND	ND	-	-	-	-	ND
	Apr-01	1	1	-	ND	ND	ND	ND	-	-	-	ND
	Oct-01	1	1	-	-	ND	ND	-	-	-	-	3.6
	Apr-02	1	1	-	ND	ND	ND	-	-	-	-	2.9
	Oct-02	1	1	-	-	ND	ND	-	-	-	-	ND
	Apr-03	1	1	-	ND	ND	ND	-	-	-	-	ND
	Oct-03	1	1	-	-	ND	ND	-	-	-	-	ND
	Apr-04	1	1	-	ND	ND	ND	ND	-	-	-	ND
	Oct-04	1	1	-	ND	ND	ND	-	-	-	-	ND
	Apr-05	1	1	-	ND	ND	ND	ND	-	-	-	ND

Table 3-4: Summary of Organic Analytical Results for Monitoring Wells
Second Five Year Review Report
Shallow Zone Groundwater Remediation System
Formal Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]

Notes:
All units reported in Micrograms per Liter
ND = Not Detected above the reporting limit
ARAR = Applicable or Relevant and Appropriate Requirements
* = ARAR has not been established for this constituent
Shading indicates an exceedence in ARAR's.
- (Dash) = Well was dry or not sampled for ground water quality

Table 3-5: Summary of Monthly Process Flows
Second Five Year Review Report
Shallow Zone Groundwater Extracton and Treatment System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

	Extraction Well Monthly Volumes (Gallons)								Total
Date	SEW-1	SEW-2	SEW-3	SEW-4	SEW-5	SEW-6	SEW-10	SEW-11	Flow
May-94	706	487	371	1,692	258	553	0	0	4,067
Jun-94	5,828	3,022	5,075	8,727	3,561	5,905	3,025	0	35,143
Jul-94	7,542	2,621	7,083	10,033	5,581	9,737	5,972	0	48,569
Aug-94	5,559	1,487	7,399	6,118	3,650	4,376	5,104	0	33,693
Sep-94	4,083	981	6,539	5,096	2,529	3,271	5,302	0	27,801
Oct-94	2,750	749	6,590	4,334	3,417	1,194	4,605	0	23,639
Nov-94	8,498	552	7,056	5,778	4,501	5,026	7,100	0	38,511
Dec-94	8,681	297	5,037	4,090	2,953	3,385	4,112	0	28,555
Jan-95	8,551	221	5,373	5,371	3,856	1,846	6,258	0	31,476
Feb-95	3,974	280	3,719	3,492	2,187	1,633	5,237	0	20,522
Mar-95	2,074	614	3,246	2,974	2,813	742	5,795	0	18,258
Apr-95	1,688	276	594	361	226	865	2,184	0	6,194
May-95	2,057	242	375	1,663	1,223	1,719	4,420	0	11,699
Jun-95	2,246	157	1,466	1,510	1,540	3,515	4,729	0	15,163
Jul-95	1,453	117	608	525	2,060	3,965	2,342	0	11,070
Aug-95	2,607	245	507	151	5,376	5,502	307	0	14,695
Sep-95	836	185	153	28	4,101	4,918	1,166	0	11,387
Oct-95	270	350	4,023	936	4,921	7,093	3,370	0	20,963
Nov-95	821	209	3,992	1,223	1,893	5,455	2,397	0	15,990
Dec-95	474	261	334	2,544	3,097	4,382	2,638	0	13,729
Jan-96	705	484	76	4,635	88	5,654	3,347	0	14,990
Feb-96	1,589	310	351	4,333	146	4,221	2,563	0	13,511
Mar-96	195	162	331	1,991	123	1,645	2,165	0	6,612
Apr-96	106	162	731	2,282	552	1,060	2,135	0	7,027
May-96	71	163	258	280	127	611	2,572	0	4,081
Jun-96	21	94	365	1,026	25	1,085	1,203	0	3,820
Jul-96	4	18	61	211	46	0	843	0	1,183
Aug-96	1	3	254	606	0	0	966	0	1,829
Sep-96	6	4	428	376	0	0	722	0	1,534
Oct-96	3	8	262	65	0	0	1,815	0	2,153
Nov-96	1	9	253	129	113	0	635	0	1,140
Dec-96	0	0	248	295	867	0	1,196	0	2,606
Jan-97	0	5	60	210	996	0	806	0	2,077
Feb-97	0	8	34	275	1,313	0	1,089	0	2,719
Mar-97	0	0	57	375	1,602	0	992	0	3,026
Apr-97	0	3	129	275	1,371	0	959	0	2,737
May-97	0	7	206	238	1,218	0	953	0	2,622
Jun-97	0	74	200	232	1,100	0	1,070	0	2,676
Jul-97	0	0	365	17	53	56	813	0	1,304
Aug-97	21	37	527	194	563	0	1,300	0	2,642
Sep-97 (1)	0	0	0	0	0	0	0	0	0
Oct-97	366	182	16	169	848	0	857	0	2,438
Nov-97	1,018	92	10	131	699	0	665	0	2,615
Dec-97	877	89	70	134	652	0	542	0	2,364
Jan-98	451	105	223	121	673	0	547	0	2,120

Table 3-5: Summary of Monthly Process Flows
Second Five Year Review Report
Shallow Zone Groundwater Extracton and Treatment System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

	Extraction Well Monthly Volumes (Gallons)								Total
Date	SEW-1	SEW-2	SEW-3	SEW-4	SEW-5	SEW-6	SEW-10	SEW-11	Flow
Feb-98	522	73	86	76	330	0	211	0	1,298
Mar-98 (2)	0	0	0	0	0	0	0	0	0
Apr-98	773	617	473	162	378	0	230	0	2,633
May-98	3,342	2,307	2,028	673	1,474	0	1,334	0	11,158
Jun-98	4,883	2,994	3,692	1,049	387	0	2,896	0	15,901
Jul-98	1,843	921	1,830	76	1,353	0	1,405	0	7,428
Aug-98	1,412	506	2,290	14	1,176	0	1,164	0	6,562
Sep-98	2,100	1,546	4,024	448	1,545	0	1,774	0	11,437
Oct-98	315	199	551	86	176	0	18	0	1,345
Nov-98	1,192	889	644	497	549	274	1,180	0	5,225
Dec-98	2,193	1,551	436	1,292	1,001	113	1,925	0	8,511
Jan-99	17	762	203	572	595	0	1,085	0	3,234
Feb-99	2,630	1,750	10,062	1,580	2,052	49	2,913	0	21,036
Mar-99	4,139	1,656	3,493	1,310	2,503	937	2,353	0	16,391
Apr-99	497	246	152	133	306	461	350	0	2,145
May-99	480	329	84	157	628	606	471	0	2,755
Jun-99	1,453	702	69	395	474	1,334	1,440	0	5,867
Jul-99	465	317	0	166	10	354	959	0	2,271
Aug-99	1,124	806	1,257	258	0	452	1,160	0	5,057
Sep-99	779	1,193	528	216	0	104	851	0	3,671
Oct-99	966	488	4,288	174	40	359	823	0	7,138
Nov-99	1,289	540	3,685	514	0	3	1,293	0	7,324
Dec-99	1,940	552	2,875	1,079	1,253	5	1,891	0	9,595
Jan-00	1,370	236	2,330	467	963	279	932	0	6,577
Feb-00	12	238	2,128	512	985	381	1,089	24	5,369
Mar-00	2,180	244	1,820	400	754	141	843	323	6,705
Apr-00	532	71	608	91	184	27	344	18	1,875
May-00	999	94	500	102	300	74	621	61	2,751
Jun-00	1,734	108	1,263	112	853	0	1,431	23	5,524
Jul-00	1,031	48	270	77	321	29	978	0	2,754
Aug-00	877	19	423	59	470	423	952	0	3,223
Sep-00	517	0	193	14	271	510	550	0	2,055
Oct-00	100	4	64	31	48	53	219	1	520
Nov-00	751	149	3,717	58	390	668	775	31	6,539
Dec-00	1,176	496	1,699	26	983	0	818	103	5,301
Jan-01	1,178	254	788	172	1,059	148	706	152	4,457
Feb-01	1,154	344	6	36	1,074	531	616	162	3,923
Mar-01	1,342	270	703	71	1,151	1,664	651	185	6,037
Apr-01	1,003	205	323	110	600	809	504	154	3,708
May-01	1,477	218	349	24	523	852	173	204	3,820
Jun-01	1,225	161	409	39	275	484	34	192	2,819
Jul-01	404	191	392	1	9	150	87	99	1,333
Aug-01	253	145	349	0	102	24	59	37	969
Sep-01	266	110	333	0	48	3	34	11	805
Oct-01	164	178	439	62	6	1	36	50	936

Table 3-5: Summary of Monthly Process Flows
Second Five Year Review Report
Shallow Zone Groundwater Extracton and Treatment System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Date	Extraction Well Monthly Volumes (Gallons)								Total Flow
	SEW-1	SEW-2	SEW-3	SEW-4	SEW-5	SEW-6	SEW-10	SEW-11	
Nov-01	1,011	233	427	25	8	33	38	102	1,877
Dec-01	807	194	454	71	10	51	195	79	1,861
Jan-02	884	208	404	170	3	49	201	117	2,036
Feb-02	902	213	470	182	13	72	197	129	2,178
Mar-02	508	57	297	82	15	42	109	62	1,172
Apr-02	669	188	913	100	2	12	196	81	2,161
May-02	493	50	749	1	1	11	120	85	1,510
Jun-02	0	33	548	0	0	1	43	93	718
Jul-02	0	2	0	0	0	0	4	2	8
Aug-02	0	2	181	0	0	0	6	0	189
Sep-02	0	0	386	0	0	0	1	0	387
Oct-02	0	3	832	0	0	0	12	0	847
Nov-02	406	0	797	0	0	0	3	1	1,207
Dec-02	577	43	2,356	0	0	0	24	45	3,045
Jan-03	893	84	3,278	0	0	0	24	115	4,394
Feb-03	1,077	102	3,032	0	0	0	28	161	4,400
Mar-03	716	92	1,778	0	0	38	48	98	2,770
Apr-03	1,080	137	4,020	0	0	130	41	299	5,707
May-03	584	125	3,037	0	0	160	40	209	4,155
Jun-03	503	73	3,237	0	0	199	21	218	4,251
Jul-03	297	28	2,676	0	0	68	20	167	3,256
Aug-03	209	5	636	0	0	4	26	81	961
Sep-03	18	0	836	0	0	0	45	10	909
Oct-03	0	6	539	0	0	0	36	0	581
Nov-03	89	0	394	0	0	0	27	0	510
Dec-03	202	1	229	2	0	7	0	0	441
Jan-04	202	34	191	1	0	96	0	1	525
Feb-04	371	90	181	2	0	426	2	0	1,072
Mar-04	178	17	99	0	0	102	7	0	403
Apr-04	879	457	307	11	0	485	18	298	2,455
May-04	680	12	674	0	0	0	24	272	1,662
Jun-04	300	272	690	0	0	141	49	101	1,553
Jul-04	693	264	576	0	0	75	54	102	1,764
Aug-04	2,521	398	358	0	0	63	66	140	3,546
Sep-04	2,785	274	278	0	0	218	58	132	3,745
Oct-04	1,937	133	160	9	0	165	62	91	2,557
Nov-04	2,898	857	186	72	0	355	89	138	4,595
Dec-04	1,836	1,639	810	231	0	443	212	309	5,480
Jan-05	25	1,327	1,338	390	0	570	193	307	4,150
Feb-05	3,861	2,380	2,355	715	0	484	213	308	10,316
Mar-05	1,721	252	3,024	1,029	756	520	1,170	344	8,816
Apr-05	166	3,822	1,670	1,167	336	975	920	318	9,374
May-05	1,432	2,843	0	836	363	674	0	200	6,348
Jun-05	954	1,162	770	545	134	16	189	101	3,871
Total	**144,766**	**42,858**	**171,558**	**99,284**	**100,568**	**103,842**	**148,601**	**4,656**	**880,696**

Table 3-5: Summary of Monthly Process Flows
Second Five Year Review Report
Shallow Zone Groundwater Extracton and Treatment System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Date	Extraction Well Monthly Volumes (Gallons)								Total Flow
	SEW-1	SEW-2	SEW-3	SEW-4	SEW-5	SEW-6	SEW-10	SEW-11	

Note:
Process flow volumes were obtained by flow meter readings.
1. Shallow Zone shut down per instruction by G.E. (Pending extraction well permits)
2. Late freeze cracked SEW-2 check valve. Valve was replaced in Apr-98.
3. SEW-6 was shut down in July 1996 because groundwater was below ARARs for the 8 previous quarters.
4. SEW-6 was brought back online full time in February 1999 due to constituents above ARARs in 1st quarter 1999.
5. SEW-11 was constructed during the spring of 2000 and brought on-line in February 2000.

Table 3-6: Summary of Mass Removed
Second Five Year Review Report
Shallow Zone Groundwater Extracton and Treatment System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

	SEW-01		SEW-02		SEW-03		SEW-04		SEW-05		SEW-06		SEW-10		SEW-11		TOTALS	
Date	Total VOCs Conc. (µg/l)	Cumulative Mass Removed (grams)	Total VOCs Conc. (µg/l)	Cumulative Mass Removed (grams)	Total VOCs Conc. (µg/l)	Cumulative Mass Removed (grams)	Total VOCs Conc. (µg/l)	Cumulative Mass Removed (grams)	Total VOCs Conc. (µg/l)	Cumulative Mass Removed (grams)	Total VOCs Conc. (µg/l)	Cumulative Mass Removed (grams)	Total VOCs Conc. (µg/l)	Cumulative Mass Removed (grams)	Total VOCs Conc. (µg/l)	Cumulative Mass Removed (grams)	Total VOCs Conc. (µg/l)	Cumulative Mass Removed (grams)
Apr-94	189	0	281	0	170	0	99	0	687	0	19	0	406	0	0	0	1851	0
Jul-94	144	8.9	305	6.8	128	7.1	91	7.4	672	24.2	41	1.8	470	14.9	0	0	1851	71.0
Aug-94	146	11.9	320	8.6	110	10.4	77	9.3	867	34.8	13	2.3	463	23.9	0	0	1996	101.2
Sep-94	125	14.0	265	9.6	116	13.2	92	10.9	836	43.0	31	2.6	417	32.8	0	0	1882	126.1
Nov-94	107	19.0	208	10.8	109	19.0	84	14.3	624	64.8	13	3.1	340	49.5	0	0	1485	180.5
Dec-94	84	22.1	245	11.1	117	21.2	87	15.6	624	71.8	20	3.3	332	54.8	0	0	1509	199.8
Feb-95	54	25.4	245	11.5	113	25.1	65	18.2	625	86.1	-	-	302	68.6	0	0	1404	238.1
Mar-95	37	25.7	161	12.0	94	26.4	51	18.8	515	92.2	0	3.3	295	75.1	0	0	1153	253.5
May-95	60	26.4	160	12.3	129	26.8	58	19.2	450	94.8	0	3.3	227	81.6	0	0	1084	264.5
Jul-95	58	27.2	215	12.5	123	27.8	51	19.7	386	100.5	0	3.3	216	87.6	0	0	1049	278.6
Sep-95	42	27.9	162	12.8	-	-	14	19.7	303	112.9	0	3.3	209	88.7	0	0	730	293.1
Feb-96	28	28.4	154	13.8	93	31.4	41	21.1	95	120.5	0	3.3	179	99.3	0	0	590	317.8
Apr-96	21	28.4	139.6	14.0	126.2	31.8	34.1	21.7	174.6	120.9	3.5	3.3	171.5	102.1	0	0	671	322.2
Jul-96	-	-	105	14.1	122	32.1	50	22.0	100	121.0	7	3.4	196	105.3	0	0	580	326.3
Oct-96	-	-	53	14.1	119	32.6	29	22.1	163	121.0	1	3.4	140	107.5	0	0	505	329.1
Jan-97	-	-	184	14.1	111	32.8	116	22.3	190	122.3	0	3.4	182	109.2	0	0	783	332.4
Apr-97	12	28.4	138	14.1	152	32.9	17	22.5	168	125.2	1	3.4	168	111.2	0	0	656	337.7
Jul-97	7.8	28.4	50.2	14.1	87.5	33.3	7.7	22.5	106.4	126.4	6.2	3.4	116	112.7	0	0	381.8	340.9
Oct-97	21.8	28.4	52.3	14.2	101.7	33.5	8.4	22.6	134	127.1	0	3.4	104	113.6	0	0	422.2	342.7
Jan-98	11.1	28.6	36.8	14.2	61.9	33.6	9	22.6	111	128.0	0	3.4	109.7	114.3	0	0	339.5	344.6
Apr-98	10	28.6	23	14.3	60	33.7	8	22.6	87	128.3	0	3.4	104	114.5	0	0	292	345.3
Jul-98	12.7	29.1	60.8	15.3	60	35.4	11.9	22.6	83	129.3	0	3.4	100.2	116.7	0	0	328.6	351.7
Oct-98	6.6	29.2	69.4	15.8	78.3	37.2	10.1	22.7	111.1	130.4	2.4	3.4	96.2	117.8	0	0	374.1	356.4
Jan-99	4.3	29.3	85.4	16.8	54.9	37.5	13	22.8	100	131.2	44.1	3.4	86.4	119.2	0	0	388.1	360.2
Apr-99	0	29.3	92.4	18.0	54	40.4	8.3	22.9	93.8	133.0	3.7	3.5	90.4	121.1	0	0	342.6	368.2
Jul-99	0	29.3	109.8	18.9	44.8	40.7	5	22.9	78	133.0	1.9	3.5	80.3	122.0	0	0	319.8	370.4
Oct-99	0	29.3	84.1	20.3	41.8	41.7	6.2	22.9	133.2	133.5	1.5	3.6	78.6	123.8	0	0	345.4	375.1
Apr-00	0	29.3	62	20.8	31.5	43.6	1.5	23.0	174.7	135.9	0	3.6	55.8	125.4	143.7	0.1	325.5	381.7
Oct-00	0	29.3	41.3	20.9	25.6	43.9	1.8	23.0	115.6	137.1	0	3.6	59.6	126.4	64	0.1	243.9	384.3
Apr-01	0	29.3	27.7	21.1	21	44.5	3	23.0	137.7	139.6	0	3.6	40	127.2	124.5	0.4	229.4	388.8
Oct-01	3.4	29.4	19.8	21.2	17.9	44.7	4.5	23.0	54.8	140.0	0	3.6	30	127.2	100.6	0.7	130.4	389.7
Apr-02	1.4	29.4	11.4	21.3	11.2	44.8	1.9	23.0	37.3	140.0	1.4	3.6	17	127.3	57.5	0.8	81.6	390.2
Oct-02	0	29.4	10	21.3	12.4	45.0	13	23.0	47.5	140.0	0	3.6	20	127.3	35	0.9	102.9	390.4
Apr-03	0	29.4	6	21.3	11.1	45.6	10	23.0	8.3	140.0	0	3.6	13	127.4	42.3	1.0	48.4	391.2
Oct-03	0	29.4	4.8	21.3	6.5	46.0	13	23.0	12.9	140.0	3	3.6	15	127.4	22	1.1	55.2	391.7
Apr-04	0	29.4	4.2	21.3	5.4	46.0	9.3	23.0	10.7	140.0	0	3.6	10	127.4	9.8	1.1	39.6	391.7
Oct-04	7.7	29.5	2.8	21.3	5.5	46.1	0	23.0	39.1	140.0	0	3.6	18.5	127.4	13	1.1	73.6	392.0
Apr-05	4.7	29.8	1.7	21.4	1.7	46.2	0	23.0	40.9	140.2	0	3.6	2.6	127.5	9.4	1.2	51.6	392.8

Notes:
µg/l=micrograms per liter
VOCs=volatile organic compounds
1. Total VOCs concentrations are computed as the sum of detectable VOCs for the sampling event. These values are used to evaluate the efficiency of the treatment system.
2. Cumulative mass extracted computations are derived from total VOCs concentrations and process flow volumes.
3. A dash indicates the extraction well was dry or could not be sampled.
Conc.=concentration
%-percent

Table 3-7: Summary of Organic Analytical Results for Semi-Annual Groundwater Quality Sampling Event
Second Five Year Review Report
Shallow Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/L)]

Reported Name	Sample Location / Sample Date / Sample ID	P83-01S 4/22/05 0504221100	P83-01S 5/12/05 0505121445	P83-02S 4/22/05 0504221520	P83-02S 5/12/05 0505121200	P83-03S 4/22/05 0504221540	P83-03S 5/12/05 0505121225	P83-05S 4/22/05 0504221420	P83-05S 5/12/05 0505121045	Primary Laboratory Reporting Limit		ARAR
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	60
1,1,2,2-Tetrachloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	10
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
1,1-Dichloroethane		ND	ND	3	2.6	18	16	ND	ND	1	NA	25
1,1-Dichloroethene		1.6	1.6	1.1	1	ND	ND	ND	ND	1	NA	5
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
2-Chloroethyl vinyl ether		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
2-Hexanone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
4-Methyl-2-Pentanone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Acetone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Benzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Bromoform		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	2	NA	*
Carbon Disulfide		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Carbon tetrachloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Chlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Chloroethane		6.6	6.5	ND	ND	ND	ND	ND	ND	2	NA	*
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	2300000
cis-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Dibromochloromethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Dichlorobromomethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Ethyl benzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	700
Ethylene Dibromide (EDB)		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	0.05
Methyl ethyl ketone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Methyl tertiary butyl ether		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	100
Methylene chloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Toluene		14	ND	4.4	ND	9.3	ND	15	ND	1	NA	750
trans-1,2-Dichloroethene		ND	2.5	1.7	1.5	ND	ND	ND	ND	1	NA	100
trans-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Trichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Trichlorofluoromethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Vinyl chloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	1
Xylenes		ND	ND	ND	ND	ND	ND	ND	ND	2	NA	620

Table 3-7: Summary of Organic Analytical Results for Semi-Annual Groundwater Quality Sampling Event
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Shallow Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/L)]

Reported Name	Sample Location / Sample Date / Sample ID	P83-13S 4/22/05 0504221505	P83-13S 5/12/05 0505121135	P83-15S 4/22/05 0504221435	P83-15S 5/12/05 0505121110	SMW-10 4/22/05 0504221150	SMW-10 5/12/05 0505121535	SMW-11 4/22/05 0504221150	SMW-11 4/22/05 0505121520	Primary Laboratory Reporting Limit		ARAR
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	60
1,1,2,2-Tetrachloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	10
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
1,1-Dichloroethane		ND	ND	ND	ND	2.4	2.5	2.7	3.9	1	NA	25
1,1-Dichloroethene		ND	ND	ND	ND	4.9	5.2	ND	ND	1	NA	5
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
2-Chloroethyl vinyl ether		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
2-Hexanone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
4-Methyl-2-Pentanone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Acetone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Benzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Bromoform		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	2	NA	*
Carbon Disulfide		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Carbon tetrachloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Chlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Chloroethane		ND	ND	ND	ND	28	ND	ND	ND	2	NA	*
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Chloromethane		ND	ND	ND	ND	ND	32	ND	ND	1	NA	2300000
cis-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Dibromochloromethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Dichlorobromomethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Ethyl benzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	700
Ethylene Dibromide (EDB)		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	0.05
Methyl ethyl ketone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Methyl tertiary butyl ether		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	100
Methylene chloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	1.4	1	NA	5
Toluene		6.9	ND	6.7	ND	28	ND	72	ND	1	NA	750
trans-1,2-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	100
trans-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Trichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Trichlorofluoromethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Vinyl chloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	1
Xylenes		ND	ND	ND	ND	ND	ND	ND	ND	2	NA	620

Table 3-7: Summary of Organic Analytical Results for Semi-Annual Groundwater Quality Sampling Event
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Shallow Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/L)]

Reported Name	Sample Location / Sample Date / Sample ID	SMW-12 4/22/05 0504221130	SMW-12 5/12/05 0505121505	SMW-13 4/22/05 0504221040	SMW-13 5/12/05 0505121430	SW-08 4/22/05 0504221020	SW-08 5/12/05 0505121620	S-01 4/22/05 0504221230	S-01 5/12/05 0505121555	Primary Laboratory Reporting Limit		ARAR
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	60
1,1,2,2-Tetrachloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	10
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
1,1-Dichloroethane		ND	7.2	ND	ND	**100**	**100**	ND	ND	1	NA	25
1,1-Dichloroethene		ND	ND	ND	ND	1.7	1.6	ND	ND	1	NA	5
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
2-Chloroethyl vinyl ether		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
2-Hexanone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
4-Methyl-2-Pentanone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Acetone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Benzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Bromoform		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	2	NA	*
Carbon Disulfide		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Carbon tetrachloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Chlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Chloroethane		ND	ND	ND	ND	1.8	2	ND	ND	2	NA	*
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	2300000
cis-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Dibromochloromethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Dichlorobromomethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Ethyl benzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	700
Ethylene Dibromide (EDB)		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	0.05
Methyl ethyl ketone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Methyl tertiary butyl ether		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	100
Methylene chloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Tetrachloroethene		1.2	2	ND	ND	ND	ND	ND	ND	1	NA	5
Toluene		52	ND	52	ND	12	2	8.6	ND	1	NA	750
trans-1,2-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	100
trans-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Trichloroethene		ND	ND	ND	ND	1.2	1.3	ND	ND	1	NA	5
Trichlorofluoromethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Vinyl chloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	1
Xylenes		ND	ND	ND	ND	ND	ND	ND	ND	2	NA	620

Table 3-7: Summary of Organic Analytical Results for Semi-Annual Groundwater Quality Sampling Event
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Shallow Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/L)]

Reported Name	Sample Location / Sample Date / Sample ID	SEW-01 4/21/05 0504211145	SEW-02 4/21/05 0504211135	SEW-03 5/17/05 0505171515	SEW-04 4/21/05 0504211105	SEW-05 4/21/05 0504211115	SEW-06 4/21/05 0504211055	SEW-10 5/17/05 0505141455	SEW-11 4/21/05 0504211150	Primary Laboratory Reporting Limit		ARAR
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	60
1,1,2,2-Tetrachloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	10
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
1,1-Dichloroethane		4.7	1.7	1.7	ND	1.1	ND	2.6	9.4	1	NA	25
1,1-Dichloroethene		ND	ND	ND	ND	3.8	ND	ND	ND	1	NA	5
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
2-Chloroethyl vinyl ether		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
2-Hexanone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
4-Methyl-2-Pentanone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Acetone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Benzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Bromoform		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	2	NA	*
Carbon Disulfide		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Carbon tetrachloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Chlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Chloroethane		ND	ND	ND	ND	36	ND	ND	ND	2	NA	*
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	2300000
cis-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Dibromochloromethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Dichlorobromomethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	80
Ethyl benzene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	700
Ethylene Dibromide (EDB)		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	0.05
Methyl ethyl ketone		ND	ND	ND	ND	ND	ND	ND	ND	10	NA	*
Methyl tertiary butyl ether		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	100
Methylene chloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Toluene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	750
trans-1,2-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	100
trans-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Trichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	5
Trichlorofluoromethane		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	*
Vinyl chloride		ND	ND	ND	ND	ND	ND	ND	ND	1	NA	1
Xylenes		ND	ND	ND	ND	ND	ND	ND	ND	2	NA	620

Table 3-7: Summary of Organic Analytical Results for Semi-Annual Groundwater Quality Sampling Event
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Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/L)]

Notes:
The following wells scheduled for groundwater quality sampling were not sampled because they were dry; SW-06, SW-07, P83-14S, SMW-09, SMW-14.
ND = Not Detected above the reporting limit.
ARAR = Applicable or Relevant and Appropriate Requirements
* = ARAR has not been established for this constituent
Bold printing indicates an exceedance of the ARAR

Table 4-1: Summary of the Sampling Events
Second Five Year Review Report
Deep Zone and San Jose-6 Operable Units
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Semi-annual Groundwater Quality Monitoring		Quarterly Groundwater Level Monitoring			Monthly Treatment System Compliance Sampling
Extraction and Monitoring Wells		Extraction, Injection and Monitoring Wells			Sample Port SP-425
D-01*	P83-25P	D-01	IW-631	P83-22 cluster	Compliance samples to be obtained monthly
D-02	P83-25S	D-02	IW-632	P83-23 cluster	
DMW-02	P83-26D	D-03	IW-633	P83-24 cluster	
EW-001	P83-26M	DMW-01	IW-634	P83-25 cluster	
EW-002	P83-26S	DMW-02	IW-635	P83-26 cluster	
EW-003	P83-27D	DMW-03	IW-636	P83-27 cluster	
EW-004	P83-27M	EW-001	IW-637	P83-28 cluster	
HL-02	P83-27S	EW-002	IW-638	P83-29 cluster	
P83-07D	P83-28P	EW-003	IW-639	P83-30D-2	
P83-08D*	P83-28S	EW-004	IW-640	P83-31 cluster	
P83-09D	P83-29S	HL-02	IW-641	SJ6-01D	
P83-10D*	P83-30D-2	HL-05	IW-642	SJ6-02D*	
P83-19D-2	P83-31S	I-03	P83-07D	SJ6-07D*	
P83-19LR	P83-31M	I-04	P83-08D	SJ6-08D*	
P83-19M	P83-31D-2	I-05	P83-09D	SJ6-10D*	
P83-19U	SJ6-01D*	I-06	P83-10D	WB-01 (1-6)	
P83-21P	SJ6-02D*	I-07	P83-11D	WB-02 (1-8)	
P83-21S	SJ6-07D*	IMW-06	P83-19 cluster	WB-04 (1-7)	
P83-22D-2	SJ6-08D*		P83-21 cluster	WB-05 (1-9)	
P83-22D	SJ6-10D*			WB-06 (1-8)	
P83-22M	WB-01 (1-6)			WB-07 (1-5)	
P83-22S	WB-02 (1-5)				
P83-23D	WB-04 (1-6, 10-12)				
P83-23M	WB-05 (1-6)				
P83-23S	WB-06 (1-8)*				
P83-24P	WB-07 (1-5)				
P83-24S					

Notes:
1. This table reflects modifications to the sampling program based on the EPAs letter dated 12-29-99 regarding agency approval of monitoring program modifications.
2. Number in parentheses in Westbay™ well designations refers to screen/port number.
3. The treatment system compliance samples are collected at the effluent line to the injection header (SP-425).

* Well monitored during the annual San Jose-6 sampling event which occurs during the second calendar year quarter only.

P = Piezometer
D and LR = Deep interval within deep zone aquifer
M = Middle interval within deep zone aquifer
S and U = Shallow interval within deep zone aquifer

Table 4-2: List of Analytes, EPA Methods, Reporting Limits, and ARARs
Second Five Year Review Report
Deep Zone and San Jose-6 Operable Units
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Detection Limit Concentrations in Micrograms Per Liter (ug/l)]

Analyte	EPA Method	Reporting Limit	ARAR
Organics			
1,1,1-Trichloroethane	8260	1	60
1,1,2,2-Tetrachloroethane	8260	1	10
1,1,2-Trichloroethane	8260	1	5
1,1-Dichloroethane	8260	1	25
1,1-Dichloroethene	8260	1	5
1,2-Dichloroethane	8260	1	5
1,2-Dichloropropane	8260	1	5
2-Chloroethyl vinyl ether	8260	10	*
2-Hexanone	8260	10	*
4-Methyl 2-pentanone (MIBK)	8260	10	*
Acetone	8260	10	*
Benzene	8260	1	5
Bromoform	8260	1	80
Bromomethane	8260	1	*
Carbon disulfide	8260	1	*
Carbon tetrachloride	8260	1	5
Chlorobenzene	8260	1	80
Chloroethane	8260	1	*
Chloroform	8260	1	80
Chloromethane	8260	1	2300000
cis-1,3-Dichloropropene	8260	1	*
Dibromochloromethane	8260	1	80
Dichlorobromomethane	8260	1	80
Ethylbenzene	8260	1	700
Ethylene dibromide (EDB) (a)	8260	1	0.05
Methyl ethyl ketone (2-butanone)	8260	10	*
Methyl tertiary butyl ether (MTBE)	8260	1	100
Methylene chloride	8260	1	5
Tetrachloroethene	8260	1	5
Toluene	8260	1	750
trans-1,2-Dichloroethene	8260	1	100
trans-1,3-Dichloropropene	8260	1	*
Trichloroethene	8260	1	5
Trichlorofluoromethane	8260	1	*
Vinyl chloride	8260	1	1
Xylenes (total)	8260	1	620
Inorganics/Parameters (b)			
Calcium (Ca)	6010	2000	*
Iron (Fe)	6010	-	300
Magnesium (Mg)	6010	50	*
Manganese (Mn)	6010	-	50
Potassium (K)	6010	-	*
Sodium (Na)	6010	100	*
Bicarbonate (HCO3)	2320 B	1000	*
Carbonate CaCO3)	2320B	1000	*
Chloride ((Cl)	325.2	1000	250000
Fluoride (F)	340.2	200	*
Nitrate (NO3)	353.2	-	*
Sulfate (SO4)	375.2	50000	250000
Alkalinity (as CaCO3)	310.1	1000	*
Hardness (as CaCO3)	2340 B	-	*
pH		NA	*
Total Dissolved Solids (TDS)	160.1	10	500000

Notes:
ARAR = Applicable or Relevant and Appropriate Requirements
* = ARAR has not been established for this constituent
a. EDB is analyzed using EPA Method 504.1 with a reporting limit of 0.01 ug/l on an annual basis during the second quarter of each year.
b. In July, 2000, HLA issued the Revised PCMP to the EPA for review and approval. Pending approval by the EPA, the Deep Zone treated water performance sampling will only include Iron, Manganese, and Total Dissolved Solids (TDS) as it's inorganic analytes. No modifications to the Organic Parameters were proposed in the Revised PCMP (HLA, 2000). Performance sampling will be conducted annually during the second calendar year quarter.

Table 4-3: Summary of Extracted and Injected Groundwater Volumes/Diverted Potable Water Volumes
Second Five Year Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Units
South Valley Superfund Site - Albuquerque, New Mexico

Well Location	State of New Mexico Permit Number	1996 January	February	March	April	May	June	July	August	September	October	November	December	Totals Per Well
Extraction Wells														
EW-001	RG-62379-S	NA	NA	NA	2,539,312	11,222,979	10,685,431	14,993,590	17,449,867	14,724,264	17,221,722	17,579,750	19,082,737	125,499,652
EW-002	RG-62379-S2	NA	NA	NA	1,307,520	5,288,867	5,940,279	7,228,188	8,176,518	7,302,222	8,658,928	8,855,762	8,933,677	61,691,961
EW-003	RG-62379	NA	NA	NA	19,241	0	0	377	0	6,620,364	8,667,796	7,344,183	8,543,306	31,195,267
Total Extracted		**NA**	**NA**	**NA**	**3,866,073**	**16,511,846**	**16,625,710**	**22,222,155**	**25,626,385**	**28,646,850**	**34,548,446**	**33,779,695**	**36,559,720**	**218,386,880**
Cum. Extracted		**NA**	**NA**	**NA**	**3,866,073**	**20,377,919**	**37,003,629**	**59,225,784**	**84,852,169**	**113,499,019**	**148,047,465**	**181,827,160**	**218,386,880**	
Injection Wells														
IW-631	1065	NA	NA	NA	563,340	2,336,379	2,476,382	3,358,463	4,820,594	4,096,475	4,972,623	4,756,580	5,495,683	32,876,519
IW-632	1065	NA	NA	NA	228,666	873,895	936,184	1,189,607	1,102,973	1,046,020	1,023,098	991,736	1,074,454	8,466,633
IW-633	1065	NA	NA	NA	594,336	2,662,505	2,763,372	3,905,633	4,749,010	4,513,846	5,275,059	4,224,111	4,173,859	32,861,731
IW-634	1065	NA	NA	NA	326,760	2,492,630	2,916,554	2,744,356	2,577,624	2,544,196	3,065,962	2,505,800	2,509,548	21,683,430
IW-635	1065	NA	NA	NA	361,381	1,559,138	1,696,283	2,200,626	2,623,662	2,537,563	2,998,050	2,482,552	2,588,906	19,048,161
IW-636	1065	NA	NA	NA	257,518	1,104,262	1,042,527	1,981,451	2,685,155	2,616,895	3,163,199	2,533,536	2,469,682	17,854,225
IW-637	1065	NA	NA	NA	18,587	0	0	17,413	1,328,425	3,437,484	4,638,095	4,014,987	4,074,910	17,529,901
IW-638	1065	NA	NA	NA	17,156	0	0	791,229	322	2,836,442	3,572,617	3,580,539	3,681,857	14,480,162
IW-639	1065	NA	NA	NA	590,047	2,662,979	2,729,190	2,220,216	2,018,464	1,454,871	2,071,045	3,768,376	4,085,609	21,600,797
IW-640	1065	NA	NA	NA	938,407	2,888,630	2,194,738	3,908,119	4,052,236	4,139,360	4,229,378	5,098,370	6,425,838	33,875,076
Total Injected		**NA**	**NA**	**NA**	**3,896,198**	**16,580,418**	**16,755,230**	**22,317,113**	**25,958,465**	**29,223,152**	**35,009,126**	**33,956,587**	**36,580,346**	**220,276,635**
Cum. Injected		**NA**	**NA**	**NA**	**3,896,198**	**20,476,616**	**37,231,846**	**59,548,959**	**85,507,424**	**114,730,576**	**149,739,702**	**183,696,289**	**220,276,635**	

Treated Water System ID	State of New Mexico Permit Number	1996 January	February	March	April	May	June	July	August	September	October	November	December	
Plant Potable Water System	RG-62379 RG-62379-X RG-62379-X2	NA	NA	NA	5,854	9,064	3,415	4,615	1,972	3,936	2,502	1,814	867	34,039
Cum. Extracted		**NA**	**NA**	**NA**	**5,854**	**14,918**	**18,333**	**22,948**	**24,920**	**28,856**	**31,358**	**33,172**	**34,039**	

Table 4-3: Summary of Extracted and Injected Groundwater Volumes/Diverted Potable Water Volumes
Second Five Year Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Units
South Valley Superfund Site - Albuquerque, New Mexico

Well Location	State of New Mexico Permit Number	1997 January	February	March	April	May	June	July	August	September	October	November	December	Totals Per Well
Extraction Wells														
EW-001	RG-62379-S	17,802,116	15,599,548	17,575,218	17,703,198	16,352,261	17,987,320	17,998,879	18,172,699	17,579,608	16,970,024	16,494,968	17,479,725	333,215,216
EW-002	RG-62379-S2	8,502,894	7,436,947	8,258,606	8,815,144	8,028,971	9,062,785	9,213,805	9,312,080	9,020,563	8,662,464	8,435,223	8,923,069	165,364,512
EW-003	RG-62379	9,046,313	8,111,846	8,782,134	8,352,997	7,634,089	8,530,729	8,545,711	8,652,194	8,401,518	8,067,945	7,858,425	8,337,839	131,517,007
Total Extracted		**35,351,323**	**31,148,341**	**34,615,958**	**34,871,339**	**32,015,321**	**35,580,834**	**35,758,395**	**36,136,973**	**35,001,689**	**33,700,433**	**32,788,616**	**34,740,633**	**411,709,855**
Cum. Extracted		**253,738,203**	**284,886,544**	**319,502,502**	**354,373,841**	**386,389,162**	**421,969,996**	**457,728,391**	**493,865,364**	**528,867,053**	**562,567,486**	**595,356,102**	**630,096,735**	
Injection Wells														
IW-631	1065	5,166,623	4,638,844	5,186,599	4,443,842	3,995,885	4,615,498	4,479,345	4,467,945	4,336,602	4,108,663	3,903,632	4,267,275	86,487,272
IW-632	1065	971,948	1,114,047	1,310,623	1,173,189	868,616	858,692	836,379	745,095	424,242	403,290	281,914	149,482	17,604,150
IW-633	1065	4,219,980	3,818,860	4,564,004	4,451,074	4,095,134	4,554,490	4,610,291	4,656,067	4,589,369	4,674,540	3,953,623	3,883,344	84,932,507
IW-634	1065	2,490,018	2,160,965	2,494,969	2,710,950	2,540,939	2,801,460	2,762,765	2,747,920	2,668,010	2,697,624	2,687,385	2,862,164	53,308,599
IW-635	1065	2,435,667	2,218,382	2,580,568	2,672,316	2,420,882	2,652,335	2,657,501	2,633,856	2,598,125	2,642,864	2,664,710	2,895,657	50,121,023
IW-636	1065	2,411,811	2,148,796	2,516,641	2,793,661	2,538,033	2,822,629	2,847,723	2,882,641	2,782,757	2,808,156	2,739,231	3,008,202	50,154,506
IW-637	1065	3,947,628	3,339,094	3,708,407	3,516,040	3,327,299	3,703,691	3,745,641	3,720,586	3,616,479	3,342,642	3,210,780	3,828,280	60,536,468
IW-638	1065	3,096,073	2,668,248	2,149,366	3,933,679	3,622,952	3,968,535	4,448,550	4,820,408	4,134,491	3,970,297	4,263,049	4,584,376	60,140,186
IW-639	1065	4,261,237	3,836,623	4,594,742	4,457,954	4,147,350	4,639,285	4,678,032	4,671,760	4,559,340	4,499,598	4,686,725	5,009,522	75,642,966
IW-640	1065	6,192,775	5,549,926	6,021,950	4,815,740	4,447,767	4,946,528	4,808,776	4,803,933	4,736,698	3,946,709	4,486,885	4,425,889	93,058,652
Total Injected		**35,193,760**	**31,493,785**	**35,127,869**	**34,968,445**	**32,004,857**	**35,563,143**	**35,875,003**	**36,150,211**	**34,446,114**	**33,094,383**	**32,877,934**	**34,914,191**	**411,709,695**
Cum. Injected		**255,470,395**	**286,964,180**	**322,092,049**	**357,060,494**	**389,065,351**	**424,628,494**	**460,503,497**	**496,653,708**	**531,099,822**	**564,194,205**	**597,072,139**	**631,986,330**	

Treated Water System ID	State of New Mexico Permit Number	1997 January	February	March	April	May	June	July	August	September	October	November	December
Plant	RG-62379												
Potable Water	RG-62379-X	1,541	2,610	3,970	4,043	4,918	7,156	6,055	3,718	3,993	4,057	1,935	955
System	RG-62379-X2												
Cum. Extracted		**35,580**	**38,190**	**42,160**	**46,203**	**51,121**	**58,277**	**64,332**	**68,050**	**72,043**	**76,100**	**78,035**	**78,990**

Table 4-3: Summary of Extracted and Injected Groundwater Volumes/Diverted Potable Water Volumes
Second Five Year Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Units
South Valley Superfund Site - Albuquerque, New Mexico

Well Location	State of New Mexico Permit Number	1998 January	February	March	April	May	June	July	August	September	October	November	December	Totals Per Well
Extraction Wells														
EW-001	RG-62379-S	18,280,694	13,029,315	17,972,413	14,424,680	10,471,226	10,493,237	15,078,608	15,387,580	14,577,015	13,678,161	14,006,916	17,079,696	507,694,757
EW-002	RG-62379-S2	9,275,579	6,621,166	9,130,696	5,926,477	4,247,095	5,261,757	7,567,272	7,551,918	7,042,762	6,832,373	6,822,677	8,510,613	250,154,897
EW-003	RG-62379	8,743,229	6,229,573	8,554,955	5,108,313	4,113,299	5,043,419	7,312,697	7,497,430	7,047,892	6,573,620	6,836,510	8,425,704	213,003,648
Total Extracted		**36,299,502**	**25,880,054**	**35,658,064**	**25,459,470**	**18,831,620**	**20,798,413**	**29,958,577**	**30,436,928**	**28,667,669**	**27,084,154**	**27,666,103**	**34,016,013**	**198,627,857**
Cum. Extracted		**666,396,237**	**692,276,291**	**727,934,355**	**753,393,825**	**772,225,445**	**793,023,858**	**822,982,435**	**853,419,363**	**882,087,032**	**909,171,186**	**936,837,289**	**970,853,302**	
Injection Wells														
IW-631	1065	4,532,689	3,130,096	4,300,541	3,339,999	2,573,822	2,617,090	3,709,006	3,923,483	3,492,488	3,259,443	4,300,234	5,042,534	130,708,697
IW-632	1065	140,648	58,578	227,364	61,488	565,457	622,080	615,077	449,525	468,560	1,016,906	792,041	619,834	23,241,707
IW-633	1065	3,934,220	2,915,544	4,084,419	2,883,195	1,449,874	2,871,475	4,804,316	4,215,792	4,047,889	4,101,275	4,053,810	5,051,409	129,345,725
IW-634	1065	3,111,950	2,275,348	3,207,531	2,120,044	1,797,188	1,712,058	2,531,988	2,599,360	2,481,640	2,401,376	2,504,344	3,028,654	83,080,080
IW-635	1065	3,086,545	2,241,675	3,166,925	2,183,457	1,814,631	1,709,656	2,398,855	2,453,462	2,274,315	2,147,532	2,175,290	2,839,515	78,612,881
IW-636	1065	3,232,887	2,325,080	3,289,832	2,370,708	1,916,866	1,868,706	2,658,680	2,717,888	2,633,012	2,431,376	2,671,930	3,158,790	81,430,261
IW-637	1065	3,210,500	2,950,615	4,246,860	3,990,396	2,643,469	2,501,794	3,596,326	3,228,626	2,828,508	2,724,519	2,694,835	3,148,890	98,301,805
IW-638	1065	4,843,757	3,523,473	4,968,577	3,076,114	2,350,287	2,541,261	3,320,092	2,538,600	2,363,440	2,881,296	2,581,535	2,985,270	98,113,887
IW-639	1065	5,308,658	3,566,161	4,609,376	2,827,360	2,213,422	1,528,880	4,218,118	2,229,402	1,891,287	3,103,084	2,924,586	4,653,414	114,716,714
IW-640	1065	4,602,790	3,132,853	3,521,635	2,967,813	2,041,495	1,784,035	2,106,046	2,807,257	2,597,761	2,787,211	1,990,083	2,204,588	125,602,220
Total Injected		**36,004,644**	**26,119,423**	**35,623,060**	**25,820,574**	**19,366,511**	**19,757,035**	**29,958,504**	**27,163,396**	**25,078,899**	**26,854,018**	**26,688,688**	**32,732,898**	**188,233,436**
Cum. Injected		**667,990,974**	**694,110,398**	**729,733,458**	**755,554,032**	**774,920,542**	**794,677,577**	**824,636,081**	**851,799,477**	**876,878,376**	**903,732,393**	**930,421,081**	**963,153,979**	

Treated Water System ID	State of New Mexico Permit Number	1998 January	February	March	April	May	June	July	August	September	October	November	December
Plant	RG-62379												
Potable Water	RG-62379-X	630	840	1,807	1,688	3,975	5,960	5,750	4,265	3,788	5,489	1,878	1,220
System	RG-62379-X2												
Cum. Extracted		**79,620**	**80,460**	**82,267**	**83,955**	**87,930**	**93,890**	**99,640**	**103,905**	**107,693**	**113,182**	**115,060**	**116,280**

Table 4-3: Summary of Extracted and Injected Groundwater Volumes/Diverted Potable Water Volumes
Second Five Year Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Units
South Valley Superfund Site - Albuquerque, New Mexico

Well Location	State of New Mexico Permit Number	1999 January	February	March	April	May	June	July	August	September	October	November	December	Totals Per Well
Extraction Wells														
EW-001	RG-62379-S	16,889,539	13,410,703	12,879,315	15,039,283	18,007,708	17,918,045	17,959,501	17,099,997	17,940,421	15,957,615	16,900,813	16,747,039	704,444,736
EW-002	RG-62379-S2	8,436,551	6,622,245	6,484,509	7,498,641	9,031,338	9,072,481	9,120,800	8,943,714	9,456,369	8,557,747	8,987,360	9,068,211	351,434,863
EW-003	RG-62379	7,773,594	3,849,678	6,472,773	7,172,520	8,537,131	8,482,250	7,226,275	6,863,253	7,240,068	6,492,548	6,870,976	6,856,688	296,841,402
Total Extracted		**33,099,684**	**23,882,626**	**25,836,597**	**29,710,444**	**35,576,177**	**35,472,776**	**34,306,576**	**32,906,964**	**34,636,858**	**31,007,910**	**32,759,149**	**32,671,938**	**381,867,699**
Cum. Extracted		**1,003,952,986**	**1,027,835,612**	**1,053,672,209**	**1,083,382,653**	**1,118,958,830**	**1,154,431,606**	**1,188,958,582**	**1,221,865,546**	**1,256,502,404**	**1,287,510,314**	**1,320,269,463**	**1,352,941,401**	
Injection Wells														
IW-631	1065	4,872,459	3,616,205	4,079,277	3,726,995	4,308,740	4,561,902	3,914,205	3,884,792	4,032,741	3,755,889	5,150,955	5,188,258	181,801,115
IW-632	1065	265,573	349,948	921,769	1,037,005	1,193,206	1,206,877	986,286	693,933	864,505	806,480	816,480	816,480	33,200,249
IW-633	1065	4,940,011	3,619,966	3,818,740	4,112,152	4,809,170	4,906,530	4,648,123	4,039,812	4,633,618	4,361,048	4,462,686	4,414,511	182,112,092
IW-634	1065	2,863,124	2,090,820	2,339,426	2,552,777	2,689,387	2,694,178	2,581,108	1,945,598	2,592,002	2,113,476	2,250,134	2,408,133	112,200,243
IW-635	1065	2,778,328	1,948,259	2,127,549	2,320,468	2,897,471	2,796,810	2,844,584	2,802,924	2,300,511	2,727,934	2,726,401	2,535,356	109,419,476
IW-636	1065	3,064,758	2,316,530	2,495,234	2,463,589	2,757,391	2,645,318	2,627,416	2,773,740	2,808,050	2,507,201	2,507,201	2,507,201	112,903,890
IW-637	1065	2,549,568	1,304,707	241,140	3,139,376	4,625,971	4,515,005	4,466,176	4,408,940	4,532,064	3,987,525	4,180,226	4,188,089	140,440,592
IW-638	1065	2,806,371	1,402,438	1,685,678	3,617,057	4,371,392	4,275,530	4,379,600	4,260,820	4,345,264	4,019,404	4,173,637	4,183,882	141,634,960
IW-639	1065	3,778,383	2,283,152	1,609,316	2,326,442	4,299,199	4,256,749	4,305,703	4,127,666	4,183,600	3,897,517	3,956,339	3,906,612	157,647,391
IW-640	1065	2,204,588	1,828,192	3,547,763	4,518,530	4,744,693	4,676,439	4,180,920	4,482,178	4,040,173	3,588,334	3,527,895	3,527,895	170,469,819
Total Injected		**30,123,163**	**20,760,217**	**22,865,892**	**29,814,391**	**36,696,620**	**36,535,338**	**34,934,121**	**33,420,402**	**34,332,528**	**31,764,808**	**33,751,954**	**33,676,417**	**378,675,850**
Cum. Injected		**993,277,141**	**1,014,037,359**	**1,036,903,251**	**1,066,717,641**	**1,103,414,261**	**1,139,949,599**	**1,174,883,720**	**1,208,304,122**	**1,242,636,650**	**1,274,401,458**	**1,308,153,412**	**1,341,829,829**	

Treated Water System ID	State of New Mexico Permit Number	1999 January	February	March	April	May	June	July	August	September	October	November	December
Plant	RG-62379												
Potable Water	RG-62379-X	6,050	2,497	1,497	4,531	1,787	4,028	6,230	2,271	1,913	2,158	871	528
System	RG-62379-X2												
Cum. Extracted		**122,330**	**124,827**	**126,324**	**130,855**	**132,642**	**136,670**	**142,900**	**145,171**	**147,084**	**149,242**	**150,113**	**150,641**

Table 4-3: Summary of Extracted and Injected Groundwater Volumes/Diverted Potable Water Volumes
Second Five Year Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Units
South Valley Superfund Site - Albuquerque, New Mexico

Well Location	State of New Mexico Permit Number	2000 January	February	March	April	May	June	July	August	September	October	November	December	Totals Per Well
Extraction Wells														
EW-001	RG-62379-S	15,180,235	17,482,956	17,472,664	9,467,762	8,224,875	15,992,113	18,437,874	17,170,058	15,041,412	15,223,074	16,875,266	16,645,752	887,658,777
EW-002	RG-62379-S2	8,364,597	9,494,626	8,851,448	5,064,669	9,591,935	8,345,298	9,841,473	8,944,680	8,001,147	8,112,454	8,772,854	8,484,982	453,305,026
EW-003	RG-62379	6,155,702	4,949,034	8,365,452	4,550,226	7,940,795	7,638,875	8,954,512	8,389,891	7,451,814	7,589,496	8,404,513	8,008,282	385,239,994
Total Extracted		**29,700,534**	**31,926,616**	**34,689,564**	**19,082,657**	**25,757,605**	**31,976,286**	**37,233,859**	**34,504,629**	**30,494,373**	**30,925,024**	**34,052,633**	**33,139,016**	**373,482,796**
Cum. Extracted		**1,382,641,935**	**1,414,568,551**	**1,449,258,115**	**1,468,340,772**	**1,494,098,377**	**1,526,074,663**	**1,563,308,522**	**1,597,813,151**	**1,628,307,524**	**1,659,232,548**	**1,693,285,181**	**1,726,424,197**	
Injection Wells														
IW-631	1065	4,535,716	3,756,221	3,813,488	2,080,960	2,846,237	3,551,279	3,752,908	5,107,917	3,872,724	3,382,609	3,326,335	3,908,058	225,735,567
IW-632	1065	1,578,140	1,136,744	1,232,930	685,934	821,316	850,252	887,742	1,126,835	1,229,132	1,000,461	1,055,789	1,067,915	45,873,439
IW-633	1065	4,087,698	3,803,941	4,149,785	2,623,520	3,550,359	4,359,399	5,091,144	4,551,308	3,671,170	3,572,209	4,315,077	4,235,466	230,123,168
IW-634	1065	2,383,812	2,524,742	3,025,857	1,346,406	1,685,376	2,910,140	3,424,926	3,295,160	2,579,012	2,260,532	2,571,522	2,513,209	142,720,937
IW-635	1065	2,361,830	2,569,957	3,132,402	1,691,520	1,763,280	2,397,285	2,834,166	2,579,831	2,557,504	2,550,379	2,884,158	2,906,394	139,648,182
IW-636	1065	2,348,946	2,916,137	3,172,625	1,750,701	2,364,612	2,767,960	3,178,126	3,048,410	2,589,968	2,497,593	2,956,247	2,707,970	145,203,186
IW-637	1065	3,862,363	4,291,653	4,344,000	2,066,988	2,779,555	2,987,456	3,061,892	1,986,197	1,910,414	2,970,439	2,649,465	2,584,895	175,935,909
IW-638	1065	2,742,401	3,221,973	3,863,399	2,103,818	2,779,555	3,137,946	3,750,571	3,132,963	3,571,212	3,443,655	3,962,567	4,040,147	181,385,167
IW-639	1065	3,567,128	3,908,409	4,217,836	2,359,310	3,393,796	4,723,816	5,495,921	4,502,706	3,814,368	3,651,238	4,307,457	3,775,267	205,364,643
IW-640	1065	2,909,506	3,829,428	3,886,358	2,335,028	3,363,832	4,299,911	5,933,704	5,437,818	4,562,528	4,570,034	5,430,098	6,154,704	223,182,767
Total Injected		**30,377,540**	**31,959,205**	**34,838,679**	**19,044,185**	**25,347,918**	**31,985,444**	**37,411,100**	**34,769,145**	**30,358,032**	**29,899,149**	**33,458,715**	**33,894,025**	**373,343,136**
Cum. Injected		**1,372,207,369**	**1,404,166,574**	**1,439,005,253**	**1,458,049,438**	**1,483,397,355**	**1,515,382,799**	**1,552,793,899**	**1,587,563,044**	**1,617,921,076**	**1,647,820,225**	**1,681,278,940**	**1,715,172,965**	

Treated Water System ID	State of New Mexico Permit Number	2000 January	February	March	April	May	June	July	August	September	October	November	December
Plant	RG-62379												
Potable Water	RG-62379-X	4,503	736	2,593	2,052	1,527	1,203	2,261	1,684	1,025	2,480	1,195	770
System	RG-62379-X2												
Cum. Extracted		**155,144**	**155,880**	**158,473**	**160,525**	**162,052**	**163,255**	**165,516**	**167,200**	**168,225**	**170,705**	**171,900**	**172,670**

Table 4-3: Summary of Extracted and Injected Groundwater Volumes/Diverted Potable Water Volumes
Second Five Year Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Units
South Valley Superfund Site - Albuquerque, New Mexico

Well Location	State of New Mexico Permit Number	2001 January	February	March	April	May	June	July	August	September	October	November	December	Totals Per Well
Extraction Wells														
EW-001	RG-62379-S	17,178,090	15,516,367	17,644,466	16,481,449	18,164,056	16,779,388	13,883,814	16,551,740	15,593,476	15,839,403	15,395,901	18,107,428	1,084,794,355
EW-002	RG-62379-S2	9,506,816	6,403,858	6,848,340	8,666,400	9,659,108	9,676,781	5,353,850	7,368,579	7,747,572	8,082,724	8,992,782	9,058,722	550,670,558
EW-003	RG-62379	8,982,576	7,686,495	8,892,610	8,255,938	9,041,940	8,521,217	4,860,306	7,113,148	7,662,037	7,263,085	8,125,942	8,742,849	480,388,137
Total Extracted		**35,667,482**	**29,606,720**	**33,385,416**	**33,403,787**	**36,865,104**	**34,977,386**	**24,097,970**	**31,033,467**	**31,003,085**	**31,185,212**	**32,514,625**	**35,908,999**	**389,649,253**
Cum. Extracted		**1,762,091,679**	**1,791,698,399**	**1,825,083,815**	**1,858,487,602**	**1,895,352,706**	**1,930,330,092**	**1,954,428,062**	**1,985,461,529**	**2,016,464,614**	**2,047,649,826**	**2,080,164,451**	**2,116,073,450**	
Injection Wells														
IW-631	1065	4,047,097	3,931,026	4,299,366	3,978,196	4,168,142	3,278,634	3,036,344	3,910,217	4,261,950	2,589,656	3,404,902	3,904,956	270,546,052
IW-632	1065	1,181,574	1,061,408	1,100,460	1,187,059	1,228,707	1,038,797	867,527	1,117,205	1,236,412	878,698	676,995	863,173	58,311,454
IW-633	1065	4,688,840	3,991,389	4,410,227	4,329,791	4,632,570	4,297,091	3,277,323	4,220,552	4,216,420	4,455,888	4,385,878	4,689,268	281,718,406
IW-634	1065	2,644,121	2,155,359	2,293,313	2,181,605	3,858,950	4,562,987	1,735,054	2,234,410	2,232,222	3,174,269	3,178,999	3,163,339	176,135,564
IW-635	1065	3,321,574	2,794,541	2,945,145	2,832,469	3,084,033	2,918,196	1,935,652	2,502,429	2,256,940	2,369,640	1,897,870	2,647,640	171,154,311
IW-636	1065	2,962,463	2,602,861	2,874,754	2,726,242	2,843,634	2,638,193	1,735,054	2,234,410	2,166,358	1,997,553	1,934,487	2,677,382	174,596,577
IW-637	1065	2,856,355	2,431,515	2,674,848	2,585,609	2,718,887	2,600,969	1,927,838	2,482,677	2,480,247	2,878,230	3,853,331	4,504,720	209,931,135
IW-638	1065	4,159,425	3,777,535	4,025,003	4,197,775	4,490,890	4,186,646	3,132,735	4,034,352	4,047,800	4,243,401	3,885,344	4,249,214	229,815,288
IW-639	1065	3,478,688	3,476,939	3,904,663	3,882,757	4,184,100	4,006,087	2,891,756	3,724,016	3,565,871	4,094,718	3,859,620	4,181,212	250,615,070
IW-640	1065	4,765,455	4,893,537	4,813,984	4,930,940	5,255,724	4,925,851	3,446,009	4,437,786	4,105,273	5,397,816	5,167,014	5,003,766	280,325,922
Total Injected		**34,105,592**	**31,116,110**	**33,341,763**	**32,832,443**	**36,465,637**	**34,453,451**	**23,985,292**	**30,898,053**	**30,569,494**	**32,079,869**	**32,244,440**	**35,884,670**	**387,976,815**
Cum. Injected		**1,749,278,557**	**1,780,394,667**	**1,813,736,430**	**1,846,568,873**	**1,883,034,510**	**1,917,487,961**	**1,941,473,253**	**1,972,371,307**	**2,002,940,800**	**2,035,020,669**	**2,067,265,110**	**2,103,149,780**	

Treated Water System ID	State of New Mexico Permit Number	2001 January	February	March	April	May	June	July	August	September	October	November	December
Plant	RG-62379												
Potable Water	RG-62379-X	1,296	1,052	1,234	2,494	2,629	2,355	1,260	875	978	2,257	870	845
System	RG-62379-X2												
Cum. Extracted		**173,966**	**175,018**	**176,252**	**178,746**	**181,375**	**183,730**	**184,990**	**185,865**	**186,843**	**189,100**	**189,970**	**190,815**

Table 4-3: Summary of Extracted and Injected Groundwater Volumes/Diverted Potable Water Volumes
Second Five Year Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Units
South Valley Superfund Site - Albuquerque, New Mexico

Well Location	State of New Mexico Permit Number	2002 January	February	March	April	May	June	July	August	September	October	November	December	Totals Per Well
Extraction Wells														
EW-001	RG-62379-S	15,959,620	14,167,548	14,718,512	15,029,827	5,269,200	17,703,078	18,049,790	16,289,152	15,963,579	17,879,242	16,138,621	18,049,453	1,270,011,977
EW-002	RG-62379-S2	7,967,336	7,252,150	7,778,190	3,210,940	4,571,165	5,653,735	8,782,826	8,206,368	8,680,171	8,980,790	7,829,555	8,864,871	638,448,655
EW-003	RG-62379	7,724,712	3,287,022	1,499,229	7,613,187	4,541,880	3,013,759	8,492,573	6,103,857	7,336,563	8,413,662	7,428,629	8,531,289	554,374,499
EW-004	RG-62379-S3	0	0	0	0	0	0	0	0	3,779,438	4,862,115	4,521,403	5,050,080	18,213,036
Total Extracted		**31,651,668**	**24,706,720**	**23,995,931**	**25,853,954**	**14,382,245**	**26,370,572**	**35,325,189**	**30,599,377**	**35,759,751**	**40,135,809**	**35,918,208**	**40,495,693**	**365,195,117**
Cum. Extracted		**2,147,725,118**	**2,172,431,838**	**2,196,427,769**	**2,222,281,723**	**2,236,663,968**	**2,263,034,540**	**2,298,359,729**	**2,328,959,106**	**2,364,718,857**	**2,404,854,666**	**2,440,772,874**	**2,481,268,567**	
Injection Wells														
IW-631	1065	3,428,904	3,071,972	2,860,213	3,818,039	2,005,851	3,375,235	4,289,479	3,942,807	4,588,024	4,945,012	4,686,542	5,283,786	316,841,915
IW-632	1065	773,113	622,773	1,141,804	1,135,633	339,716	1,074,710	886,160	1,000,650	2,378,926	2,059,369	2,041,249	2,229,158	73,994,716
IW-633	1065	4,250,574	3,398,786	3,410,043	3,737,180	1,733,288	2,940,466	4,358,630	3,927,193	4,092,378	4,807,441	4,337,863	4,425,659	327,137,907
IW-634	1065	3,168,647	2,423,498	2,259,300	2,489,182	1,236,252	1,847,639	2,807,072	2,318,830	2,318,987	2,678,399	2,480,899	2,869,388	205,033,658
IW-635	1065	2,611,440	2,321,280	2,321,280	2,466,360	1,160,640	2,176,200	2,901,600	2,611,440	2,170,666	2,695,356	2,490,826	2,785,344	199,866,743
IW-636	1065	2,417,957	1,970,132	1,803,122	1,917,456	1,141,625	2,214,671	3,061,359	2,320,233	2,278,266	2,557,111	2,194,854	2,935,912	201,409,274
IW-637	1065	2,884,072	2,471,985	2,416,450	2,957,616	1,964,128	3,261,259	4,127,255	3,607,245	3,595,460	3,515,516	3,099,931	3,482,855	247,314,907
IW-638	1065	3,192,960	2,290,432	2,264,550	2,264,550	1,626,906	3,309,376	4,402,406	2,731,360	2,244,992	2,413,559	2,155,891	2,407,071	261,119,340
IW-639	1065	3,776,934	2,713,489	2,483,167	3,069,343	1,865,565	3,514,817	4,390,947	4,140,330	4,363,061	4,939,551	4,441,653	4,992,543	295,306,470
IW-640	1065	5,064,350	3,754,033	3,796,612	3,796,612	2,256,438	3,011,089	4,444,045	3,626,893	1,897,408	2,017,903	1,430,965	1,987,819	317,410,088
IW-641	1065	0	0	0	0	0	0	0	0	4,740,614	6,946,224	6,335,433	7,183,119	25,205,390
IW-642	1065	0	0	0	0	0	0	0	0	11,132	0	0	0	11,132
Total Injected		**31,568,952**	**25,038,380**	**24,756,541**	**27,651,971**	**15,330,408**	**26,725,461**	**35,668,952**	**30,226,980**	**34,679,914**	**39,575,441**	**35,696,106**	**40,582,654**	**367,501,760**
Cum. Injected		**2,134,718,731**	**2,159,757,111**	**2,184,513,653**	**2,212,165,624**	**2,227,496,032**	**2,254,221,493**	**2,289,890,445**	**2,320,117,425**	**2,354,797,339**	**2,394,372,780**	**2,430,068,886**	**2,470,651,540**	

Treated Water System ID	State of New Mexico Permit Number	2002 January	February	March	April	May	June	July	August	September	October	November	December
Plant	RG-62379												
Potable Water	RG-62379-X	1,906	1,649	3,180	2,963	5,913	4,104	2,125	6,430	3,831	2,724	1,784	811
System	RG-62379-X2												
Cum. Extracted		**192,721**	**194,370**	**197,550**	**200,513**	**206,426**	**210,530**	**212,655**	**219,085**	**222,916**	**225,640**	**227,424**	**228,235**

Table 4-3: Summary of Extracted and Injected Groundwater Volumes/Diverted Potable Water Volumes
Second Five Year Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Units
South Valley Superfund Site - Albuquerque, New Mexico

Well Location	State of New Mexico Permit Number	2003 January	February	March	April	May	June	July	August	September	October	November	December	Totals Per Well
Extraction Wells														
EW-001	RG-62379-S	18,673,433	16,733,865	14,477,543	16,779,052	18,298,160	18,114,390	17,895,068	17,926,194	17,650,174	18,369,801	17,863,415	17,702,705	228,696,836
EW-002	RG-62379-S2	9,161,542	8,294,446	8,948,174	8,014,753	8,801,279	8,878,634	8,122,823	8,936,390	8,737,340	9,060,521	8,734,292	8,641,310	104,331,504
EW-003	RG-62379	8,814,028	7,960,504	8,488,043	7,656,915	8,548,111	8,372,900	8,255,357	8,321,722	8,172,603	8,520,817	8,243,958	8,134,610	464,684,685
EW-004	RG-62379-S3	5,168,291	4,712,414	5,089,481	4,694,680	5,088,151	5,067,173	5,045,068	5,090,549	5,016,779	5,229,327	5,057,970	5,007,886	60,267,769
Total Extracted		**41,817,294**	**37,701,229**	**37,003,241**	**37,145,400**	**40,735,701**	**40,433,097**	**39,318,316**	**40,274,855**	**39,576,896**	**41,180,466**	**39,899,635**	**39,486,511**	**474,572,641**
Cum. Extracted		**2,523,085,861**	**2,560,787,090**	**2,597,790,331**	**2,634,935,731**	**2,675,671,432**	**2,716,104,529**	**2,755,422,845**	**2,795,697,700**	**2,835,274,596**	**2,876,455,062**	**2,916,354,697**	**2,955,841,208**	
Injection Wells														
IW-631	1065	5,379,926	4,534,002	4,511,018	4,582,832	5,178,775	5,300,617	4,725,959	4,428,311	4,362,789	4,478,797	4,749,500	5,020,629	384,391,062
IW-632	1065	2,419,170	2,155,544	2,191,804	2,163,935	2,290,563	2,223,353	2,188,559	2,239,972	2,170,838	2,211,866	2,162,740	2,055,892	231,507,894
IW-633	1065	4,405,078	3,983,113	3,848,055	4,103,038	4,738,783	4,663,697	4,504,569	4,552,539	4,376,353	4,289,539	4,168,867	3,622,411	251,122,785
IW-634	1065	3,133,505	3,071,590	2,507,013	2,526,153	2,614,916	3,021,406	3,088,938	3,462,981	3,510,204	3,801,275	3,590,982	3,518,818	239,257,055
IW-635	1065	3,065,888	2,763,868	2,674,093	2,605,337	2,508,980	2,397,728	2,821,153	3,471,178	3,272,946	3,425,483	3,242,448	3,165,241	282,729,250
IW-636	1065	2,888,157	2,611,340	2,619,577	2,559,523	2,586,522	2,743,409	2,696,565	2,704,534	2,710,412	2,825,179	2,856,016	2,916,581	293,837,155
IW-637	1065	3,555,093	3,179,847	3,196,665	3,093,880	3,374,674	3,262,861	3,112,741	2,954,565	2,907,699	3,125,540	3,154,390	2,985,227	333,209,652
IW-638	1065	2,621,020	2,385,995	2,438,636	2,361,759	2,619,064	2,526,363	2,386,730	2,372,612	2,400,500	2,497,581	2,460,822	2,434,260	346,915,430
IW-639	1065	5,160,630	4,556,342	4,546,989	4,478,822	4,930,695	4,831,457	4,697,111	4,884,697	4,802,247	5,085,020	4,894,275	4,758,787	82,832,462
IW-640	1065	1,894,510	1,761,167	1,992,950	2,122,033	2,266,056	2,120,514	2,216,436	1,948,636	1,811,587	1,775,515	1,534,765	2,134,731	23,590,032
IW-641	1065	7,329,352	6,692,026	6,611,670	6,655,539	7,337,068	7,158,052	6,732,195	6,946,053	6,838,538	7,249,634	6,920,976	6,743,091	83,214,194
IW-642	1065	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Injected		**41,852,329**	**37,694,834**	**37,138,470**	**37,252,851**	**40,446,096**	**40,249,457**	**39,170,956**	**39,966,078**	**39,164,113**	**40,765,429**	**39,735,781**	**39,355,668**	**472,792,062**
Cum. Injected		**2,512,503,869**	**2,550,198,703**	**2,587,337,173**	**2,624,590,024**	**2,665,036,120**	**2,705,285,577**	**2,744,456,533**	**2,784,422,611**	**2,823,586,724**	**2,864,352,153**	**2,904,087,934**	**2,943,443,602**	

Treated Water System ID	State of New Mexico Permit Number	2003 January	February	March	April	May	June	July	August	September	October	November	December
Plant	RG-62379												
Potable Water	RG-62379-X	982	1,106	1,057	2,366	1,108	1,332	1,641	1,988	858	2,101	810	1,242
System	RG-62379-X2												
Cum. Extracted		**229,217**	**230,323**	**231,380**	**233,746**	**234,854**	**236,186**	**237,827**	**239,815**	**240,673**	**242,774**	**243,584**	**244,826**

Table 4-3: Summary of Extracted and Injected Groundwater Volumes/Diverted Potable Water Volumes
Second Five Year Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Units
South Valley Superfund Site - Albuquerque, New Mexico

Well Location	State of New Mexico Permit Number	2004 January	February	March	April	May	June	July	August	September	October	November	December	Totals Per Well
Extraction Wells														
EW-001	RG-62379-S	17,961,250	17,585,625	18,839,792	18,179,041	18,705,821	18,071,126	18,098,359	12,734,064	17,509,571	18,134,138	17,601,514	17,575,377	271,263,447
EW-002	RG-62379-S2	8,772,474	8,534,539	9,139,751	8,806,632	9,056,643	8,730,202	8,766,665	8,952,872	8,606,624	8,985,538	8,703,870	8,685,150	105,740,960
EW-003	RG-62379	8,293,098	8,090,807	8,678,578	8,309,180	8,524,795	8,223,543	8,289,644	8,441,827	8,079,686	8,405,680	8,188,735	8,161,834	574,260,048
EW-004	RG-62379-S3	5,060,488	4,938,018	5,300,125	5,101,473	5,222,726	5,015,043	5,047,337	5,118,292	4,937,243	5,149,153	5,007,251	5,002,144	60,899,293
Total Extracted		**40,087,310**	**39,148,989**	**41,958,246**	**40,396,326**	**41,509,985**	**40,039,914**	**40,202,005**	**35,247,055**	**39,133,124**	**40,674,509**	**39,501,370**	**39,424,505**	**477,323,338**
Cum. Extracted		**2,995,928,518**	**3,035,077,507**	**3,077,035,753**	**3,117,432,079**	**3,158,942,064**	**3,198,981,978**	**3,239,183,983**	**3,274,431,038**	**3,313,564,162**	**3,354,238,671**	**3,393,740,041**	**3,433,164,546**	
Injection Wells														
IW-631	1065	5,204,240	5,247,926	5,664,414	5,539,885	5,743,360	5,520,900	5,298,737	3,379,340	3,503,707	3,501,498	3,270,026	3,307,890	306,304,708
IW-632	1065	1,963,684	1,915,174	2,065,795	2,000,697	2,083,814	2,003,469	1,980,456	1,710,629	1,775,852	1,940,541	1,891,632	1,726,019	262,314,817
IW-633	1065	3,579,098	3,580,457	3,819,206	3,710,964	3,829,280	3,680,880	3,661,753	3,094,198	3,408,864	3,677,870	3,643,988	3,670,758	326,086,566
IW-634	1065	3,661,874	3,552,766	3,718,915	3,561,820	3,687,677	3,530,034	3,465,850	3,183,306	3,757,290	4,153,982	4,167,459	4,066,578	338,344,706
IW-635	1065	3,249,713	3,090,691	3,365,695	3,263,073	3,345,443	3,203,934	3,198,448	2,868,900	3,388,317	3,788,062	3,733,136	3,012,544	372,717,608
IW-636	1065	2,804,753	2,659,175	1,455,024	1,744,039	2,472,643	2,506,414	2,349,520	2,323,447	2,919,018	3,111,136	2,901,520	2,803,261	376,965,380
IW-637	1065	3,033,705	2,935,732	3,168,446	3,059,129	3,121,968	2,982,199	2,992,106	2,785,775	3,035,028	3,075,627	3,008,685	3,013,911	119,044,773
IW-638	1065	2,419,025	2,221,966	2,428,355	2,392,663	2,455,600	2,332,290	2,327,263	2,241,412	2,386,030	2,465,665	2,421,407	2,377,773	52,059,481
IW-639	1065	4,903,980	4,816,887	5,180,947	4,949,912	5,120,221	4,982,567	5,041,924	4,674,075	5,123,104	5,101,833	5,011,346	5,049,136	143,170,126
IW-640	1065	2,158,240	2,004,676	2,106,893	2,002,143	2,051,316	1,968,057	1,956,247	1,574,334	2,011,463	2,172,888	1,730,957	1,622,684	23,359,898
IW-641	1065	6,251,977	3,285,724	3,514,856	3,393,546	3,497,994	2,518,396	0	1	3	9	1	305,003	22,767,510
IW-642	1065	575,140	3,305,030	3,554,495	3,432,311	3,535,853	4,325,026	7,073,527	6,493,413	7,166,186	7,098,492	6,950,884	7,028,668	60,539,025
Total Injected		**39,805,429**	**38,616,204**	**40,043,041**	**39,050,182**	**40,945,169**	**39,554,166**	**39,345,831**	**34,328,830**	**38,474,862**	**40,087,603**	**38,731,041**	**37,984,225**	**466,966,583**
Cum. Injected		**2,983,249,031**	**3,021,865,235**	**3,061,908,276**	**3,100,958,458**	**3,141,903,627**	**3,181,457,793**	**3,220,803,624**	**3,255,132,454**	**3,293,607,316**	**3,333,694,919**	**3,372,425,960**	**3,410,410,185**	

Treated Water System ID	State of New Mexico Permit Number	2004 January	February	March	April	May	June	July	August	September	October	November	December
Plant	RG-62379												
Potable Water	RG-62379-X	736	1,068	1,177	2,330	1,498	783	611	658	923	1,990	1,145	801
System	RG-62379-X2												
Cum. Extracted		**245,562**	**246,630**	**247,807**	**250,137**	**251,635**	**252,418**	**253,029**	**253,687**	**254,610**	**256,600**	**257,745**	**258,546**

Table 4-3: Summary of Extracted and Injected Groundwater Volumes/Diverted Potable Water Volumes
Second Five Year Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Units
South Valley Superfund Site - Albuquerque, New Mexico

Well Location	State of New Mexico Permit Number	2005 January	February	March	April	May	June	Totals Per Well
Extraction Wells								
EW-001	RG-62379-S	18,457,669	16,479,792	17,312,330	17,252,638	18,046,090	17,604,644	166,052,456
EW-002	RG-62379-S2	9,116,656	8,133,633	8,578,236	8,611,810	8,970,384	8,751,070	52,161,789
EW-003	RG-62379	8,567,175	7,646,060	8,003,807	7,976,971	8,320,962	8,047,731	525,886,044
EW-004	RG-62379-S3	5,263,717	4,714,656	4,960,168	4,955,807	5,180,148	5,033,580	30,108,076
Total Extracted		**41,405,217**	**36,974,141**	**38,854,541**	**38,797,226**	**40,517,584**	**39,437,025**	**235,985,734**
Cum. Extracted		**3,474,569,763**	**3,511,543,904**	**3,550,398,445**	**3,589,195,671**	**3,629,713,255**	**3,669,150,280**	
Injection Wells								
IW-631	1065	3,601,616	3,329,326	3,378,447	3,403,998	3,487,020	3,381,799	346,668,772
IW-632	1065	1,537,066	1,364,373	1,341,625	1,322,715	1,393,823	1,404,713	346,709,021
IW-633	1065	3,971,690	3,549,774	3,594,279	3,632,856	3,802,898	3,699,661	394,968,766
IW-634	1065	2,688,691	2,256,897	2,102,236	2,044,160	2,182,819	2,194,616	390,434,799
IW-635	1065	1,922,149	1,593,849	1,401,964	897,701	1,450,764	1,391,115	127,702,315
IW-636	1065	3,057,564	2,739,667	2,733,386	2,663,251	2,860,655	2,689,828	68,803,832
IW-637	1065	2,421,543	1,981,049	2,086,895	2,173,063	2,282,438	2,210,712	156,325,826
IW-638	1065	2,144,809	1,844,804	1,922,871	1,954,235	2,076,767	2,021,950	35,325,334
IW-639	1065	5,438,756	4,823,629	4,906,867	4,920,076	5,182,783	5,037,915	53,077,536
IW-640	1065	1,648,996	1,351,772	1,091,220	979,709	1,013,115	971,147	67,594,984
IW-641	1065	4,211,957	4,304,425	6,257,867	6,277,458	6,581,747	6,392,578	34,026,032
IW-642	1065	7,619,173	6,753,357	6,832,885	6,827,432	7,190,516	7,019,566	42,242,929
Total Injected		**40,264,010**	**35,892,922**	**37,650,542**	**37,096,654**	**39,505,345**	**38,415,600**	**228,825,073**
Cum. Injected		**3,450,674,195**	**3,486,567,117**	**3,524,217,659**	**3,561,314,313**	**3,600,819,658**	**3,639,235,258**	

Treated Water System ID	State of New Mexico Permit Number	2005 January	February	March	April	May	June
Plant Potable Water System	RG-62379 RG-62379-X RG-62379-X2	1,214	1,178	1,552	3,020	819	753	8,536
Cum. Extracted		**259,760**	**260,938**	**262,490**	**265,510**	**266,329**	**267,082**	

Table 4-4: Summary of VOC Mass Removed
Second FiveYear Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Unit
South Valley Superfund Site - Albuquerque, New Mexico

	Constitiuent Concentration in Influent Composite Water (µg/L)										Treated Water Volume (gallons)		VOCs Removed (pounds)	
Date	1,1-DCA	1,1-DCE	1,2-DCA	MTBE	PCE	Trans 1,2-DCE	TCE	Total Xylenes	Total VOCs	Monthly Average	Monthly	Cumulative	Monthly	Cumulative
4/20/96	10.5	3.8	2.4	119.3	3.4	1.4	26.8	0.0	167.5					
4/21/96	9.9	4.5	2.0	86.5	4.4	0.9	33.5	0.3	142.0					
4/22/96	11.0	5.5	2.0	71.2	5.5	0.9	41.3	0.0	137.3					
4/23/96	11.7	6.0	1.9	67.0	4.9	0.9	45.3	0.0	137.7					
4/24/96	10.8	5.4	0.7	69.8	5.3	0.7	41.8	0.0	134.3	143.8	3,866,073	3,866,073	4.6	4.6
5/8/96	9.5	4.2	0.7	86.0	4.4	0.0	26.5	3.7	134.9					
5/9/96	7.9	2.1	0.9	160.0	2.5	0.0	17.0	1.7	192.0					
5/10/96	12.5	5.4	2.5	147.5	4.3	1.7	33.0	1.1	208.0					
5/11/96	11.0	4.2	2.2	115.0	6.3	0.7	24.0	0.0	163.4					
5/12/96	11.5	7.1	2.3	63.5	7.7	1.2	53.0	0.0	146.2					
5/14/96	8.6	4.5	2.6	115.0	5.2	1.1	34.0	2.8	173.6					
5/15/96	9.9	4.3	2.3	130.0	4.6	1.4	34.0	1.6	187.9					
5/16/96	11.0	7.0	2.2	60.0	7.3	1.3	50.7	0.0	139.5					
5/17/96	12.3	7.0	2.2	60.3	7.2	0.9	48.0	0.0	137.9					
5/18/96	13.0	5.5	3.0	52.0	6.5	0.5	43.0	0.0	123.5					
5/19/96	12.0	5.0	2.5	48.5	6.0	0.0	41.0	0.0	115.0					
5/20/96	13.0	5.5	2.0	48.0	7.0	0.5	40.5	0.0	116.5					
5/21/96	14.5	6.0	2.0	54.0	7.0	0.5	41.0	0.0	125.0					
5/22/96	8.5	4.0	2.0	36.0	7.0	0.0	40.0	0.0	97.5					
5/23/96	9.5	4.0	2.0	41.0	7.5	0.0	42.0	0.0	106.0					
5/24/96	9.5	4.5	2.0	37.5	7.0	0.0	42.0	0.0	102.5					
5/25/96	9.5	4.5	2.0	42.0	7.0	0.0	43.0	0.0	108.0					
5/26/96	9.0	3.5	2.0	40.5	6.5	0.0	39.5	0.0	101.0					
5/27/96	11.0	4.5	2.0	47.5	7.0	0.0	42.5	0.0	114.5					
5/28/96	7.0	4.5	2.0	30.5	7.5	0.0	40.0	0.0	91.5					
5/29/96	8.5	4.5	1.0	40.5	7.5	0.0	39.0	0.0	101.0					
5/30/96	7.0	3.5	1.0	32.0	7.0	0.0	37.5	0.0	88.0	130.6	16,511,846	20,377,919	18.0	22.6
6/6/96	7.0	4.0	1.0	27.0	8.0	0.0	38.0	0.0	85.0					
6/12/96	10.0	5.0	2.0	37.0	6.0	0.0	38.0	0.0	98.0					

Table 4-4: Summary of VOC Mass Removed
Second FiveYear Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Unit
South Valley Superfund Site - Albuquerque, New Mexico

	Constitiuent Concentration in Influent Composite Water (µg/L)										Treated Water Volume (gallons)		VOCs Removed (pounds)	
Date	1,1-DCA	1,1-DCE	1,2-DCA	MTBE	PCE	Trans 1,2-DCE	TCE	Total Xylenes	Total VOCs	Monthly Average	Monthly	Cumulative	Monthly	Cumulative
6/13/96	11.0	5.0	2.0	34.0	6.0	0.0	38.0	0.0	96.0					
6/19/96	10.0	3.0	2.0	100.0	3.0	0.0	21.0	0.0	139.0					
6/20/96	10.0	5.0	2.0	29.0	7.0	0.0	40.0	0.0	93.0					
6/21/96	10.0	5.0	2.0	38.0	7.0	0.0	39.0	0.0	101.0					
6/22/96	10.0	5.0	2.0	30.0	7.0	0.0	38.0	0.0	92.0					
6/24/96	11.0	5.0	2.0	44.0	7.0	0.0	42.0	0.0	111.0					
6/25/96	10.0	6.0	2.0	37.0	6.0	0.0	40.0	0.0	101.0					
6/26/96	11.0	6.0	2.0	39.0	6.0	0.0	39.0	0.0	103.0					
6/27/96	9.0	5.0	2.0	35.0	6.0	0.0	35.0	0.0	92.0	101.0	16,625,710	37,003,629	14.0	36.7
7/5/96	12.0	6.0	2.0	44.0	7.0	0.0	37.0	0.0	108.0					
7/15/96	9.0	5.0	2.0	31.0	6.0	0.0	36.0	0.0	89.0					
7/22/96	10.0	5.0	2.0	34.0	6.0	0.0	31.0	0.0	88.0	95.0	22,222,155	59,225,784	17.6	54.3
8/1/96	9.0	5.0	2.0	33.0	6.0	0.0	35.0	0.0	90.0					
8/15/96	8.0	5.0	2.0	29.0	7.0	0.0	32.0	0.0	83.0					
8/21/96	9.0	6.0	2.0	35.0	7.0	0.0	30.0	0.0	89.0					
8/26/96	0.0	0.0	0.0	33.0	0.0	0.0	33.0	0.0	66.0	82.0	25,626,385	84,852,169	17.5	71.8
9/3/96	8.0	4.0	1.0	50.0	5.0	0.0	26.0	0.0	94.0					
9/5/96	9.0	5.0	0.0	62.0	5.0	0.0	26.0	0.0	107.0					
9/6/96	9.0	6.0	2.0	60.0	5.0	0.0	26.0	0.0	108.0					
9/13/96	7.0	3.0	0.0	25.0	5.0	0.0	22.0	0.0	62.0					
9/15/96	6.0	3.0	0.0	20.0	4.0	0.0	24.0	0.0	57.0					
9/17/96	10.0	7.0	2.0	41.0	5.0	0.0	31.0	0.0	96.0					
9/25/96	11.0	6.0	2.0	47.0	6.0	0.0	32.0	0.0	104.0					
9/27/96	11.0	6.0	2.0	42.0	6.0	0.0	34.0	0.0	101.0					
9/29/96	11.0	7.0	2.0	44.0	6.0	0.0	35.0	0.0	105.0	92.7	28,646,850	113,499,019	22.2	94.0
10/1/96	11.0	6.0	3.0	44.0	6.0	0.0	35.0	0.0	105.0					
10/7/96	11.0	6.0	3.0	40.0	6.0	0.0	36.0	0.0	102.0					
10/14/96	11.0	6.0	2.0	39.0	6.0	0.0	31.0	0.0	95.0					
10/21/96	10.0	6.0	2.0	39.0	5.0	0.0	29.0	0.0	91.0					
10/28/96	11.0	6.0	2.0	38.0	6.0	0.0	32.0	0.0	95.0	97.6	34,548,446	148,047,465	28.1	122.1

Table 4-4: Summary of VOC Mass Removed
Second FiveYear Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Unit
South Valley Superfund Site - Albuquerque, New Mexico

	Constitiuent Concentration in Influent Composite Water (µg/L)										Treated Water Volume (gallons)		VOCs Removed (pounds)	
Date	1,1-DCA	1,1-DCE	1,2-DCA	MTBE	PCE	Trans 1,2-DCE	TCE	Total Xylenes	Total VOCs	Monthly Average	Monthly	Cumulative	Monthly	Cumulative
11/4/96	10.0	6.0	2.0	38.0	5.0	0.0	29.0	0.0	90.0					
11/12/96	10.0	6.0	2.0	33.0	6.0	0.0	32.0	0.0	89.0					
11/18/96	9.0	6.0	2.0	33.0	5.0	0.0	31.0	0.0	86.0					
11/22/96	10.0	6.0	2.0	34.0	6.0	0.0	33.0	0.0	91.0	89.0	33,779,695	181,827,160	25.1	147.2
12/3/96	10.0	6.0	2.0	32.0	5.0	0.0	27.0	0.0	82.0					
12/16/96	13.0	11.0	2.0	36.0	7.0	0.0	36.0	0.0	105.0					
12/23/96	12.0	9.0	2.0	32.0	7.0	1.0	36.0	0.0	99.0					
12/31/96	10.0	7.0	2.0	29.0	7.0	0.0	36.0	0.0	91.0	94.3	36,559,720	218,386,880	28.8	176.0
1/15/97	10.0	6.0	2.0	27.0	8.0	0.0	36.0	0.0	89.0					
1/22/97	11.0	7.0	2.0	30.0	7.0	0.0	35.0	0.0	92.0					
1/31/97	15.0	10.0	2.0	40.0	7.0	0.0	35.0	0.0	109.0	96.7	35,351,323	253,738,203	28.5	204.5
2/5/97	13.0	8.0	2.0	23.0	7.0	0.0	38.0	0.0	91.0					
2/13/97	12.0	8.0	2.0	33.0	8.0	0.0	37.0	0.0	100.0					
2/20/97	10.0	6.0	2.0	24.0	6.0	0.0	32.0	0.0	80.0					
2/26/97	9.0	6.0	2.0	20.0	7.0	0.0	28.0	0.0	72.0	85.8	31,148,341	284,886,544	22.3	226.8
3/11/97	12.0	8.0	2.0	32.0	7.0	0.0	32.0	0.0	93.0					
3/17/97	14.0	7.0	2.0	35.0	7.0	0.0	33.0	0.0	98.0					
3/31/97	13.0	8.0	2.0	34.0	7.0	0.0	33.0	0.0	97.0	96.0	34,836,358	319,722,902	27.9	254.7
Apr-97	12.4	7.4	1.2	33.2	7.0	0.0	31.7	0.0	92.9	92.9	34,871,339	354,594,241	27.0	281.8
May-97	12.4	7.4	1.2	33.2	7.0	0.0	31.7	0.0	92.9	92.9	32,015,321	386,609,562	24.8	306.6
Jun-97	12.4	7.4	1.2	33.2	7.0	0.0	31.7	0.0	92.9	92.9	35,580,834	422,190,396	27.6	334.2
Jul-97	12.3	7.6	0.8	20.3	6.3	0.0	28.4	0.0	75.7	75.7	35,758,395	457,948,791	22.6	356.8
Aug-97	12.3	7.6	0.8	20.3	6.3	0.0	28.4	0.0	75.7	75.7	36,136,973	494,085,764	22.8	379.6
Sep-97	12.3	7.6	0.8	20.3	6.3	0.0	28.4	0.0	75.7	75.7	35,001,689	529,087,453	22.1	401.7
Oct-97	12.3	7.6	0.8	20.3	6.3	0.0	28.4	0.0	75.7	75.7	33,700,433	562,787,886	21.3	423.0
Nov-97	11.8	8.8	1.0	25.5	5.9	0.3	24.9	0.0	78.1	78.1	32,788,616	595,576,502	21.4	444.4
Dec-97	11.8	8.8	1.0	25.5	5.9	0.3	24.9	0.0	78.1	78.1	34,740,633	630,317,135	22.6	467.0
Jan-98	9.4	7.7	0.5	18.3	5.7	0.0	24.9	0.0	66.6	66.6	36,299,502	666,616,637	20.2	487.2
Feb-98	9.4	7.7	0.5	18.3	5.7	0.0	24.9	0.0	66.6	66.6	25,880,054	692,496,691	14.4	501.5
Mar-98	9.4	7.7	0.5	18.3	5.7	0.0	24.9	0.0	66.6	66.6	35,658,064	728,154,755	19.8	521.4

Table 4-4: Summary of VOC Mass Removed
Second FiveYear Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Unit
South Valley Superfund Site - Albuquerque, New Mexico

	Constitiuent Concentration in Influent Composite Water (µg/L)										Treated Water Volume (gallons)		VOCs Removed (pounds)	
Date	1,1-DCA	1,1-DCE	1,2-DCA	MTBE	PCE	Trans 1,2-DCE	TCE	Total Xylenes	Total VOCs	Monthly Average	Monthly	Cumulative	Monthly	Cumulative
Apr-98	6.7	5.2	0.9	17.8	4.8	0.0	19.9	0.0	55.2	55.2	25,459,470	753,614,225	11.7	533.1
May-98	6.7	5.2	0.9	17.8	4.8	0.0	19.9	0.0	55.2	55.2	18,831,620	772,445,845	8.7	541.8
Jun-98	6.7	5.2	0.9	17.8	4.8	0.0	19.9	0.0	55.2	55.2	20,798,413	793,244,258	9.6	551.3
Jul-98	4.3	6.6	0.0	0.0	5.0	0.0	23.1	0.0	38.9	38.9	29,958,577	823,202,835	9.7	561.1
Aug-98	4.3	6.6	0.0	0.0	5.0	0.0	23.1	0.0	38.9	38.9	30,436,928	853,639,763	9.9	571.0
Sep-98	4.3	6.6	0.0	0.0	5.0	0.0	23.1	0.0	38.9	38.9	28,667,669	882,307,432	9.3	580.3
Oct-98	11.0	10.5	1.5	16.9	6.3	0.0	27.4	0.0	73.8	73.8	27,084,154	909,391,586	16.7	596.9
Nov-98	11.0	10.5	1.5	16.9	6.3	0.0	27.4	0.0	73.8	73.8	27,666,103	937,057,689	17.0	614.0
Dec-98	11.0	10.5	1.5	16.9	6.3	0.0	27.4	0.0	73.8	73.8	34,016,013	971,073,702	20.9	634.9
Jan-99	10.9	9.5	1.5	0.0	5.1	0.0	26.5	0.0	53.5	53.5	33,099,684	1,004,173,386	14.8	649.7
Feb-99	10.9	9.5	1.5	0.0	5.1	0.0	26.5	0.0	53.5	53.5	23,882,626	1,028,056,012	10.7	660.4
Mar-99	10.9	9.5	1.5	0.0	5.1	0.0	26.5	0.0	53.5	53.5	25,836,597	1,053,892,609	11.5	671.9
Apr-99	6.2	4.4	0.7	17.0	3.7	0.0	16.4	0.0	48.4	48.4	29,710,444	1,083,603,053	12.0	683.9
May-99	6.2	4.4	0.7	17.0	3.7	0.0	16.4	0.0	48.4	48.4	35,576,177	1,119,179,230	14.4	698.3
Jun-99	6.2	4.4	0.7	17.0	3.7	0.0	16.4	0.0	48.4	48.4	35,472,776	1,154,652,006	14.3	712.6
Jul-99	8.6	7.8	1.4	13.2	5.3	0.0	21.5	0.0	57.8	57.8	34,306,576	1,188,958,582	16.6	729.2
Aug-99	8.6	7.8	1.4	13.2	5.3	0.0	21.5	0.0	57.8	57.8	32,906,964	1,221,865,546	15.9	745.1
Sep-99	8.6	7.8	1.4	13.2	5.3	0.0	21.5	0.0	57.8	57.8	34,636,858	1,256,502,404	16.7	761.8
Oct-99	9.9	9.4	1.5	13.2	6.2	0.0	22.3	0.0	62.4	62.4	31,007,910	1,287,510,314	16.2	777.9
Nov-99	9.9	9.4	1.5	13.2	6.2	0.0	22.3	0.0	62.4	62.4	32,759,149	1,320,269,463	17.1	795.0
Dec-99	9.9	9.4	1.5	13.2	6.2	0.0	22.3	0.0	62.4	62.4	32,671,938	1,352,941,401	17.0	812.0
Jan-00	9.9	9.4	1.5	13.2	6.2	0.0	22.3	0.0	62.4	62.4	29,700,534	1,382,641,935	15.5	827.5
Feb-00	9.9	9.4	1.5	13.2	6.2	0.0	22.3	0.0	62.4	62.4	31,926,616	1,414,568,551	16.6	844.1
Mar-00	9.9	9.4	1.5	13.2	6.2	0.0	22.3	0.0	62.4	62.4	34,689,564	1,449,258,115	18.1	862.2
Apr-00	4.7	2.4	0.4	12.1	1.6	0.0	10.1	0.0	31.2	31.2	19,082,657	1,468,340,772	5.0	867.2
May-00	4.7	2.4	0.4	12.1	1.6	0.0	10.1	0.0	31.2	31.2	25,757,605	1,494,098,377	6.7	873.9
Jun-00	4.7	2.4	0.4	12.1	1.6	0.0	10.1	0.0	31.2	31.2	31,976,286	1,526,074,663	8.3	882.3
Jul-00	4.7	2.4	0.4	12.1	1.6	0.0	10.1	0.0	31.2	31.2	37,233,859	1,563,308,522	9.7	892.0
Aug-00	4.7	2.4	0.4	12.1	1.6	0.0	10.1	0.0	31.2	31.2	34,504,629	1,597,813,151	9.0	901.0
Sep-00	4.7	2.4	0.4	12.1	1.6	0.0	10.1	0.0	31.2	31.2	30,494,373	1,628,307,524	8.0	908.9

Table 4-4: Summary of VOC Mass Removed
Second FiveYear Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Unit
South Valley Superfund Site - Albuquerque, New Mexico

	Constitiuent Concentration in Influent Composite Water (µg/L)										Treated Water Volume (gallons)		VOCs Removed (pounds)	
Date	1,1-DCA	1,1-DCE	1,2-DCA	MTBE	PCE	Trans 1,2-DCE	TCE	Total Xylenes	Total VOCs	Monthly Average	Monthly	Cumulative	Monthly	Cumulative
Oct-00	6.2	4.4	0.5	5.8	4.1	0.0	15.7	0.0	36.7	36.7	30,925,024	1,659,232,548	9.5	918.4
Nov-00	6.2	4.4	0.5	5.8	4.1	0.0	15.7	0.0	36.7	36.7	34,052,633	1,693,285,181	10.4	928.8
Dec-00	6.2	4.4	0.5	5.8	4.1	0.0	15.7	0.0	36.7	36.7	33,139,016	1,726,424,197	10.2	939.0
Jan-01	6.2	4.4	0.5	5.8	4.1	0.0	15.7	0.0	36.7	36.7	35,667,482	1,762,091,679	10.9	949.9
Feb-01	6.2	4.4	0.5	5.8	4.1	0.0	15.7	0.0	36.7	36.7	29,606,720	1,791,698,399	9.1	959.0
Mar-01	6.2	4.4	0.5	5.8	4.1	0.0	15.7	0.0	36.7	36.7	33,385,416	1,825,083,815	10.2	969.2
Apr-01	7.6	5.4	1.5	6.2	3.6	0.0	15.0	0.0	39.3	39.3	33,403,787	1,858,487,602	10.9	980.2
May-01	7.6	5.4	1.5	6.2	3.6	0.0	15.0	0.0	39.3	39.3	36,865,104	1,895,352,706	12.1	992.3
Jun-01	7.6	5.4	1.5	6.2	3.6	0.0	15.0	0.0	39.3	39.3	34,977,386	1,930,330,092	11.5	1003.7
Jul-01	7.6	5.4	1.5	6.2	3.6	0.0	15.0	0.0	39.3	39.3	24,097,970	1,954,428,062	7.9	1011.6
Aug-01	7.6	5.4	1.5	6.2	3.6	0.0	15.0	0.0	39.3	39.3	31,033,467	1,985,461,529	10.2	1021.8
Sep-01	7.6	5.4	1.5	6.2	3.6	0.0	15.0	0.0	39.3	39.3	31,003,085	2,016,464,614	10.2	1031.9
Oct-01	5.7	6.2	1.1	4.9	3.0	0.0	14.0	0.0	34.9	34.9	31,185,212	2,047,649,826	9.1	1041.0
Nov-01	5.7	6.2	1.1	4.9	3.0	0.0	14.0	0.0	34.9	34.9	32,514,625	2,080,164,451	9.5	1050.5
Dec-01	5.7	6.2	1.1	4.9	3.0	0.0	14.0	0.0	34.9	34.9	35,908,999	2,116,073,450	10.5	1061.0
Jan-02	5.7	6.2	1.1	4.9	3.0	0.0	14.0	0.0	34.9	34.9	31,651,668	2,147,725,118	9.2	1070.2
Feb-02	5.7	6.2	1.1	4.9	3.0	0.0	14.0	0.0	34.9	34.9	24,706,720	2,172,431,838	7.2	1077.4
Mar-02	5.7	6.2	1.1	4.9	3.0	0.0	14.0	0.0	34.9	34.9	23,995,931	2,196,427,769	7.0	1084.4
Apr-02	6.2	5.5	1.1	6.4	2.7	0.0	11.6	0.0	33.5	33.5	25,853,954	2,222,281,723	7.2	1091.6
May-02	6.2	5.5	1.1	6.4	2.7	0.0	11.6	0.0	33.5	33.5	14,382,245	2,236,663,968	4.0	1095.6
Jun-02	6.2	5.5	1.1	6.4	2.7	0.0	11.6	0.0	33.5	33.5	26,370,572	2,263,034,540	7.4	1103.0
Jul-02	6.2	5.5	1.1	6.4	2.7	0.0	11.6	0.0	33.5	33.5	35,325,189	2,298,359,729	9.9	1112.9
Aug-02	6.2	5.5	1.1	6.4	2.7	0.0	11.6	0.0	33.5	33.5	30,599,377	2,328,959,106	8.5	1121.4
Sep-02	6.2	5.5	1.1	6.4	2.7	0.0	11.6	0.0	33.5	33.5	35,759,751	2,364,718,857	10.0	1131.4
Oct-02	7.1	5.7	1.2	4.0	4.5	0.0	14.3	0.0	36.8	36.8	40,135,809	2,404,854,666	12.3	1143.7
Nov-02	7.1	5.7	1.2	4.0	4.5	0.0	14.3	0.0	36.8	36.8	35,918,208	2,440,772,874	11.0	1154.8
Dec-02	7.1	5.7	1.2	4.0	4.5	0.0	14.3	0.0	36.8	36.8	40,495,693	2,481,268,567	12.4	1167.2
Jan-03	7.1	5.7	1.2	4.0	4.5	0.0	14.3	0.0	36.8	36.8	41,817,294	2,523,085,861	12.9	1180.1
Feb-03	7.1	5.7	1.2	4.0	4.5	0.0	14.3	0.0	36.8	36.8	37,701,229	2,560,787,090	11.6	1191.7
Mar-03	7.1	5.7	1.2	4.0	4.5	0.0	14.3	0.0	36.8	36.8	37,003,241	2,597,790,331	11.4	1203.0

Table 4-4: Summary of VOC Mass Removed
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South Valley Superfund Site - Albuquerque, New Mexico

	Constitiuent Concentration in Influent Composite Water (µg/L)										Treated Water Volume (gallons)		VOCs Removed (pounds)	
Date	1,1-DCA	1,1-DCE	1,2-DCA	MTBE	PCE	Trans 1,2-DCE	TCE	Total Xylenes	Total VOCs	Monthly Average	Monthly	Cumulative	Monthly	Cumulative
Apr-03	4.9	4.2	0.8	2.5	3.2	0.0	9.6	0.0	25.2	25.2	37,145,400	2,634,935,731	7.8	1210.9
May-03	4.9	4.2	0.8	2.5	3.2	0.0	9.6	0.0	25.2	25.2	40,735,701	2,675,671,432	8.6	1219.4
Jun-03	4.9	4.2	0.8	2.5	3.2	0.0	9.6	0.0	25.2	25.2	40,433,097	2,716,104,529	8.5	1227.9
Jul-03	4.9	4.2	0.8	2.5	3.2	0.0	9.6	0.0	25.2	25.2	39,318,316	2,755,422,845	8.3	1236.2
Aug-03	4.9	4.2	0.8	2.5	3.2	0.0	9.6	0.0	25.2	25.2	40,274,855	2,795,697,700	8.5	1244.7
Sep-03	4.9	4.2	0.8	2.5	3.2	0.0	9.6	0.0	25.2	25.2	39,576,896	2,835,274,596	8.3	1253.0
Oct-03	4.6	3.9	0.7	1.8	3.2	0.0	8.8	0.0	23.1	23.1	41,180,466	2,876,455,062	7.9	1260.9
Nov-03	4.6	3.9	0.7	1.8	3.2	0.0	8.8	0.0	23.1	23.1	39,899,635	2,916,354,697	7.7	1268.6
Dec-03	4.6	3.9	0.7	1.8	3.2	0.0	8.8	0.0	23.1	23.1	39,486,511	2,955,841,208	7.6	1276.2
Jan-04	4.6	3.9	0.7	1.8	3.2	0.0	8.8	0.0	23.1	23.1	40,087,310	2,995,928,518	7.7	1283.9
Feb-04	4.6	3.9	0.7	1.8	3.2	0.0	8.8	0.0	23.1	23.1	39,148,989	3,035,077,507	7.5	1291.5
Mar-04	4.6	3.9	0.7	1.8	3.2	0.0	8.8	0.0	23.1	23.1	41,958,246	3,077,035,753	8.1	1299.5
Apr-04	4.0	3.5	0.7	1.3	2.7	0.0	7.4	0.0	19.6	19.6	40,396,326	3,117,432,079	6.6	1306.2
May-04	4.0	3.5	0.7	1.3	2.7	0.0	7.4	0.0	19.6	19.6	41,509,985	3,158,942,064	6.8	1312.9
Jun-04	4.0	3.5	0.7	1.3	2.7	0.0	7.4	0.0	19.6	19.6	40,039,914	3,198,981,978	6.6	1319.5
Jul-04	4.0	3.5	0.7	1.3	2.7	0.0	7.4	0.0	19.6	19.6	40,202,005	3,239,183,983	6.6	1326.1
Aug-04	4.0	3.5	0.7	1.3	2.7	0.0	7.4	0.0	19.6	19.6	35,247,055	3,274,431,038	5.8	1331.8
Sep-04	4.0	3.5	0.7	1.3	2.7	0.0	7.4	0.0	19.6	19.6	39,133,124	3,313,564,162	6.4	1338.3
Oct-04	3.7	3.4	0.5	1.0	2.0	0.0	5.3	0.0	16.0	16.0	40,674,509	3,354,238,671	5.4	1343.7
Nov-04	3.7	3.4	0.5	1.0	2.0	0.0	5.3	0.0	16.0	16.0	39,501,370	3,393,740,041	5.3	1348.9
Dec-04	3.7	3.4	0.5	1.0	2.0	0.0	5.3	0.0	16.0	16.0	39,424,505	3,433,164,546	5.3	1354.2
Jan-05	3.7	3.4	0.5	1.0	2.0	0.0	5.3	0.0	16.0	16.0	41,405,217	3,474,569,763	5.5	1359.7
Feb-05	3.7	3.4	0.5	1.0	2.0	0.0	5.3	0.0	16.0	16.0	36,974,141	3,511,543,904	4.9	1364.6
Mar-05	3.7	3.4	0.5	1.0	2.0	0.0	5.3	0.0	16.0	16.0	38,854,541	3,550,398,445	5.2	1369.8
Apr-05	2.7	2.7	0.5	1.0	2.0	0.0	5.3	0.0	14.2	14.2	38,797,226	3,589,195,671	4.6	1374.4
May-05	2.7	2.7	0.5	1.0	2.0	0.0	5.3	0.0	14.2	14.2	40,517,584	3,629,713,255	4.8	1379.2
Jun-05	2.7	2.7	0.5	1.0	2.0	0.0	5.3	0.0	14.2	14.2	39,437,025	3,669,150,280	4.7	1383.9

Table 4-4: Summary of VOC Mass Removed
Second FiveYear Review Report
Former Air Force Plant 83/General Electric Deep Zone and San Jose-6 Operable Unit
South Valley Superfund Site - Albuquerque, New Mexico

	Constitiuent Concentration in Influent Composite Water (µg/L)										Treated Water Volume (gallons)		VOCs Removed (pounds)	
Date	1,1-DCA	1,1-DCE	1,2-DCA	MTBE	PCE	Trans 1,2-DCE	TCE	Total Xylenes	Total VOCs	Monthly Average	Monthly	Cumulative	Monthly	Cumulative

Notes:
1. The constituent concentration influent composite water is based on the analytical data for sample ports SP-001, SP-002, and SP-003.
1,1-DCA=1,1-Dichloroethane
1,1-DCE=1,1-Dichloroethene
µg/L = micrograms per liter
1,2-DCA=1,2-Dichloroethane
MTBE=methyl tert butyl ether
PCE=Tetrachloroethene
Trans 1,2-DCE=trans 1,2-Dichloroethene
TCE=Trichloroethene
VOCs=volatile organic compounds

Table 4-5: Summary of Treatment Plant Runtime and Average On-Line Efficiency
Second Five Year Review Report
Plant 83/General Electric Deep Zone and San Jose-6 Operable Unit
South Valley Superfund Site - Albuquerque, New Mexico

	1996											
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Total Plant Run Hours	**NA**	**NA**	**NA**	4-Day Test	411	516	683	719	617	733	714	737
Total Hours in Month	**NA**	**NA**	**NA**	720	744	720	744	744	720	744	720	744
% Run Time				NA	55.24%	71.67%	91.80%	96.64%	85.69%	98.52%	99.17%	99.06%

	1997											
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Total Plant Run Hours	733	661	741	708	646	719	720	733	710	674	657	737
Total Hours in Month	744	672	744	720	744	720	744	744	720	744	720	744
% Run Time	98.52%	98.36%	99.60%	98.33%	86.83%	99.86%	96.77%	98.52%	98.61%	90.59%	91.25%	99.06%

	1998											
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Total Plant Run Hours	735	529	734	574	453	424	594	624	585	539	563	694
Total Hours in Month	744	672	744	720	744	720	744	744	720	744	720	744
% Run Time	98.79%	78.72%	98.66%	79.72%	60.89%	58.89%	79.84%	83.87%	81.25%	72.45%	78.19%	93%

	1999											
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Total Plant Run Hours	686	546	535	565	744	718	711	694	720	648	678	669
Total Hours in Month	744	672	744	720	744	720	744	744	720	744	720	744
% Run Time	92.20%	81.25%	71.91%	78.47%	100.00%	99.72%	95.56%	93.28%	100.00%	87.10%	94.17%	89.92%

Table 4-5: Summary of Treatment Plant Runtime and Average On-Line Efficiency
Second Five Year Review Report
Plant 83/General Electric Deep Zone and San Jose-6 Operable Unit
South Valley Superfund Site - Albuquerque, New Mexico

	2000											
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Total Plant Run Hours	611	680	724	380	671	646	744	699	614	625	692	666
Total Hours in Month	744	696	744	720	744	720	744	744	720	744	720	744
% Run Time	82.12%	97.70%	97.31%	52.78%	90.19%	89.72%	100.00%	93.95%	85.28%	84.01%	96.11%	89.52%

	2001											
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Total Plant Run Hours	714	636	719	673	743	690	602	672	643	637	684	725
Total Hours in Month	744	672	744	720	744	720	744	744	720	744	720	744
% Run Time	95.97%	94.64%	96.64%	93.47%	99.87%	95.83%	80.91%	90.32%	89.31%	85.62%	95.00%	97.45%

	2002											
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Total Plant Run Hours	651	588	617	624	467	706	718	658	706	714	649	719
Total Hours in Month	744	672	744	720	744	720	744	744	720	744	720	744
% Run Time	87.50%	87.50%	82.93%	86.67%	62.77%	98.06%	96.51%	88.44%	98.06%	95.97%	90.14%	96.64%

	2003											
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Total Plant Run Hours	743.75	671	724	675	725	720	713	720	704	732	710	702
Total Hours in Month	744	672	744	720	744	720	744	744	720	744	720	744
% Run Time	99.97%	99.85%	97.31%	93.75%	97.45%	100.00%	95.83%	96.77%	97.78%	98.39%	98.61%	94.35%

Table 4-5: Summary of Treatment Plant Runtime and Average On-Line Efficiency
Second Five Year Review Report
Plant 83/General Electric Deep Zone and San Jose-6 Operable Unit
South Valley Superfund Site - Albuquerque, New Mexico

	2004											
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Total Plant Run Hours	713	696	744	720	744	720	720	730	704	728	703	706
Total Hours in Month	744	696	744	720	744	720	744	744	720	744	720	744
% Run Time	95.83%	100.00%	100.00%	100.00%	100.00%	100.00%	96.77%	98.12%	97.78%	97.85%	97.64%	94.89%

	2005						1996-2005
	January	**February**	**March**	**April**	**May**	**June**	**Totals**
Total Plant Run Hours	744	663	699	700	731	718	73660.75
Total Hours in Month	744	672	744	720	744	720	80352
% Run Time	100.00%	98.66%	93.95%	97.22%	98.25%	99.72%	91.67%

Note:
% Run Time = percentage of the time system is fully operational

Table 4- 6: Summary of Organic Analytical Results for Groundwater Elevations 4840 ft - 4900 ft (MSL)
Second Five Review Year Report
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Second Quarter 1996 VOC Concentrations in ug/l

Sample Location: / Sample Date:	P83-21P 4/2/96	P83-23P 4/8/96	P83-24P 4/8/96	P83-25P 3/30/96	P83-28P 4/6/96	WB-01(1) 4/1/96	WB-05(1) 4/9/96
Analyte Name							
1,1-Dichloroethane	ND	6.2	ND	6.6	ND	ND	1.3
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	7.3	ND	ND	ND	ND
Metyl tert butyl ether (MTBE)	ND	ND	35	ND	ND	240	ND
Tetrachloroethene	ND	ND	1.5	ND	ND	13	ND
Trichloroethene	ND	5	1.4	1.2	ND	2.3	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND

Second Quarter 2000 VOC Concentrations in ug/l

Sample Location: / Sample Date:	P83-21P 4/24/00	P83-24P 5/1/00	P83-25P 4/25/00	P83-28P 4/21/00	WB-01(1) 4/18/00	WB-05(1) 4/13/00
Analyte Name						
1,1-Dichloroethane	ND	ND	2	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Metyl tert butyl ether (MTBE)	ND	ND	ND	ND	22	ND
Tetrachloroethene	ND	1.2	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND

Second Quarter 2005 VOC Concentrations in ug/l

Sample Location: / Sample Date:	P83-21P 4/27/2005	P83-24P 5/3/2005	P83-25P 4/28/2005	P83-28P 4/27/2005	WB-01(1) 4/19/2005	WB-05(1) 4/18/2005
Analyte Name						
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Metyl tert butyl ether (MTBE)	ND	12	ND	4.3	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND

Table 4-7: Organic Analytical Results for Groundwater Elevations 4790 ft - 4840 ft (MSL)
Second Five Year Review Report
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Second Quarter 1996 VOC Concentrations in ug/l

Location: / Date:	D-01 3/30/96	DMW-02 3/29/96	P83-07D 4/6/96	P83-08D 3/29/96	P83-09D 4/9/96	P83-10D 3/27/96	P83-19U 3/27/96	P83-21S 7/17/96	P83-22S 4/2/96	P83-23S 4/3/96	P83-24S 7/16/96	P83-25S 7/18/96
Analyte												
1,1-DCA	9.8	ND	**32**	ND	**46**	ND	6.7	1	11	4.5	ND	10
1,1-DCE	ND	ND	**43**	ND	**18**	ND	1	ND	**5.4**	2.4	ND	3
1,2-DCA	ND	ND	**8.6**	ND	2.1	ND	ND	ND	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	4.5	ND	ND	ND	ND	ND	1	ND
PCE	1.2	ND	3	ND	**5.5**	ND	ND	ND	1	**6.3**	ND	3
TCE	1.8	ND	2.5	ND	**85**	ND	1.3	ND	**6.9**	**12**	ND	1
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Location: / Date:	P83-26S 7/18/96	P83-27S 7/19/96	P83-28S 7/19/96	P83-29S 7/18/96	WB-01(2) 4/1/96	WB-02(1) 4/4/96	WB-04(1) 4/5/96	WB-05(2) 4/9/96	WB-07(1) 7/12/96	SJ6-01D 3/28/96	SJ6-02D 3/28/96
Analyte											
1,1-DCA	6	1	ND	13	6.1	25	12	1.3	ND	1.2	4.2
1,1-DCE	2	1	ND	3	4.3	**14**	4.1	ND	ND	ND	1.1
1,2-DCA	ND	3	ND	ND	ND	2.1	ND	5.9	ND	ND	ND
MTBE	ND	ND	ND	ND	3.4	5.8	ND	ND	ND	ND	ND
PCE	ND	4	ND	2	**41**	4.5	1.4	6.9	ND	ND	2
TCE	4	**6**	ND	4	**12**	**44**	**5.1**	2	ND	ND	1.6
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3

Second Quarter 2000 VOC Concentrations in ug/l

Location: / Date:	D-01 5/3/00	DMW-02 4/20/00	P83-07D 5/2/00	P83-08D 5/3/00	P83-09D 5/3/00	P83-10D 5/4/00	P83-19U 5/1/00	P83-21S 4/24/00	P83-22S 4/25/00	P83-23S 4/21/00	P83-24S 5/1/00	P83-25S 4/25/00
Analyte												
1,1-DCA	ND	ND	1.5	ND	9.7	ND	1	ND	4	ND	ND	1.1
1,1-DCE	ND	ND	1.2	ND	**5.5**	ND	ND	ND	ND	ND	ND	ND
1,2-DCA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	ND
PCE	ND	ND	ND	ND	1.9	ND	ND	ND	ND	ND	ND	ND
TCE	ND	ND	ND	ND	**16**	ND	ND	ND	1.4	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Location: / Date:	P83-26S 4/26/00	P83-27S 4/26/00	P83-28S 4/21/00	P83-29S 5/2/00	WB-01(2) 4/18/00	WB-02(1) 4/17/00	WB-04(1) 4/14/00	WB-05(2) 4/13/00	WB-07(1) 4/12/00	SJ6-01D 5/3/00	SJ6-02D 5/3/00
Analyte											
1,1-DCA	5.5	ND	ND	12	ND	12	10	1.3	ND	1.6	4.3
1,1-DCE	ND	ND	ND	2	ND	**8.7**	4.1	ND	ND	ND	ND
1,2-DCA	ND	ND	ND	ND	ND	ND	ND	1.3	ND	ND	ND
MTBE	ND	ND	ND	ND	57	1.9	19	ND	ND	ND	ND
PCE	ND	ND	ND	1.1	**5.9**	2.1	ND	2.4	ND	ND	ND
TCE	ND	ND	ND	2.5	ND	**17**	**7.3**	ND	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4-7: Organic Analytical Results for Groundwater Elevations 4790 ft - 4840 ft (MSL)
Second Five Year Review Report
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Second Quarter 2005 VOC Concentrations in ug/l

Location: / Date:	D-01 5/3/05	DMW-02 4/25/05	P83-07D 4/25/05	P83-08D 4/25/05	P83-09D 4/25/05	P83-10D 5/4/05	P83-19U 3/29/05	P83-21S 4/27/05	P83-22S 4/5/05	P83-23S 4/26/05	P83-24S 5/3/05	P83-25S 4/27/05
Analyte												
1,1-DCA	ND	ND	ND	ND	9.6	ND	ND	ND	ND	ND	ND	ND
1,1-DCE	ND	ND	ND	ND	**6.6**	ND	ND	ND	ND	ND	ND	ND
1,2-DCA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCE	ND	ND	ND	ND	**6.4**	ND	ND	ND	ND	ND	ND	ND
TCE	ND	ND	ND	ND	**12**	ND	ND	ND	ND	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Location: / Date:	P83-26S 4/28/05	P83-27S 4/29/05	P83-28S 4/27/05	P83-29S 4/26/05	WB-01(2) 4/19/05	WB-02(1) 4/14/05	WB-04(1) 4/14/05	WB-05(2) 4/18/05	WB-07(1) 4/15/05	SJ6-01D 4/25/05	SJ6-02D 5/4/05
Analyte											
1,1-DCA	ND	ND	ND	2.8	ND	6.3	4.4	ND	ND	1.3	2.5
1,1-DCE	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND
1,2-DCA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	2.4	ND	2.5	ND	ND	ND	ND
PCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCE	ND	ND	ND	ND	ND	2.6	1.8	ND	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4-8: Organic Analytical Results for Groundwater Elevations 4660 ft - 4790 ft (MSL)
Second Five Year Review Report
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Location:	D-02	HL-02	P83-19M	P83-22M	P83-22D	P83-23M	P83-26M	P83-26D	P83-27M	P83-27D	WB-01(3)	WB-01(4)
Date:	4/8/96	3/30/96	3/28/96	4/2/96	4/2/96	4/3/96	4/2/96	4/1/96	4/3/96	4/3/96	4/1/96	4/2/96
Analyte												
1,1-DCA	1.9	ND	9.8	1.7	ND	2.1	5.6	5.4	4.8	3.5	9.6	**26**
1,1-DCE	ND	ND	2.7	ND	ND	3.2	2.2	3.7	2.8	**5.3**	2.2	**17**
1,2-DCA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	**5.7**
MTBE	35	ND	ND	ND	ND	ND	ND	ND	2.2	ND	ND	ND
PCE	ND	ND	ND	ND	ND	1.5	ND	3.2	11	3.5	4.3	**77**
TCE	4.1	ND	2.2	**5.6**	ND	**6.2**	**7.1**	**18**	**56**	**15**	**21**	**400**
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.7**

Location:	WB-01(5)	WB-02(2)	WB-04(2)	WB-04(3)	WB-05(3)	WB-05(4)	WB-06(1)	WB-06(2)	WB-07(2)	WB-07(3)	WB-07(4)	SJ610-D
Date:	4/2/96	4/4/96	4/5/96	4/8/96	4/9/96	4/10/96	3/27/96	3/28/96	4/11/96	4/11/96	4/11/96	3/28/96
Analyte												
1,1-DCA	21	**40**	2.6	18	3.3	16	4.3	4.5	ND	ND	ND	1.2
1,1-DCE	**19**	**37**	1.8	**14**	2.6	**20**	ND	1.2	ND	ND	ND	ND
1,2-DCA	2	**8**	ND	2.8	2.2	4.2	ND	ND	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCE	**17**	**19**	4	**14**	ND	**6.2**	ND	1.5	ND	ND	ND	ND
TCE	**250**	**55**	**32**	**79**	ND	3.1	1.9	2.4	ND	ND	ND	ND
VC	**3.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

2000 VOC Concentrations in ug/l

Location:	D-02	HL-02	P83-19M	P83-22M	P83-22D	P83-23M	P83-26M	P83-26D	P83-27M	P83-27D	WB-01(3)	WB-01(4)
Date:	5/2/00	5/1/00	4/28/00	4/24/00	4/24/00	4/21/00	4/27/00	4/27/00	4/26/00	4/26/00	4/18/00	4/18/00
Analyte												
1,1-DCA	14	ND	1.6	ND	ND	ND	1.9	ND	ND	ND	11	2
1,1-DCE	**12**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**9.2**	1
1,2-DCA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9	ND
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	55
PCE	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7	2.8
TCE	**14**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**7.4**	**6.1**
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Location:	WB-01(5)	WB-02(2)	WB-04(2)	WB-04(3)	WB-05(3)	WB-05(4)	WB-06(1)	WB-06(2)	WB-07(2)	WB-07(3)	WB-07(4)	SJ610-D
Date:	4/18/00	4/18/00	4/14/00	4/13/00	4/12/00	4/12/00	4/17/00	4/17/00	4/12/00	4/12/00	4/12/00	5/3/00
Analyte												
1,1-DCA	8.5	**35**	ND	ND	8.6	17	2.2	1.6	ND	ND	ND	ND
1,1-DCE	**11**	**39**	ND	ND	**11**	**24**	ND	ND	ND	ND	ND	ND
1,2-DCA	1.4	4.7	ND	ND	3.1	4.5	ND	ND	ND	ND	ND	ND
MTBE	ND	ND	ND	2.6	ND	ND	ND	ND	ND	ND	ND	ND
PCE	**5.1**	**14**	ND	ND	1.9	**6.4**	ND	ND	ND	ND	ND	ND
TCE	**13**	**57**	2.2	ND	ND	3	ND	ND	ND	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4-8: Organic Analytical Results for Groundwater Elevations 4660 ft - 4790 ft (MSL)
Second Five Year Review Report
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
2005 VOC Concentrations in ug/l

Location:	D-02	HL-02	P83-19M	P83-22M	P83-22D	P83-23M	P83-26M	P83-26D	P83-27M	P83-27D	WB-01(3)	WB-01(4)
Date:	5/2/05	5/2/05	4/1/05	4/6/05	4/6/05	4/26/05	4/29/05	4/28/05	4/29/05	4/29/05	4/19/05	
Analyte												
1,1-DCA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.6	6.7
1,1-DCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	**7.9**
1,2-DCA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.6
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9	3.6
PCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**7.5**
TCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Location:	WB-01(5)	WB-02(2)	WB-04(2)	WB-04(3)	WB-05(3)	WB-05(4)	WB-06(1)	WB-06(2)	WB-07(2)	WB-07(3)	WB-07(4)	SJ6-10D
Date:	4/19/05	4/14/05	4/14/05	4/14/05	4/18/05	4/18/05	4/20/05	4/20/05	4/15/05	4/15/05	4/15/05	5/3/05
Analyte												
1,1-DCA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-DCE	ND	ND	ND	ND	ND	**21**	ND	ND	ND	ND	ND	ND
1,2-DCA	ND	ND	ND	ND	ND	**17**	ND	ND	ND	ND	ND	ND
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCE	ND	ND	ND	ND	ND	4.7	ND	ND	ND	ND	ND	ND
TCE	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4-9: Organic Analytical Results for Groundwater Elevations 4600 ft - 4660 ft (MSL)
Second Five Year Review Report
Deep Zone Groundwater remediation system
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Second Quarter 1996 VOC Concentrations in ug/l

Sample Location:	P83-19LR	P83-23D	WB-01(6)	WB-02(3)	WB-04(4)	WB-05(5)	WB-06(3)
Sample Date:	3/28/96	4/3/96	4/2/96	4/4/96	4/8/96	4/10/96	3/28/96
Analyte Name							
1,1-Dichloroethane	ND	ND	3.9	**26**	16	ND	ND
1,1-Dichloroethene	ND	ND	4.9	**23**	**12**	ND	ND
1,2-Dichloroethane	ND	ND	ND	4.4	2.4	ND	ND
Methyl tert butyl ether (MTBE)	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	**15**	**12**	ND	ND
Trichloroethene	ND	ND	2.6	**23**	**22**	ND	1.8
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND

Second Quarter 2000 VOC Concentrations in ug/l

Sample Location:	P83-19LR	P83-23D	WB-01(6)	WB-02(3)	WB-04(4)	WB-05(5)	WB-06(3)
Sample Date:	4/28/00	4/20/00	4/18/00	4/17/00	4/13/00	4/12/00	4/17/00
Analyte Name							
1,1-Dichloroethane	ND	ND	1.8	9.3	2.8	3.4	ND
1,1-Dichloroethene	ND	ND	2.8	**11**	1.7	4.9	ND
1,2-Dichloroethane	ND	ND	ND	1.4	ND	ND	ND
Methyl tert butyl ether (MTBE)	ND	1.4	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	1	3.5	2.2	ND	ND
Trichloroethene	ND	ND	2.1	**16**	3.3	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND

Second Quarter 2005 VOC Concentrations in ug/l

Sample Location:	P83-19LR	P83-23D	WB-01(6)	WB-02(3)	WB-04(4)	WB-05(5)	WB-06(3)
Sample Date:	3/30/05	4/26/05	4/19/05	4/14/05	4/14/05	4/18/05	4/20/05
Analyte Name							
1,1-Dichloroethane	ND	ND	ND	ND	ND	3.2	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	4.2	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND
Methyl tert butyl ether (MTBE)	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	1.2	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND

Table 4-10: Organic Analytical Results for Groundwater Elevations 4500 ft - 4600 ft (MSL)
Second Five Year Review Report
Deep Zone Groundwater remediation system
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Second Quarter 1996 VOC Concentrations in ug/l

Sample Location: / Sample Date:	WB-02 (4) 4/4/96	WB-02 (5) 4/4/96	WB-04 (5) 4/8/96	WB-04 (6) NA	WB-05 (6) 4/10/96	WB-06 (4) 3/28/96	WB-06 (5) 2/28/96
Analyte Name							
1,1-Dichloroethane	9.5	ND	ND	not sampled	ND	ND	ND
1,1-Dichloroethene	**6.9**	ND	ND	not sampled	ND	ND	ND
1,2-Dichloroethane	1.3	1.7	ND	not sampled	ND	ND	ND
Methyl tert butyl ether (MTBE)	ND	1.2	ND	not sampled	ND	ND	ND
Tetrachloroethene	2.6	ND	ND	not sampled	ND	ND	ND
Trichloroethene	1.5	1.5	ND	not sampled	ND	ND	ND
Vinyl Chloride	ND	ND	ND	not sampled	ND	ND	ND

Second Quarter 2000 VOC Concentrations in ug/l

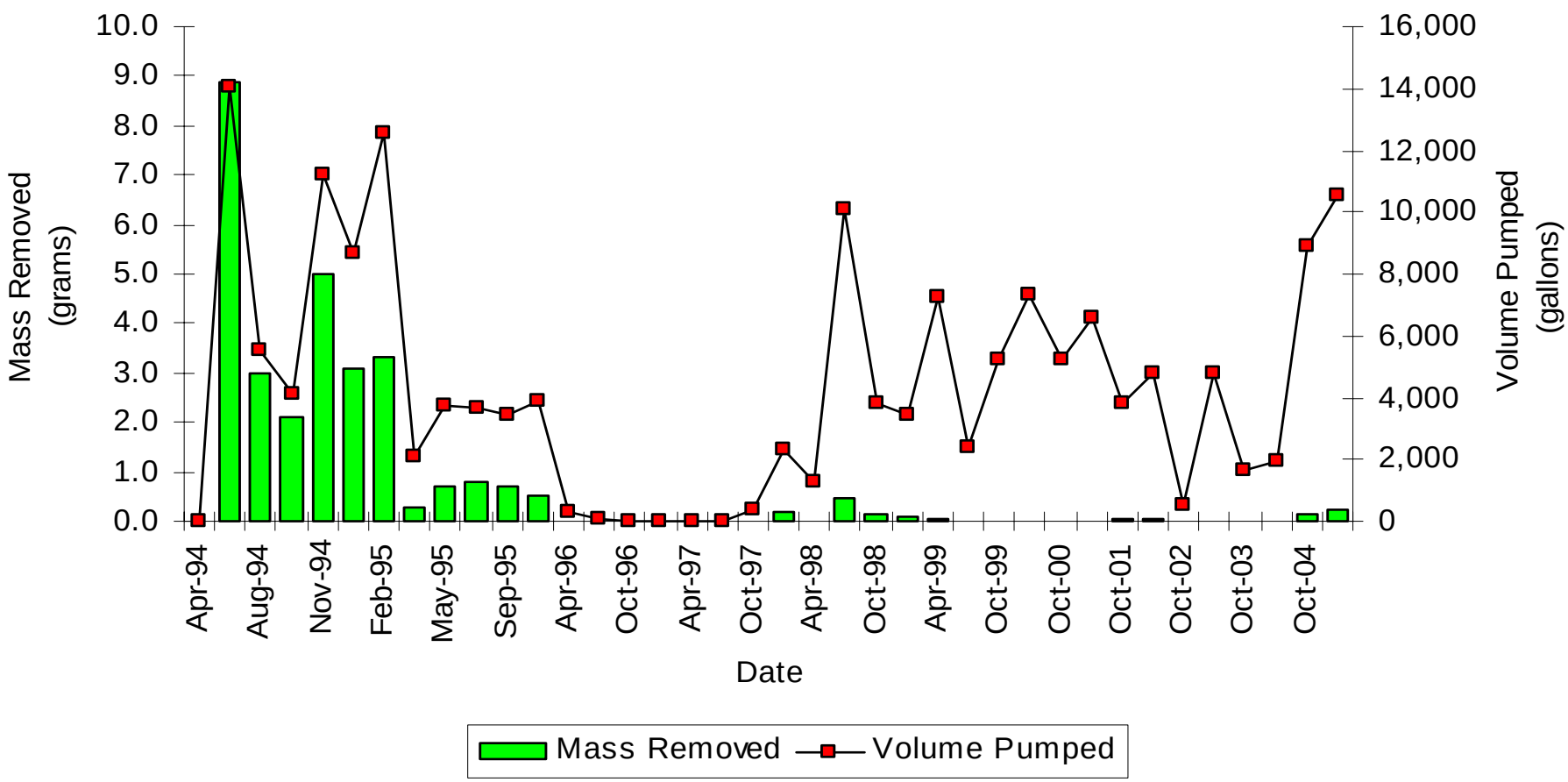
Sample Location: / Sample Date:	WB-02 (4) 4/17/00	WB-02 (5) 4/17/00	WB-04 (5) 4/13/01	WB-04 (6) NA	WB-05 (6) 4/12/00	WB-06 (4) 4/14/00	WB-06 (5) 4/14/00
Analyte Name							
1,1-Dichloroethane	5.1	ND	3.8	not sampled	ND	ND	ND
1,1-Dichloroethene	**6**	ND	3.2	not sampled	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	not sampled	ND	ND	ND
Methyl tert butyl ether (MTBE)	ND	ND	ND	not sampled	ND	ND	ND
Tetrachloroethene	ND	ND	3.3	not sampled	ND	ND	ND
Trichloroethene	ND	ND	**6.7**	not sampled	ND	ND	ND
Vinyl Chloride	ND	ND	ND	not sampled	ND	ND	ND

Second Quarter 2005 VOC Concentrations in ug/l

Sample Location: / Sample Date:	WB-02(4) 4/14/2005	WB-02(5) 4/14/2005	WB-04(5) 4/14/2005	WB-04(6) 4/13/2005	WB-05(6) 4/18/2005	WB-06(4) 4/20/2005	WB-06(5) 4/20/2005	P83-19D-2 3/31/2005	P83-22D-2 4/5/2005	WB-07(5) 4/15/2005	P83-30D-2 3/29/2005
Analyte Name											
1,1-Dichloroethane	16	ND	7.3	ND	ND	ND	ND	ND	2.2	ND	ND
1,1-Dichloroethene	**16**	ND	**6.1**	ND	ND	ND	ND	ND	1.8	ND	ND
1,2-Dichloroethane	**5.3**	ND	1.6	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert butyl ether (MTBE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2.5	ND	**5.2**	ND	ND	ND	ND	ND	1.6	ND	ND
Trichloroethene	**8.7**	ND	**9.9**	ND	ND	ND	ND	ND	3.2	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

APPENDIX A

VOC MASS REMOVED PER VOLUME OF GROUNDWATER PUMPED - SHALLOW ZONE GROUNDWATER REMEDIATION SYSTEM



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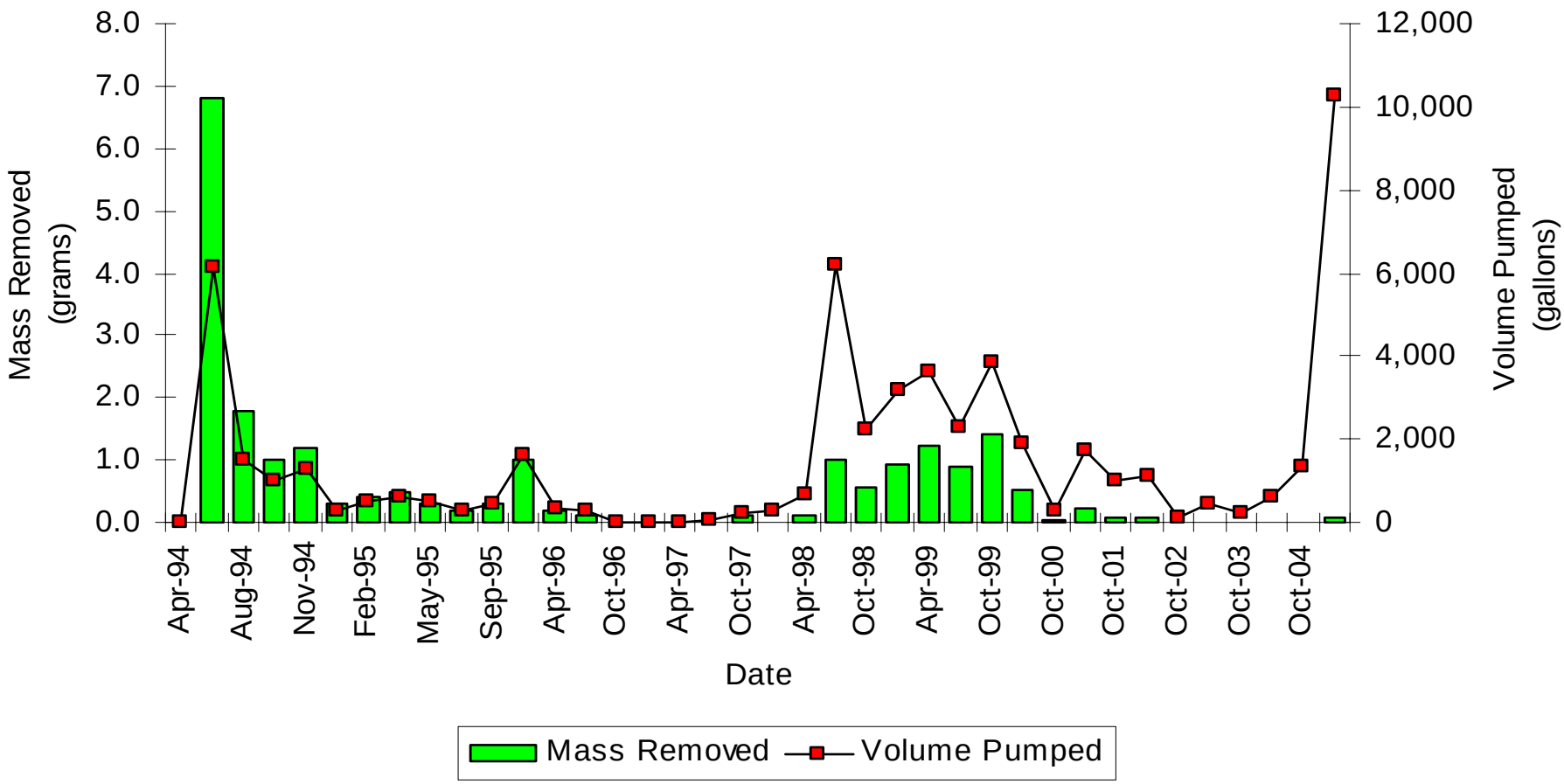
Mass removed Per Volume Pumped – SEW-1
Shallow Zone Treatment System
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
A1

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	05/05	



Mass removed Per Volume Pumped – SEW-2
Shallow Zone Treatment System
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
A2

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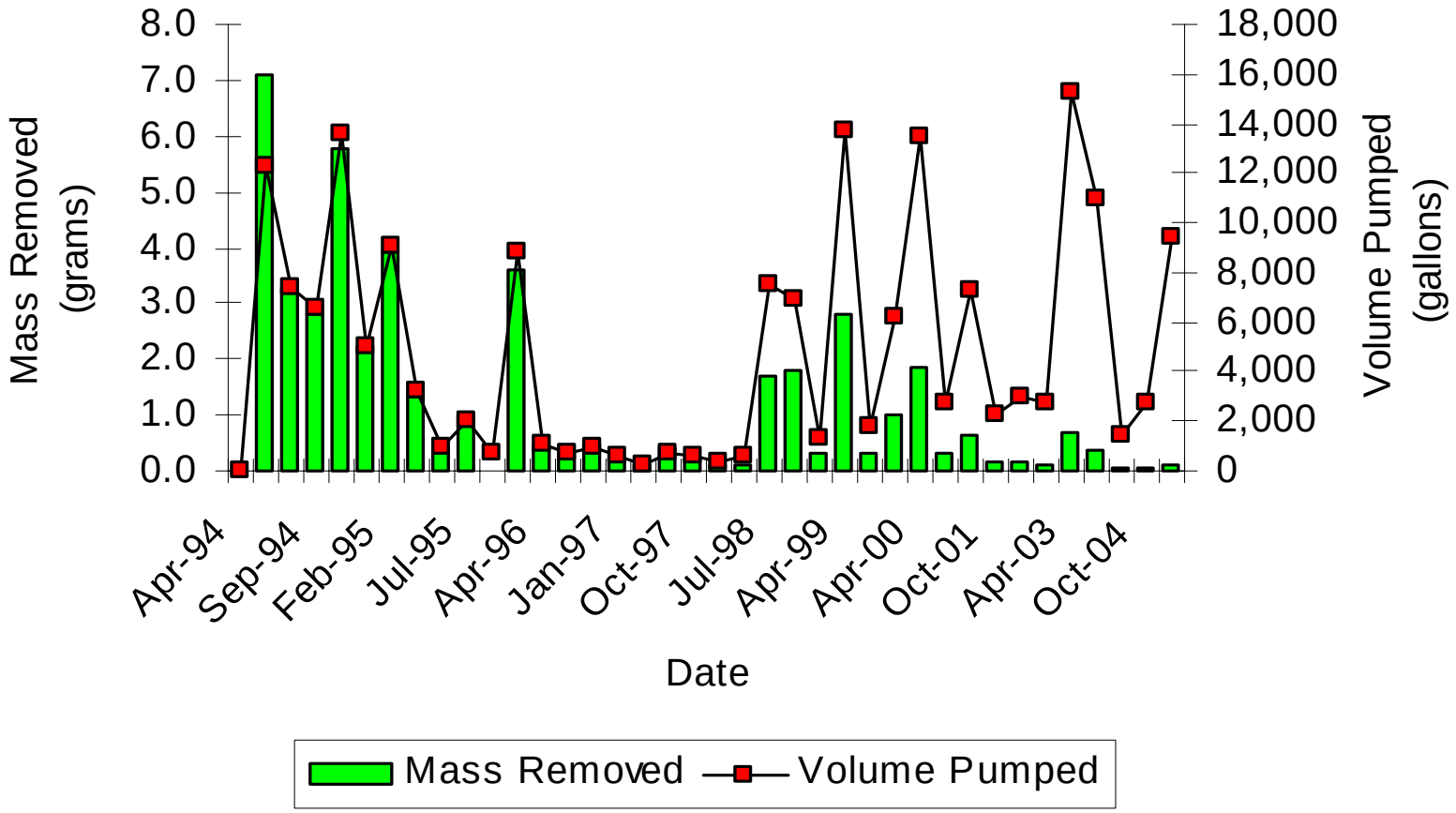
Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	05/05	

SEW-3



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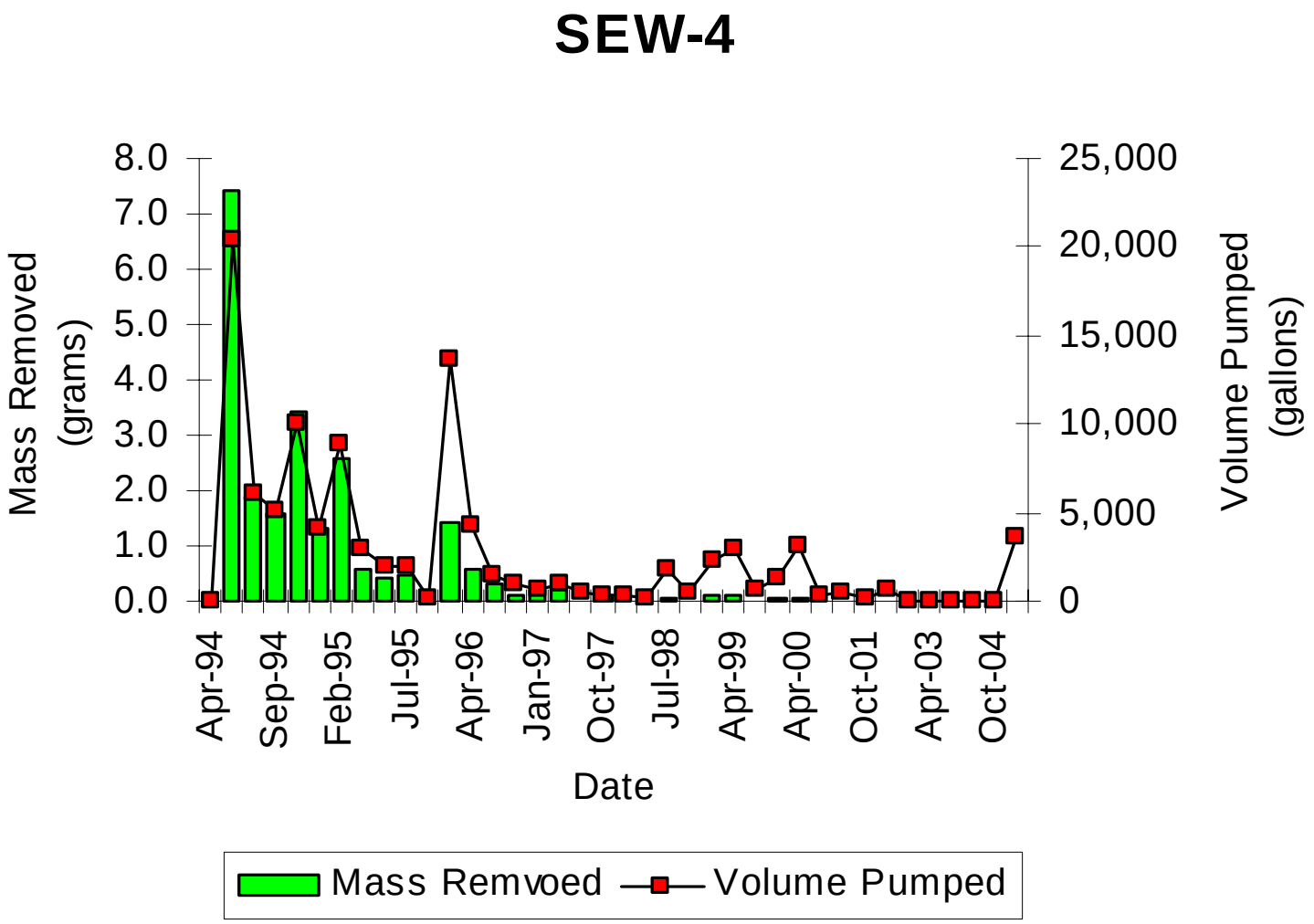
Sarasota, FL 34240

Mass removed Per Volume Pumped – SEW-3
Shallow Zone Treatment System
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
A3

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	05/05	



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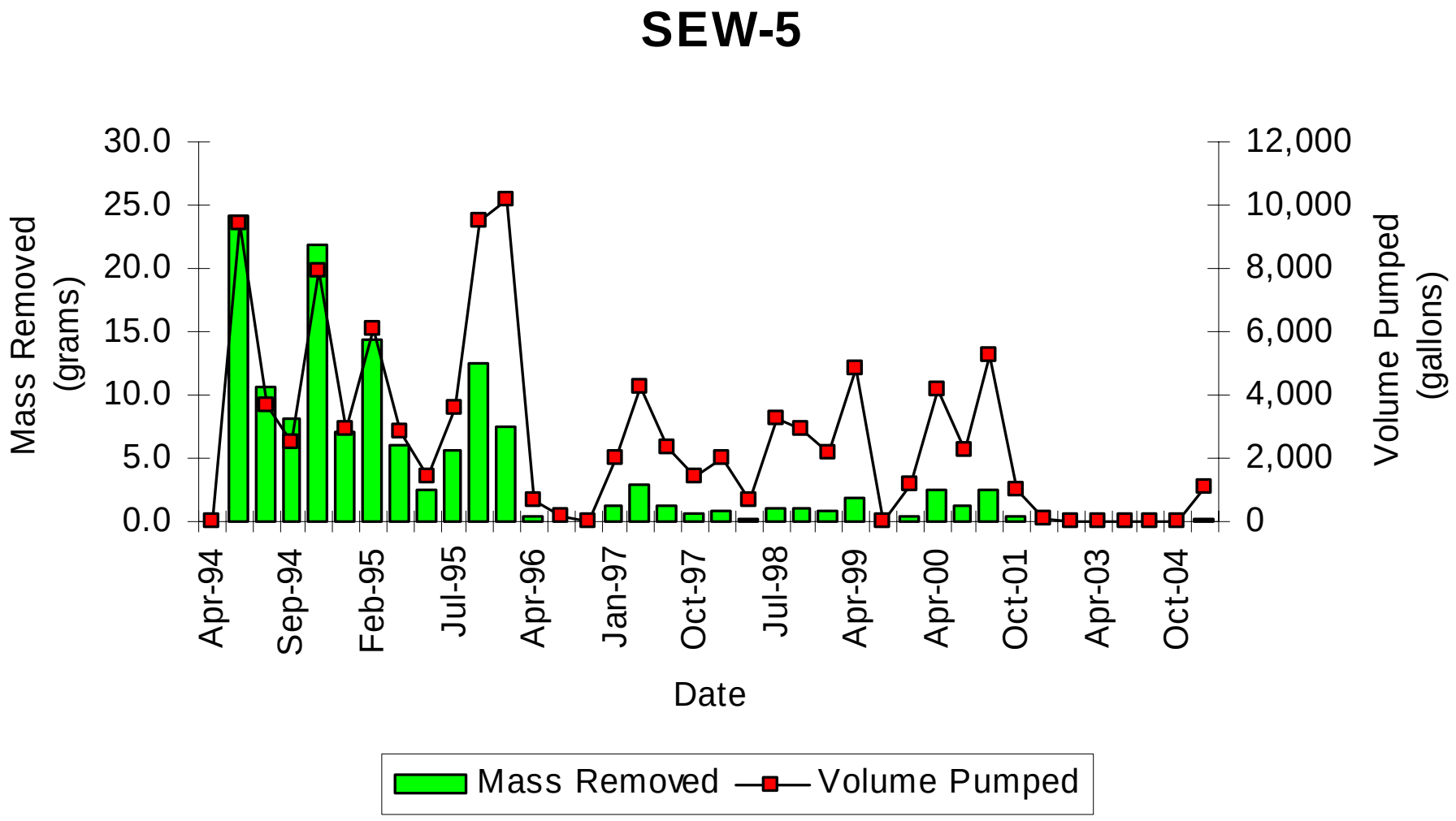
Mass removed Per Volume Pumped – SEW-4
Shallow Zone Treatment System
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
A4

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	05/05	



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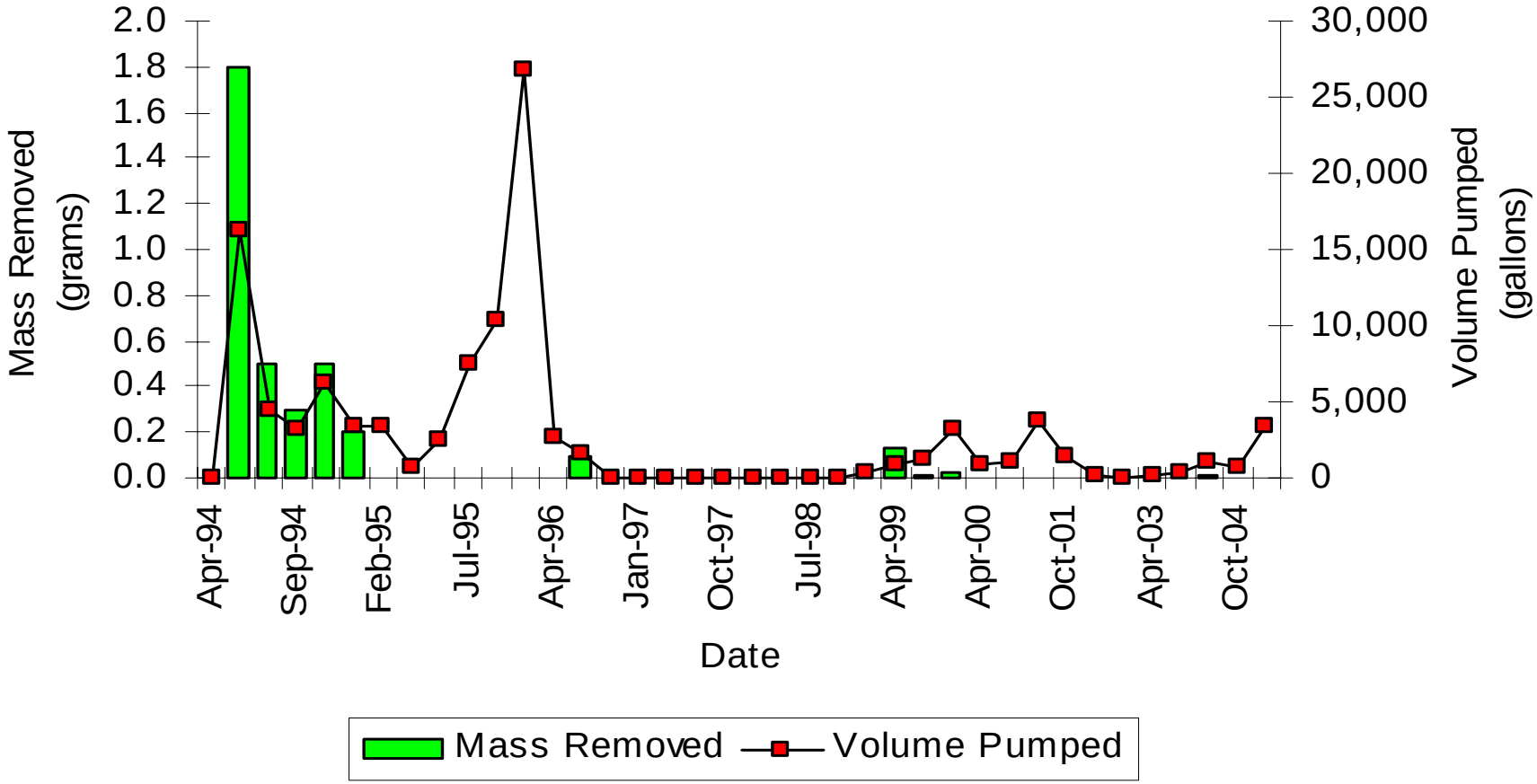
Mass removed Per Volume Pumped – SEW-5
Shallow Zone Treatment System
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
A5

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	05/05	

SEW-6



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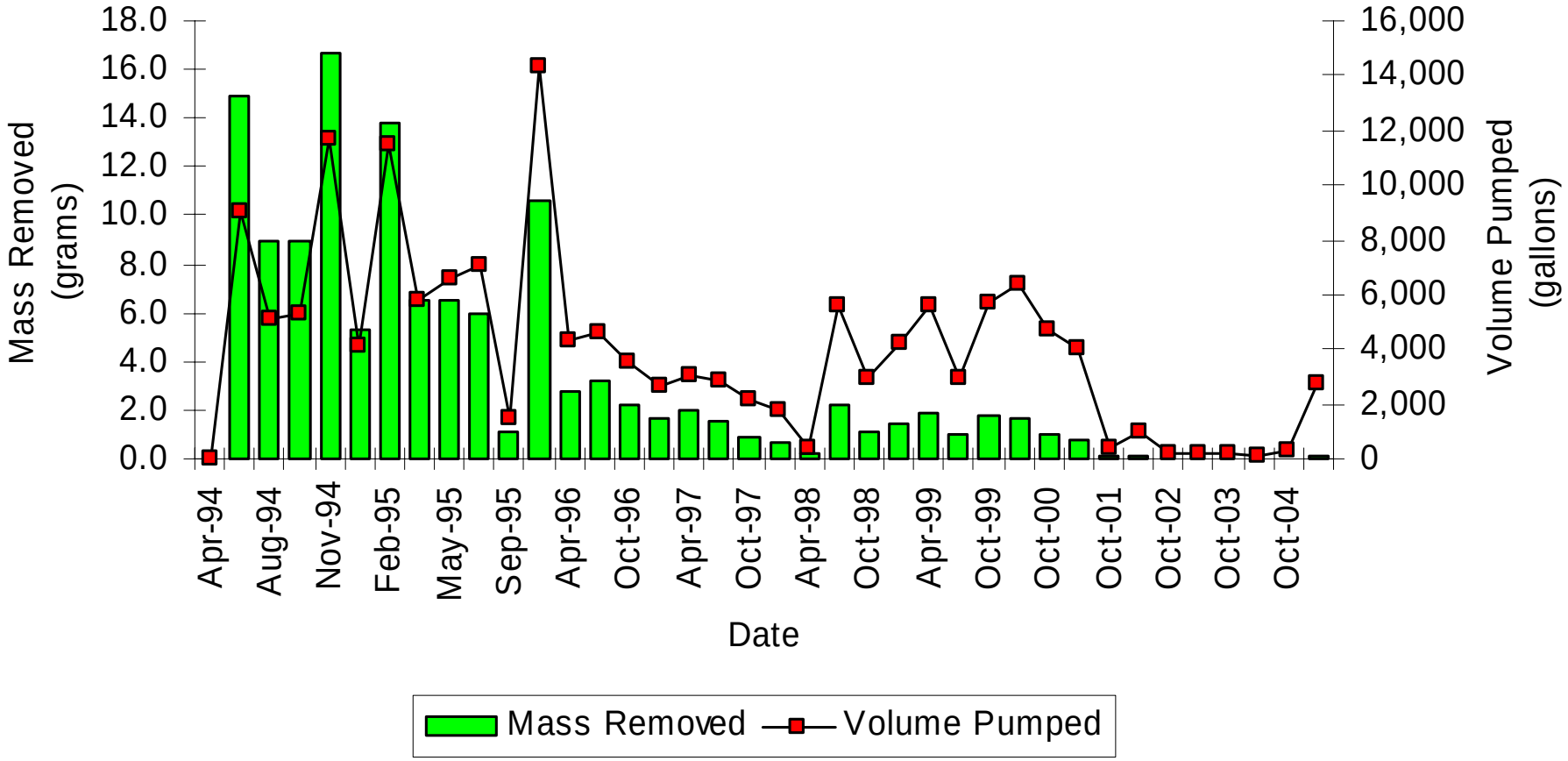
Mass removed Per Volume Pumped – SEW-6
Shallow Zone Treatment System
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
A6

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	05/05	

SEW-10



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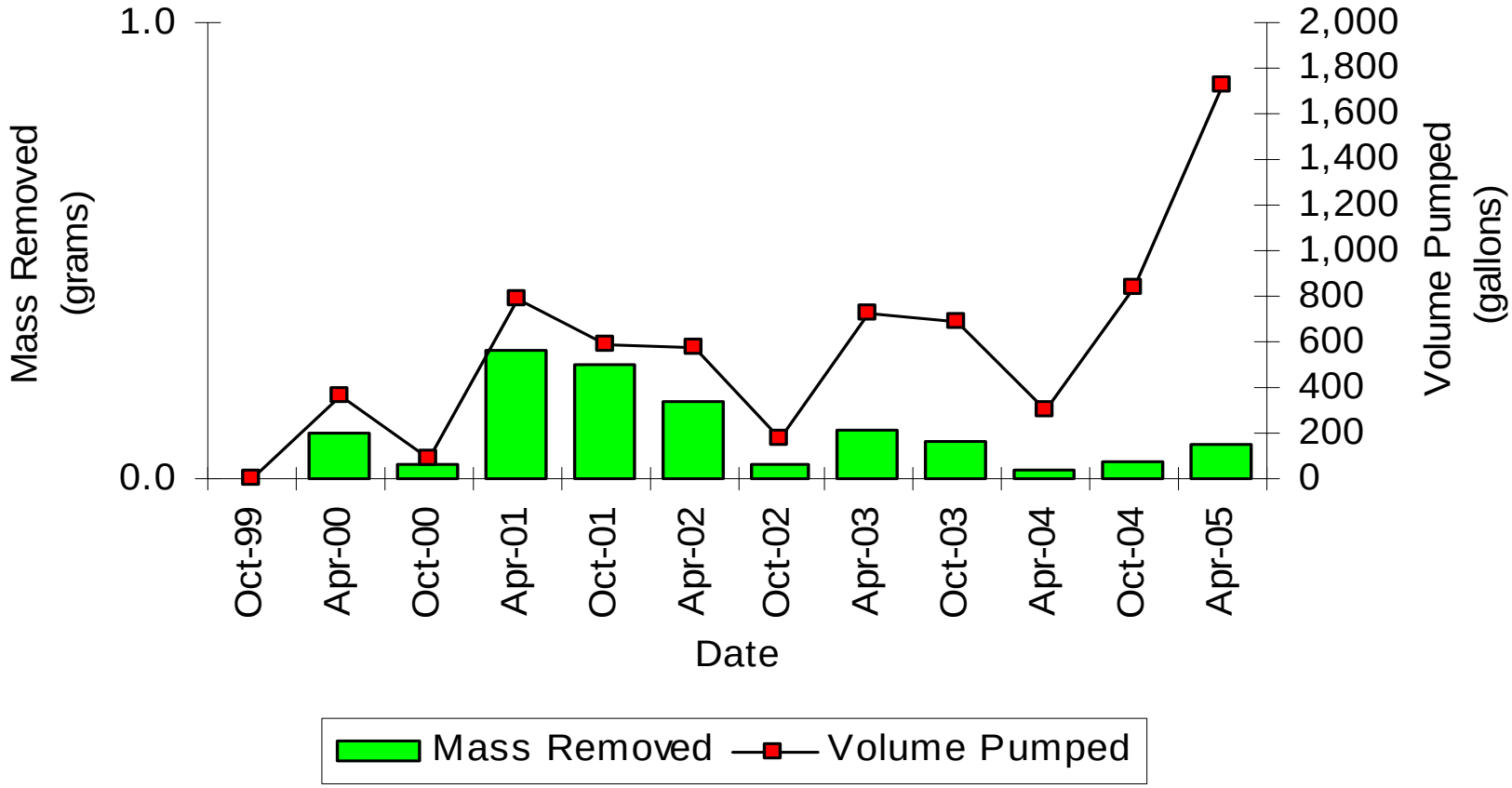
Mass removed Per Volume Pumped – SEW-10
Shallow Zone Treatment System
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
A7

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	05/05	

SEW-11



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Mass removed Per Volume Pumped – SEW-11
Shallow Zone Treatment System
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

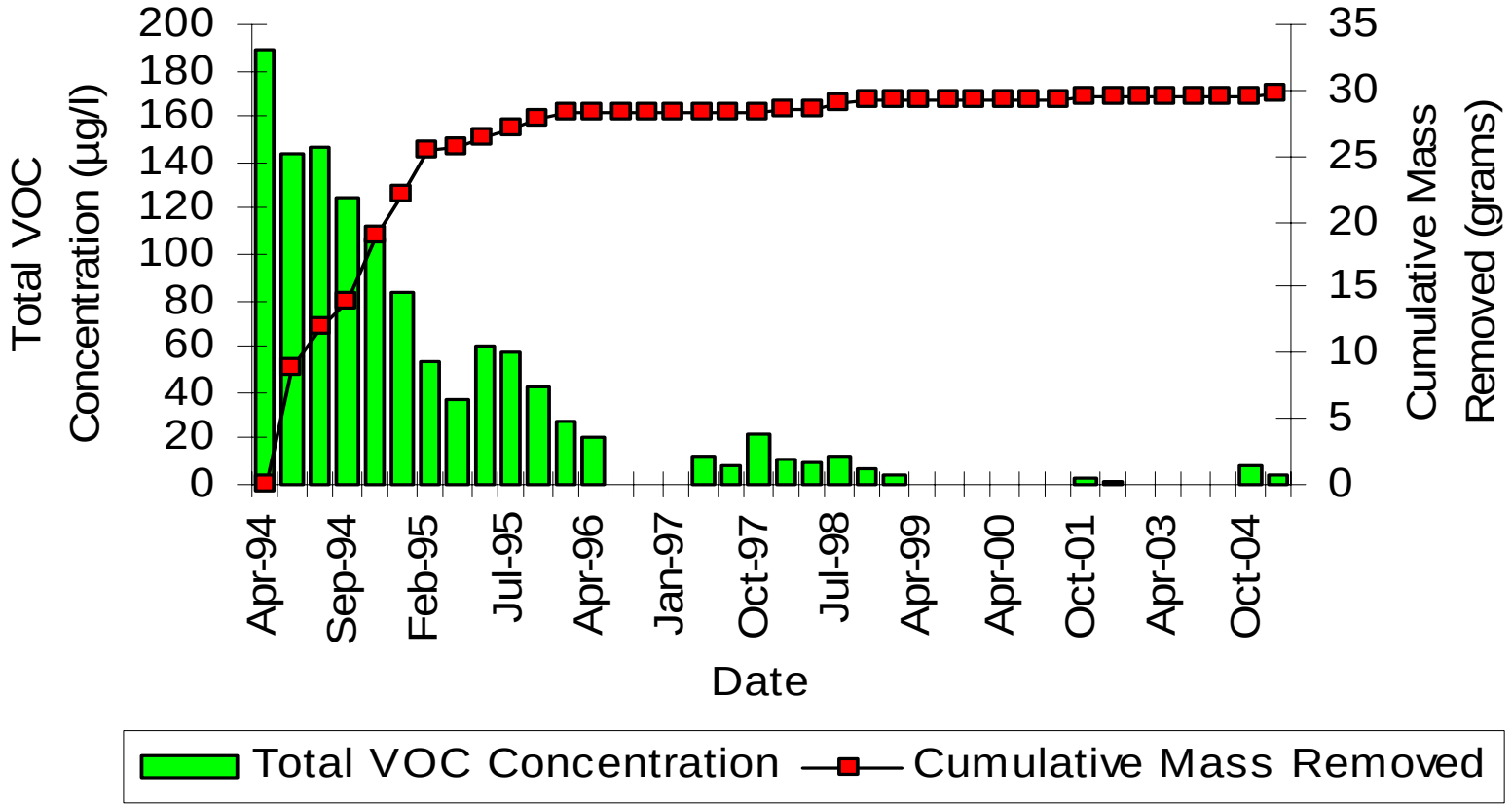
Figure
A8

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	05/05	

APPENDIX B

TOTAL VOC CONCENTRATION AND CUMULATIVE MASS REMOVED TRENDS – SHALLOW ZONE GROUNDWATER REMEDIATION SYSTEM

SEW-1



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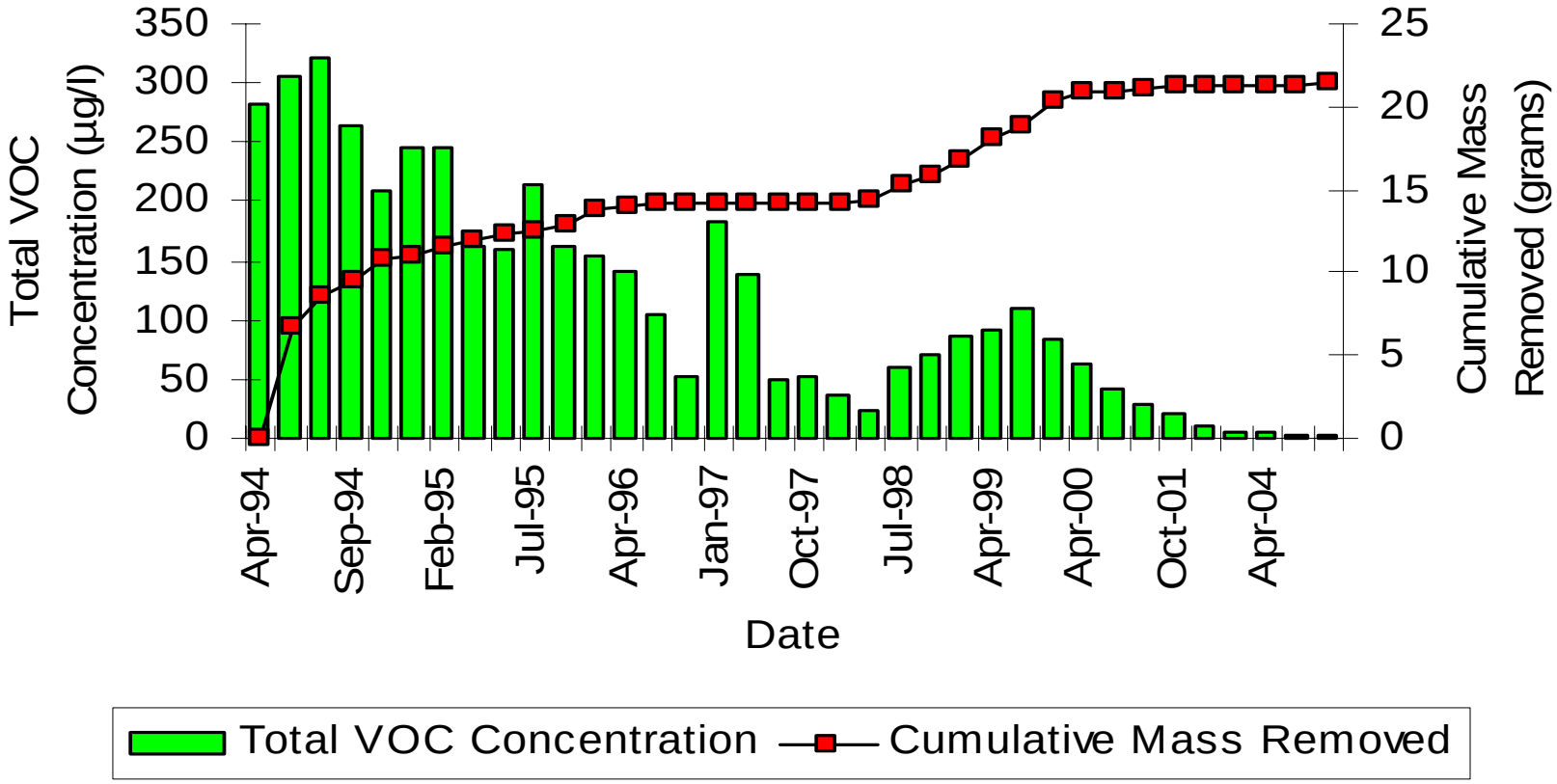
Total VOC Concentration/Cumulative Mass Removed Trends
Shallow Zone Treatment System – SEW-1
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
B1

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	07/05	

SEW-2



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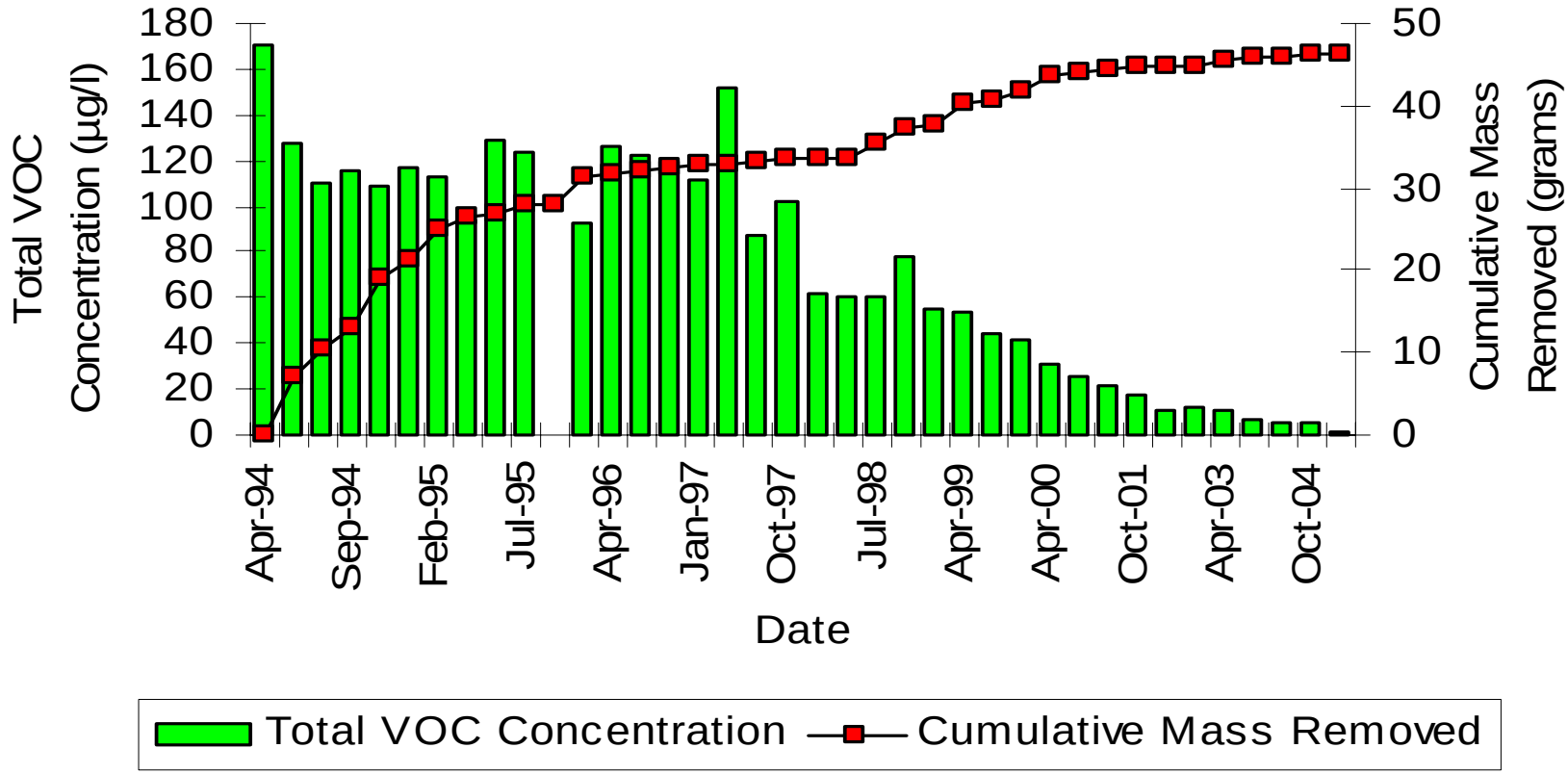
Total VOC Concentration/Cumulative Mass Removed Trends
Shallow Zone Treatment System – SEW-2
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
B2

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	07/05	

SEW-3



W.E.S., Inc.
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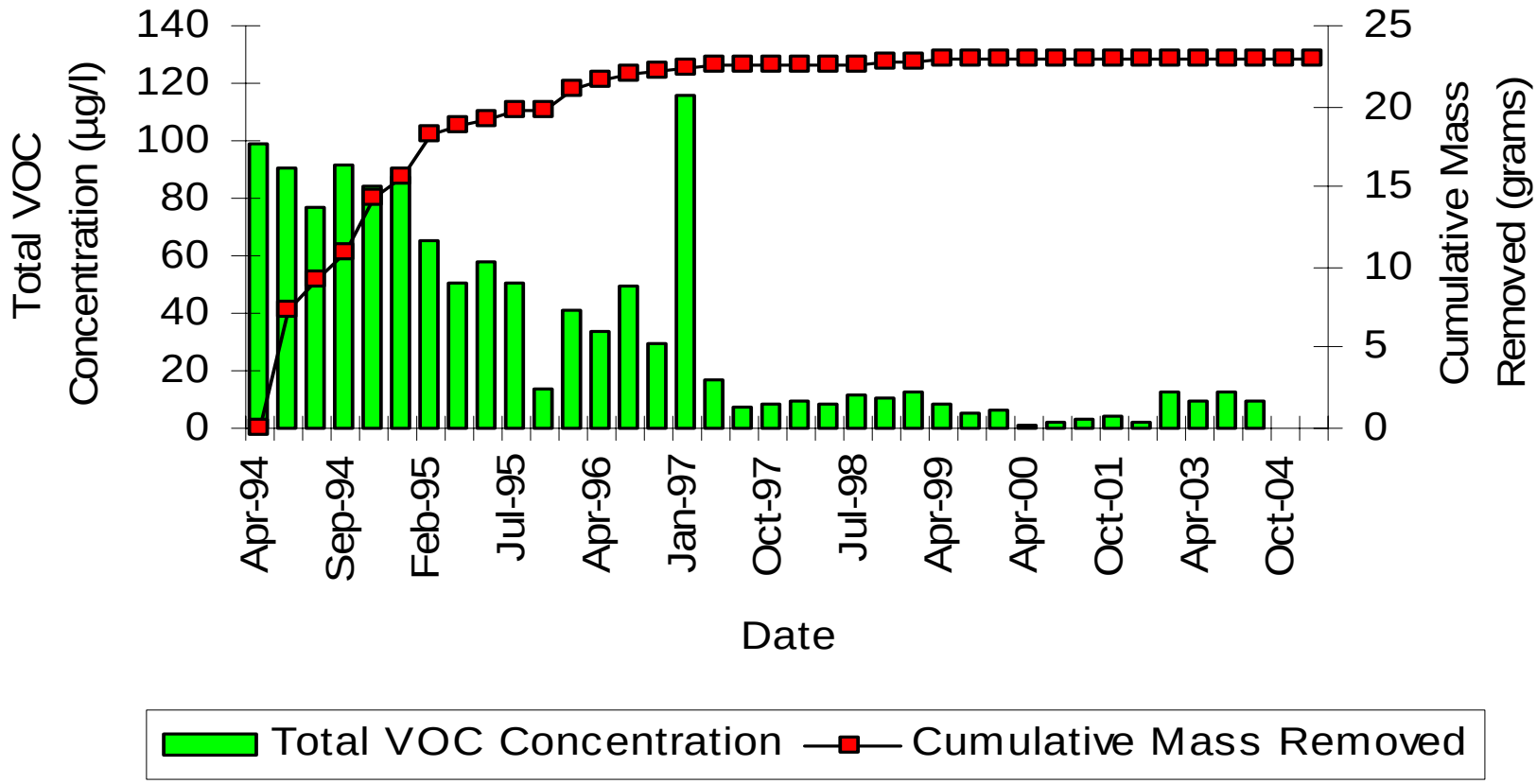
Total VOC Concentration/Cumulative Mass Removed Trends
Shallow Zone Treatment System – SEW-3
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
B3

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	07/05	



W.E.S., Inc.
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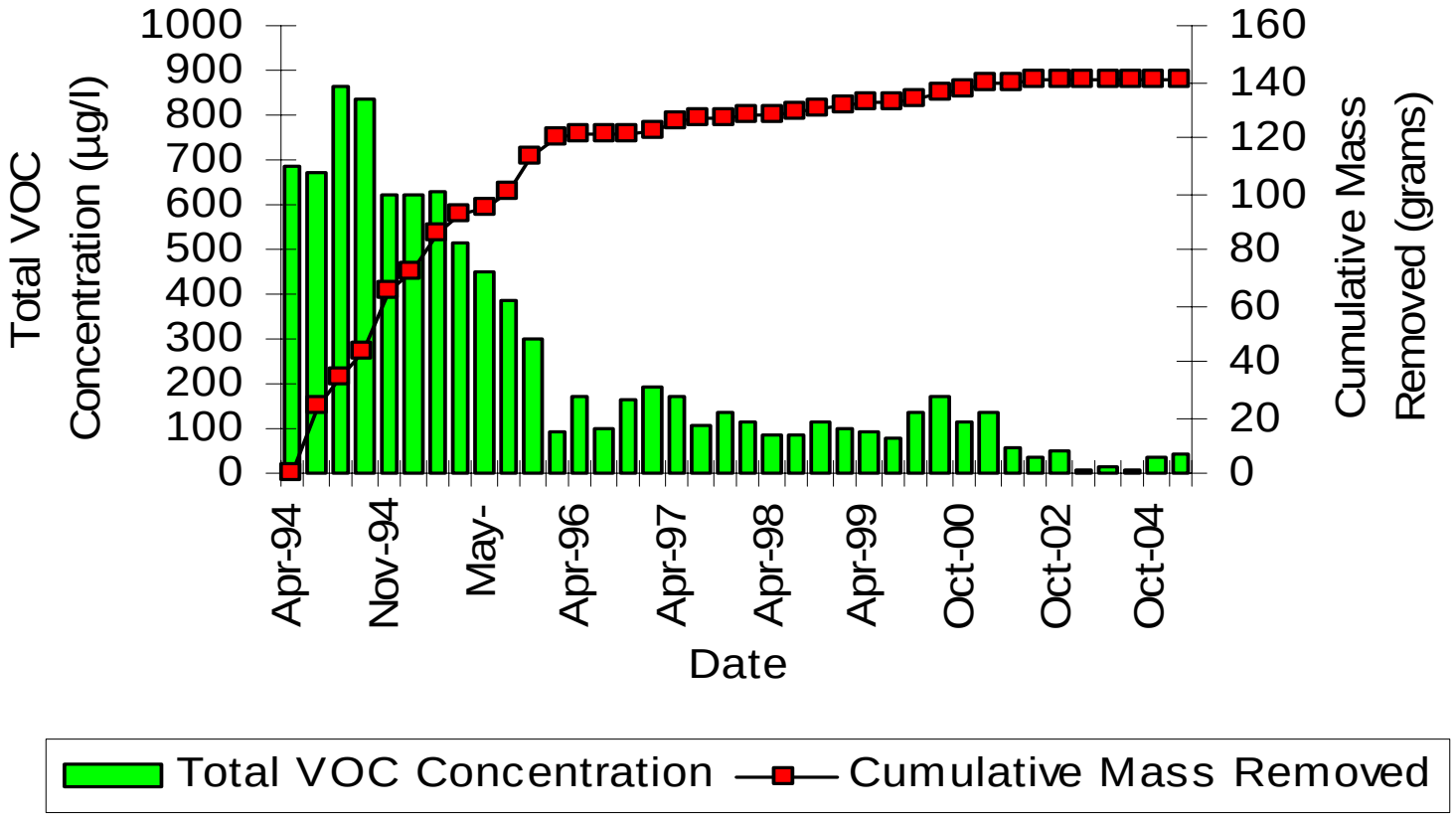
Total VOC Concentration/Cumulative Mass Removed Trends
Shallow Zone Treatment System – SEW-4
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
B4

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	07/05	

SEW-5



W.E.S., Inc.
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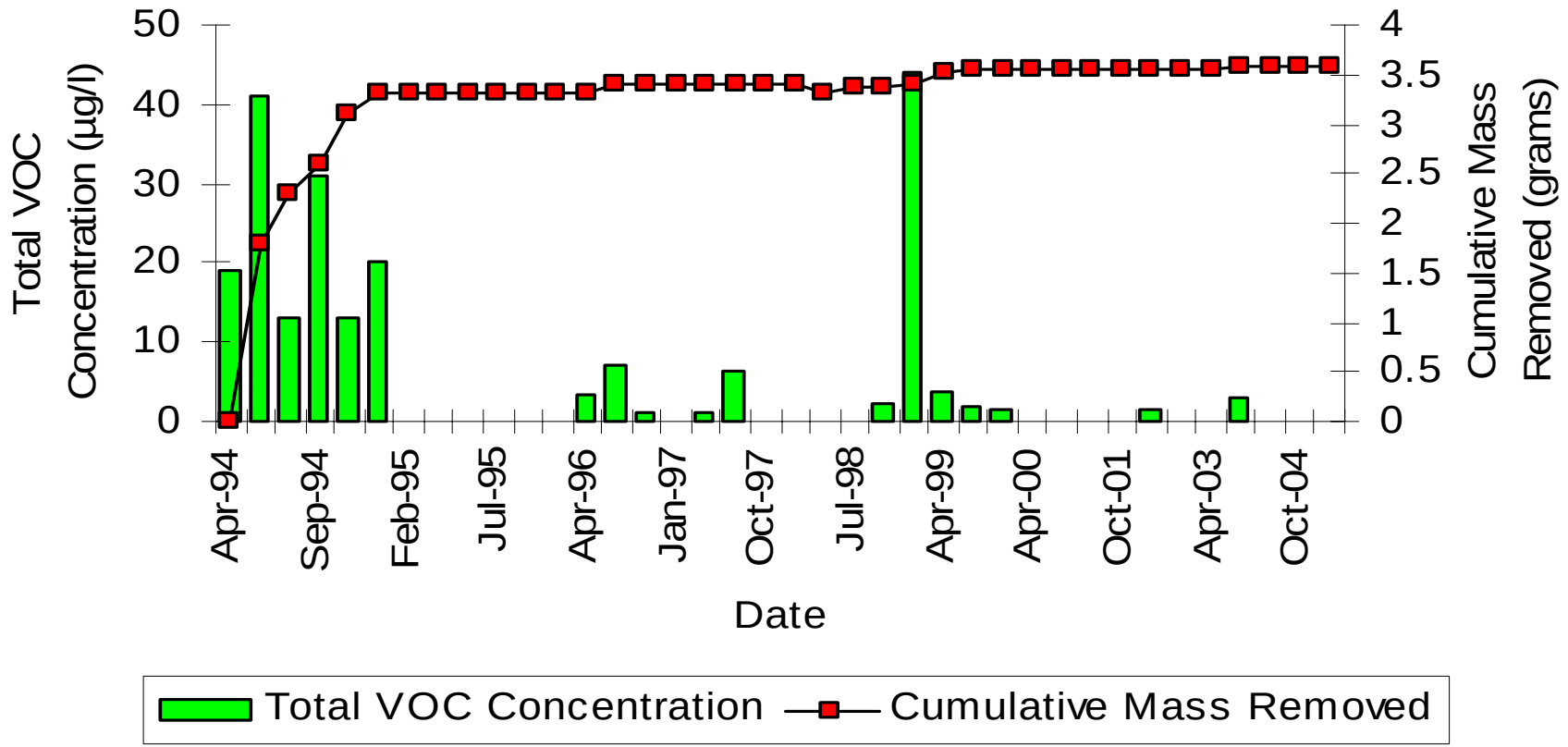
Total VOC Concentration/Cumulative Mass Removed Trends
Shallow Zone Treatment System – SEW-5
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
B5

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	07/05	

SEW-6



W.E.S., Inc.
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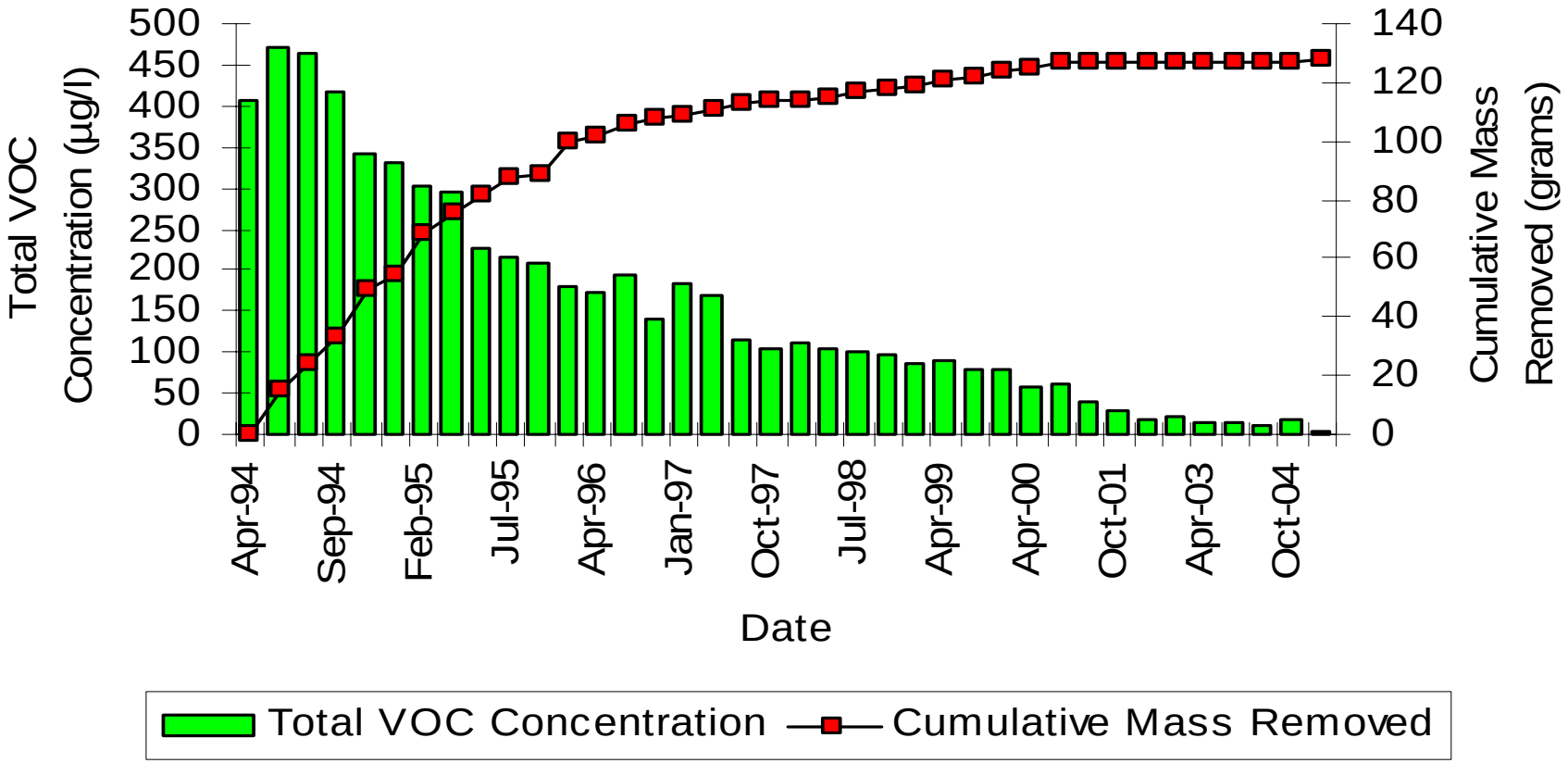
Total VOC Concentration/Cumulative Mass Removed Trends
Shallow Zone Treatment System – SEW-6
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
B6

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	07/05	

SEW-10



W.E.S., Inc.
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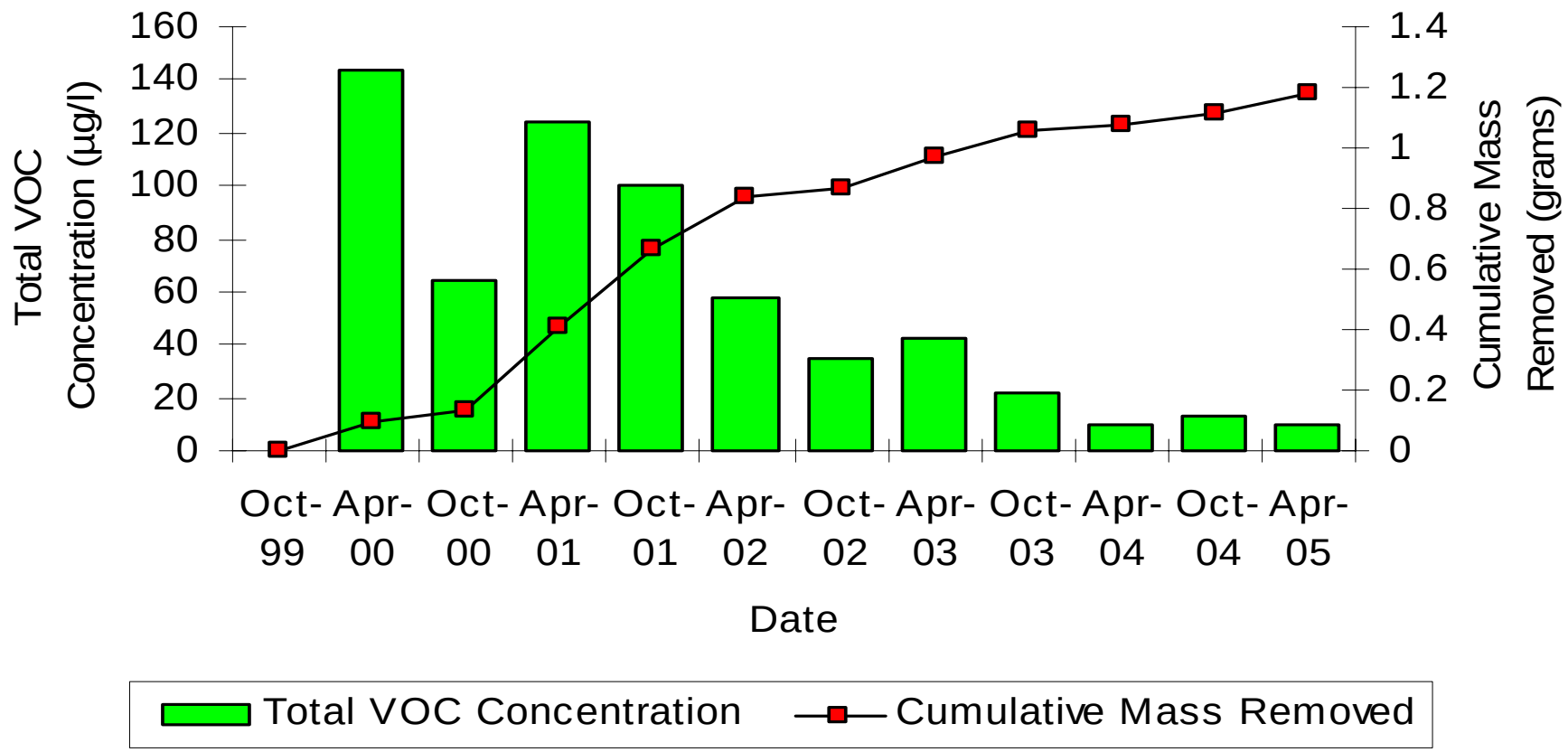
Sarasota, FL 34240

Total VOC Concentration/Cumulative Mass Removed Trends
Shallow Zone Treatment System – SEW-10
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
B7

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	07/05	



W.E.S., Inc.
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Total VOC Concentration/Cumulative Mass Removed Trends
Shallow Zone Treatment System – SEW-11
Former Air Force Plant 83/General Electric Operable Unit
Albuquerque, New Mexico

Figure
B8

Drawn	Job Number	Approved	Date	Revised Date
KEB	WESABQ	LDS	07/05	

APPENDIX C

HYDROGRAPHS (GROUNDWATER ELEVATION VERSUS TIME)

C-1: Groundwater Elevations – Selected Conventional Monitoring Wells

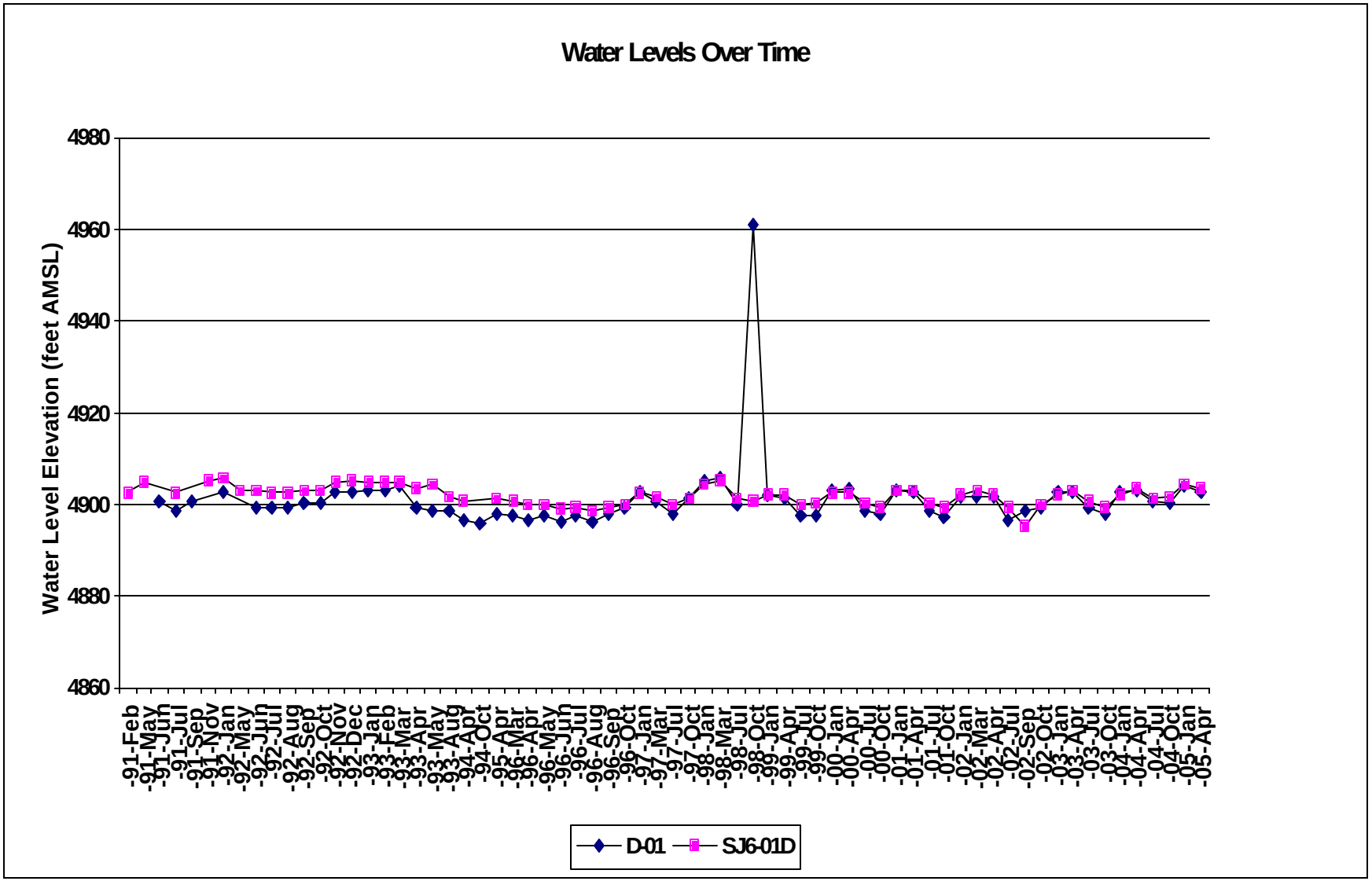
C-2: Groundwater Elevations – Westbay™ Monitoring Wells

C-3: Groundwater Elevations – Extraction and Injection Wells

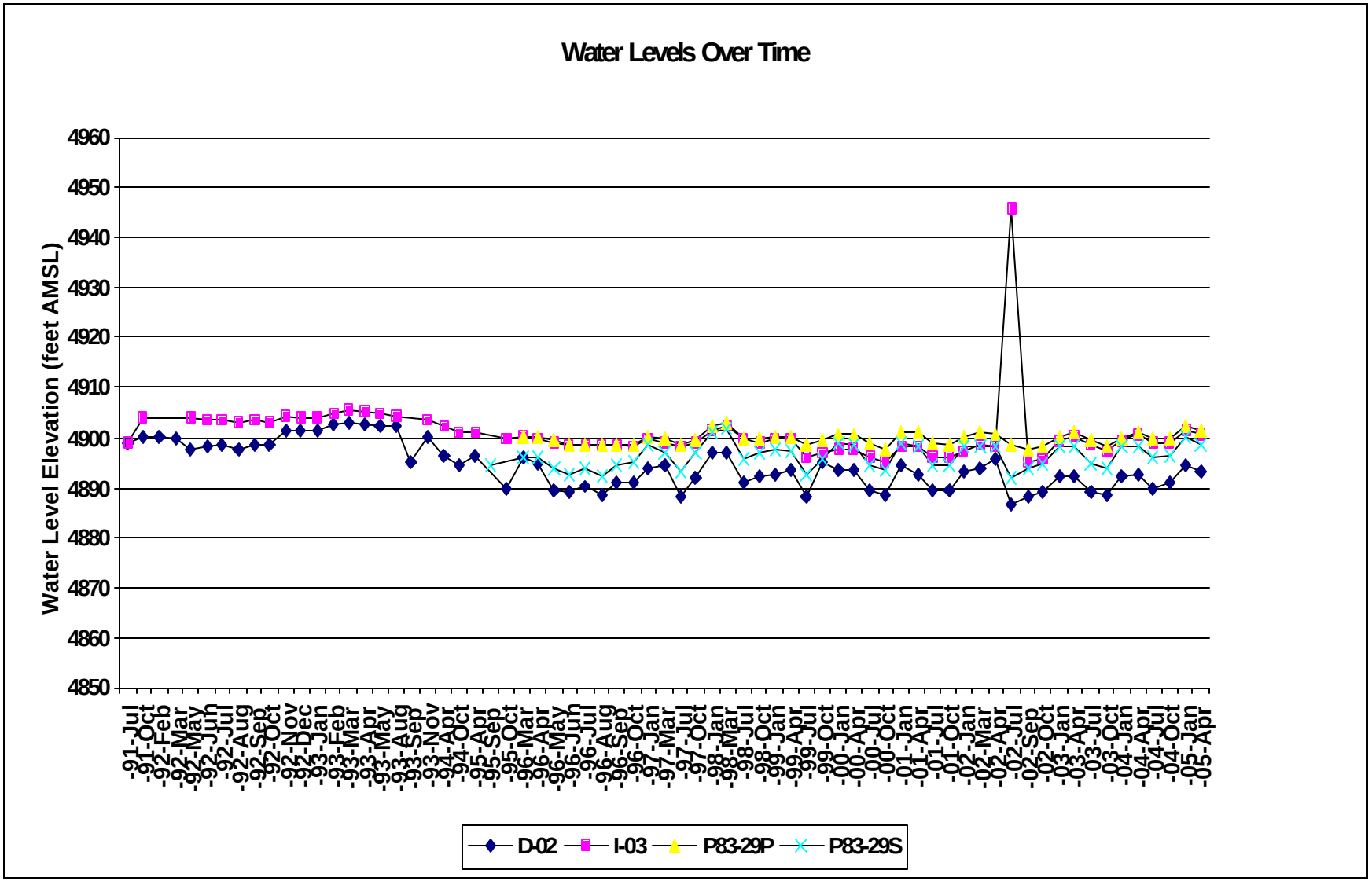
Appendix C-1

Groundwater Elevations – Selected Conventional Monitoring Wells

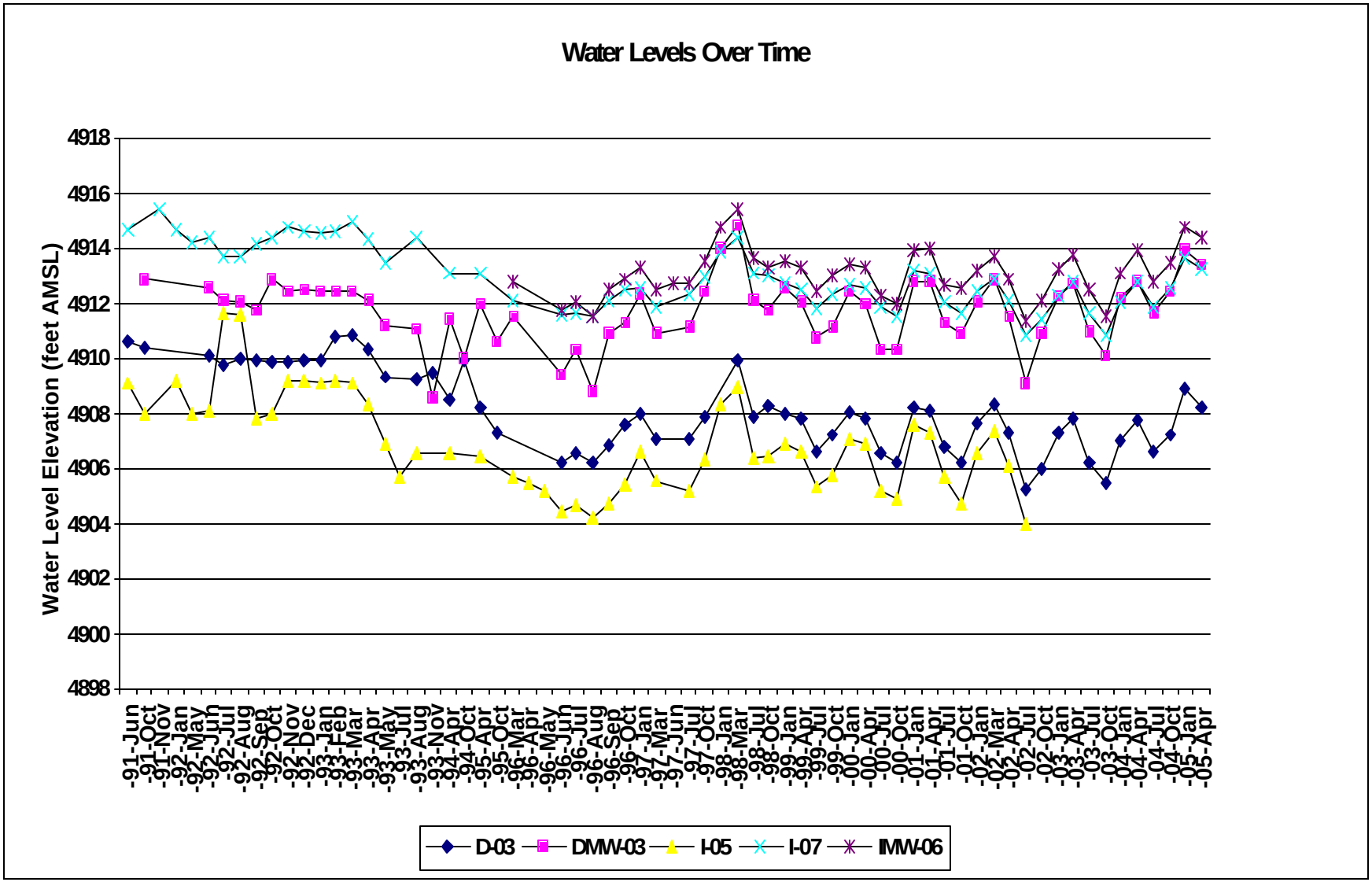
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: D-01, SJ6-01D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



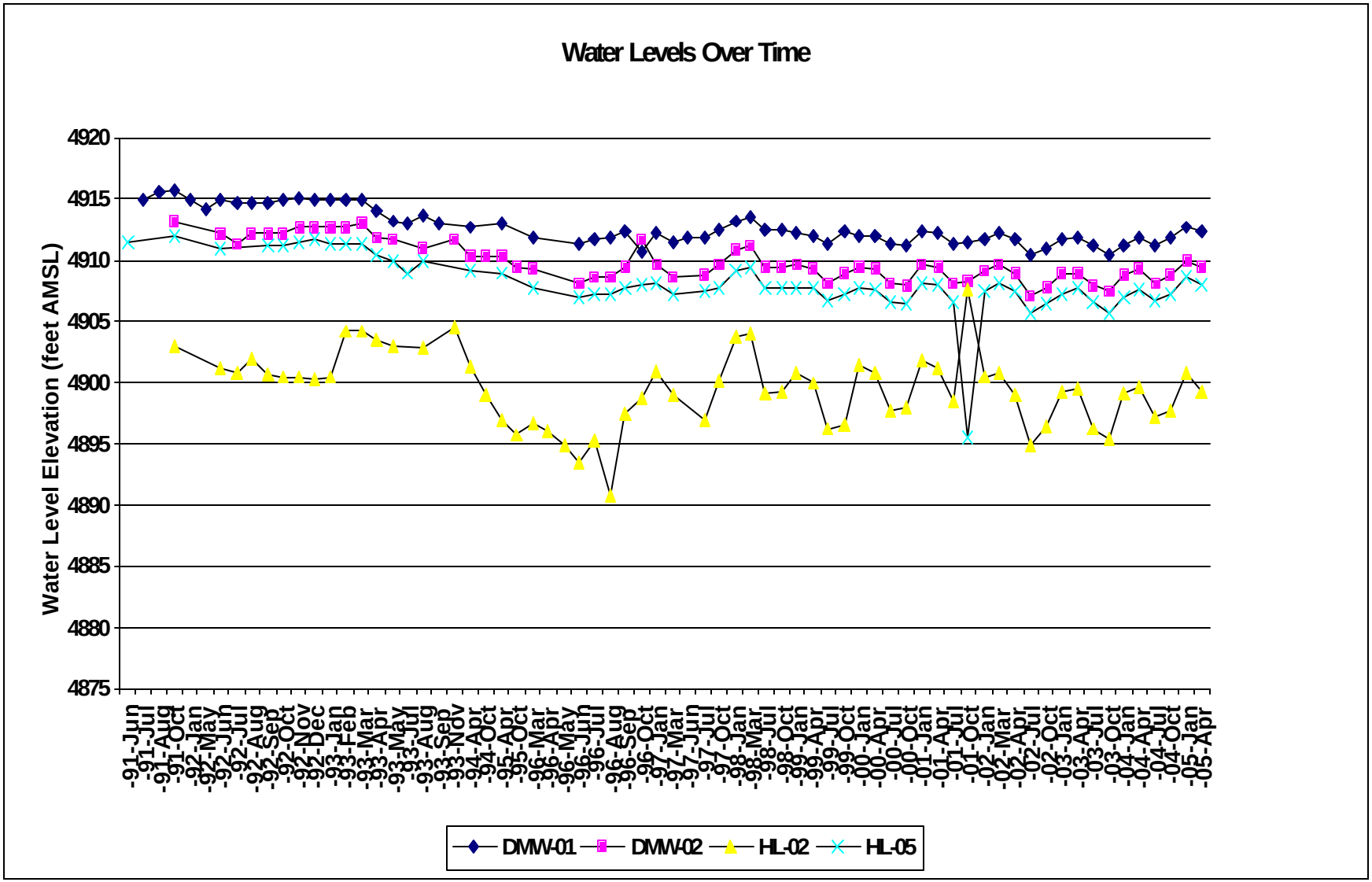
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: D-02, I-03, P83-29P, P83-29S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



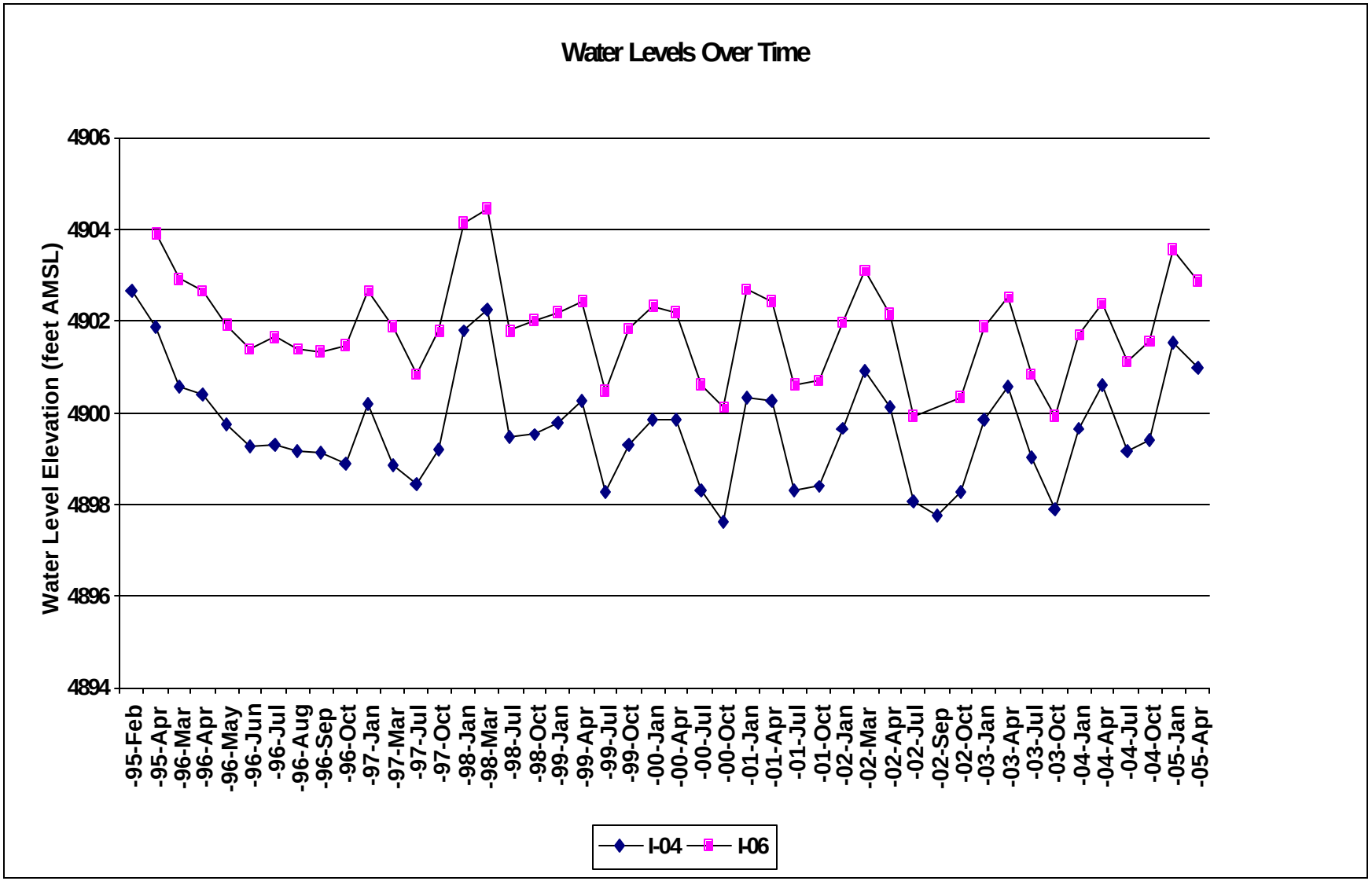
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: D-03, DMW-03, I-05, I-07, IMW-06
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



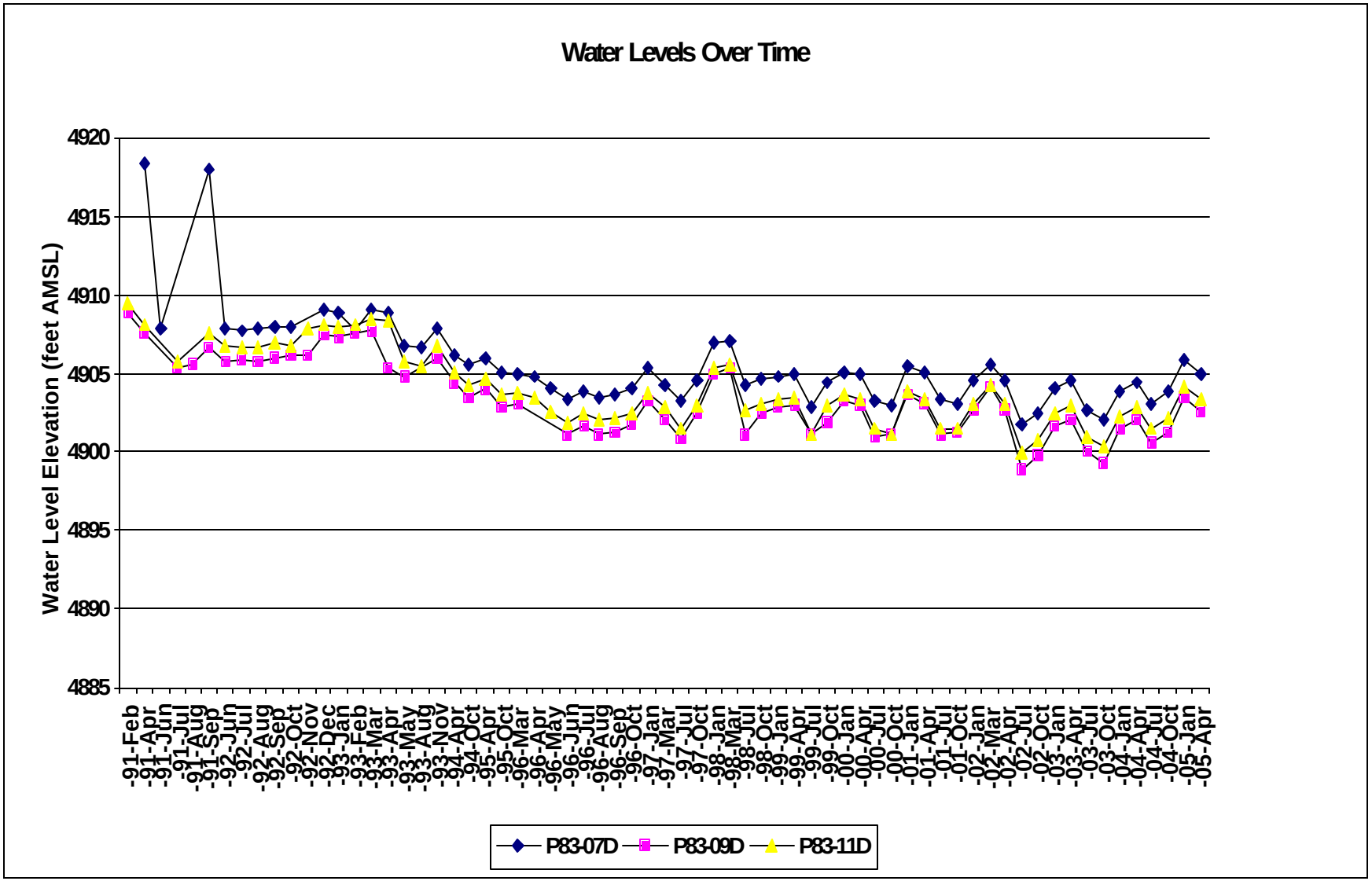
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: DMW-01, DMW-02, HL-02, HL-05
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



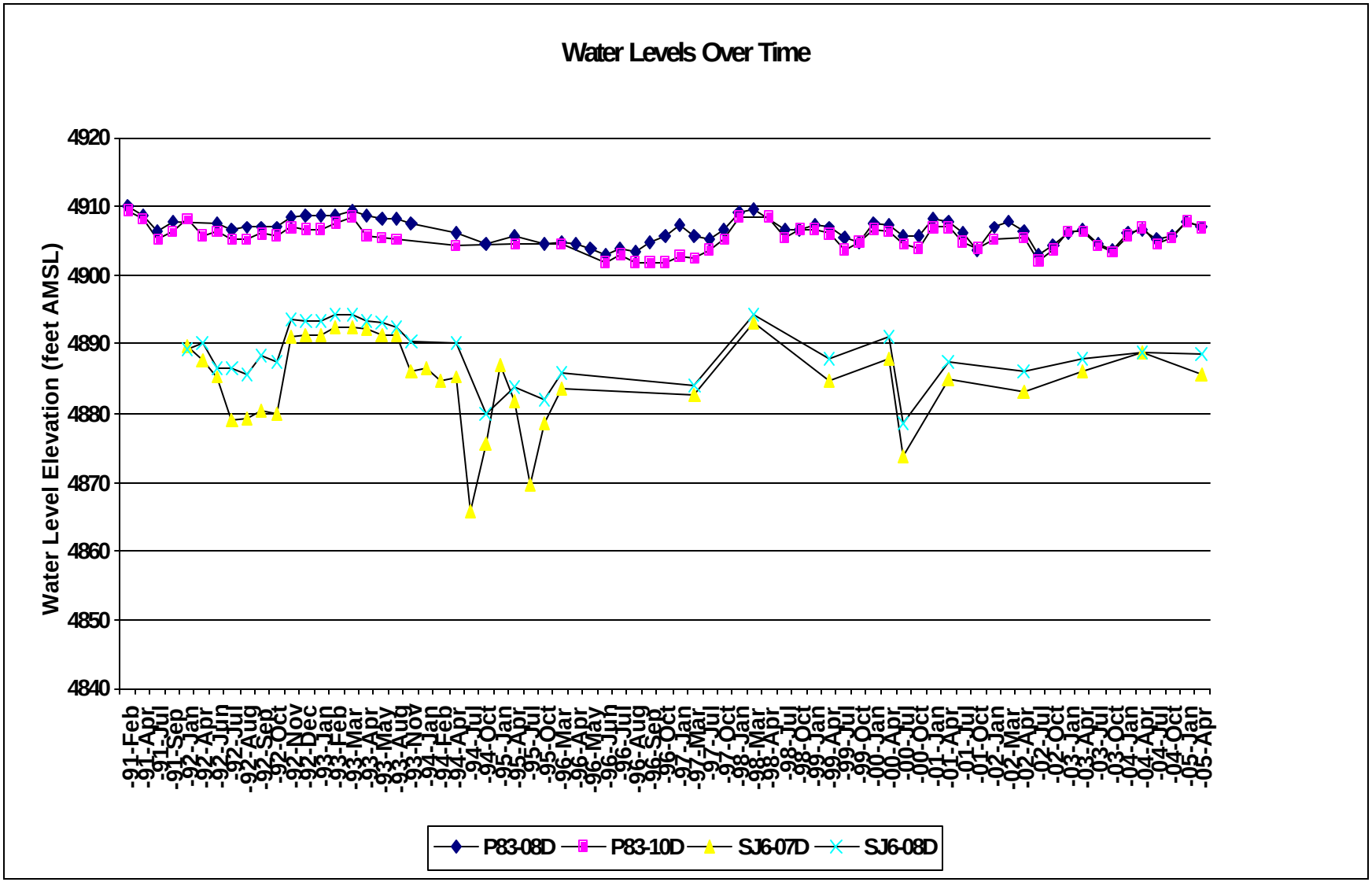
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: I-04, I-06
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



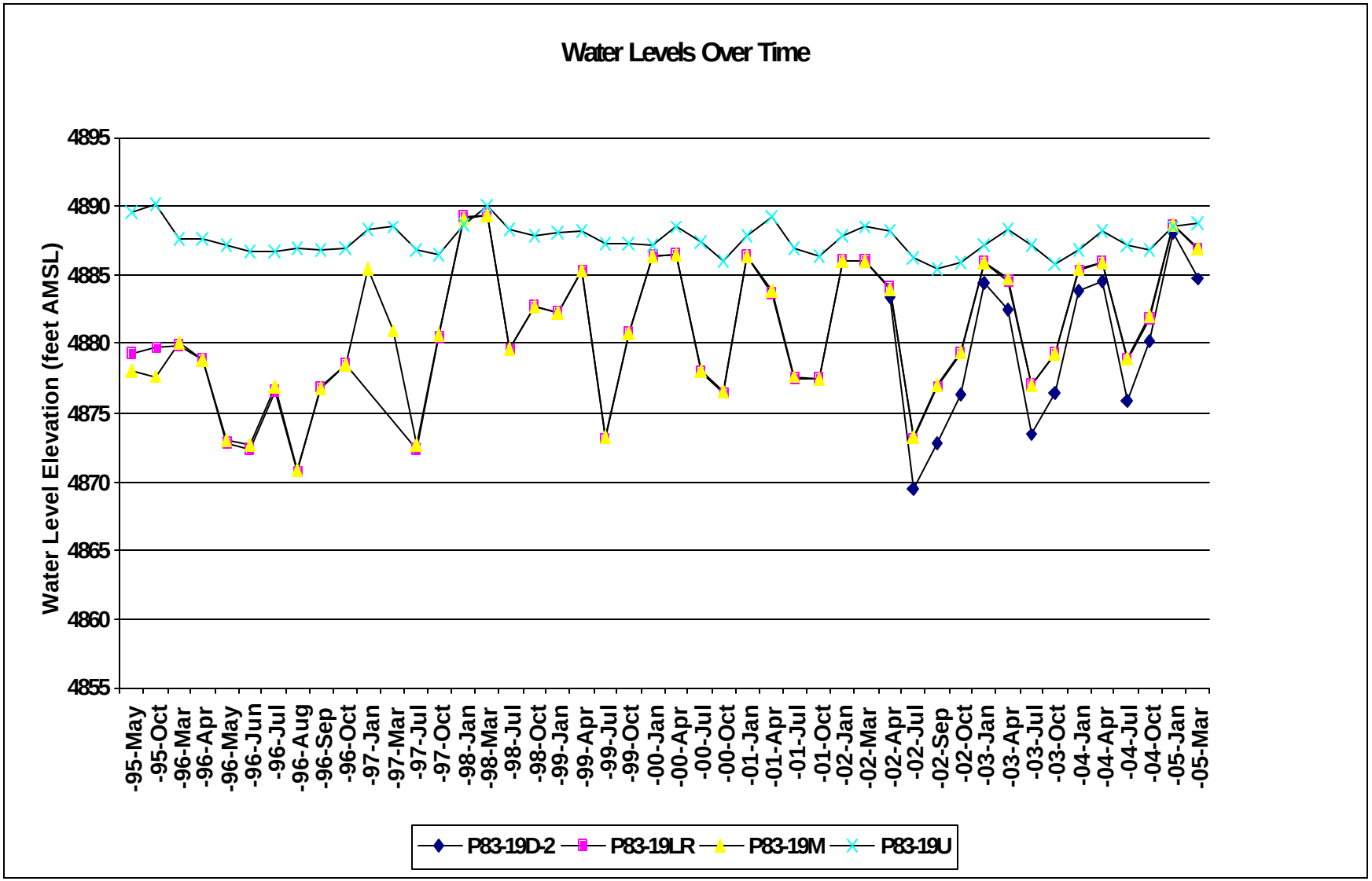
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: P83-07D, P83-09D, P83-11D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



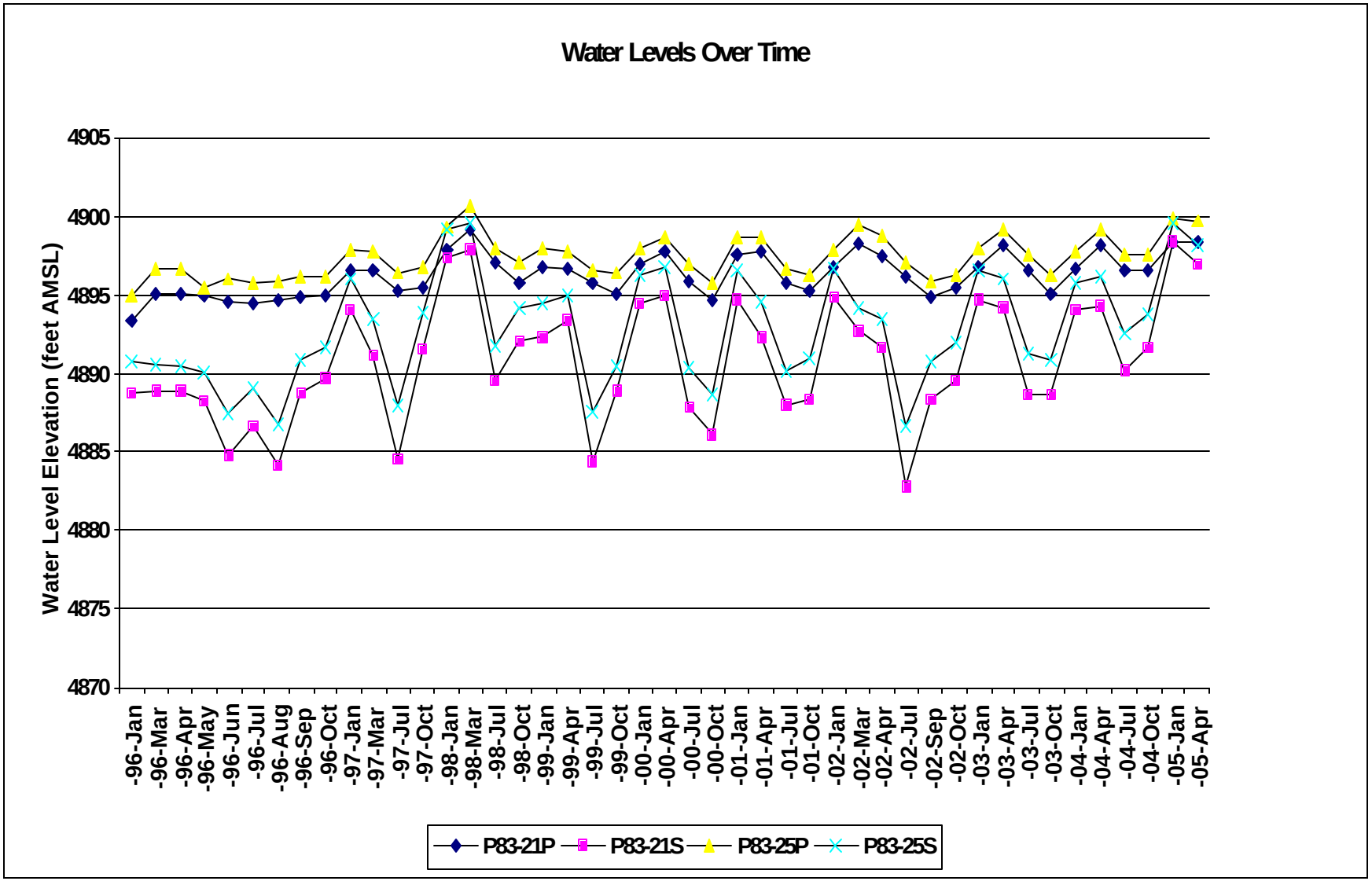
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: P83-08D, P83-10D, SJ6-07D, SJ6-08D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



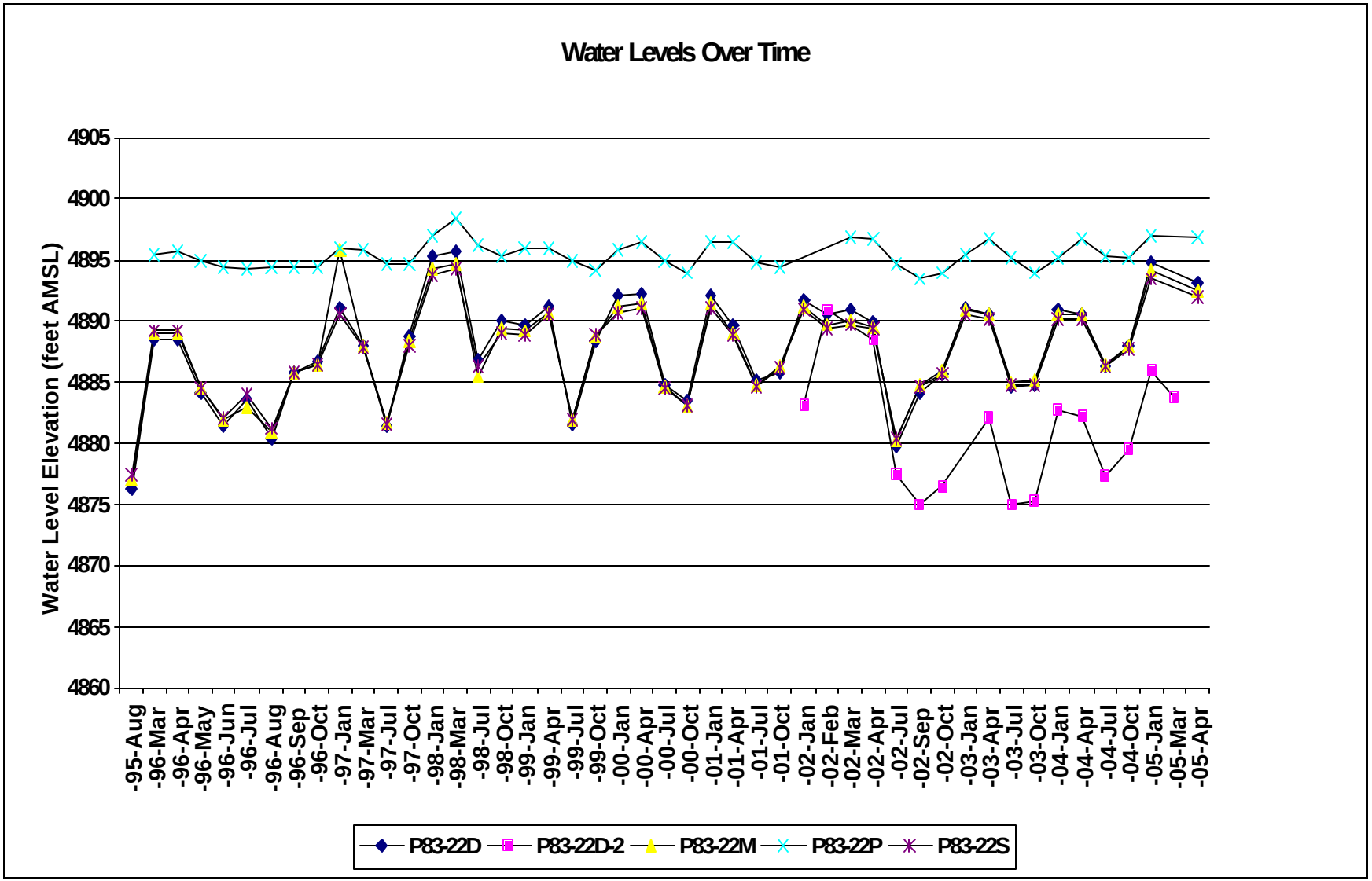
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: P83-19D-2, P83-19LR, P83-19M, P83-19U
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



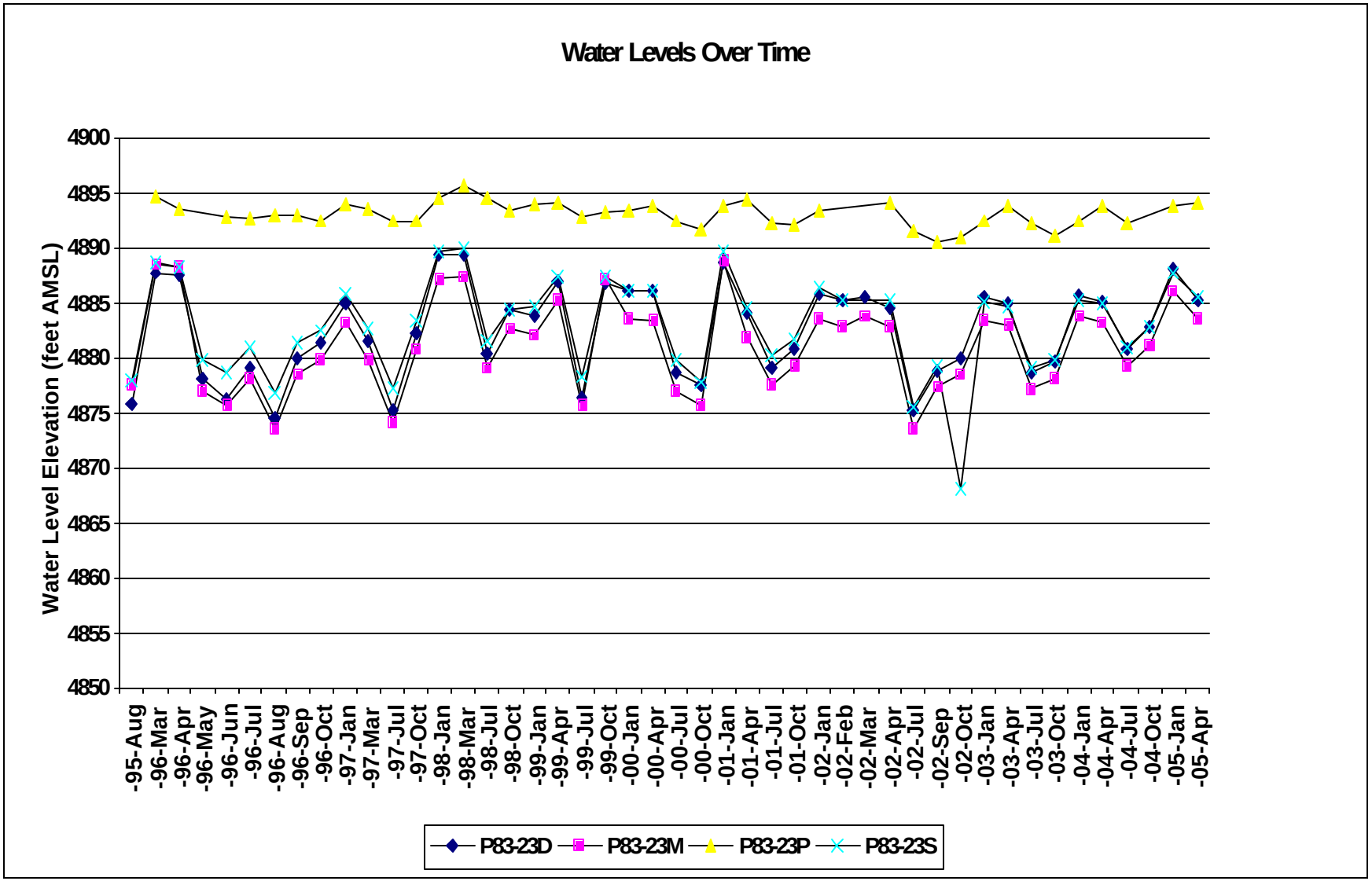
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: P83-21P, P83-21S, P83-25P, P83-25S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



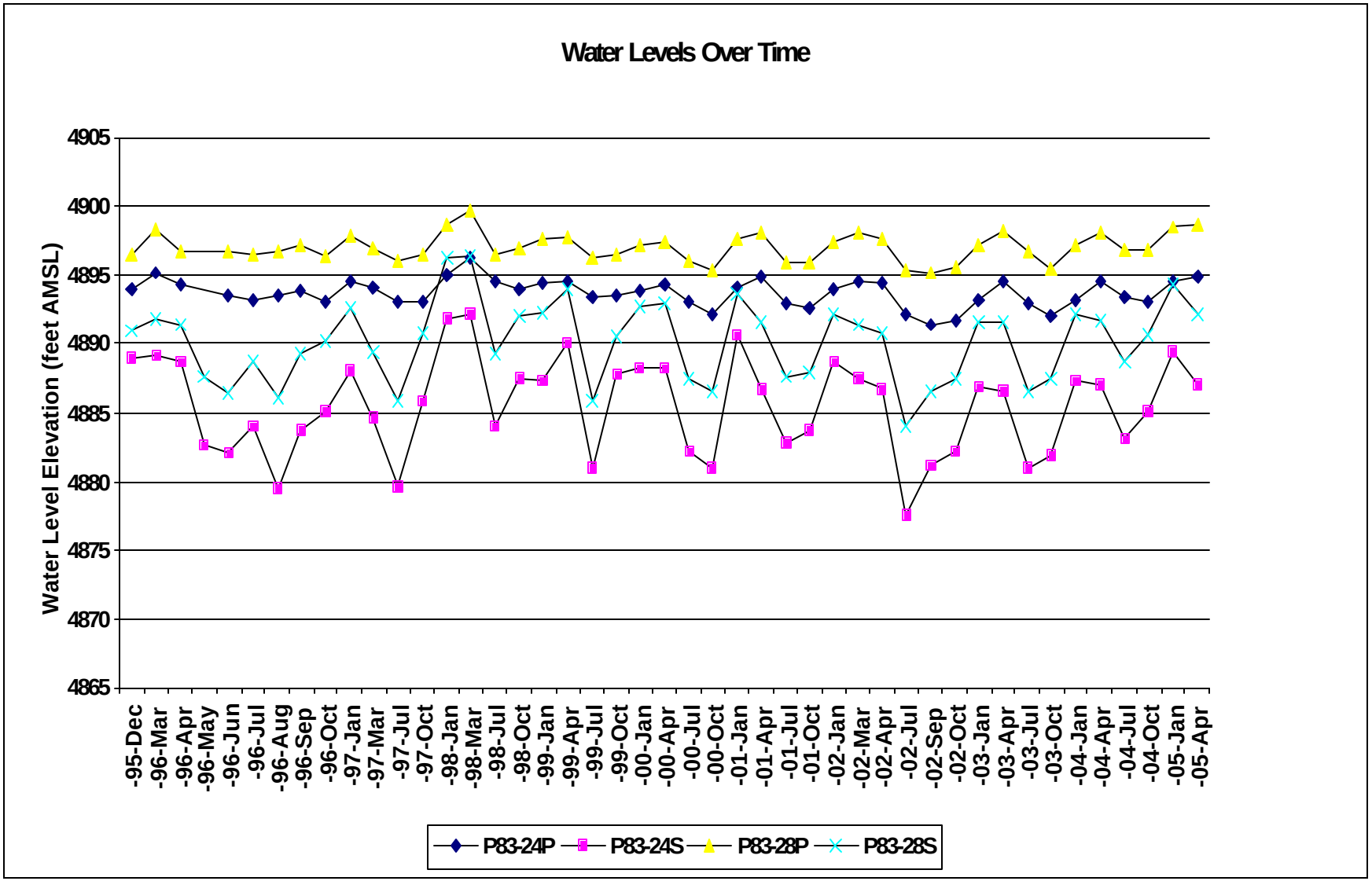
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: P83-22D, P83-22D-2, P83-22M, P83-22P, P83-22S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



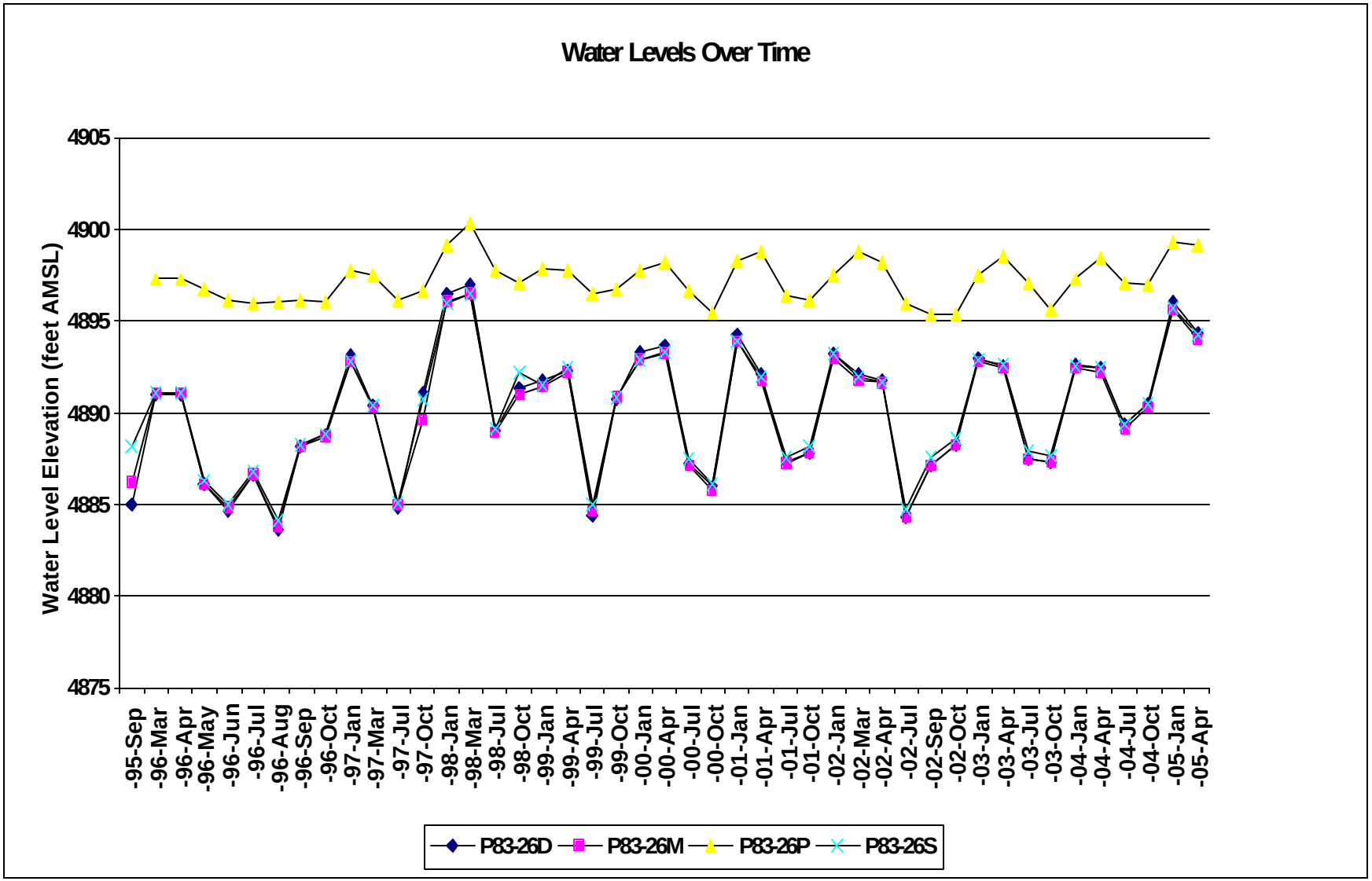
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: P83-23D, P83-23M, P83-23P, P83-23S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



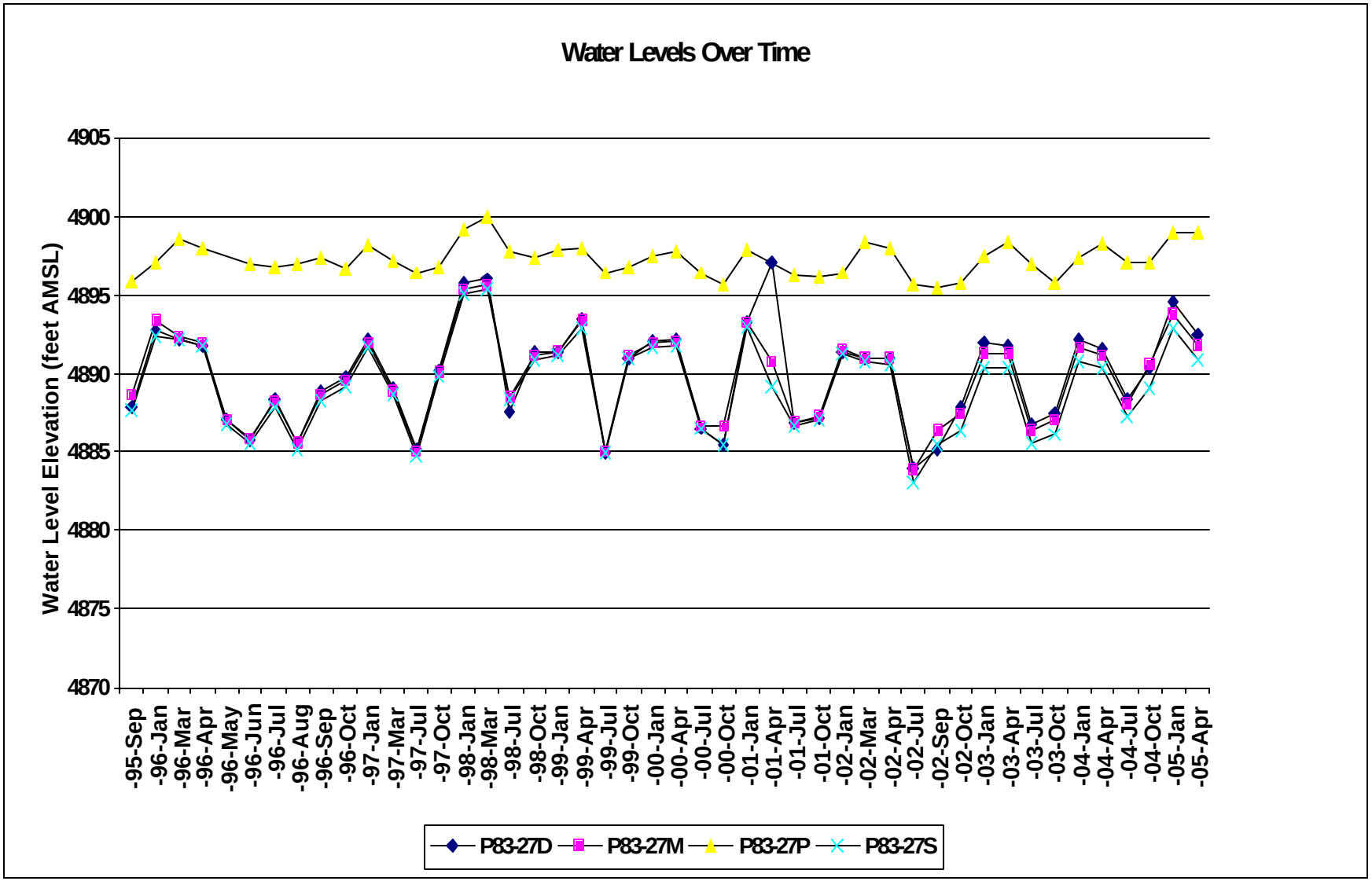
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: P83-24P, P83-24S, P83-28P, P83-28S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



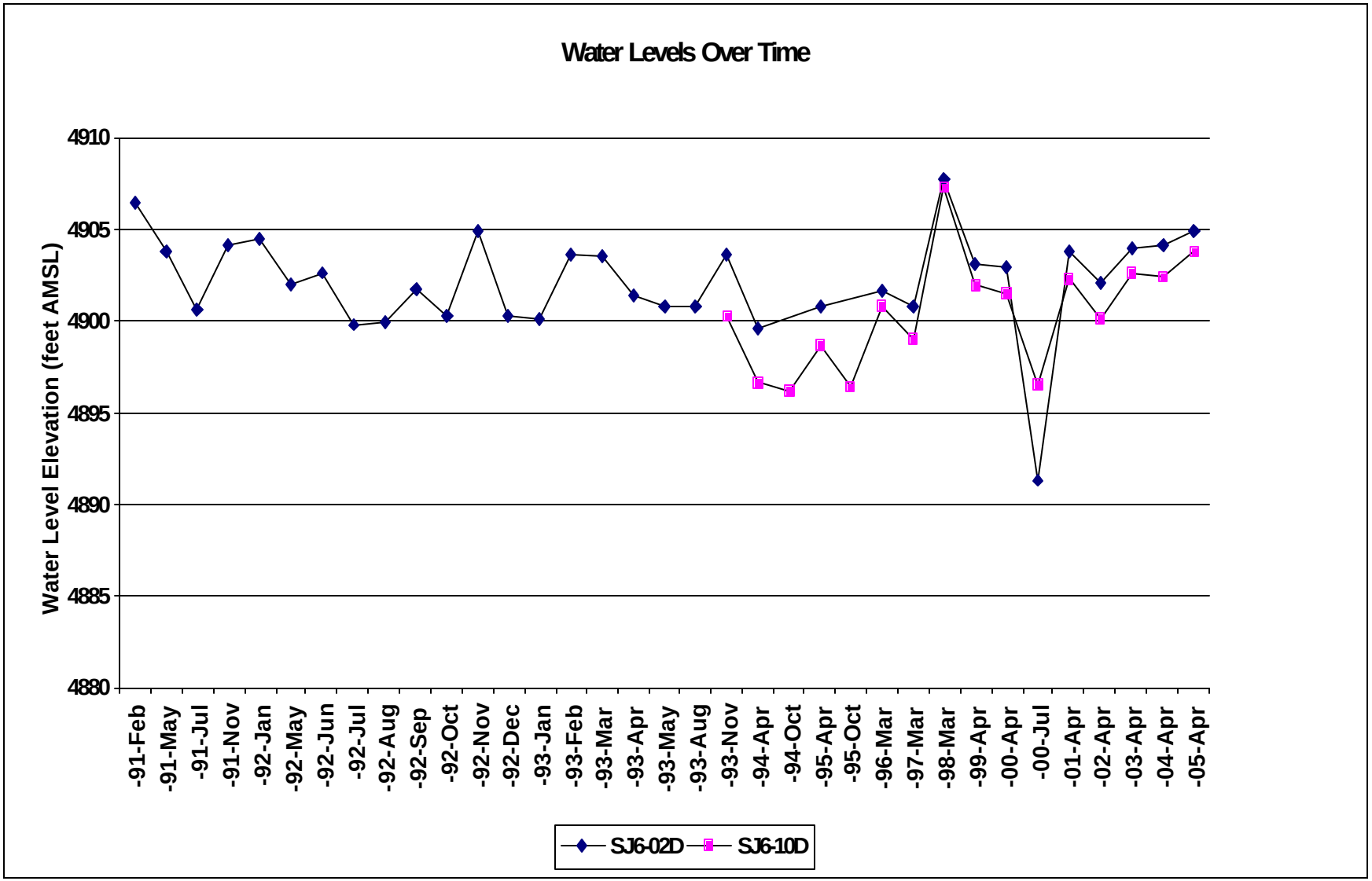
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: P83-26D, P83-26M, P83-26P, P83-26S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



Appendix C1: Hydrographs -Selected Conventional Wells
Wells: P83-27D, P83-27M, P83-27P, P83-27S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



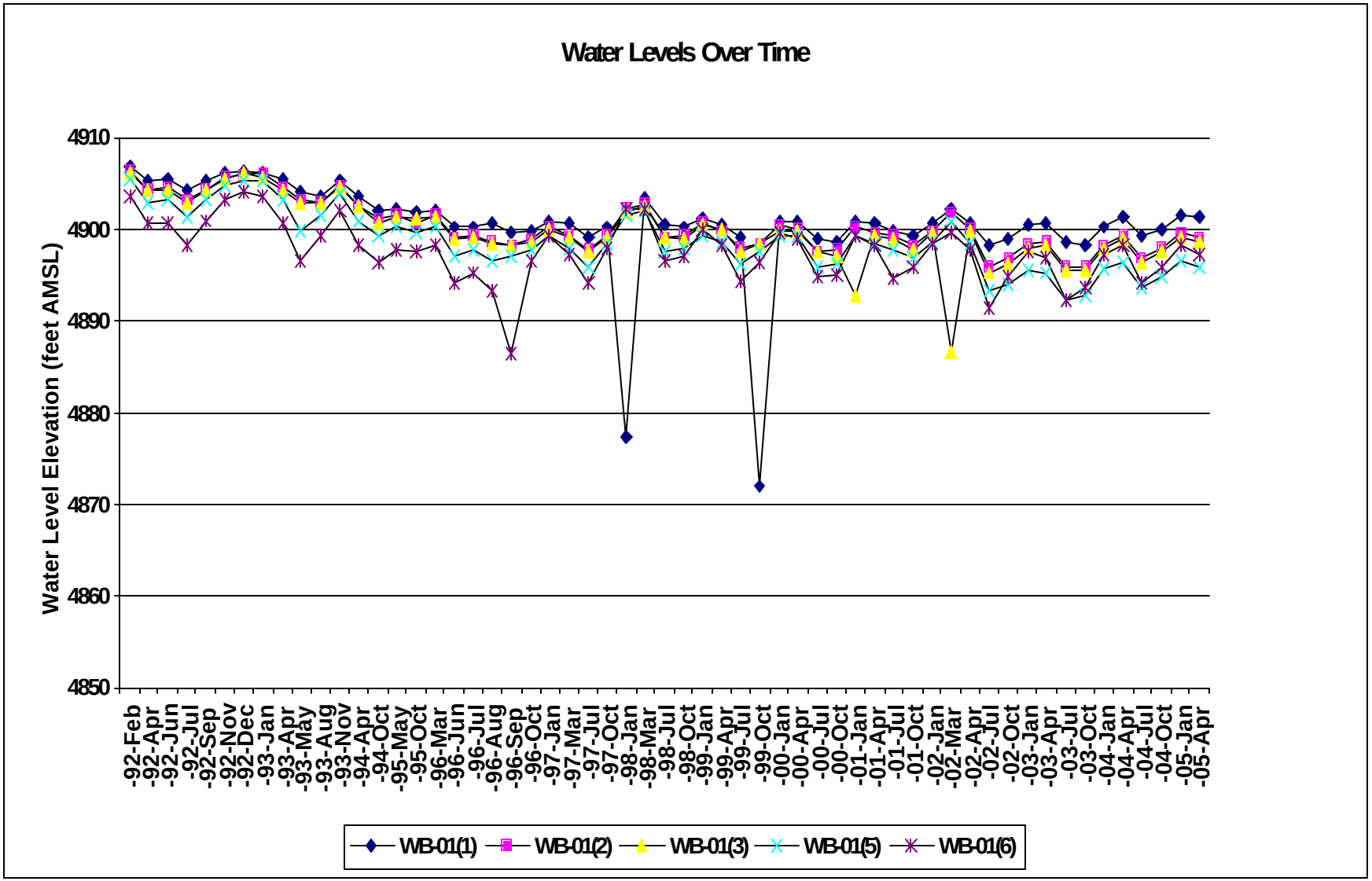
Appendix C1: Hydrographs -Selected Conventional Wells
Wells: SJ6-02D, SJ6-10D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



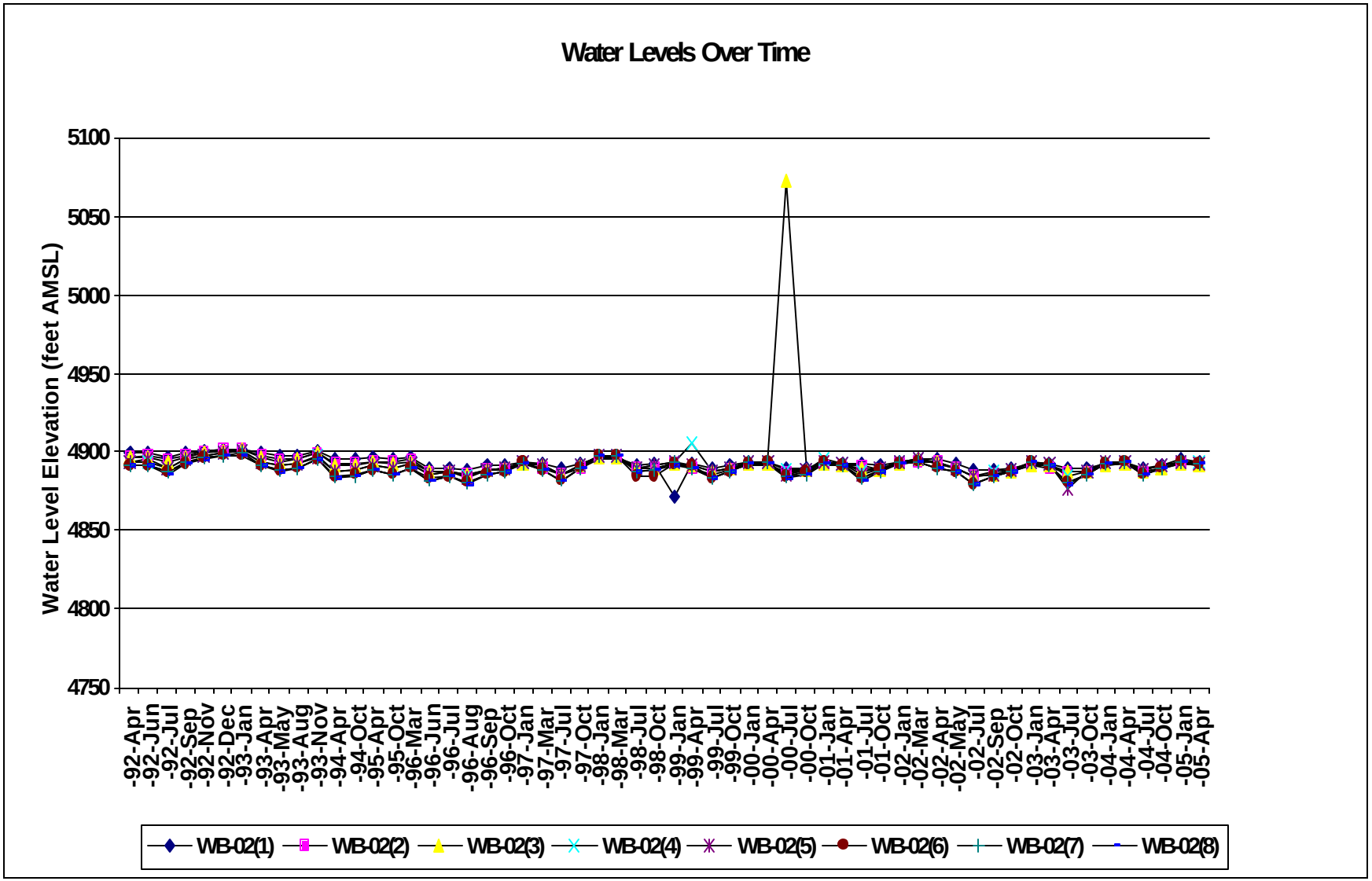
Appendix C-2

Groundwater Elevations – Westbay™ Monitoring Wells

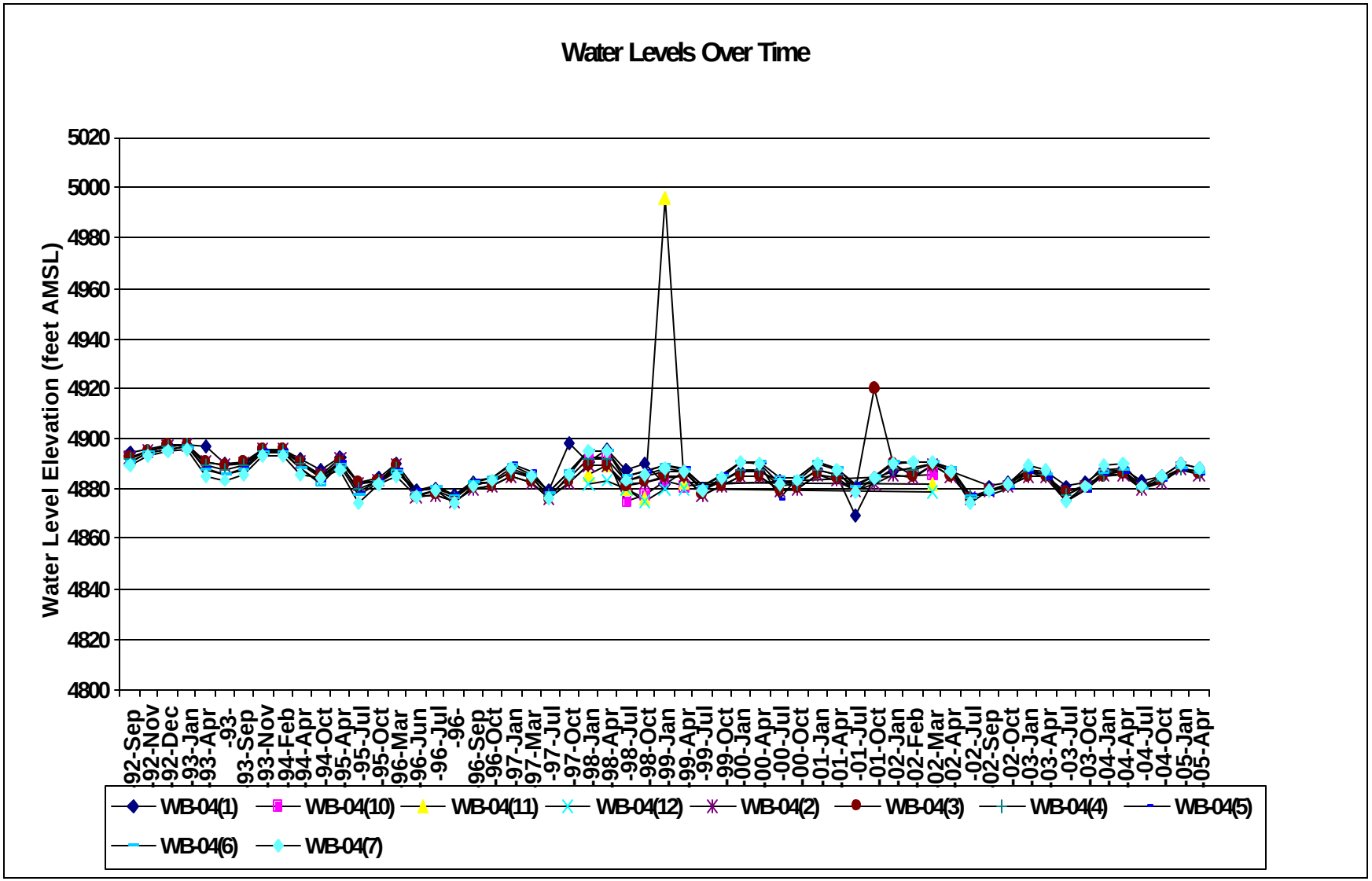
Appendix C2:Hydrographs - WestBay Wells
Wells: WB-01(1), WB-01(2), WB-01(3), WB-01(4), WB-01(5), WB-01(6)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



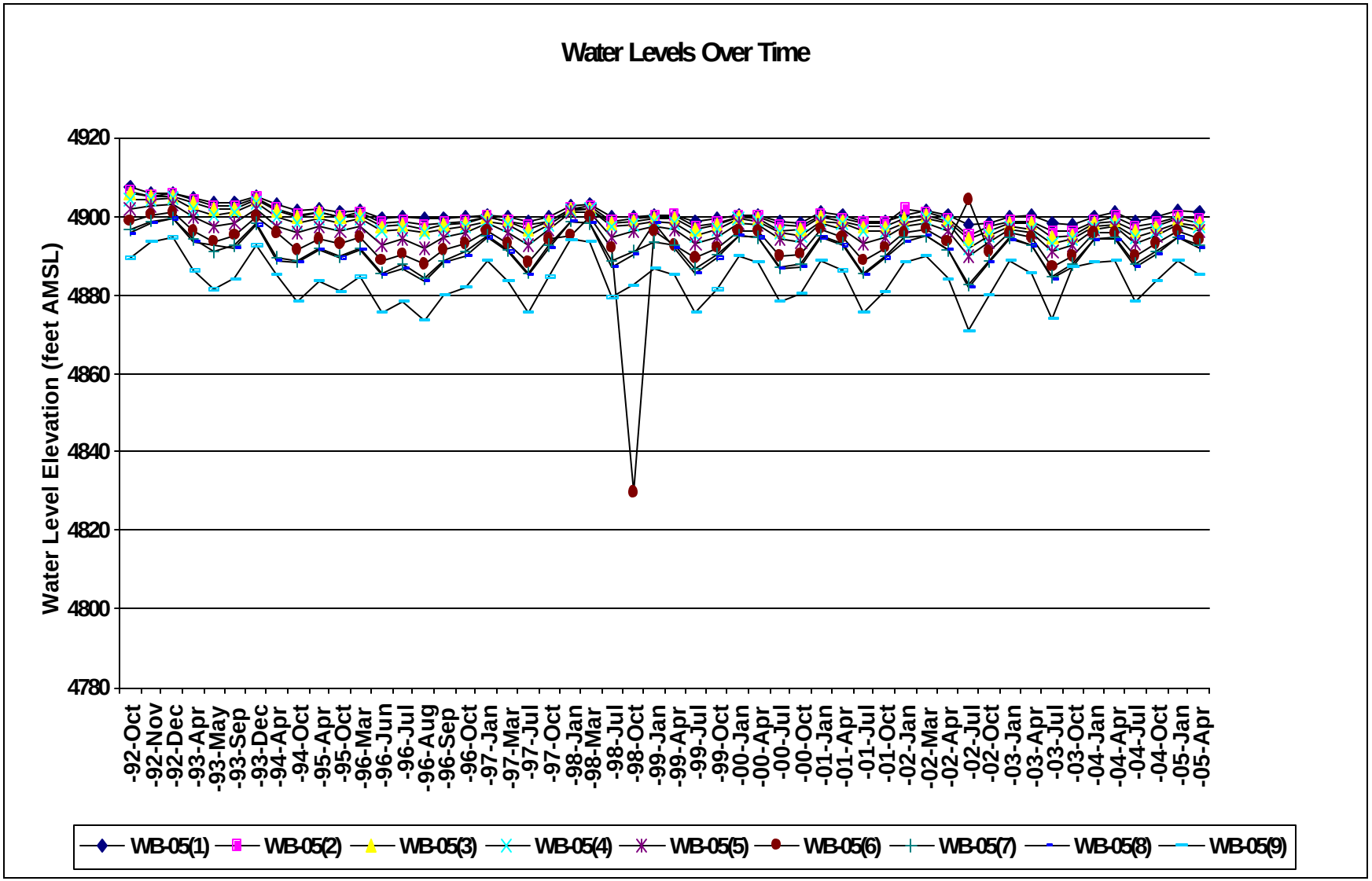
Appendix C2:Hydrographs - WestBay Wells
Wells: WB-02(1), WB-02(2), WB-02(3), WB-02(4), WB-02(5), WB-02(6), WB-02(7), WB-02(8)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



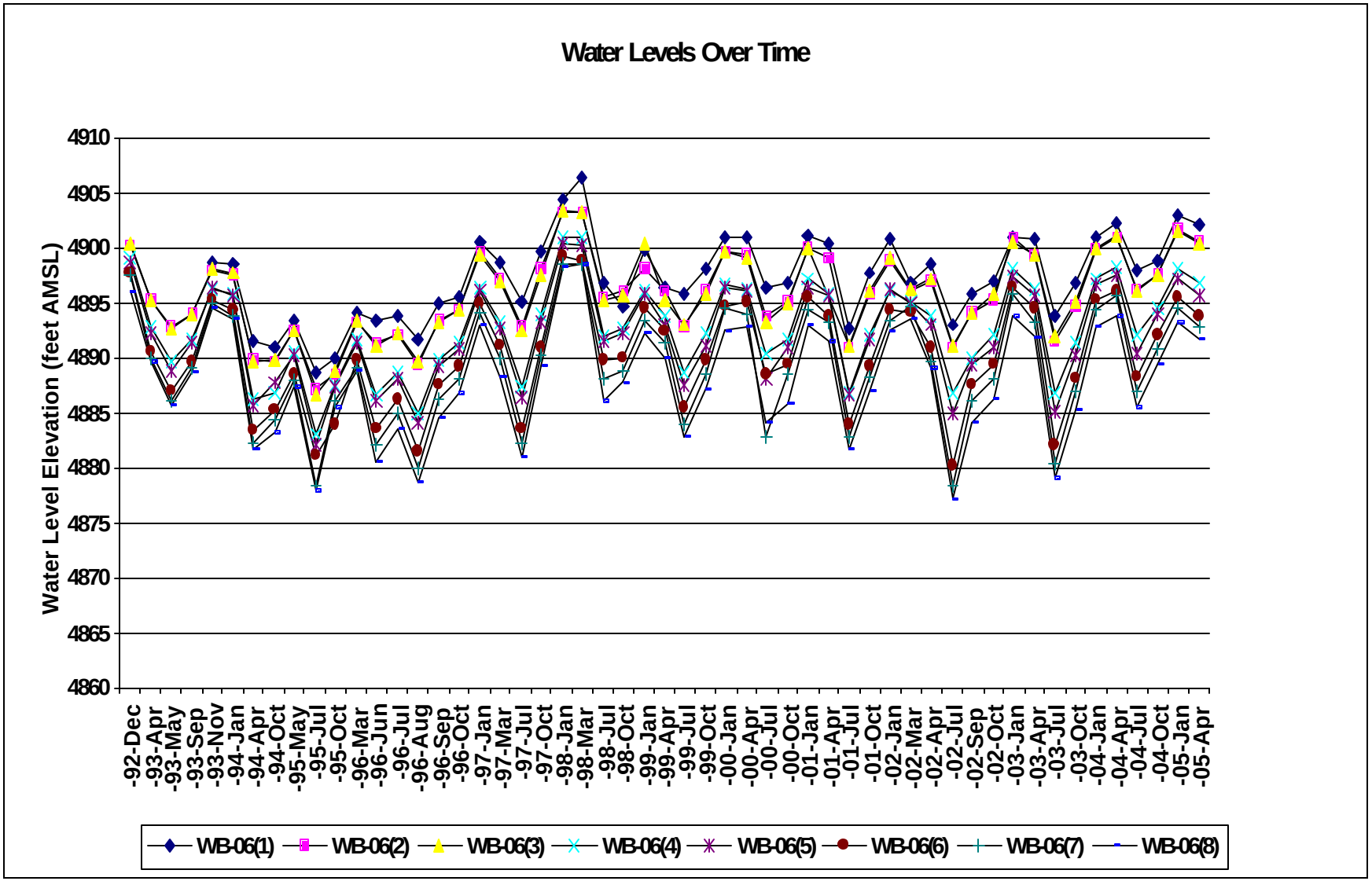
Appendix C2:Hydrographs - WestBay Wells
Wells: WB-04(1), WB-04(10), WB-04(11), WB-04(12), WB-04(2), WB-04(3), WB-04(4), WB-04(5), WB-04(6), WB-04(7
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



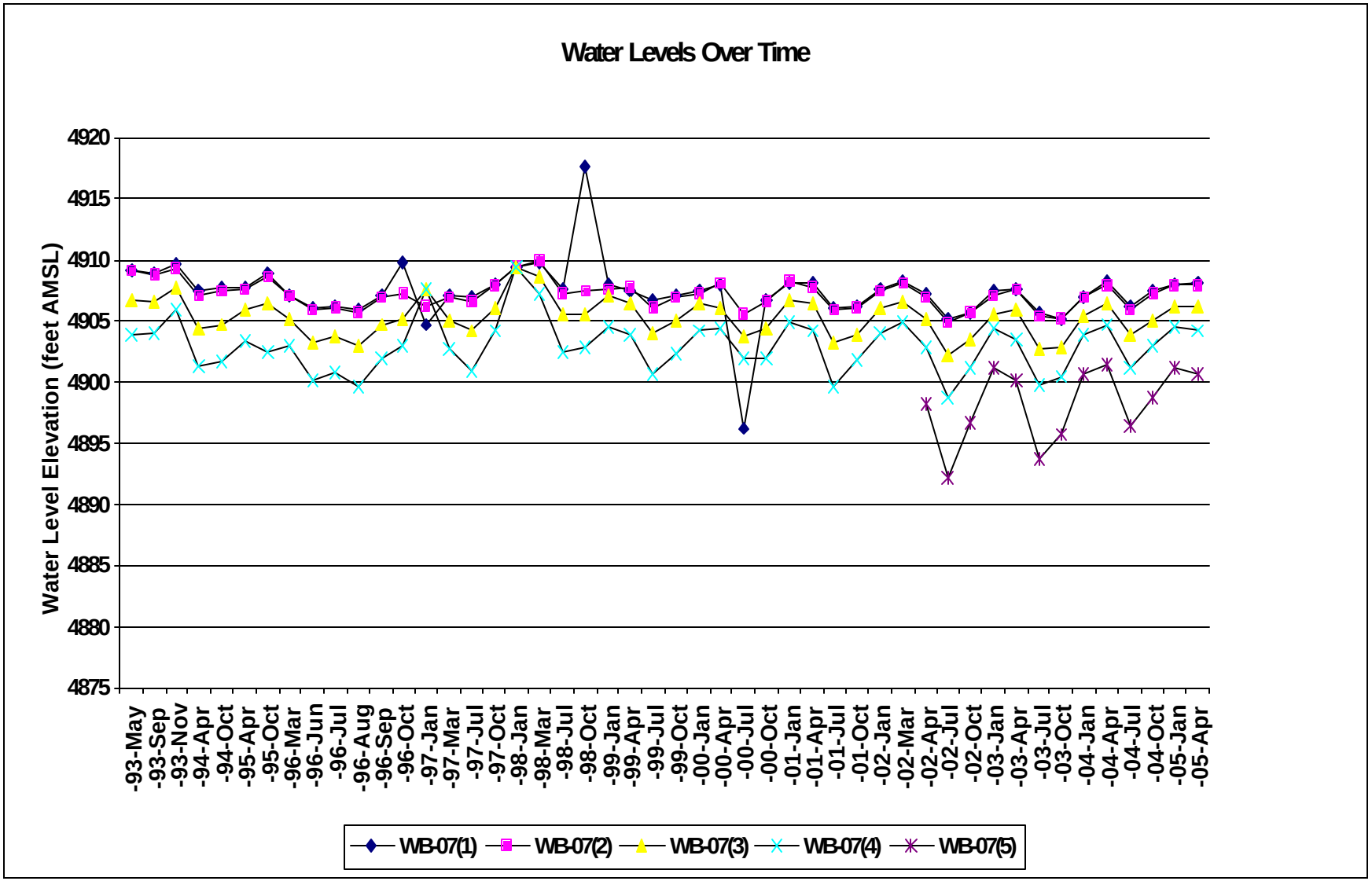
Appendix C2:Hydrographs - WestBay Wells
Wells: WB-05(1), WB-05(2), WB-05(3), WB-05(4), WB-05(5), WB-05(6), WB-05(7), WB-05(8), WB-05(9)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



Appendix C2:Hydrographs - WestBay Wells
Wells: WB-06(1), WB-06(2), WB-06(3), WB-06(4), WB-06(5), WB-06(6), WB-06(7), WB-06(8)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



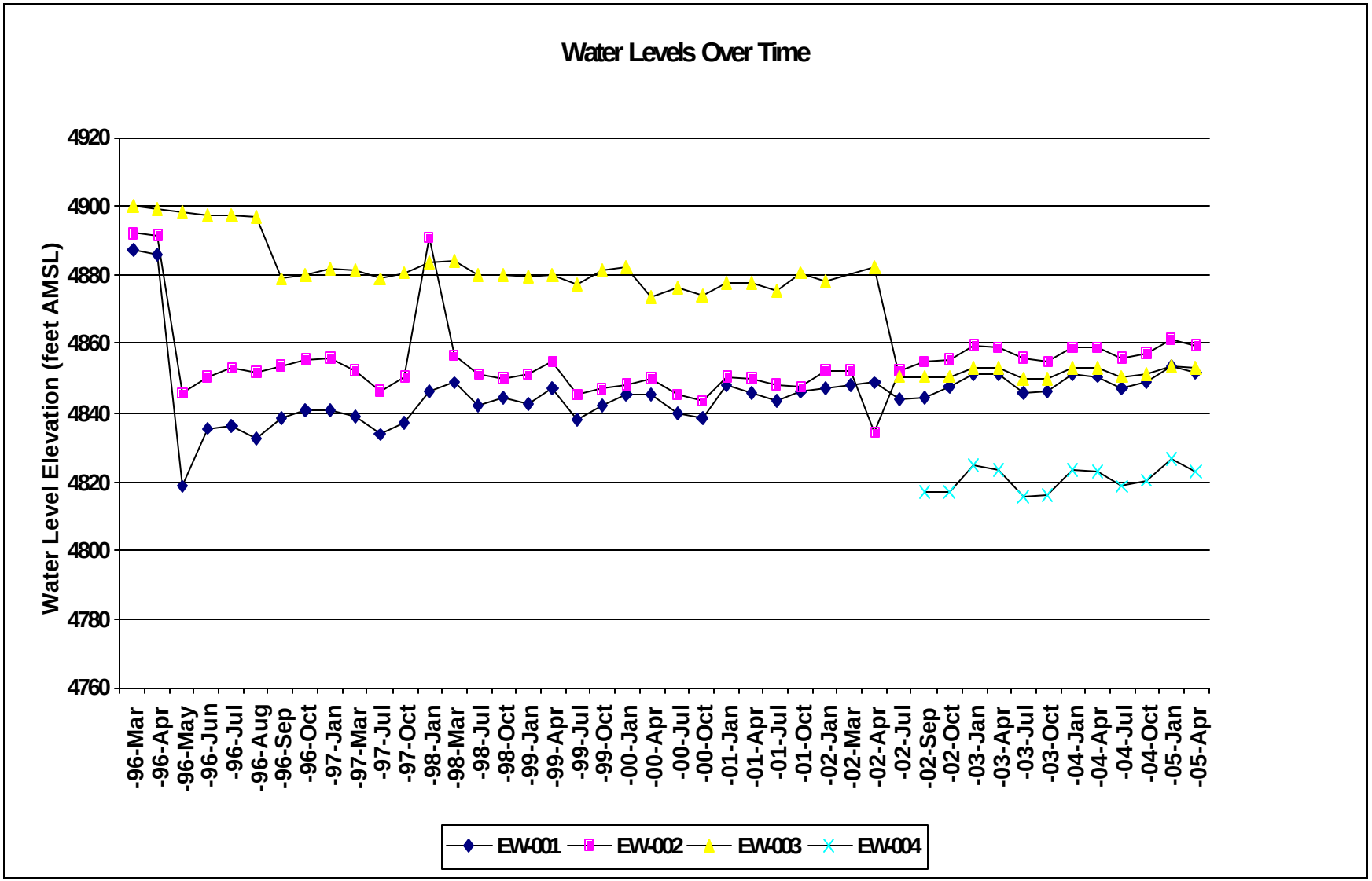
Appendix C2:Hydrographs - WestBay Wells
Wells: WB-07(1), WB-07(2), WB-07(3), WB-07(4), WB-07(5)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



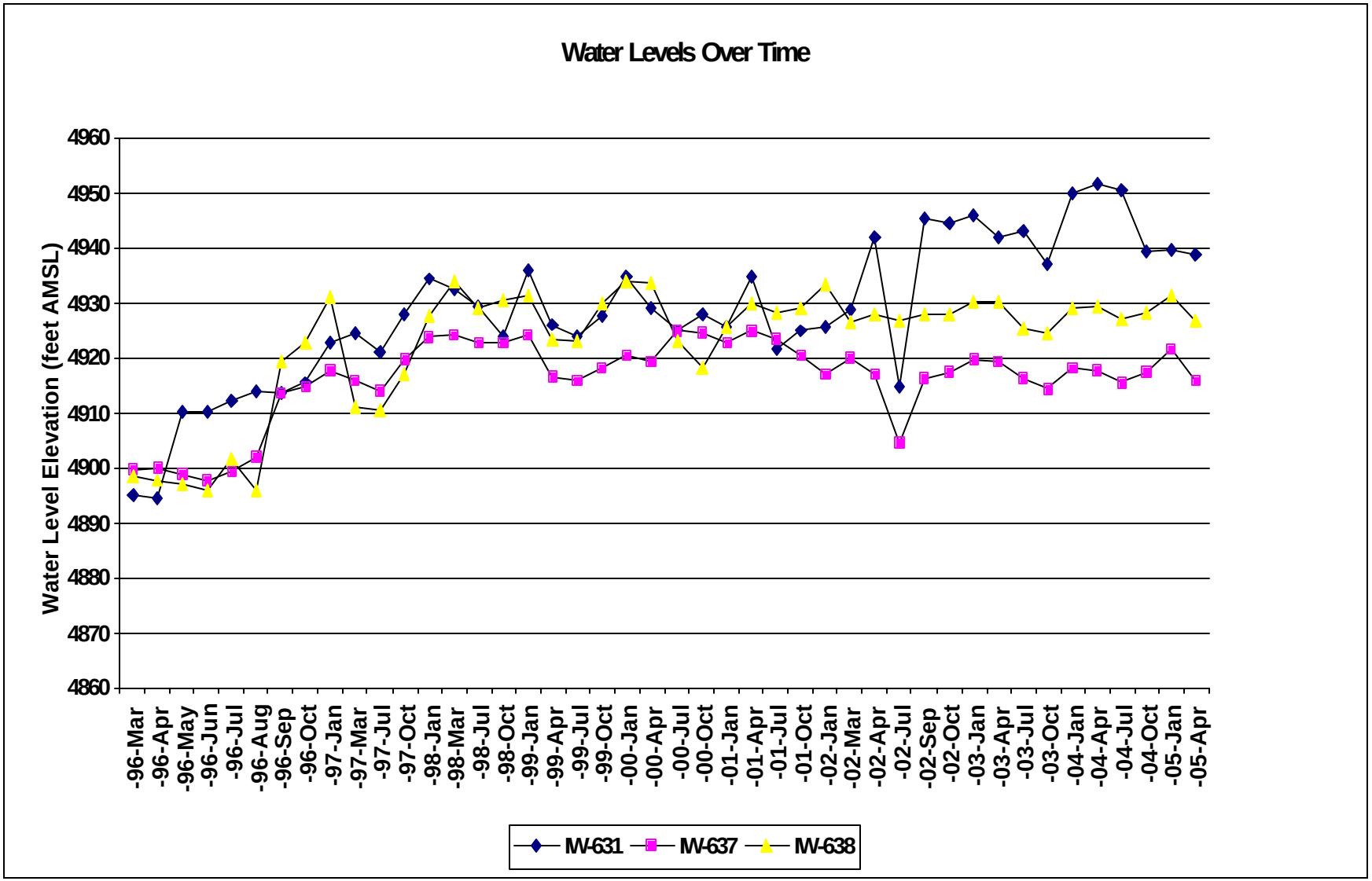
Appendix C-3

Groundwater Elevations – Extraction and Injection Wells

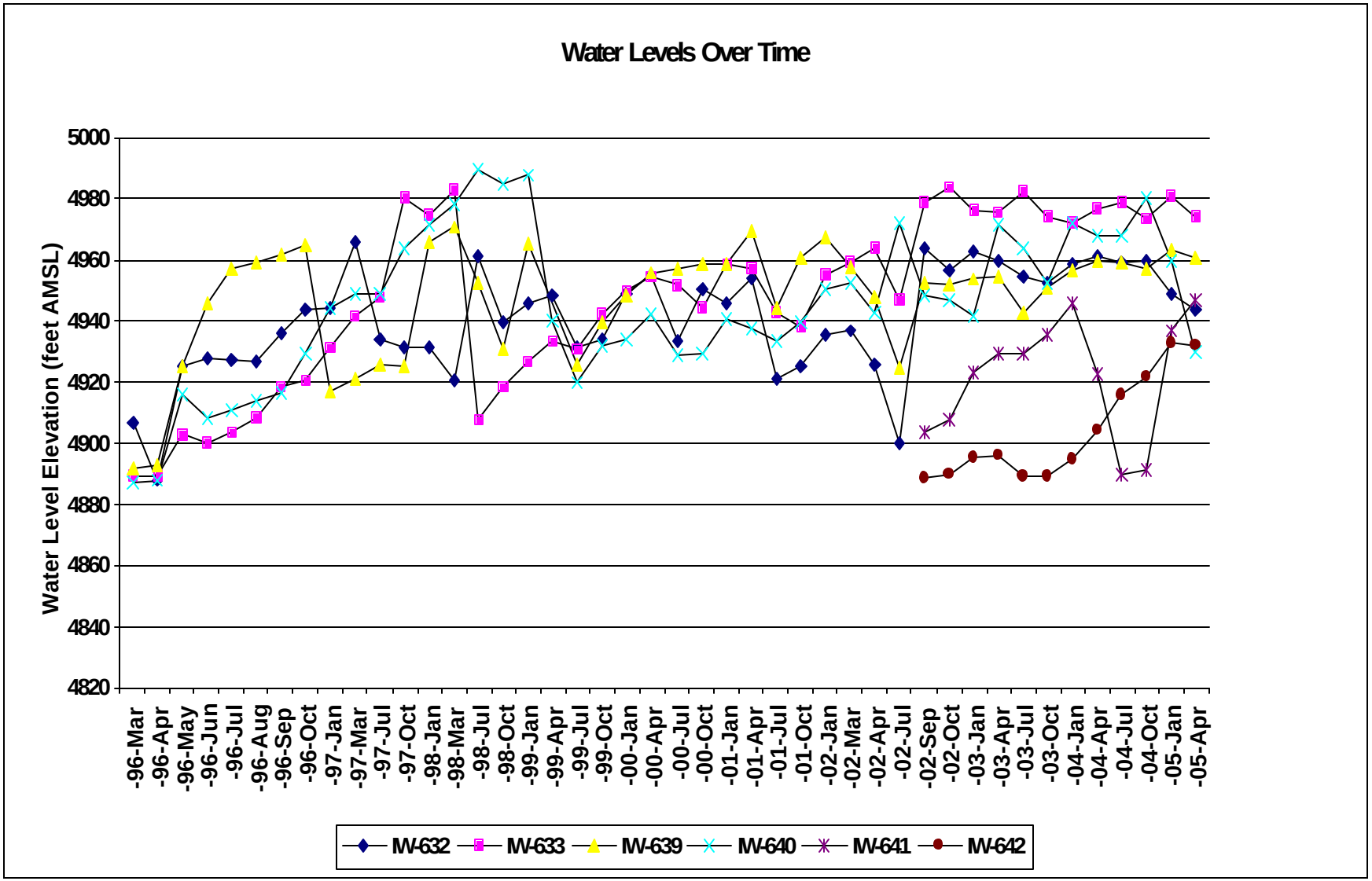
Appendix C3: Hydrographs - Injection and Extraction Wells
Wells: EW-001, EW-002, EW-003, EW-004
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



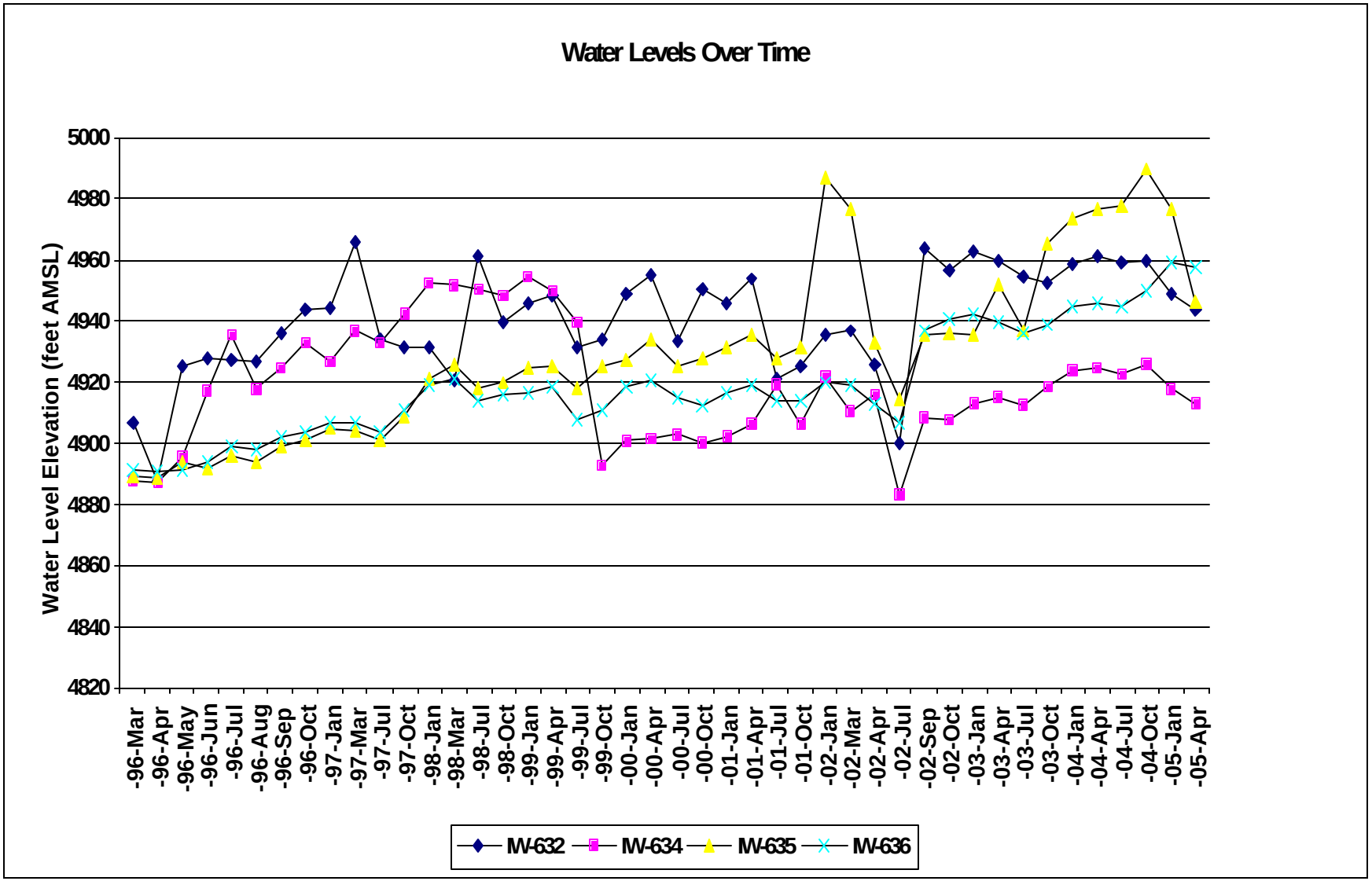
Appendix C3: Hydrographs - Injection and Extraction Wells
Wells: IW-631, IW-637, IW-638
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



Appendix C3: Hydrographs - Injection and Extraction Wells
Wells: IW-632, IW-633, IW-639, IW-640, IW-641, IW-642
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



Appendix C3: Hydrographs - Injection and Extraction Wells
Wells: IW-634, IW-635, IW-636
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico



APPENDIX D

SITE WELL CONSTRUCTION DATA

APPENDIX D-1 SHALLOW ZONE WELL CONSTRUCTION DATA

APPENDIX D-2 DEEP ZONE WELL CONSTRUCTION DATA

D-1 Shallow Zone Well Construction Data

Appendix D1: Shallow Zone Well Construction
Second Five Year Review Report
Plant 83/General Electric Shallow Zone and San Jose-6 Operable Units
South Valley Superfund Site - Albuquerque, New Mexico

Well	Northing (ft)	Easting (ft)	Total Depth (ft bgs)	Ground Level Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Screen Interval (ft bgs)	Screen Midpoint Elevation (ft amsl)
Extraction Wells							
SEW-01	1474715.25	380372.97	24.5	4936.42	4934.84	18 - 23	4916.07
SEW-02	1474422.63	380345.13	25.5	4936.33	4934.75	19 - 24	4914.96
SEW-03	1474160.88	380370.56	25.8	4938.23	4936.65	19 - 24	4916.41
SEW-04	1473874.63	380650.84	27.5	4937.81	4936.23	21 - 26	4914.61
SEW-05	1474298.50	380610.25	25.0	4937.09	4935.51	18 - 23	4916.44
SEW-06	1474320.13	380700.47	24.5	4936.56	4934.98	18 - 23	4916.19
SEW-10	1472370.75	380202.97	29.0	4937.87	4936.58	23 - 28	4912.87
SEW-11 (a)	1474675.67	380517.00	24.0	4936.42	4933.68	17 - 22	4916.92
Injection Well							
SIW-01 (b)	1474314.82	380678.41	22.0	4936.94	4934.27	12 - 22	4920.14
Conventional Monitoring Wells							
SGP-03	1472614.38	380591.19	27.0	4939.84	4939.84	22 - 26	4915.84
SGP-04	1472839.88	380733.00	26.0	4939.66	4939.66	20 - 26	4916.66
SGP-05	1472611.88	380776.34	25.0	4939.08	4939.08	20 - 25	4916.58
SMW-10	1474335.13	380533.19	22.6	4937.50	4937.25	16 - 26	4916.25
SMW-11	1474326.88	380402.09	24.0	4936.40	4938.24	14 - 24	4919.24
SMW-12	1474106.38	380363.38	23.3	4937.00	4938.17	14 - 24	4919.17
SMW-14	1474183.50	381007.44	22.2	4937.00	4936.33	12 - 22	4919.33
SMW-16	1471894.25	380641.28	22.6	NA	4937.61	16 - 26	4916.61
SMW-19	1471749.75	380547.88	23.0	NA	4937.81	6 - 16	4926.81
SW-01	1474231.50	380367.91	21.4	4937.90	4939.38	12 - 22	4920.90
SW-02	1471816.00	380186.06	25.6	4939.00	4939.78	16 - 26	4918.00
SW-03	1471757.00	380594.00	29.3	4938.33	4939.62	19 - 29	4914.38
SW-04	1471830.00	380168.00	61.0	NA	4939.91	20 - 30	4914.91
SW-06	1474057.00	380394.00	21.3	4938.43	4937.81	12 - 22	4921.89
SW-07	1474237.00	380494.00	23.8	NA	4939.12	14 - 24	4920.12
SW-08	1472337.00	380234.00	30.0	4939.37	4939.37	20 - 30	4914.37
TX-14	1471845.13	380771.34	25.0	4936.60	4936.60	5 - 25	4921.60
TX-23	1471708.50	380685.75	30.0	4938.77	4938.77	15 - 30	4916.27

Notes:

a. Extraction well SEW-11 was installed in January 2000 and became operational in February 2000

b. Injection well SIW-01 was installed in January 2000 and became opeerational in May 2000

amsl = above mean sea level
bgs = below ground surface
ft = feet
NA = Not Available

D-2 Deep Zone Well Construction Data

Appendix D-2: Deep Zone Well Construction Data
Second Five Year Review Report
Deep Zone Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Well	Northing (ft)	Easting (ft)	Total Depth (ft bgs)	Ground Level Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Screen Interval (ft bgs)	Screen Midpoint Elevation (ft amsl)
Extraction Wells							
EW-001	1472527.38	383717.03	432.00	5032.00	5025.49	195 - 422	4723.50
EW-002	1472493.50	383032.63	405.00	5004.00	4997.38	164 - 391	4726.50
EW-003	1472279.00	382262.38	323.00	4973.40	4966.78	173 - 313	4730.30
EW-004	1473032.64	383677.46	491.00	5025.94	5020.26	440 - 470	4600.50
Injection Wells							
IW-631	1473481.75	382534.38	364.00	4975.00	4966.55	166 - 356	4714.00
IW-632	1473761.00	382978.63	568.00	4990.00	4984.10	456 - 557	4483.60
IW-633	1473494.88	383407.81	414.00	5009.00	5001.50	177 - 404	4718.50
IW-634	1472039.13	383709.88	415.00	5030.00	5022.98	199 - 405	4728.00
IW-635	1471841.38	383493.56	410.00	5018.00	5012.16	183 - 400	4726.50
IW-636	1471690.75	383153.38	366.00	4997.00	4992.28	182 - 356	4728.00
IW-637	1473116.50	381660.25	407.00	4939.00	4932.39	117 - 397	4682.00
IW-638	1473370.38	382030.75	360.00	4948.00	4940.08	128 - 350	4709.00
IW-639	1473503.38	383041.69	408.00	4995.00	4987.32	172 - 398	4710.00
IW-640	1473495.88	383747.81	406.00	5016.00	5010.85	176 - 396	4730.00
IW-641	1473593.46	383738.77	437.00	5015.90	5010.45	176 - 417	4716.40
IW-642	1473583.42	383548.13	436.60	5014.09	5008.39	180 - 416	4716.05
Conventional Monitoring Wells							
D-01 (a)	1473328.94	382560.64	177.00	4974.30	4976.24	167 - 177	4802.30
D-02	1472635.35	382766.33	240.00	4994.40	4996.55	230 - 240	4759.40
D-03	1472555.30	380935.13	100.00	4936.00	4935.34	89 - 99	4842.00
DMW-01	1471845.41	380181.00	NA	NA	4939.00	80 - 100	4849.00

Appendix D-2: Deep Zone Well Construction Data
Second Five Year Review Report
Deep Zone Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Well	Northing (ft)	Easting (ft)	Total Depth (ft bgs)	Ground Level Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Screen Interval (ft bgs)	Screen Midpoint Elevation (ft amsl)
DMW-02	1471847.95	380627.00	144.50	NA	4937.94	130 - 150	4797.94
DMW-03	1474323.86	380389.02	NA	4936.40	4938.18	111 - 131	4817.18
HL-02	1473099.74	381910.20	400.00	4939.30	4940.17	216 - 236	4713.30
HL-05	1471657.00	380854.00	65.00	NA	4939.32	46 - 56	4888.32
I-03	1472645.64	382768.39	108.00	4994.64	4994.64	98 - 108	4891.64
I-04	1471845.88	382549.90	88.90	4976.70	4978.88	79 - 89	4892.75
I-05	1473602.14	381079.78	78.00	4935.20	4937.24	48 - 78	4872.20
I-06	1471483.86	381880.04	77.00	4950.30	4951.96	57 - 77	4883.30
I-07	1473256.53	380151.76	87.00	4940.30	4942.30	36 - 66	4889.30
IMW-06	1474086.98	380372.04	80.00	NA	4937.74	60 - 80	4867.74
P83-07D	1472050.22	381368.68	142.90	4943.34	4945.09	128 - 138	4810.84
P83-08D (a)	1473174.18	381320.24	140.00	4936.65	4935.88	125 - 135	4806.95
P83-09D	1472278.57	381725.17	140.30	4940.19	4941.74	125 - 135	4810.14
P83-10D (a)	1473843.05	381394.89	140.30	4936.11	4935.58	125 - 135	4806.11
P83-11D	1471812.16	381601.62	140.00	4944.26	4946.48	125 - 135	4814.51
P83-19LR	1473598.59	384872.10	440.00	5070.00	5069.70	415 - 435	4644.68
P83-19M	1473611.79	384872.59	325.00	5070.00	5069.58	300 - 320	4759.65
P83-19U	1473571.96	384872.53	255.00	5070.50	5070.35	230 - 250	4830.45
P83-19D-2	1473552.69	384872.00	525.00	5070.55	5070.18	485 - 515	4570.56
P83-21P	1473451.90	383575.82	163.21	5012.00	5011.53	148 - 158	4858.70
P83-21S	1473451.90	383575.82	231.50	5012.00	5011.55	206 - 226	4795.60
P83-22D	1473146.60	383550.70	367.00	5017.00	5016.39	342 - 362	4665.30
P83-22D-2	1472995.48	383559.75	475.00	5016.19	5016.54	432 - 472	4569.19
P83-22M	1473120.90	383559.20	280.00	5017.00	5016.74	255 - 275	4752.30
P83-22P	1473092.70	383551.10	168.72	5018.00	5017.70	154 - 164	4858.58
P83-22S	1473092.70	383551.10	235.00	5018.00	5017.52	206 - 226	4800.80

Appendix D-2: Deep Zone Well Construction Data
Second Five Year Review Report
Deep Zone Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Well	Northing (ft)	Easting (ft)	Total Depth (ft bgs)	Ground Level Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Screen Interval (ft bgs)	Screen Midpoint Elevation (ft amsl)
P83-23D	1472281.90	383753.50	409.60	5030.00	5029.60	384 - 404	4634.20
P83-23M	1472264.10	383747.00	325.48	5030.00	5028.88	300 - 320	4718.19
P83-23P	1472268.30	383762.00	178.10	5030.00	5029.75	163 - 173	4860.50
P83-23S	1472268.00	383762.00	250.10	5030.00	5029.74	220 - 240	4798.40
P83-24P	1472127.50	383703.50	181.21	5029.00	5028.86	166 - 176	4858.00
P83-24S	1472127.50	383703.50	245.42	5029.00	5028.82	220 - 240	4798.90
P83-25P	1473389.70	383329.90	165.20	5006.00	5005.36	150 - 160	4850.30
P83-25S	1473389.70	383329.90	223.42	5006.00	5005.37	198 - 218	4797.20
P83-26D	1473083.50	383247.30	334.25	5006.00	5005.12	304 - 324	4690.91
P83-26M	1473100.90	383238.40	272.10	5006.00	5004.97	242 - 262	4752.90
P83-26P	1473118.10	383251.60	163.25	5006.00	5005.49	148 - 158	4851.90
P83-26S	1473118.10	383251.60	224.00	5006.00	5005.52	194 - 214	4800.96
P83-27D	1471927.00	383220.00	336.30	5008.00	5006.88	306 - 326	4691.30
P83-27M	1471943.40	383216.70	255.80	5008.00	5007.57	226 - 246	4771.65
P83-27P	1471953.60	383224.90	172.30	5008.00	5008.17	157 - 167	4845.30
P83-27S	1471953.60	383224.90	224.80	5008.00	5008.09	195 - 215	4802.61
P83-28P	1471810.30	383286.30	153.20	5007.00	5006.53	138 - 148	4863.30
P83-28S	1471810.30	383286.30	217.00	5007.00	5006.47	192 - 212	4804.20
P83-29P	1473114.70	382755.90	152.00	4988.00	4987.75	137 - 147	4875.00
P83-29S	1473114.70	382755.90	215.04	4988.00	4987.79	185 - 205	4822.06
P83-30D-2	1473453.39	384319.07	509.50	5044.00	5044.09	459.2 - 489.2	4569.90
P83-31S	1471488.88	383682.20	266.00	5016.00	5016.30	215.7 - 245.7	4785.35
P83-31M	1471481.55	383696.50	366.00	5017.00	5016.84	315.7 - 345.7	4686.30
P83-31D-2	1471500.10	383714.61	518.00	5018.00	5019.21	447.7 - 497.7	4545.30
SJ6-01D	1473761.02	382381.44	135.00	4960.44	4962.21	120 - 130	4835.54

Appendix D-2: Deep Zone Well Construction Data
Second Five Year Review Report
Deep Zone Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Well	Northing (ft)	Easting (ft)	Total Depth (ft bgs)	Ground Level Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Screen Interval (ft bgs)	Screen Midpoint Elevation (ft amsl)
Westbay Wells							
WB-01(1)	1472006.00	382030.20	350.00	4959.39	4961.11	105 - 115	4849.39
WB-01(2)	1472006.00	382030.20	350.00	4959.39	4961.11	140 - 150	4814.49
WB-01(3)	1472006.00	382030.20	350.00	4959.39	4961.11	175 - 185	4779.49
WB-01(4)	1472006.00	382030.20	350.00	4959.39	4961.11	210 - 220	4744.49
WB-01(5)	1472006.00	382030.20	350.00	4959.39	4961.11	250 - 260	4704.49
WB-01(6)	1472006.00	382030.20	350.00	4959.39	4961.11	310 - 320	4644.49
WB-02(1)	1472624.00	382747.50	635.10	4993.72	4995.66	194 - 204	4794.52
WB-02(2)	1472624.00	382747.50	635.10	4993.72	4995.66	294 - 304	4694.72
WB-02(3)	1472624.00	382747.50	635.10	4993.72	4995.66	334 - 344	4654.82
WB-02(4)	1472624.00	382747.50	635.10	4993.72	4995.66	394 - 404	4594.92
WB-02(5)	1472624.00	382747.50	635.10	4993.72	4995.66	439 - 449	4550.02
WB-02(6)	1472624.00	382747.50	635.10	4993.72	4995.66	499 - 509	4489.72
WB-02(7)	1472624.00	382747.50	635.10	4993.72	4995.66	539 - 549	4449.82
WB-02(8)	1472624.00	382747.50	635.10	4993.72	4995.66	599 - 609	4389.92
WB-04(1)	1472767.00	383563.20	1181.00	5020.61	5022.46	205 - 215	4810.71
WB-04(2)	1472767.00	383563.20	1181.00	5020.61	5022.46	282 - 292	4734.11
WB-04(3)	1472767.00	383563.20	1181.00	5020.61	5022.46	323 - 333	4693.11
WB-04(4)	1472767.00	383563.20	1181.00	5020.61	5022.46	363 - 373	4652.51
WB-04(5)	1472767.00	383563.20	1181.00	5020.61	5022.46	445 - 455	4570.31
WB-04(6)	1472767.00	383563.20	1181.00	5020.61	5022.46	486 - 496	4529.81
WB-04(7)	1472767.00	383563.20	1181.00	5020.61	5022.46	531 - 541	4484.21
WB-04(8)	1472767.00	383563.20	1181.00	5020.61	5022.46	615 - 625	4402.21
WB-04(9)	1472767.00	383563.20	1181.00	5020.61	5022.46	748 - 758	4269.21
WB-04(10)	1472767.00	383563.20	1181.00	5020.61	5022.46	884 - 894	4131.21

Appendix D-2: Deep Zone Well Construction Data
Second Five Year Review Report
Deep Zone Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Well	Northing (ft)	Easting (ft)	Total Depth (ft bgs)	Ground Level Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Screen Interval (ft bgs)	Screen Midpoint Elevation (ft amsl)
WB-04(11)	1472767.00	383563.20	1181.00	5020.61	5022.46	1028 - 1038	3987.81
WB-04(12)	1472767.00	383563.20	1181.00	5020.61	5022.46	1135 - 1145	3880.61
WB-05(1)	1471597.00	382181.30	720.35	4963.82	4965.17	110 - 120	4849.24
WB-05(2)	1471597.00	382181.30	720.35	4963.82	4965.17	160 - 170	4799.22
WB-05(3)	1471597.00	382181.30	720.35	4963.82	4965.17	220 - 230	4739.17
WB-05(4)	1471597.00	382181.30	720.35	4963.82	4965.17	260 - 270	4699.13
WB-05(5)	1471597.00	382181.30	720.35	4963.82	4965.17	320 - 330	4639.04
WB-05(6)	1471597.00	382181.30	720.35	4963.82	4965.17	390 - 400	4568.99
WB-05(7)	1471597.00	382181.30	720.35	4963.82	4965.17	480 - 490	4478.94
WB-05(8)	1471597.00	382181.30	720.35	4963.82	4965.17	580 - 590	4378.87
WB-05(9)	1471597.00	382181.30	720.35	4963.82	4965.17	670 - 680	4288.82
WB-06(1) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	200 - 210	4776.48
WB-06(2) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	285 - 295	4691.48
WB-06(3) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	325 - 335	4651.49
WB-06(4) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	390 - 400	4586.54
WB-06(5) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	440 - 450	4536.55
WB-06(6) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	490 - 500	4486.54
WB-06(7) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	540 - 550	4436.54
WB-06(8) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	610 - 620	4366.55
WB-07(1)	1472523.75	380920.25	559.98	4936.07	4938.00	140 - 150	4790.88
WB-07(2)	1472523.75	380920.25	559.98	4936.07	4938.00	180 - 190	4750.89
WB-07(3)	1472523.75	380920.25	559.98	4936.07	4938.00	220 - 230	4710.90
WB-07(4)	1472523.75	380920.25	559.98	4936.07	4938.00	265 - 275	4665.90

Appendix D-2: Deep Zone Well Construction Data
Second Five Year Review Report
Deep Zone Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico

Well	Northing (ft)	Easting (ft)	Total Depth (ft bgs)	Ground Level Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Screen Interval (ft bgs)	Screen Midpoint Elevation (ft amsl)
San Jose 6 Monitoring Wells							
D-01 (a)	1473328.94	382560.64	177.00	4974.30	4976.24	167 - 177	4802.30
P83-08D (a)	1473174.18	381320.24	140.00	4936.65	4935.88	125 - 135	4806.95
P83-10D (a)	1473843.05	381394.89	140.30	4936.11	4935.58	125 - 135	4806.11
SJ6-01D (a)	1473761.02	382381.44	135.00	4960.44	4962.21	120 - 130	4835.54
SJ6-02D	1474620.23	381805.16	140.00	4938.34	4937.86	125 - 135	4808.69
SJ6-07D	1473151.37	381975.86	807.17	4943.81	4945.42	787 - 797	4151.89
SJ6-08D	1473142.09	381995.37	660.25	4944.38	4945.41	640 - 650	4299.38
SJ6-10D	1475039.60	381608.71	262.00	4943.34	4943.13	252 - 262	4686.34
WB-06(1) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	200 - 210	4776.48
WB-06(2) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	285 - 295	4691.48
WB-06(3) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	325 - 335	4651.49
WB-06(4) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	390 - 400	4586.54
WB-06(5) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	440 - 450	4536.55
WB-06(6) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	490 - 500	4486.54
WB-06(7) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	540 - 550	4436.54
WB-06(8) (a)	1473569.00	382921.60	650.12	4981.37	4983.02	610 - 620	4366.55

Notes:
a. This well used in both Plant 83 Deep Zone and San Jose 6 monitoring programs
amsl = above mean sea level
bgs = below ground surface
ft = feet
NA = Not Available

APPENDIX E

SUMMARY OF SELECTED VOC CONCENTRATIONS OVER TIME

E-1: VOC Concentrations Over Time – Selected Conventional Monitoring Wells

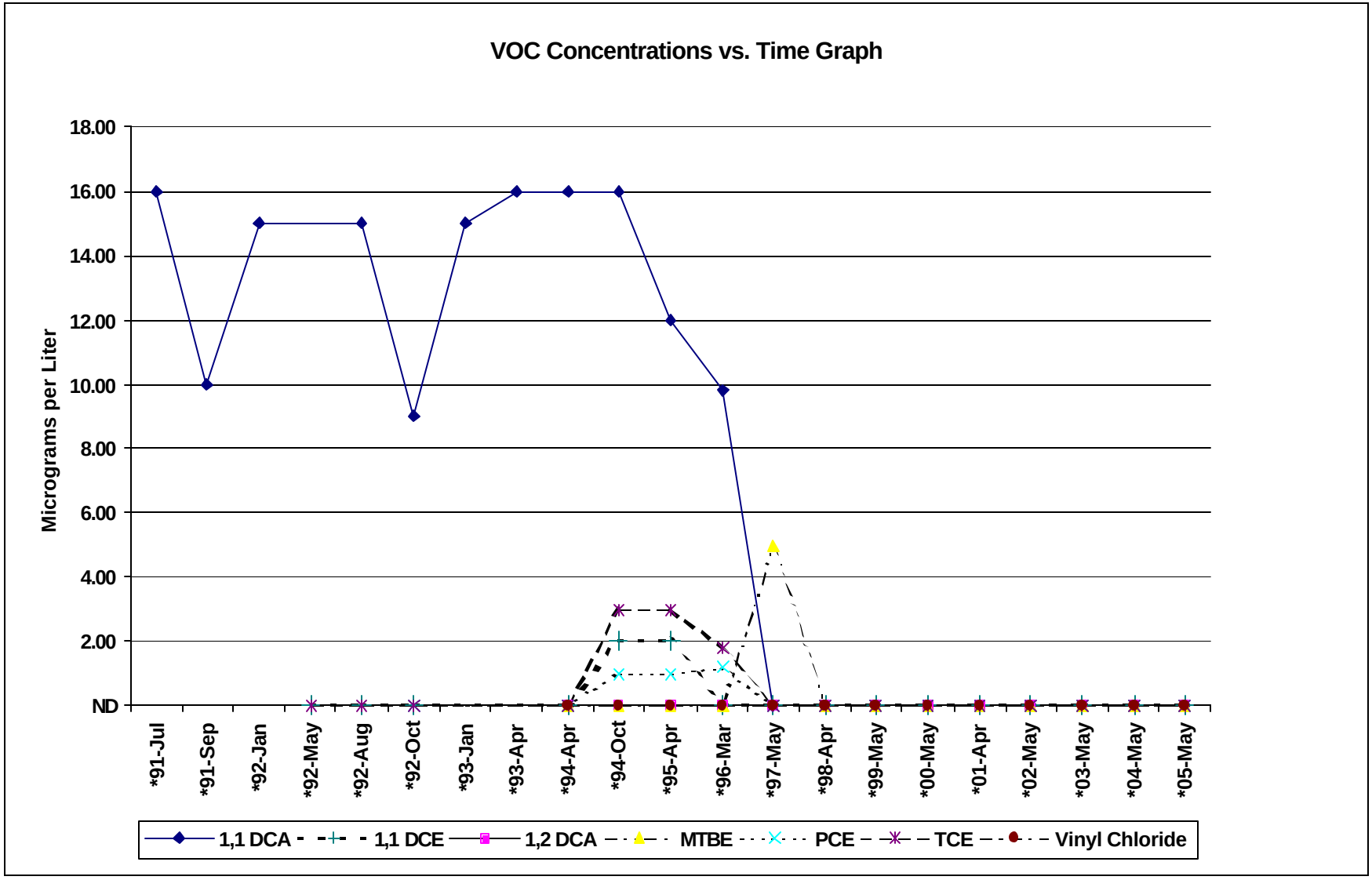
E-2: Voc Concentrations Over Time – WestbayTM Monitoring Wells

E-3: VOC Concentrations Over Time – Extraction Wells

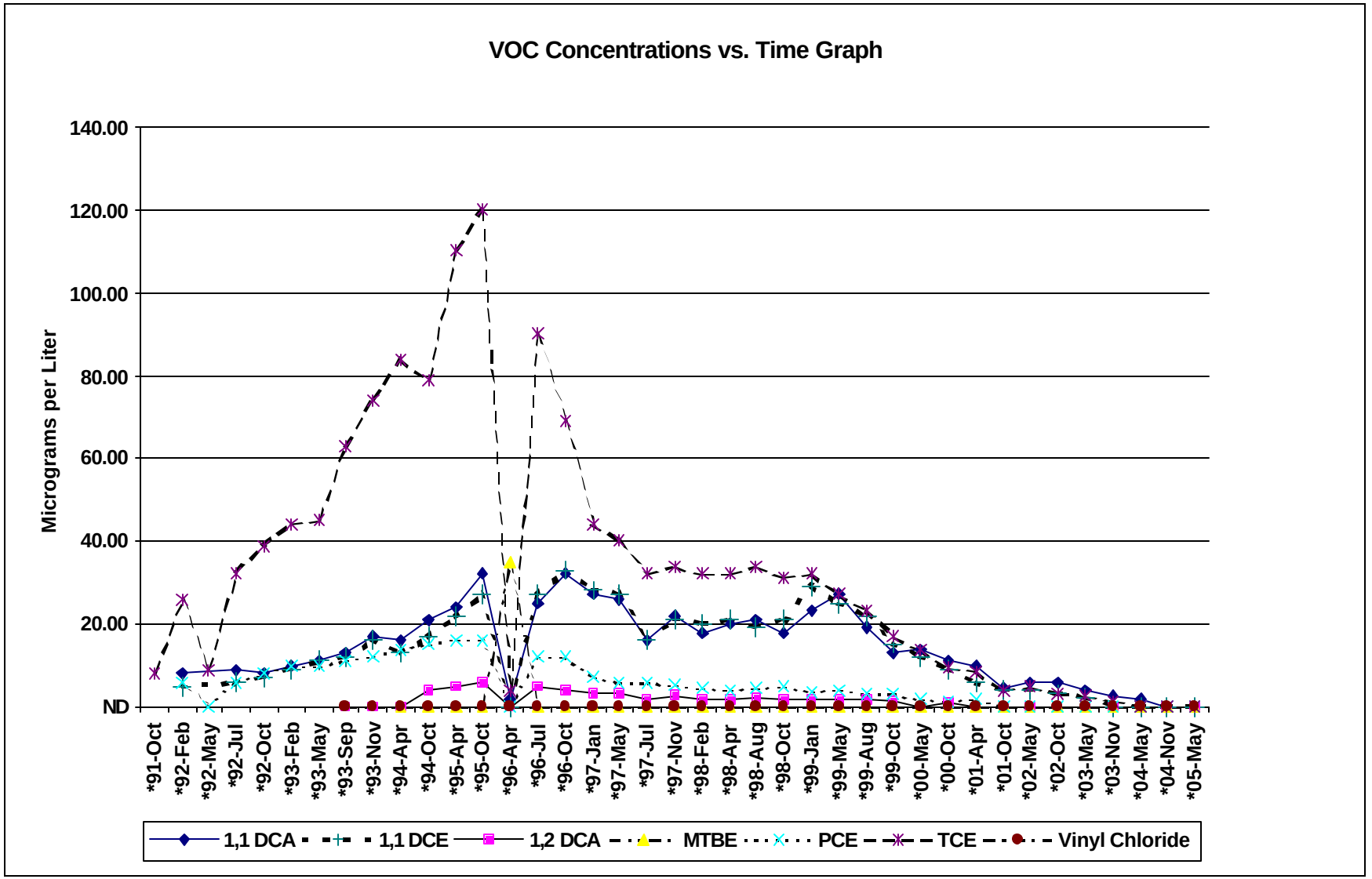
Appendix E-1

VOC Concentrations Over Time – Selected Conventional Monitoring Wells

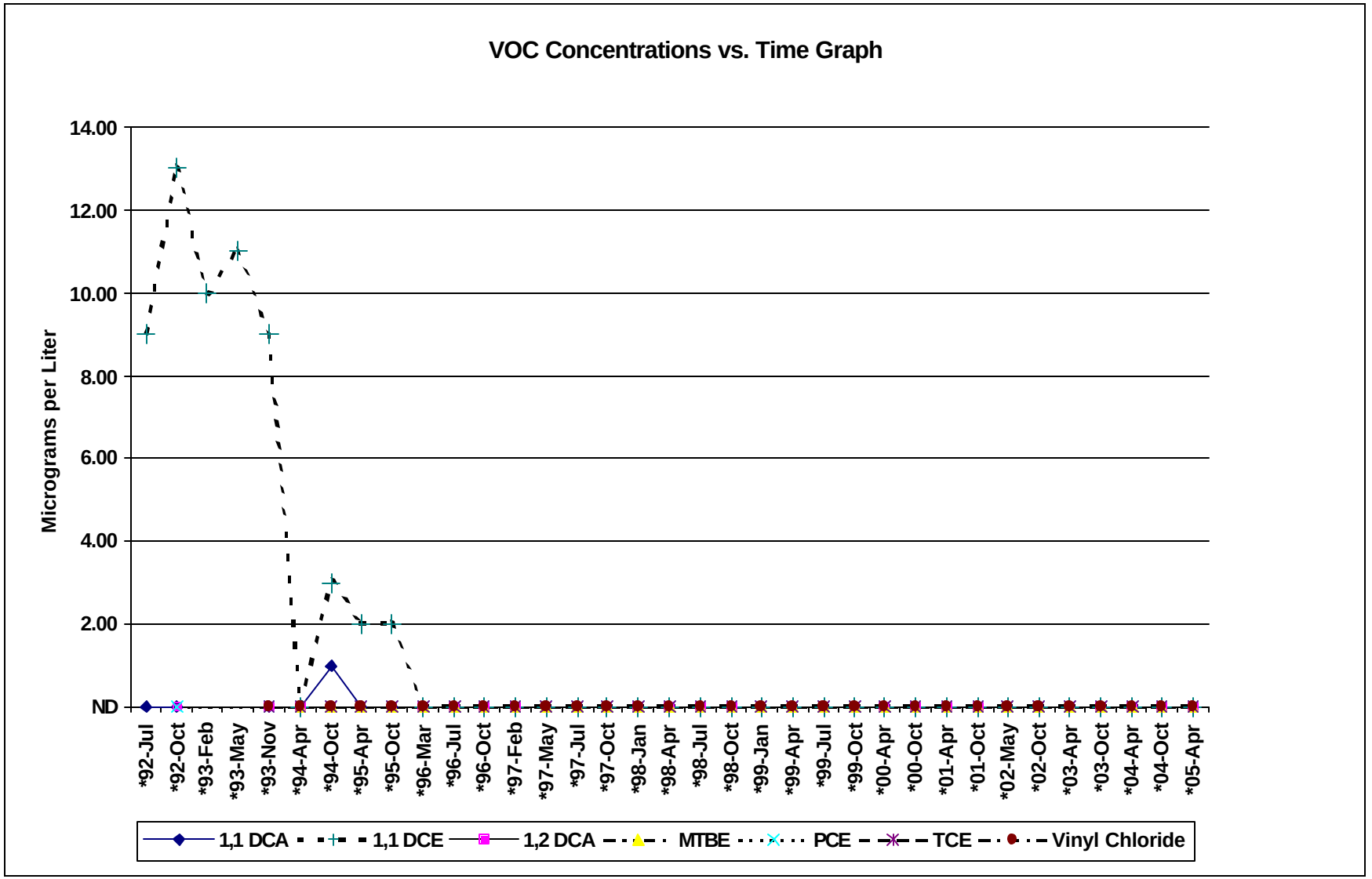
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
D-01
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



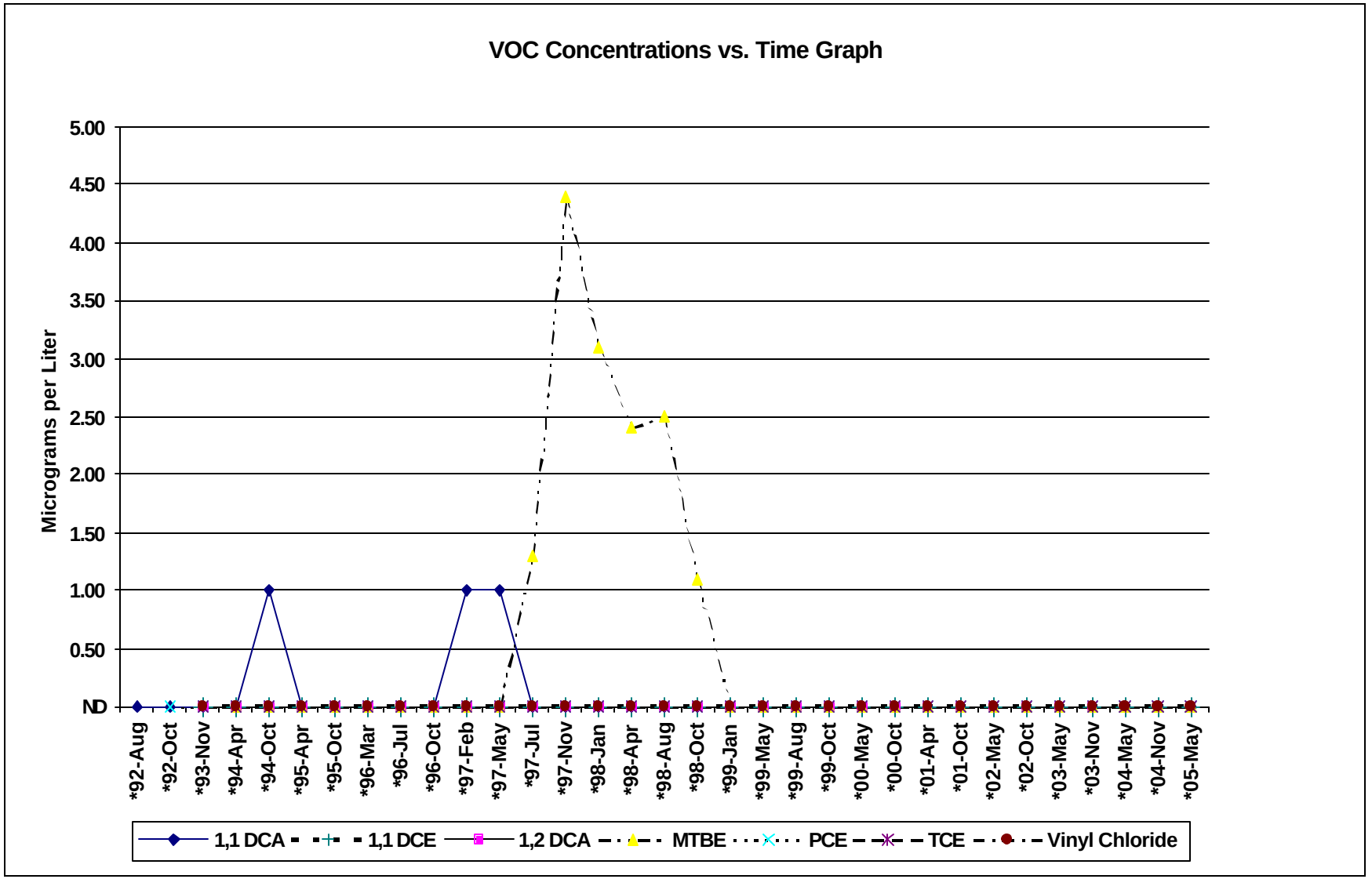
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
D-02
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



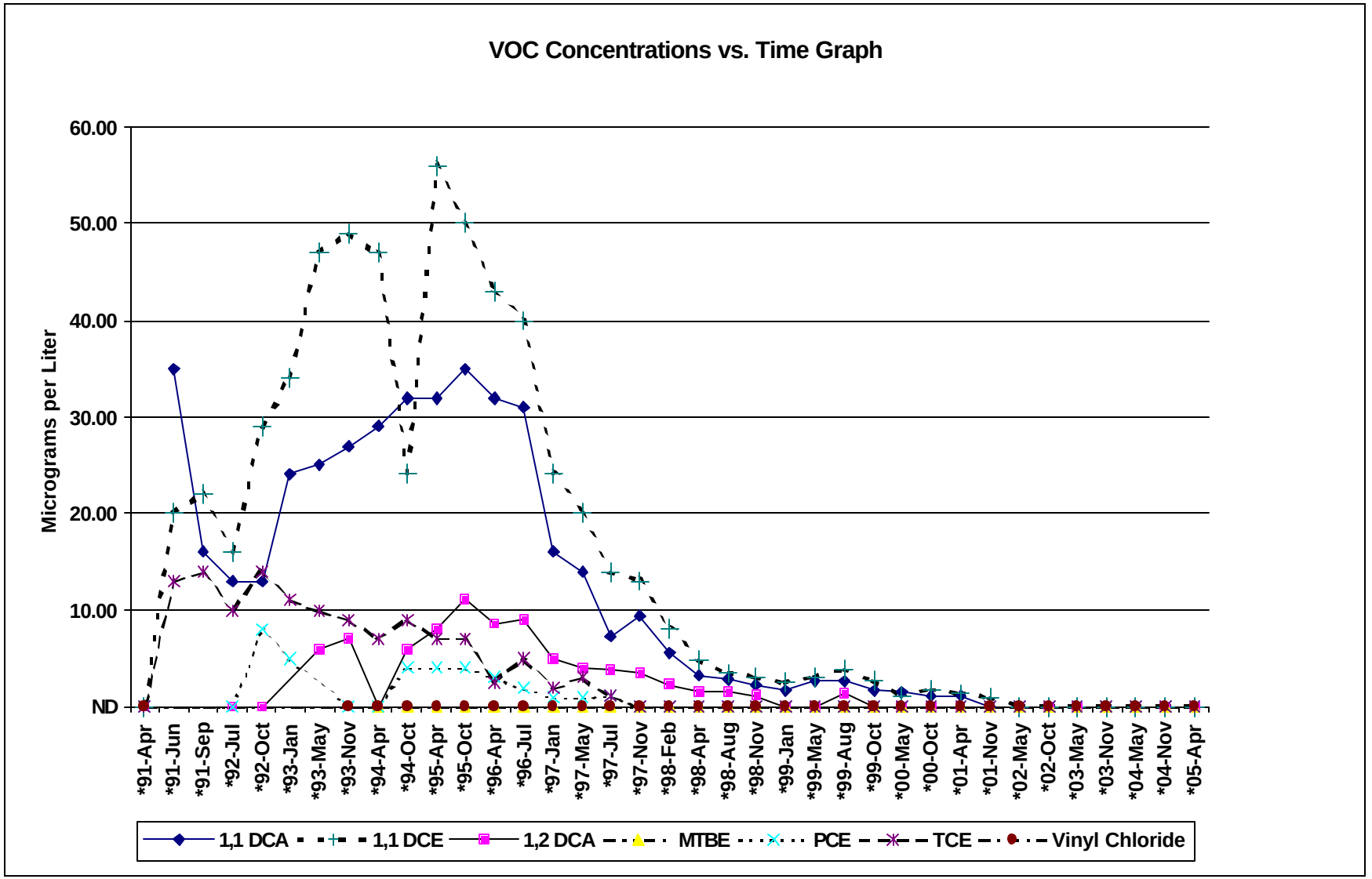
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
DMW-02
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



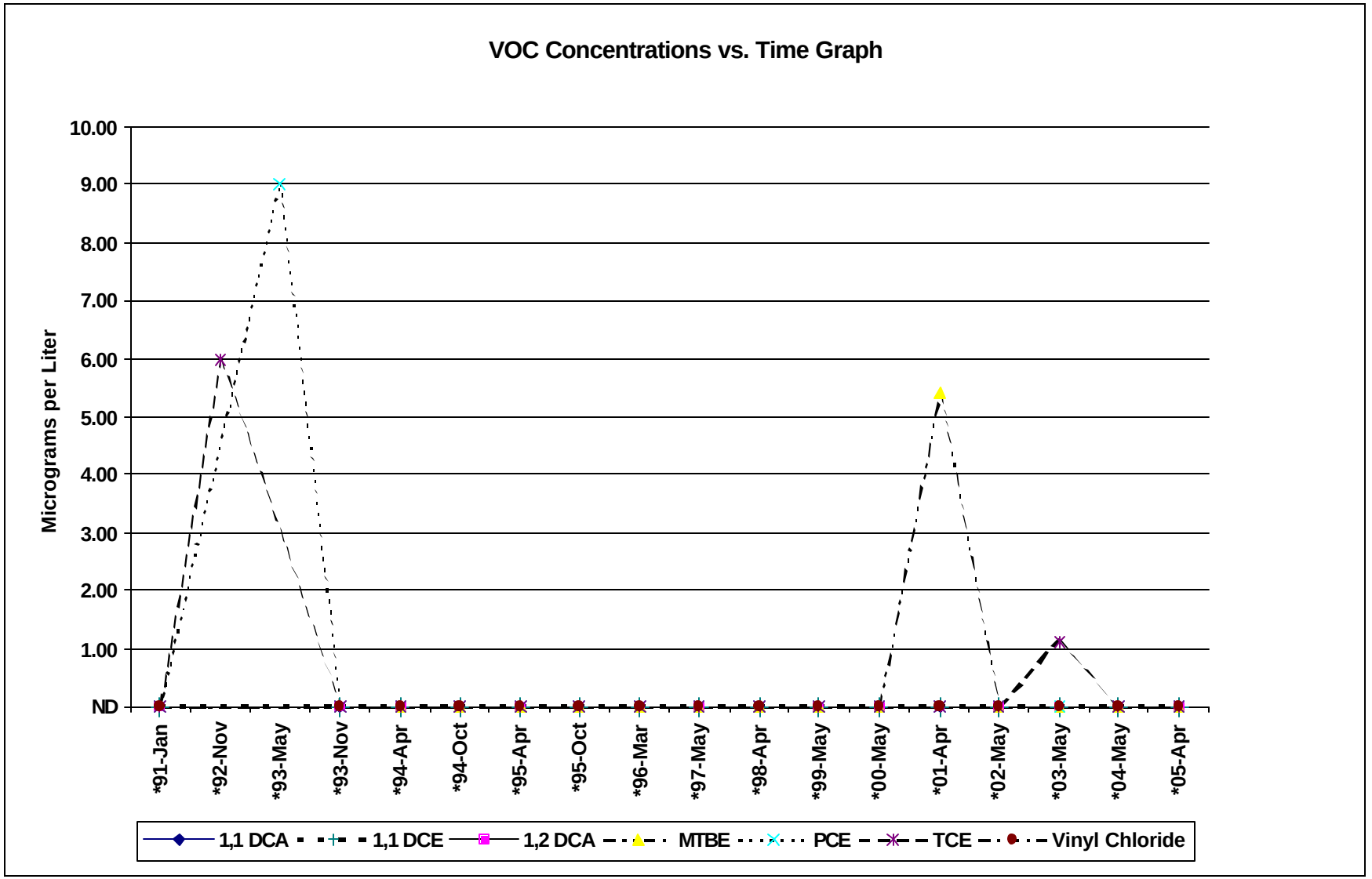
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
HL-02
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



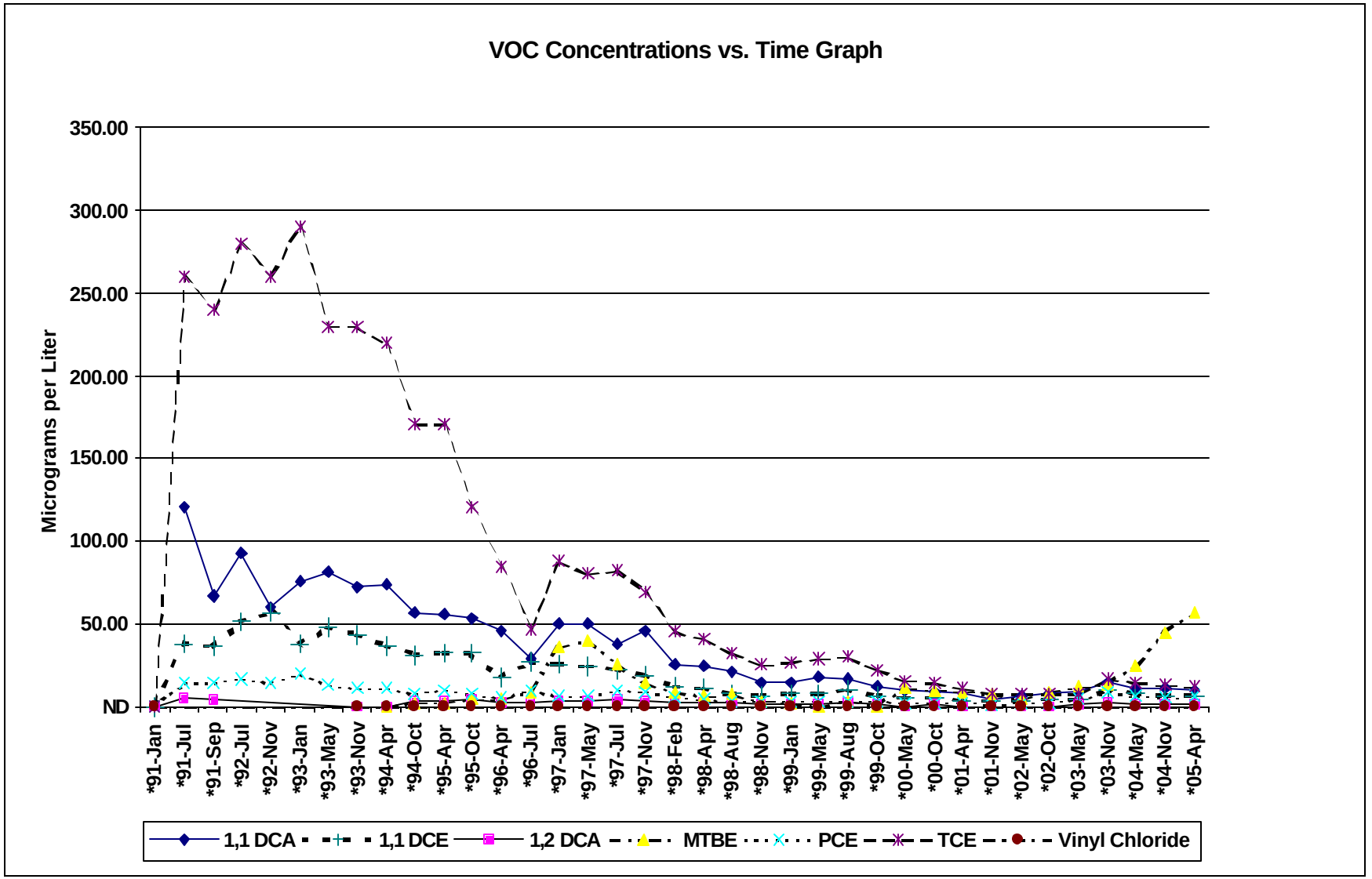
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-07D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



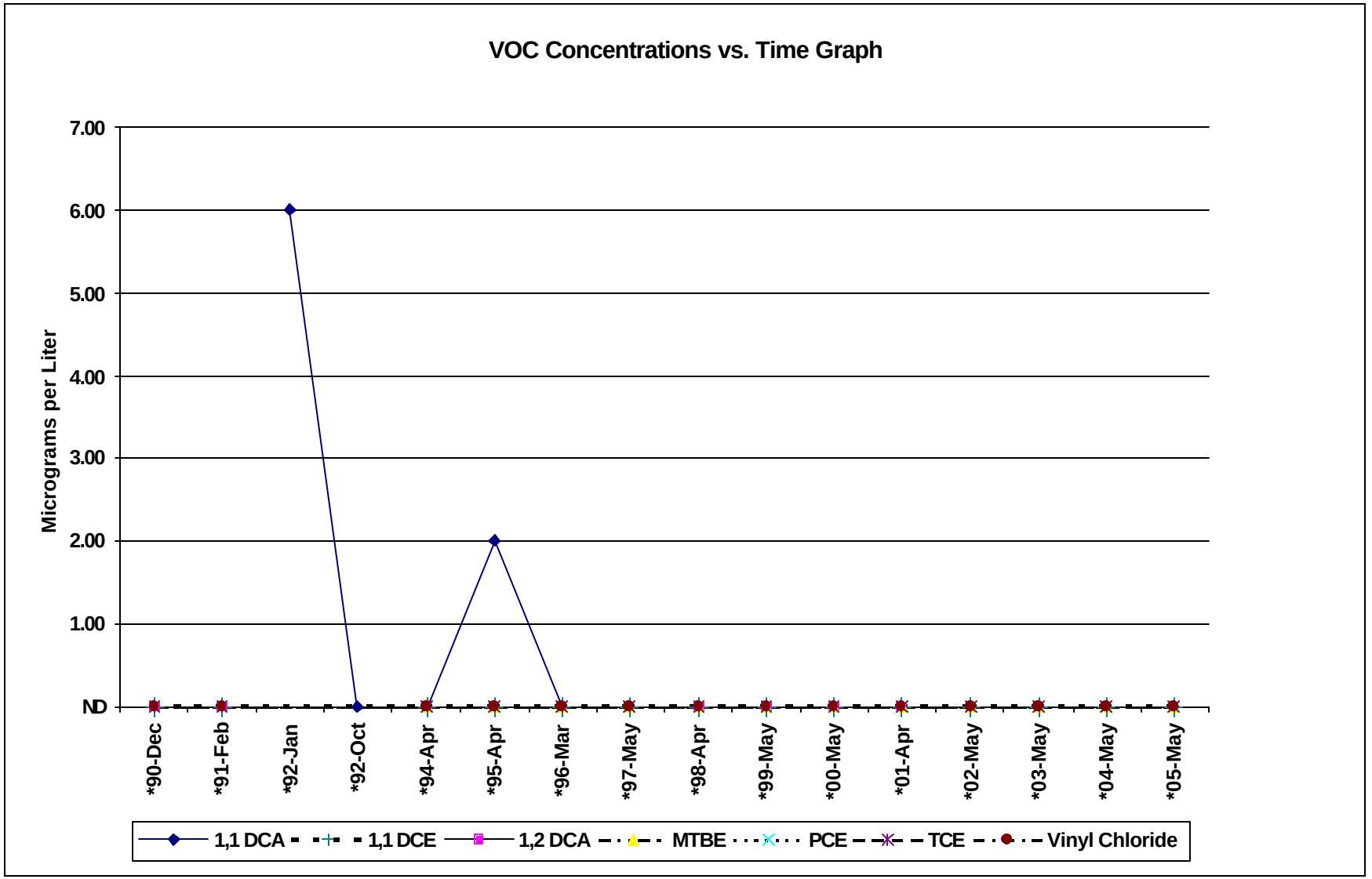
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-08D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



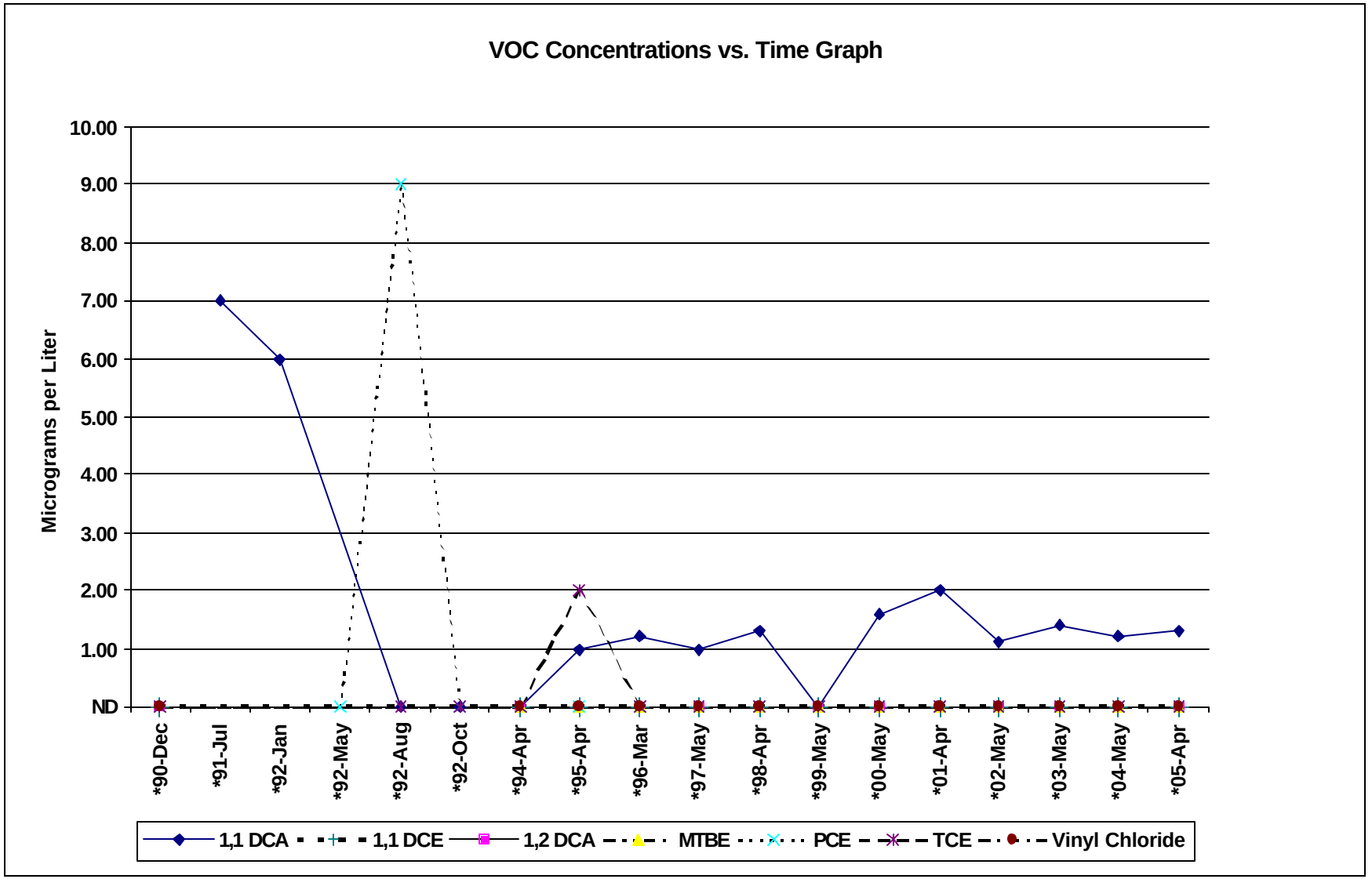
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-09D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



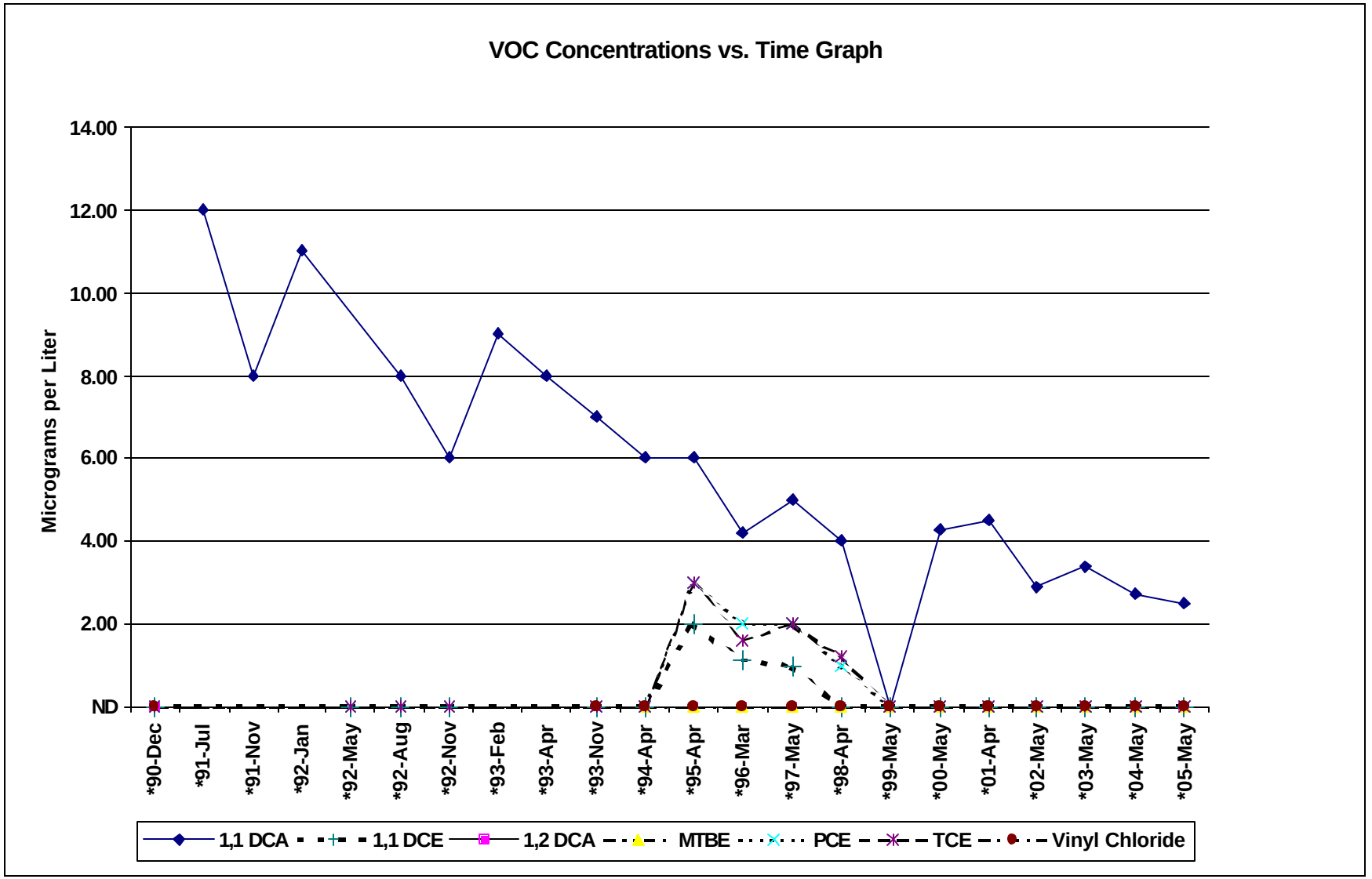
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-10D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



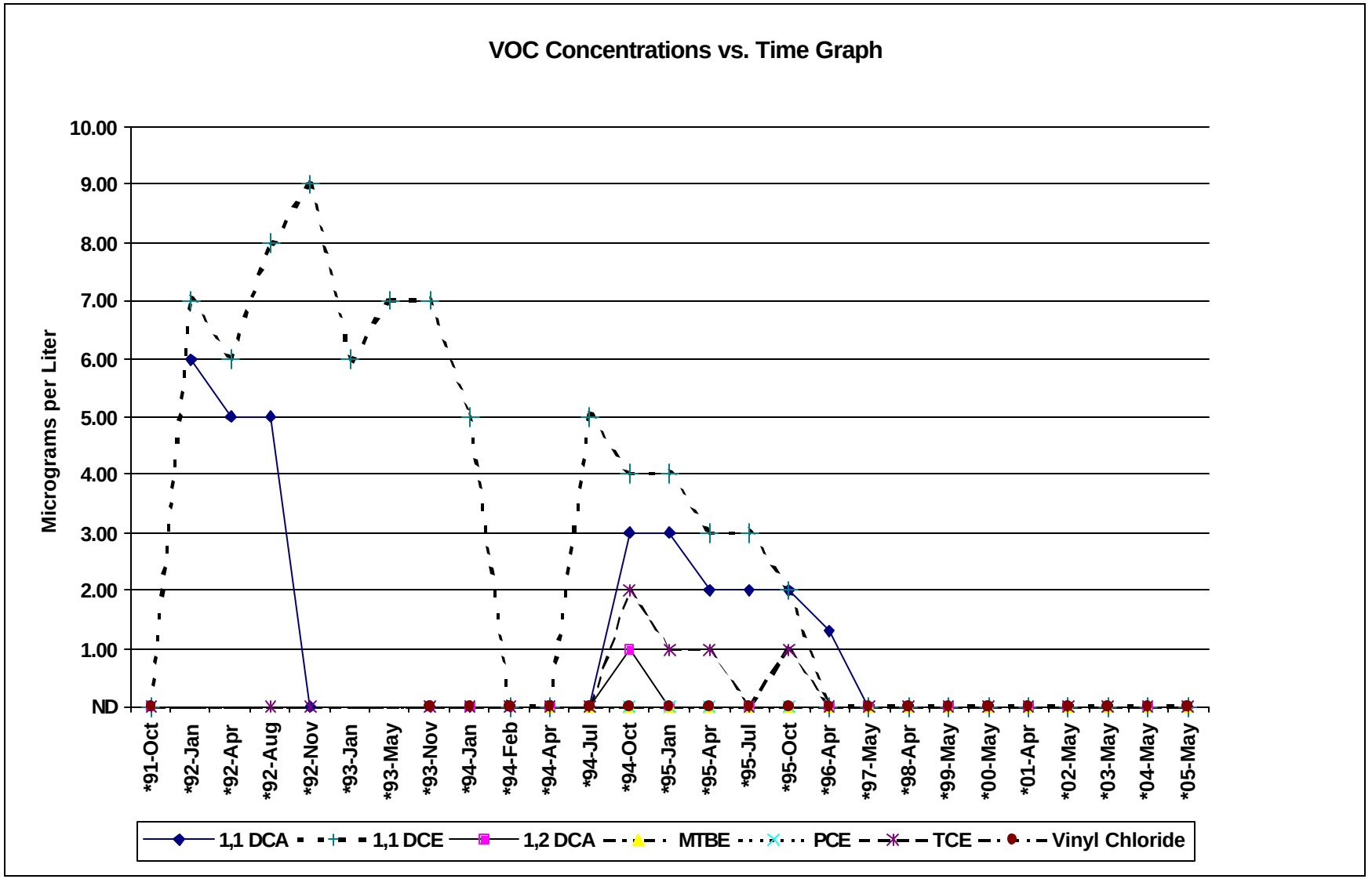
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
SJ6-01D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



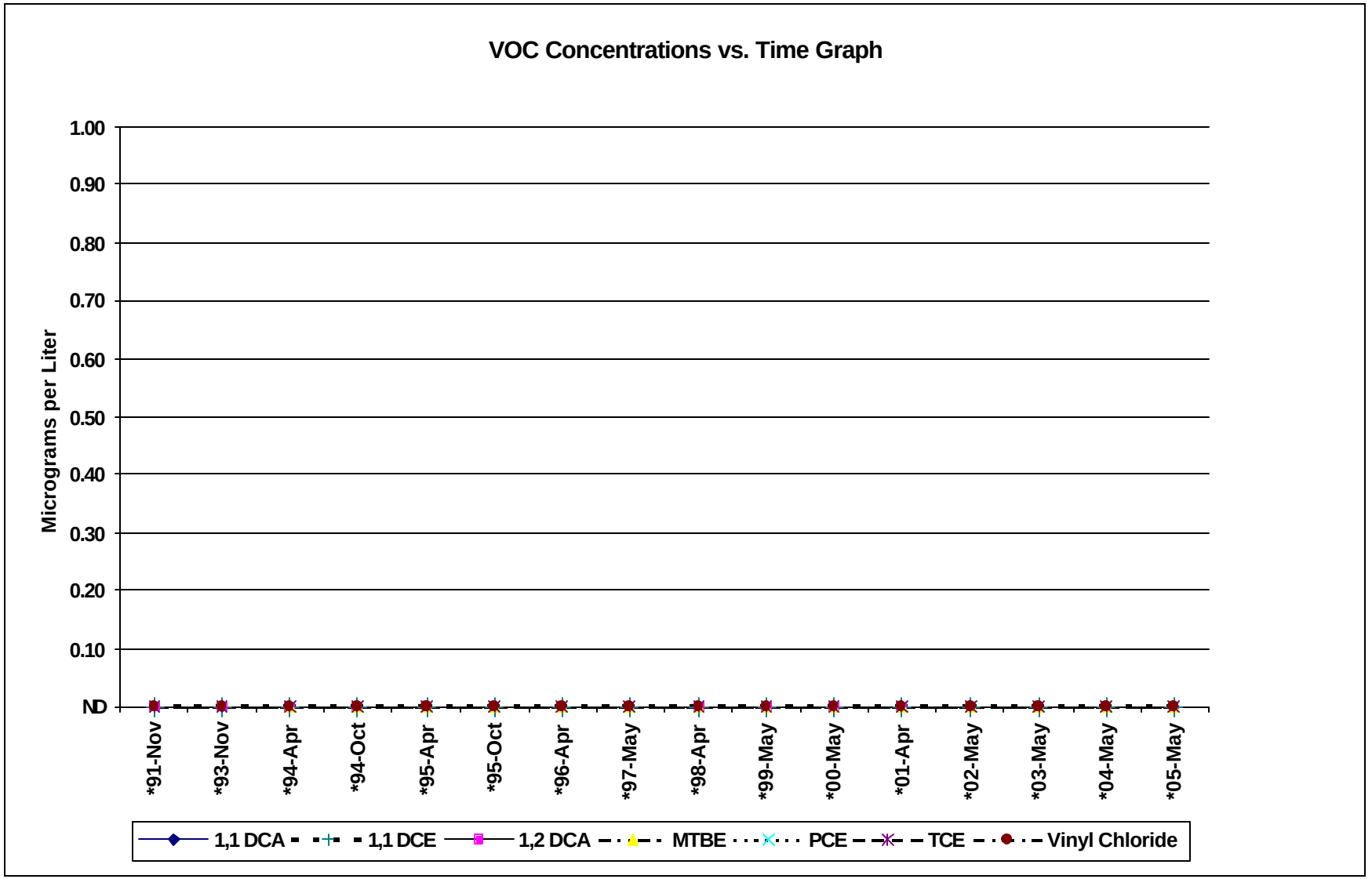
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
SJ6-02D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



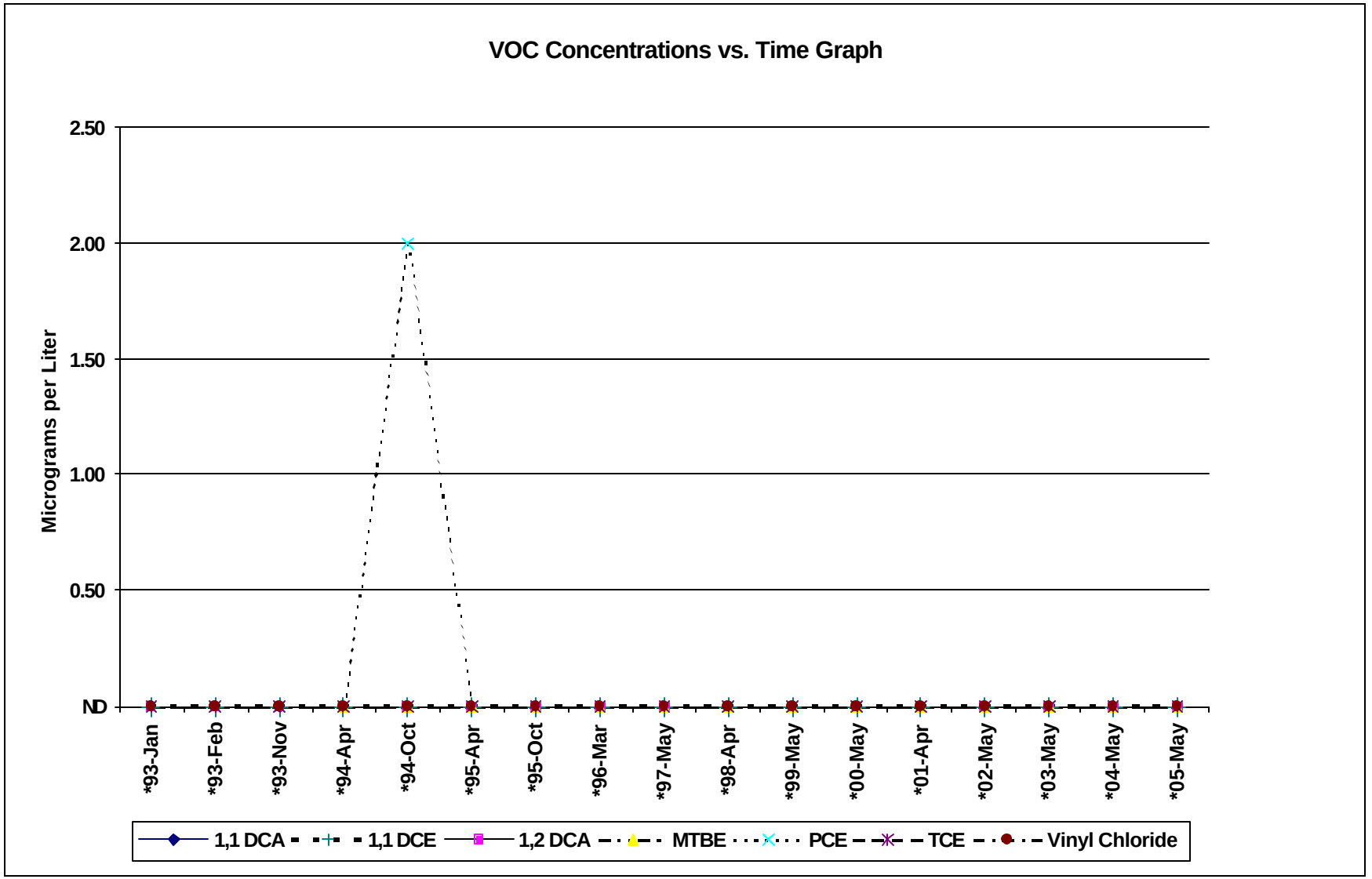
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
SJ6-07D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



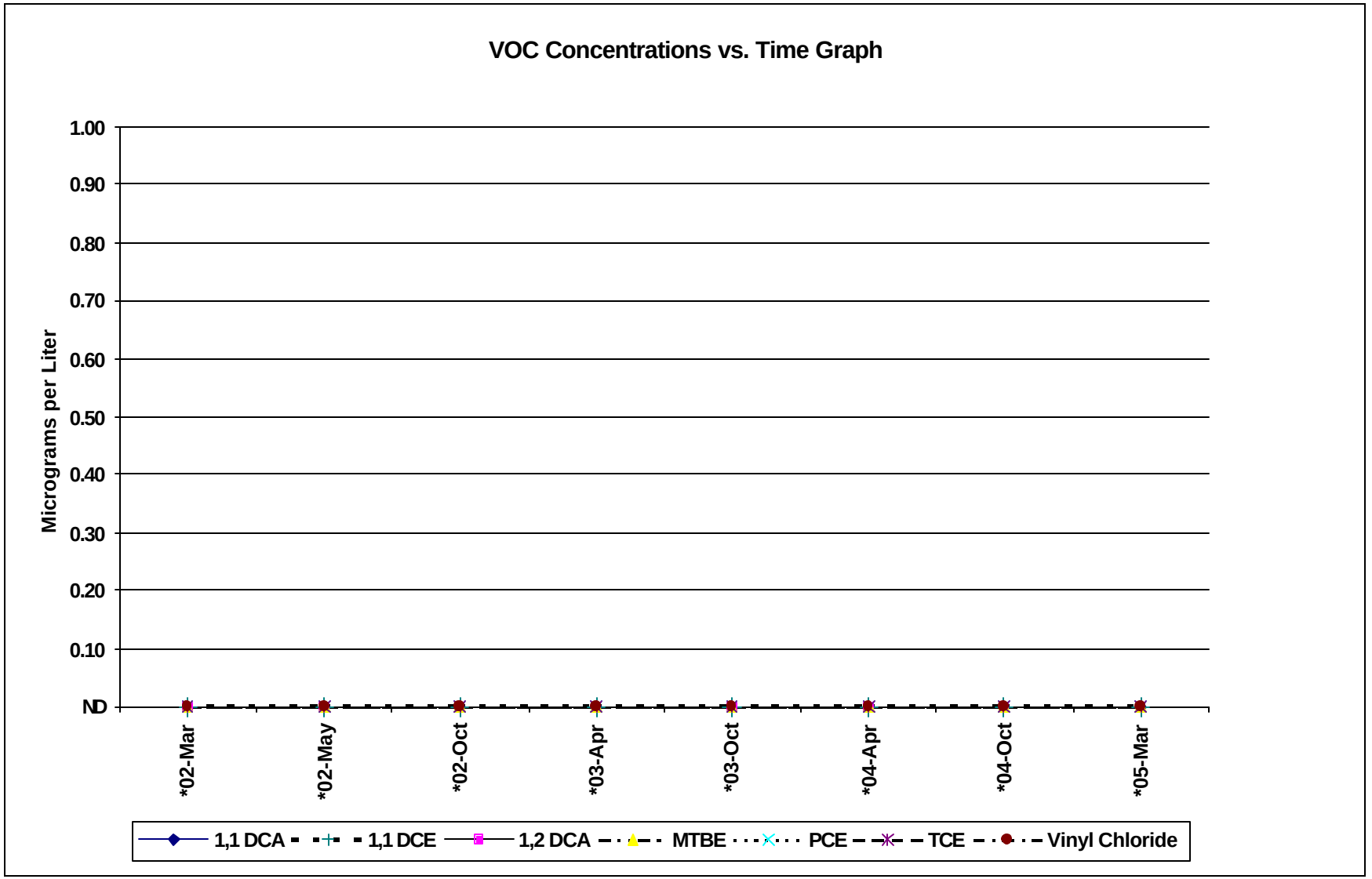
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
SJ6-08D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



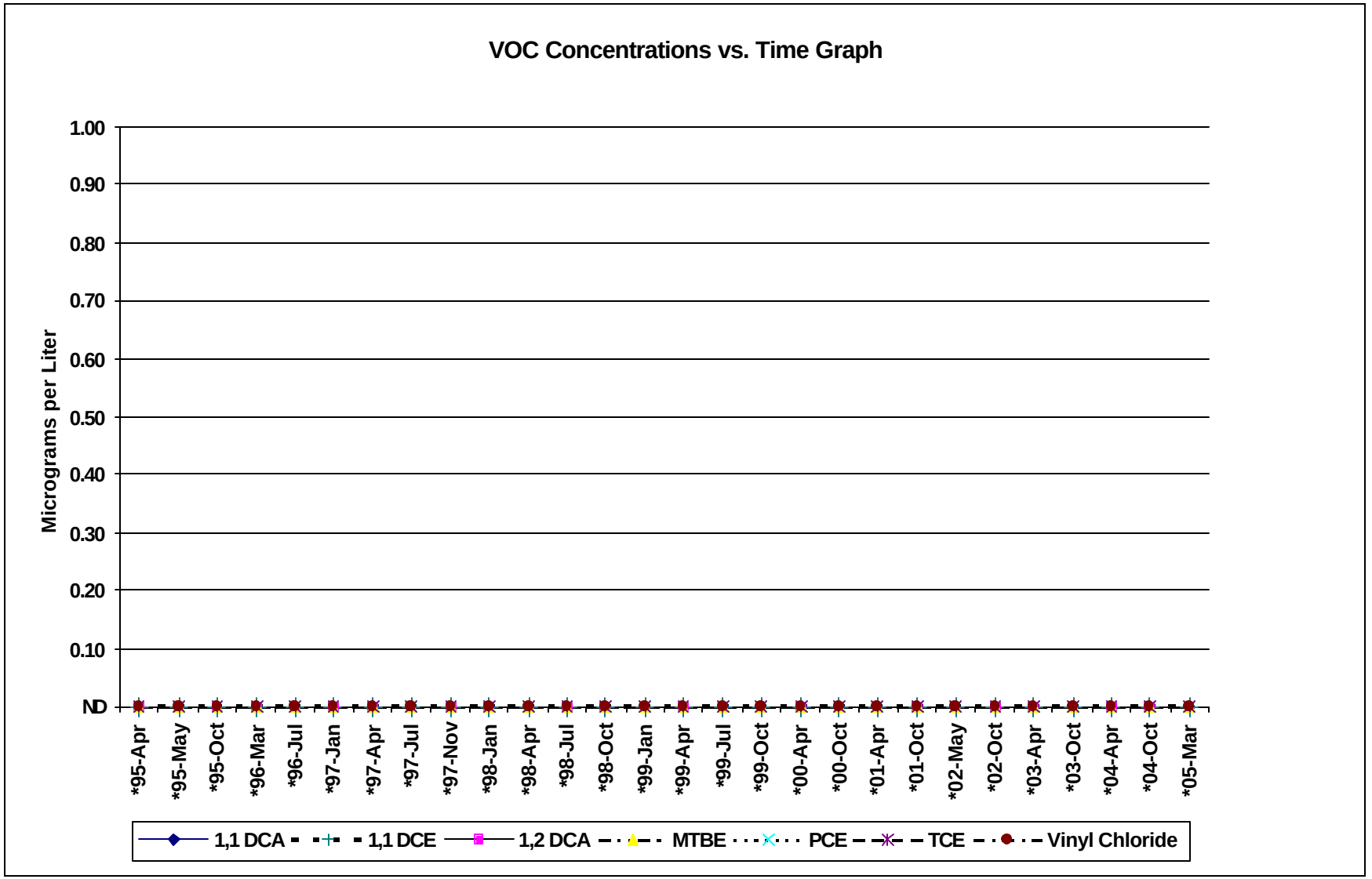
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
SJ6-10D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



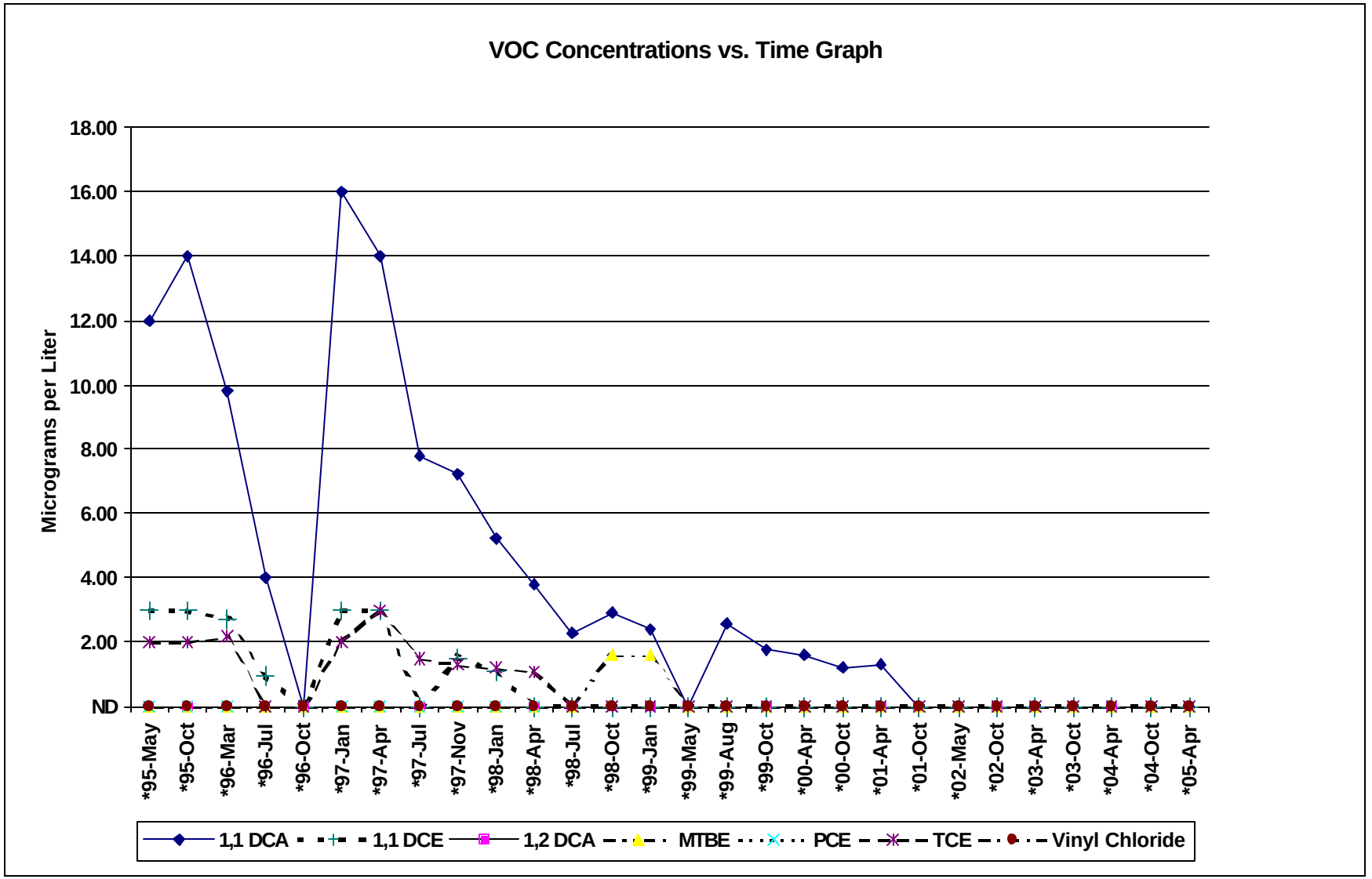
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-19D-2
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



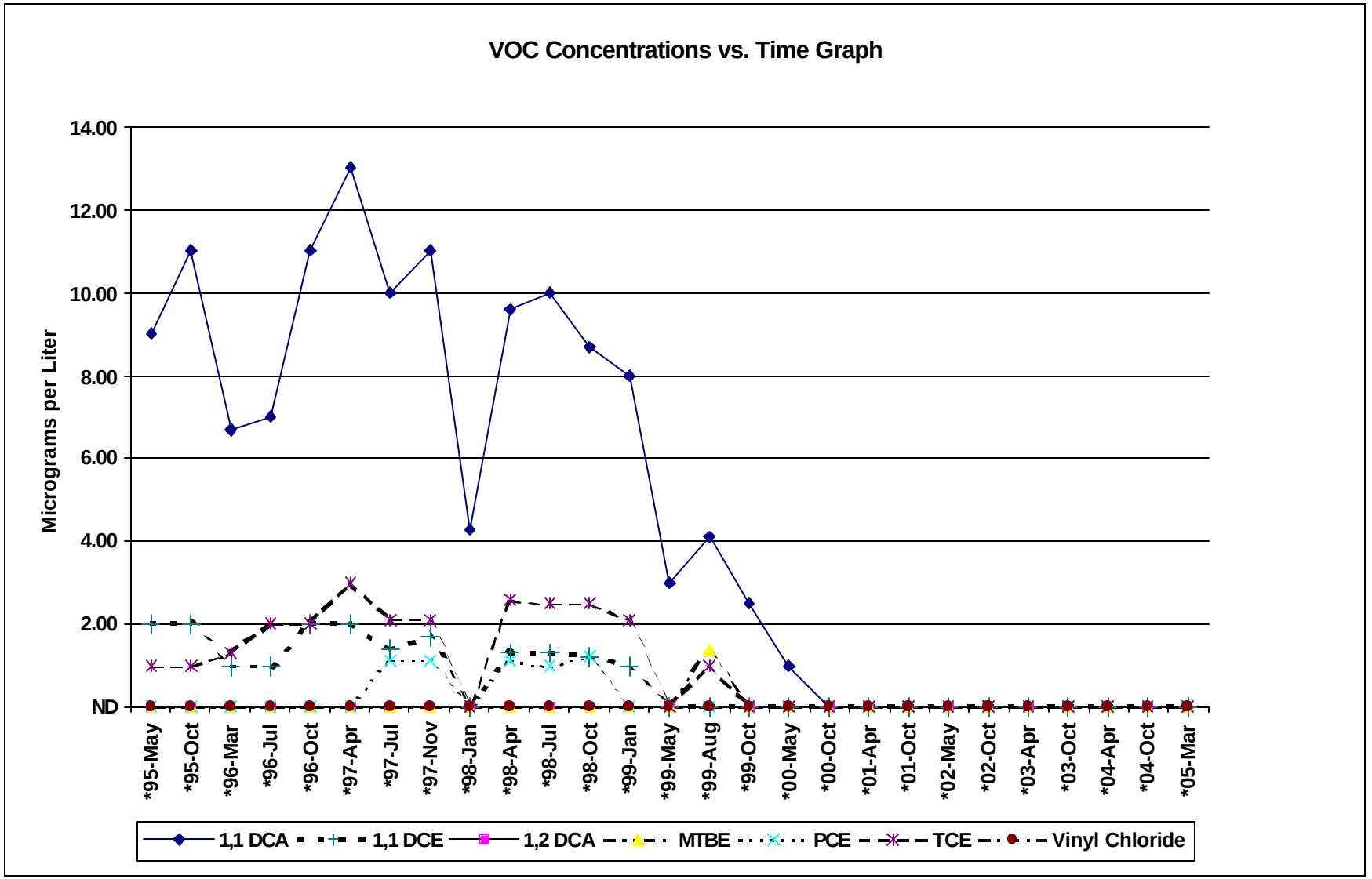
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-19LR
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



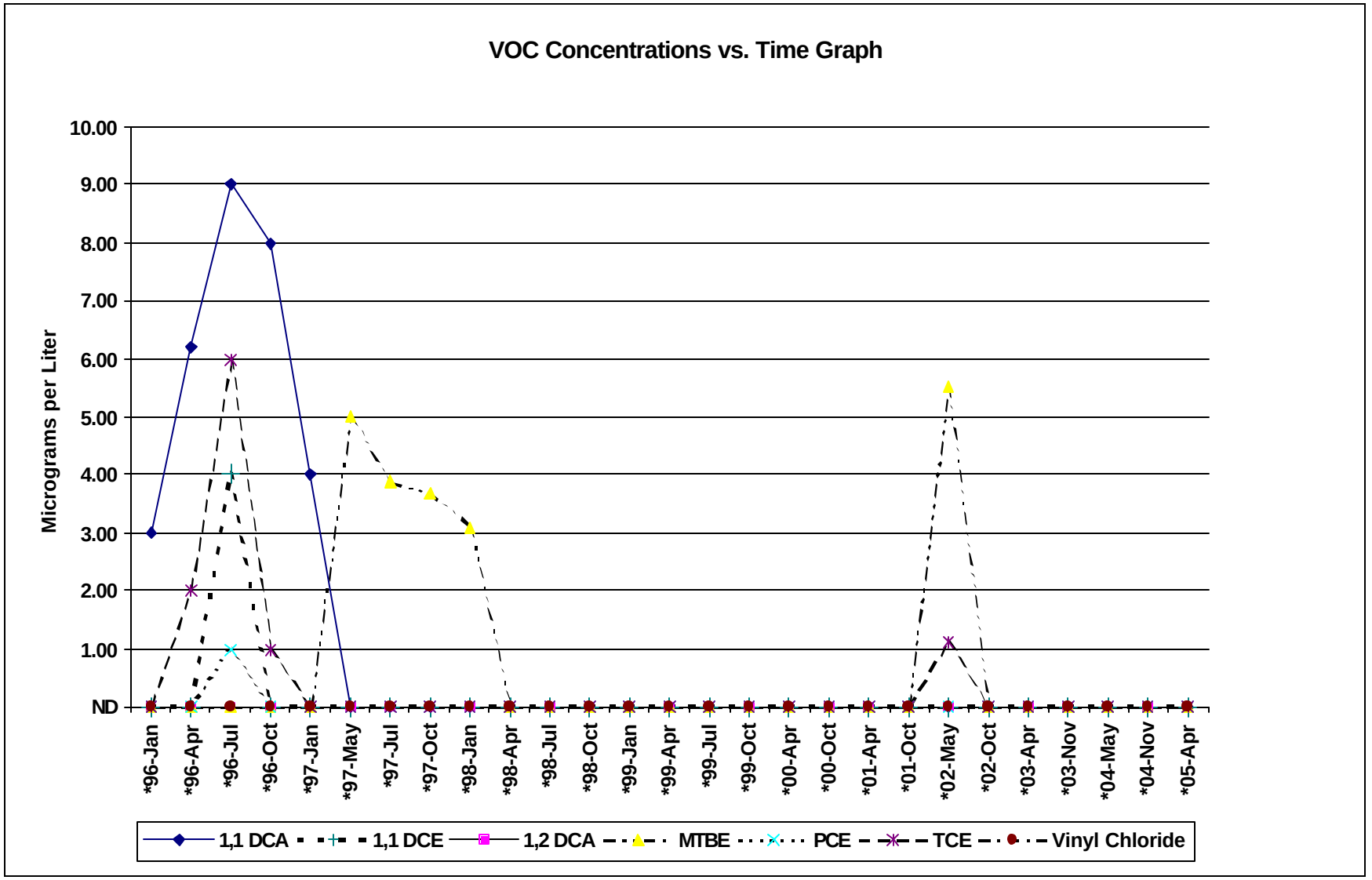
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-19M
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



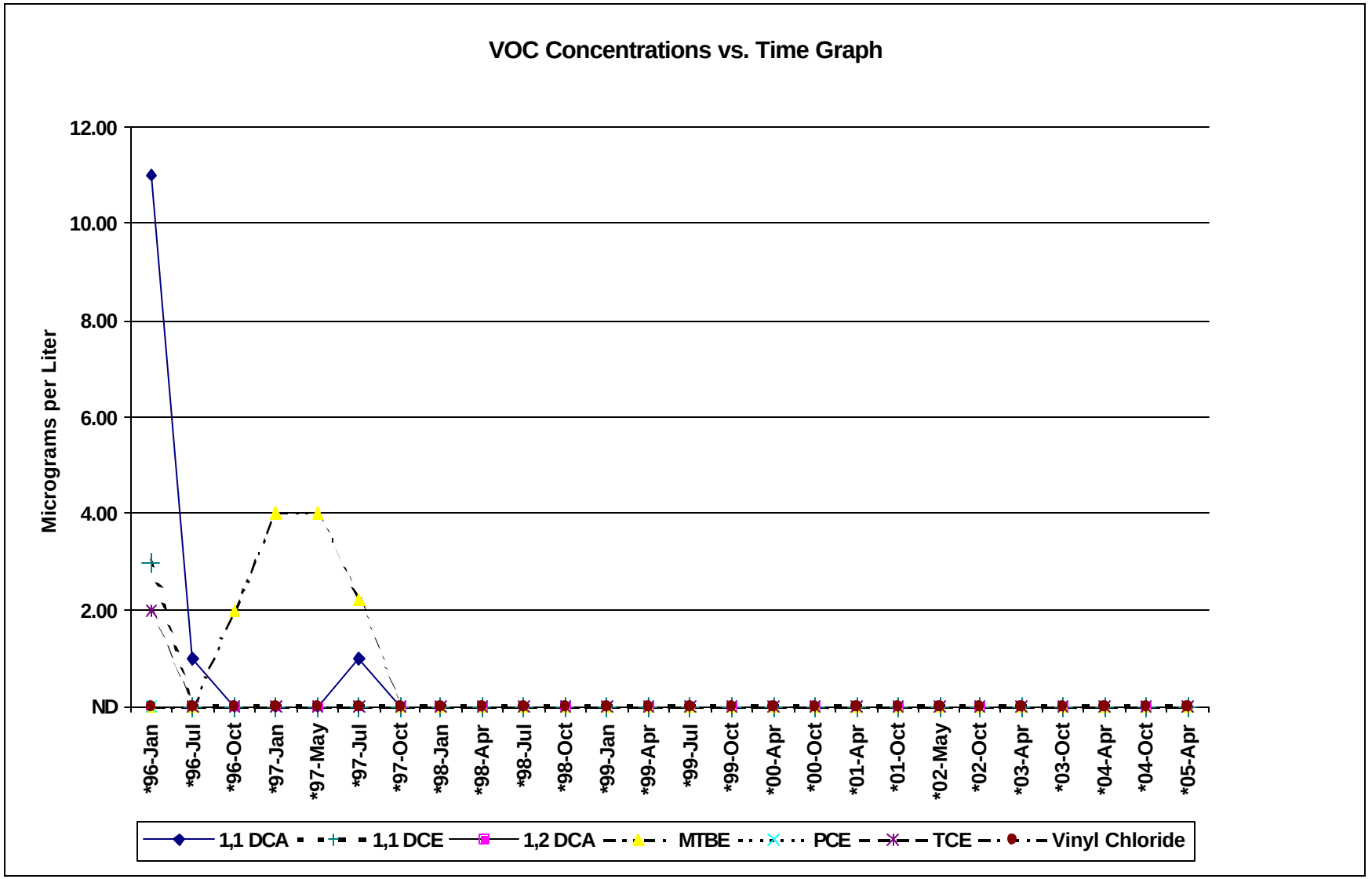
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-19U
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



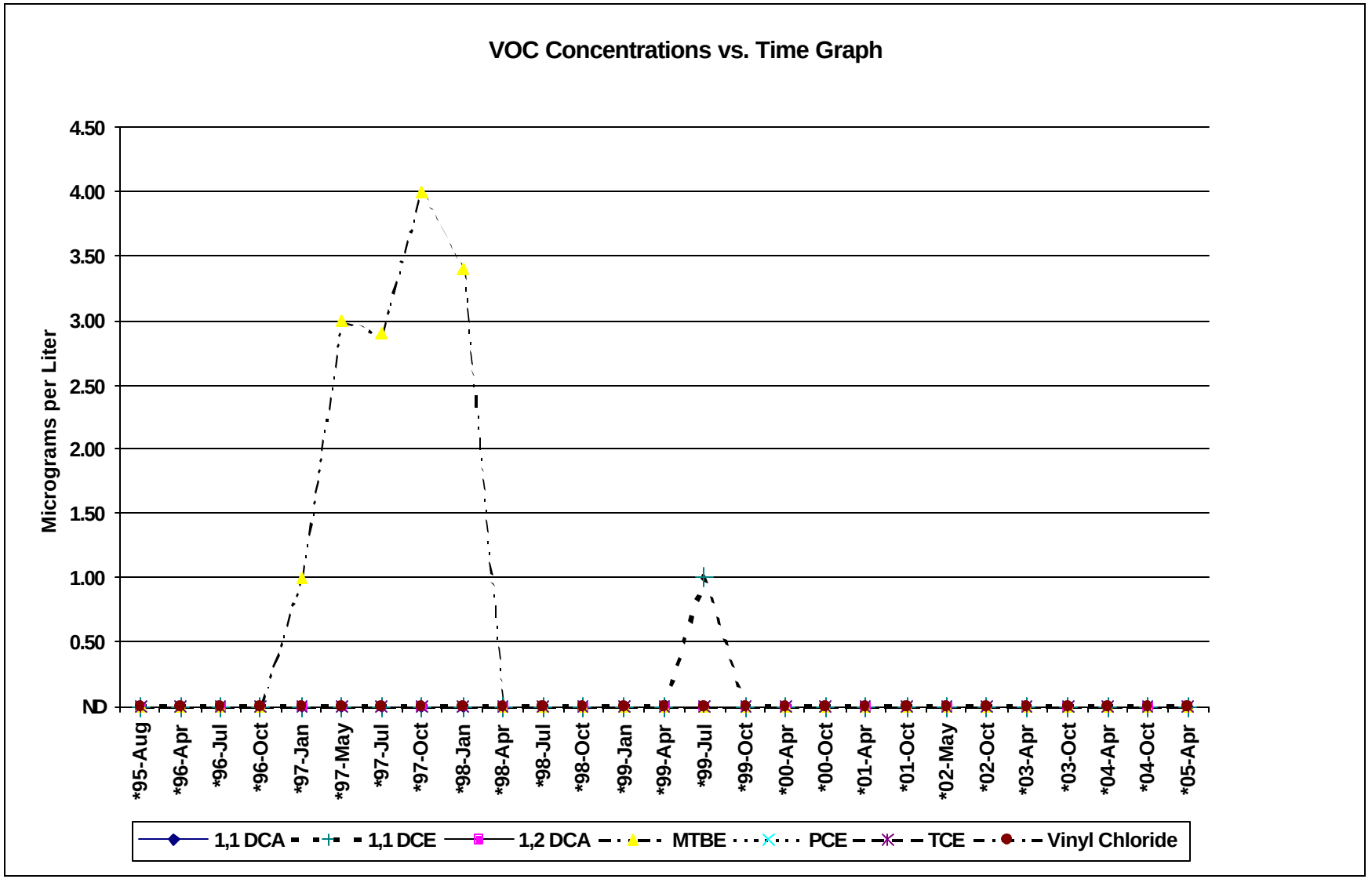
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-21P
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



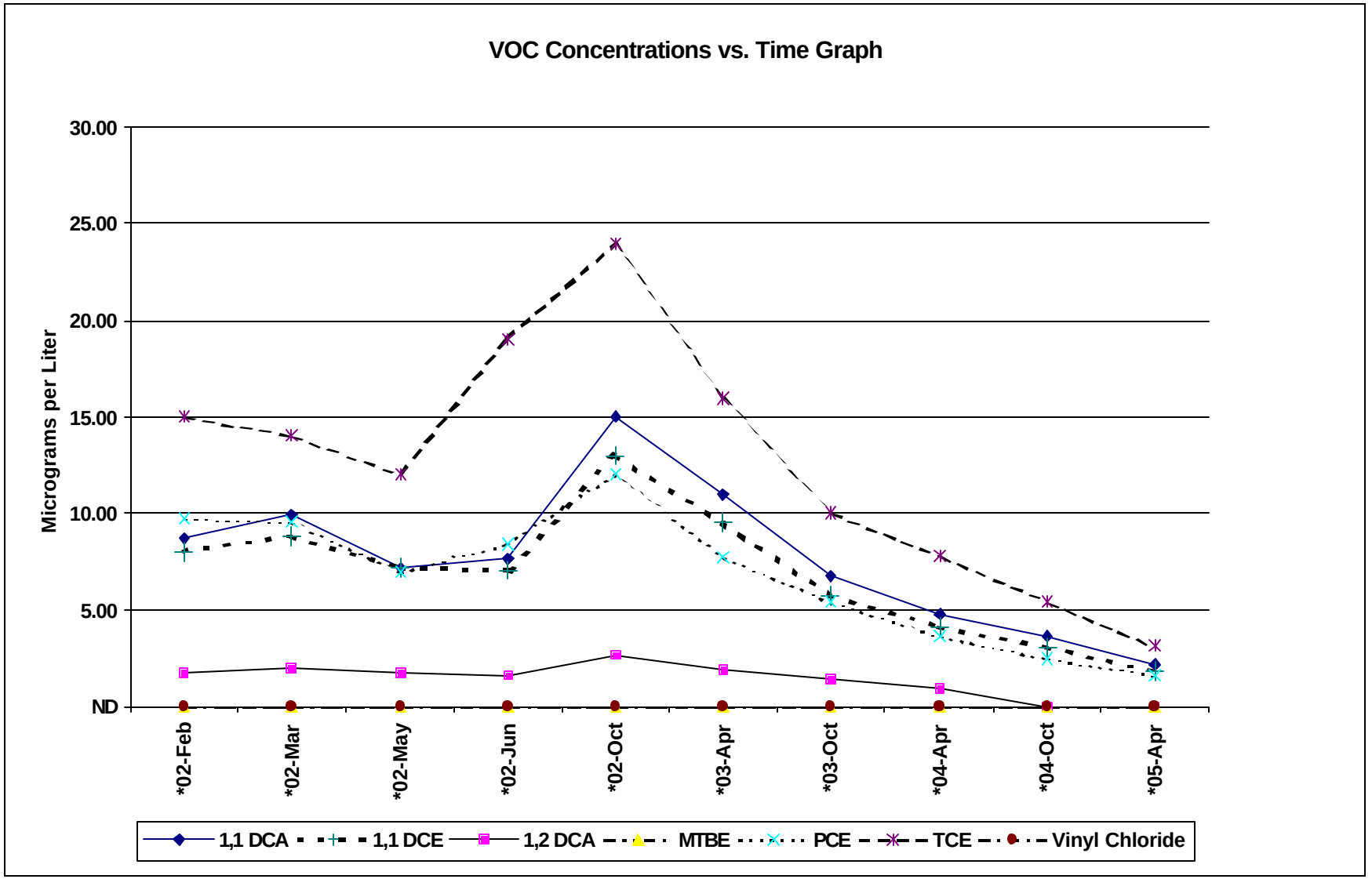
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-21S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



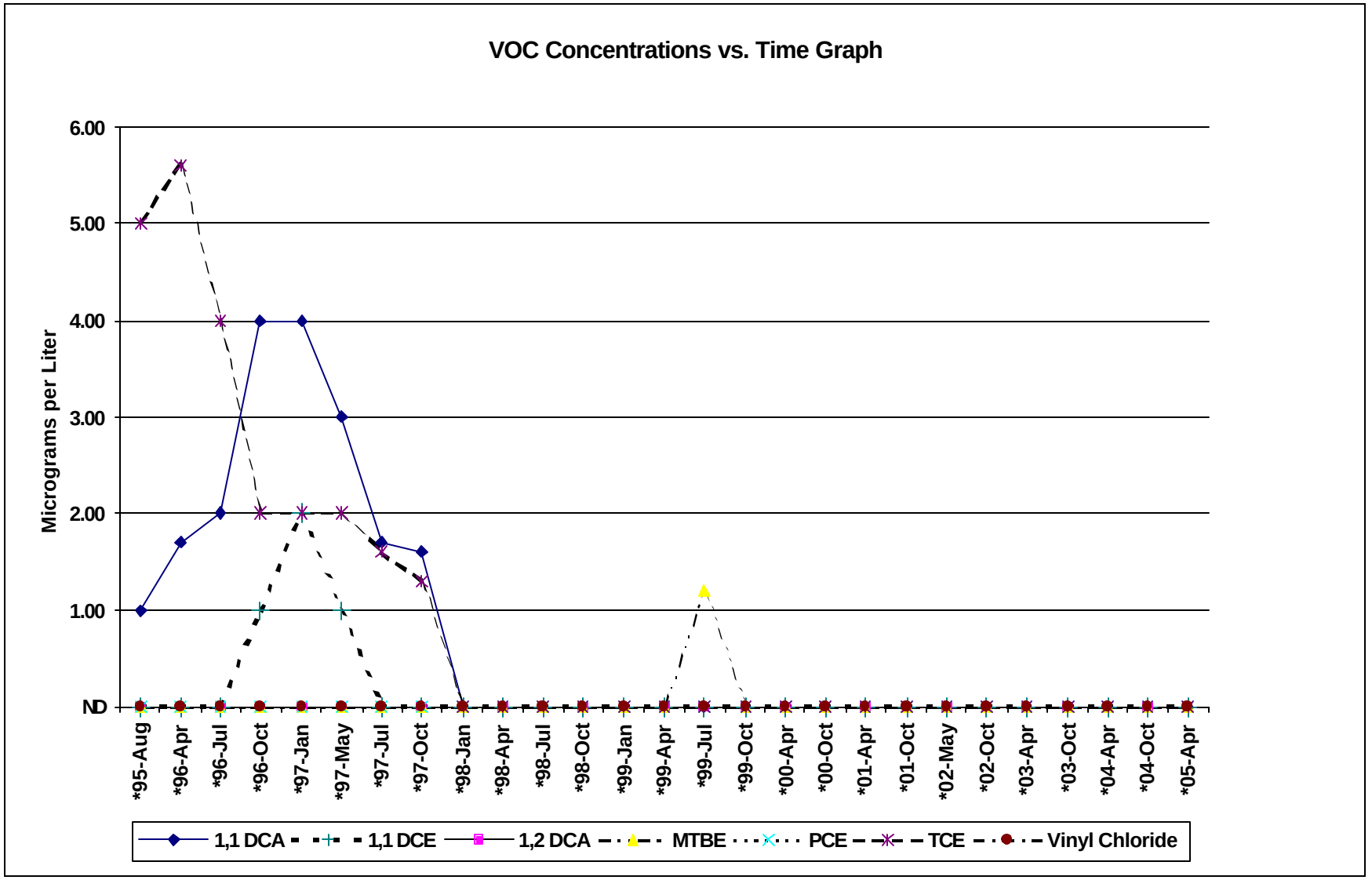
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-22D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



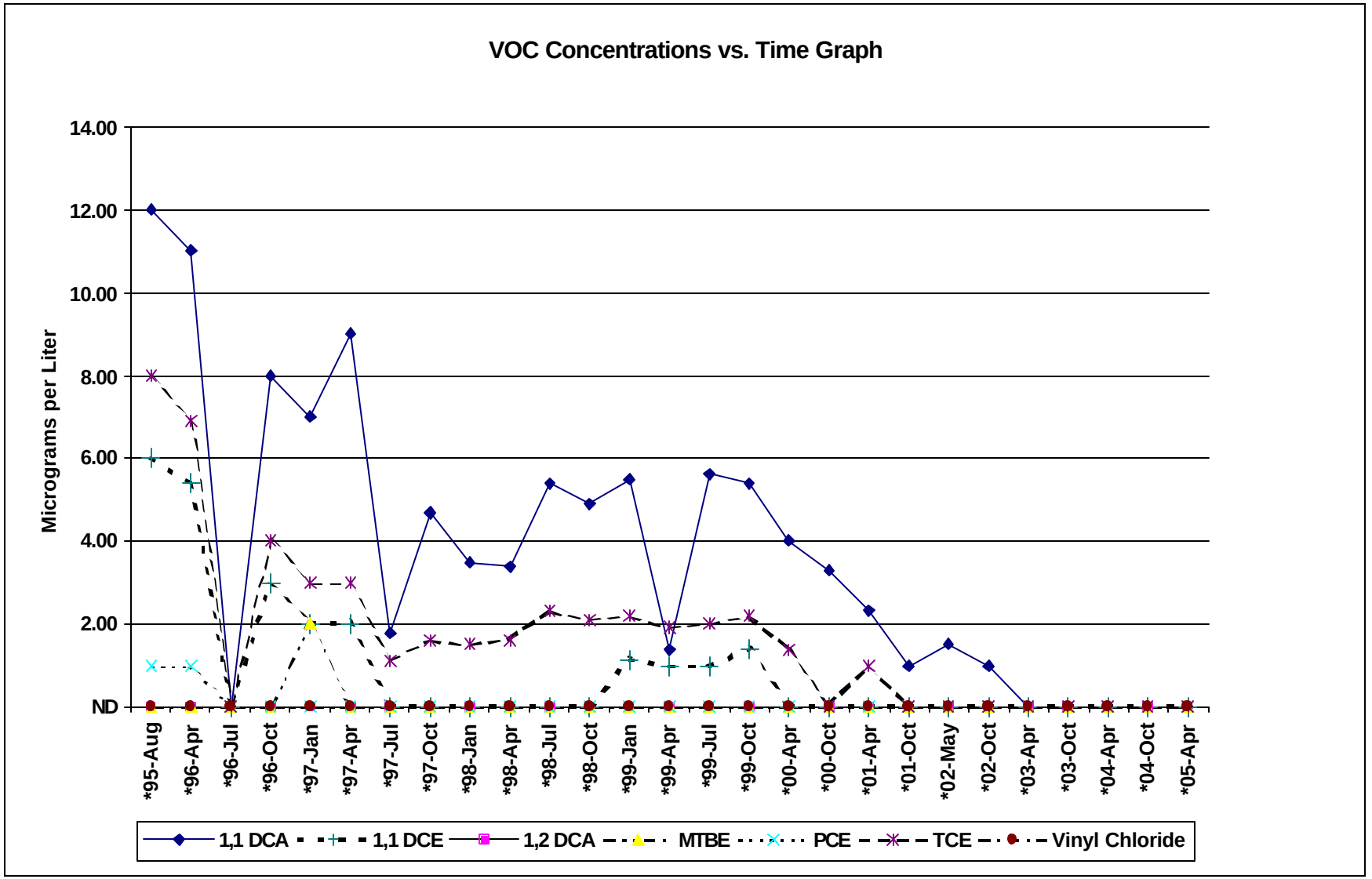
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-22D-2
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



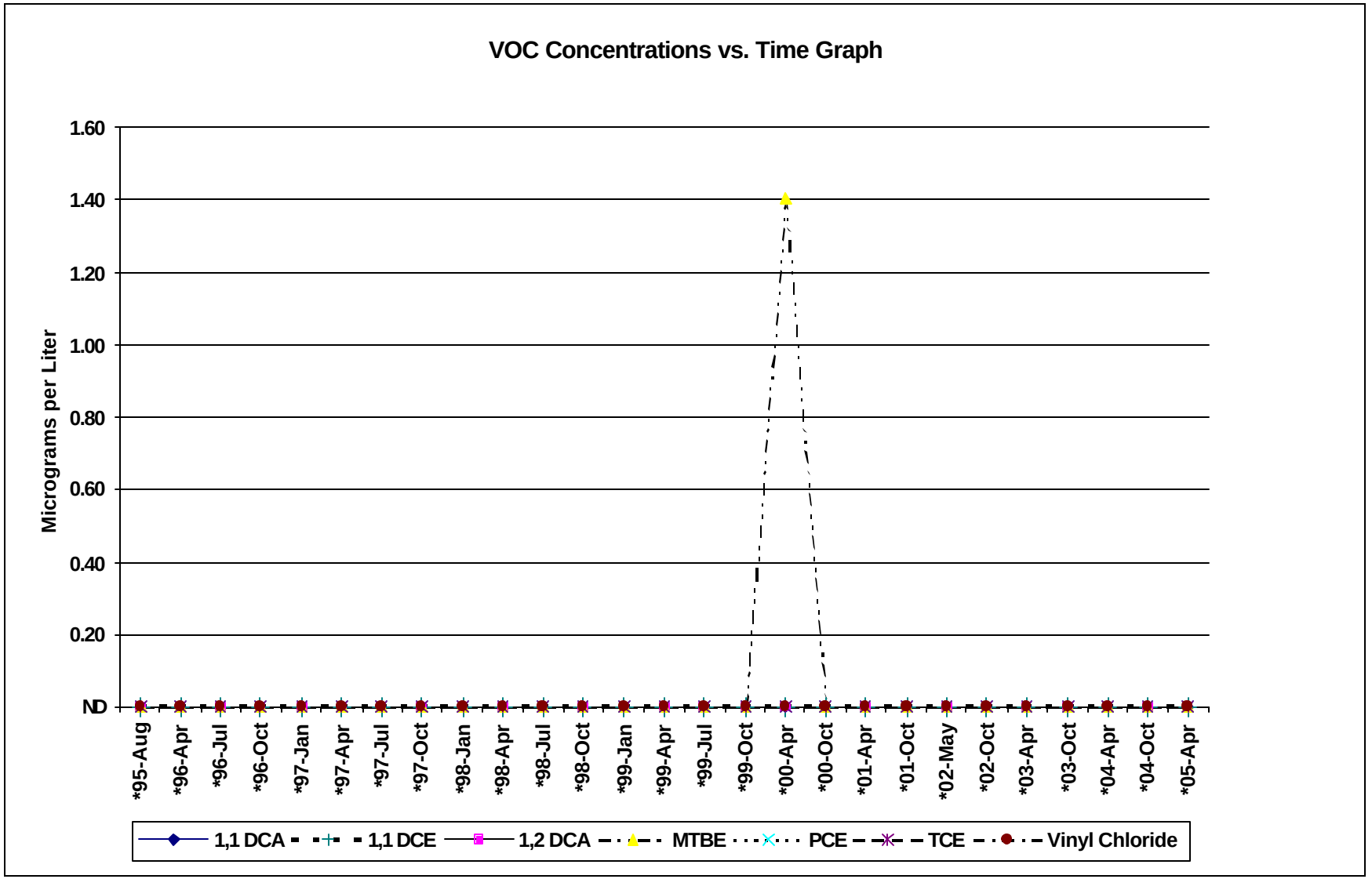
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-22M
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



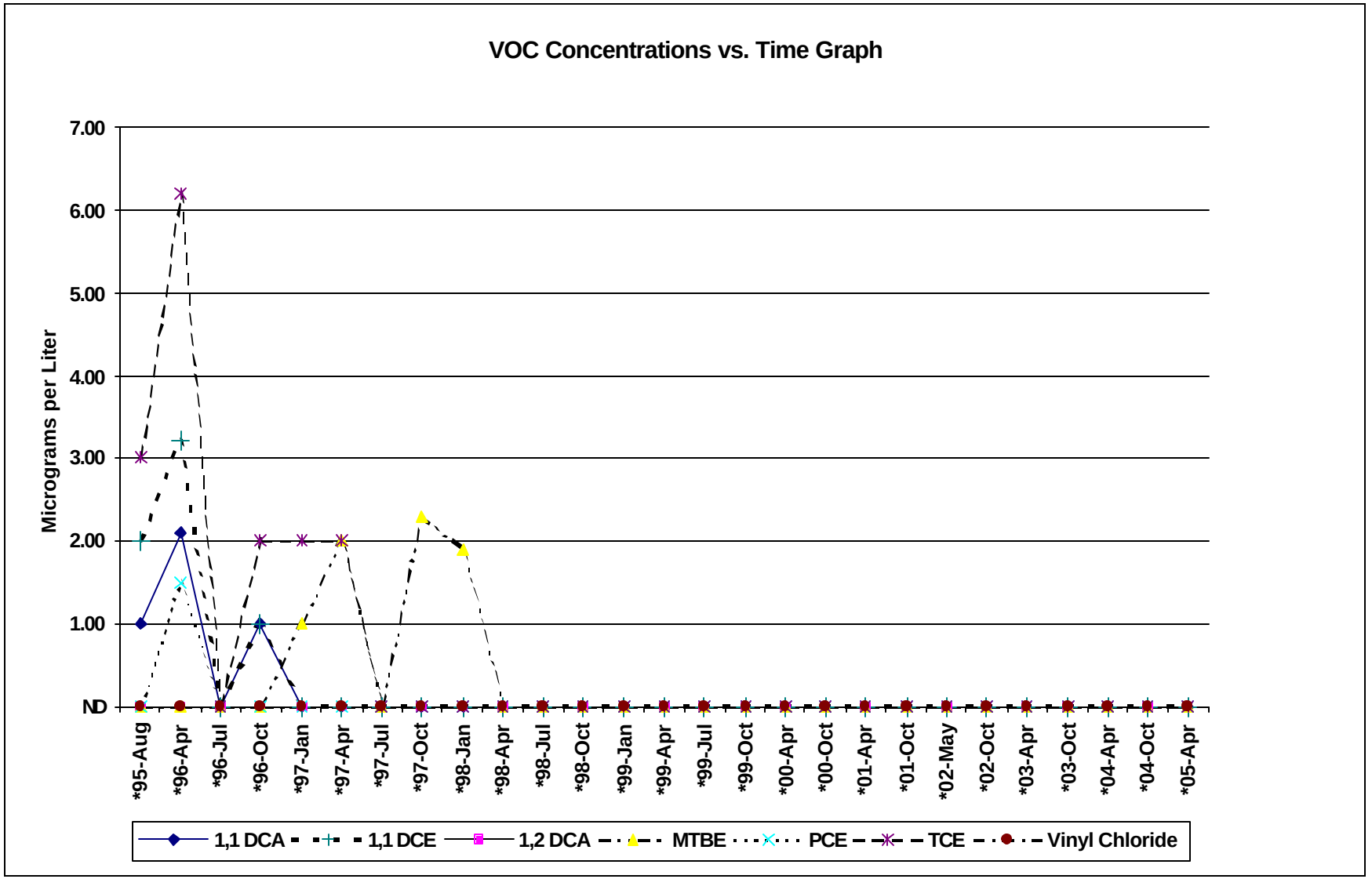
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-22S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



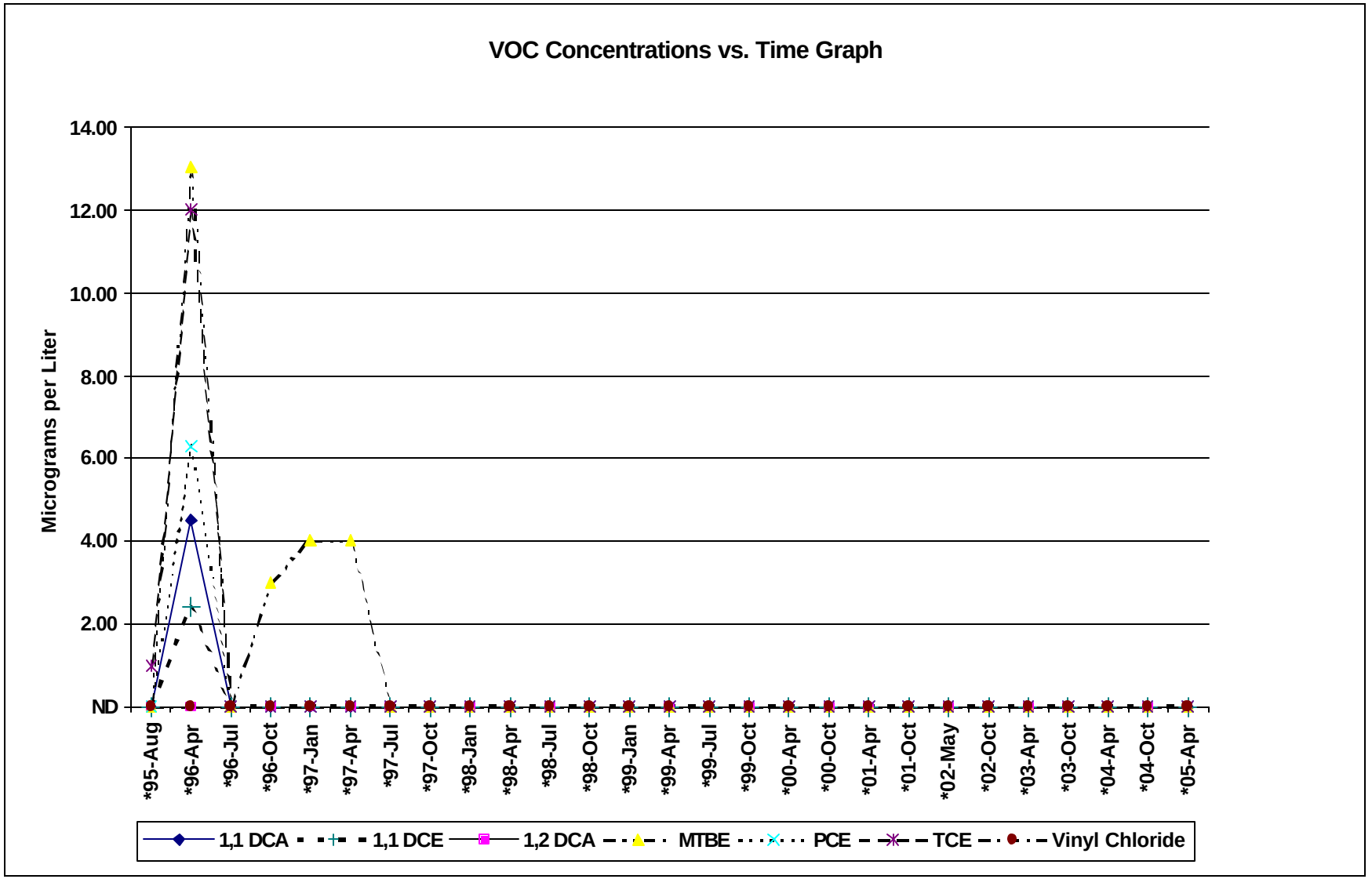
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-23D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



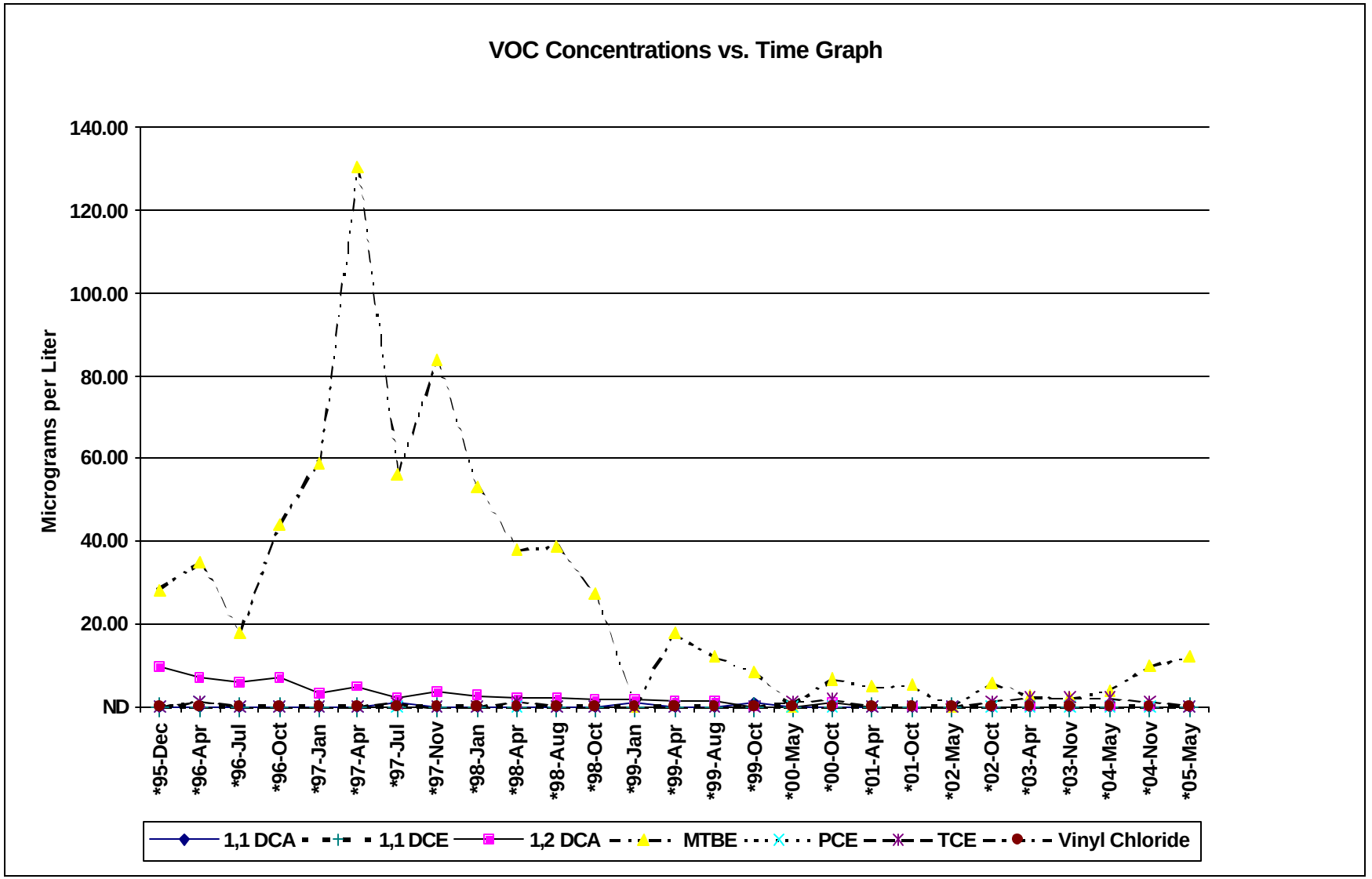
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-23M
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



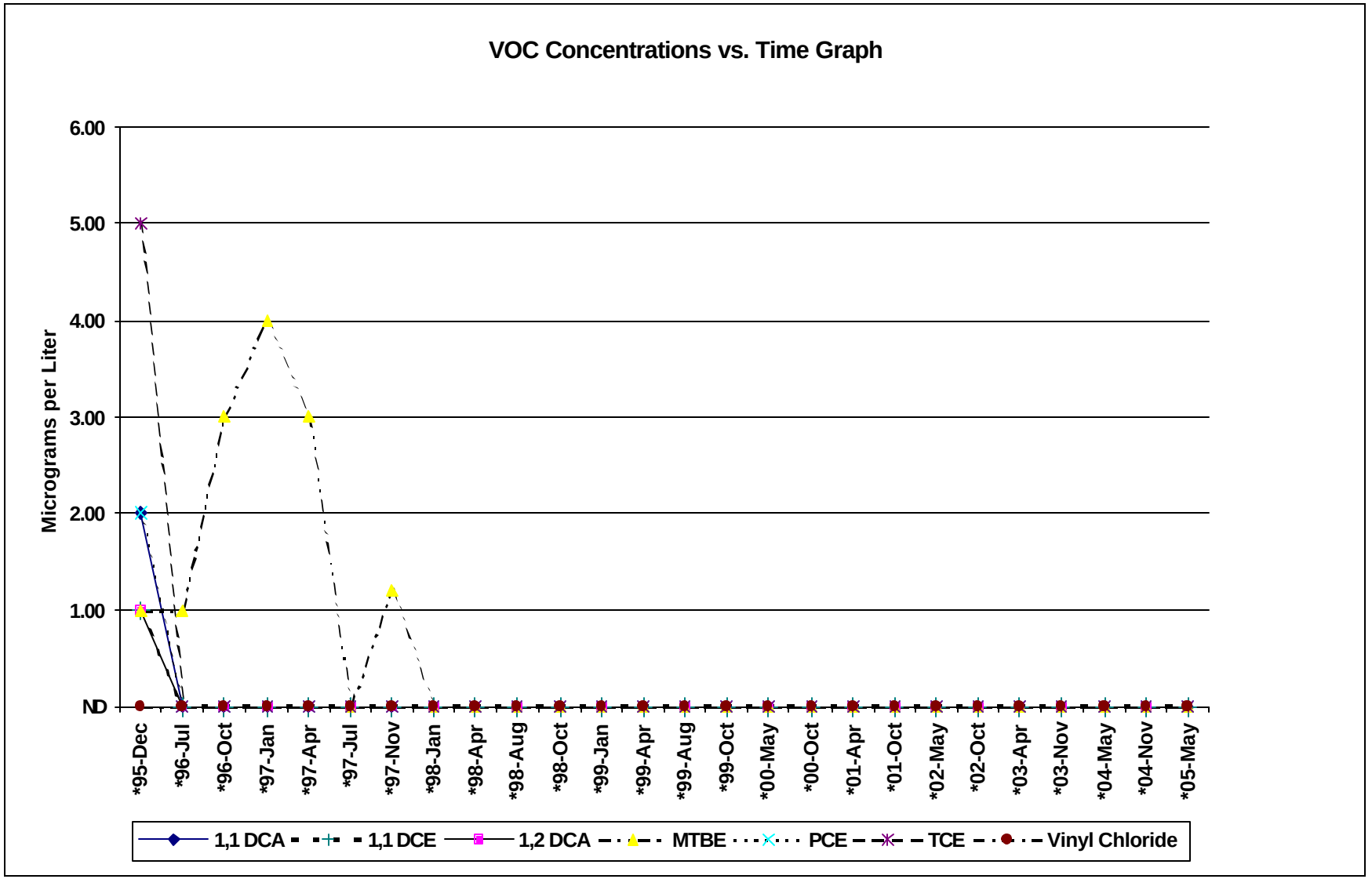
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-23S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



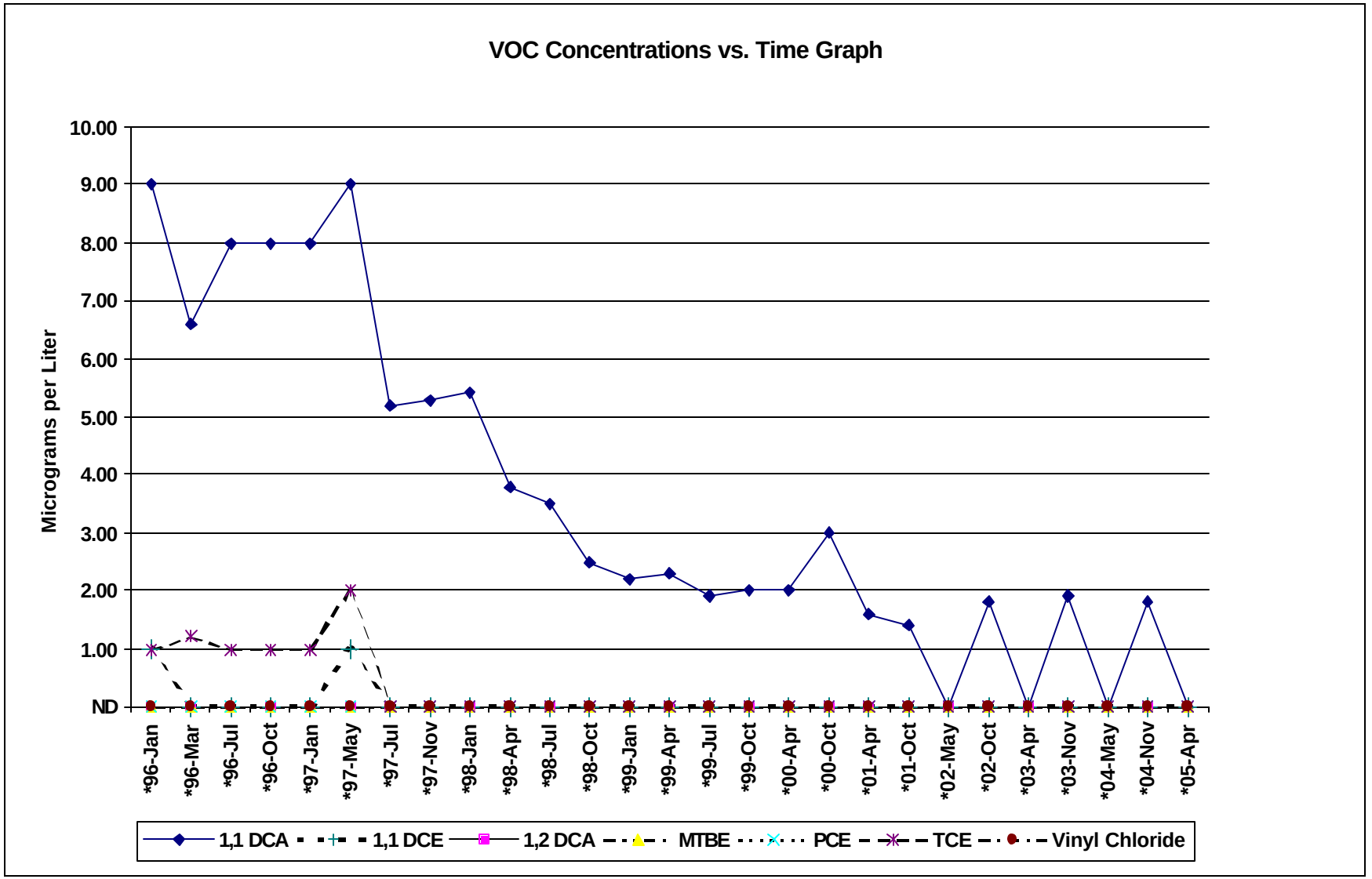
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-24P
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



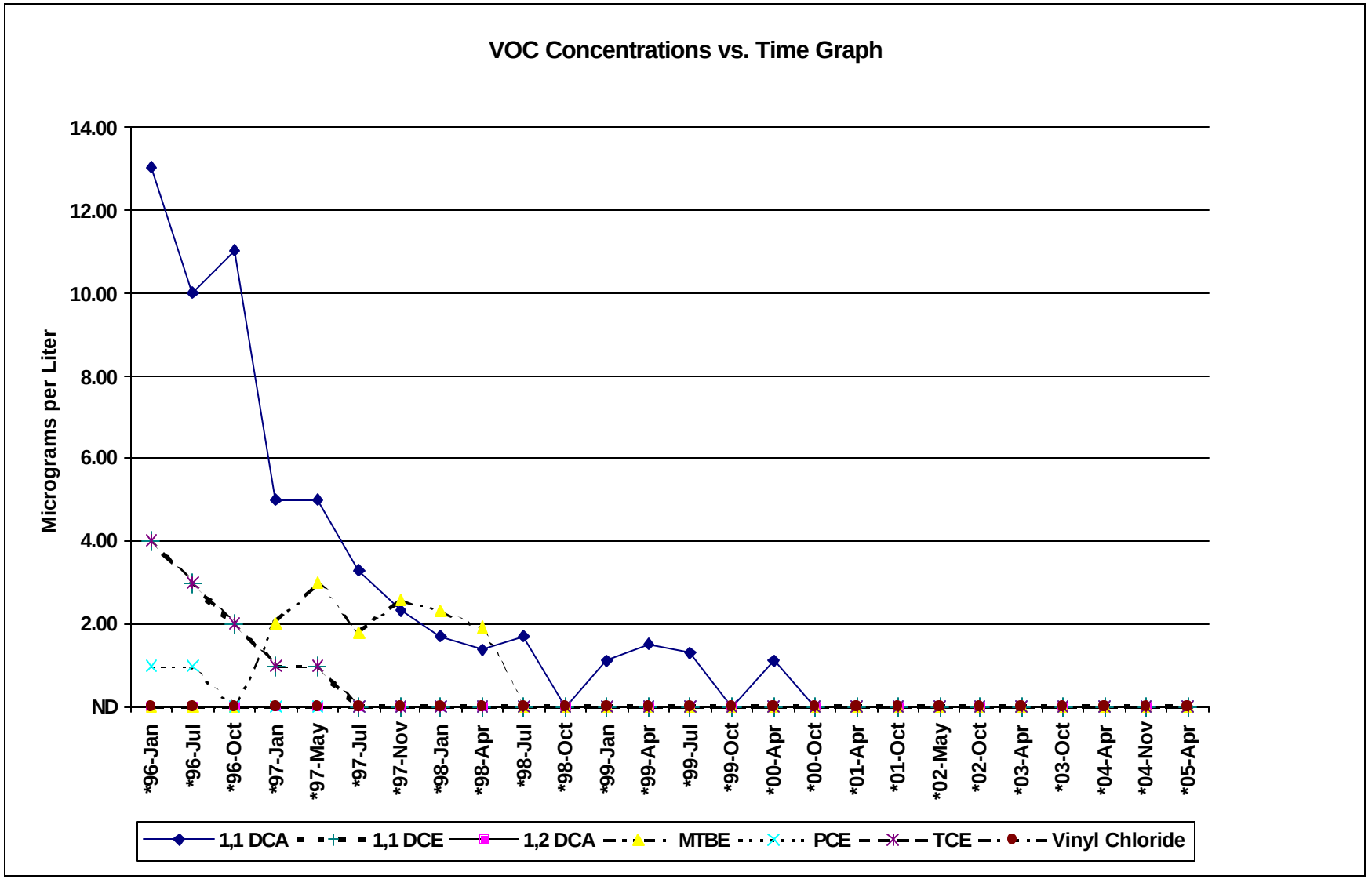
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-24S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



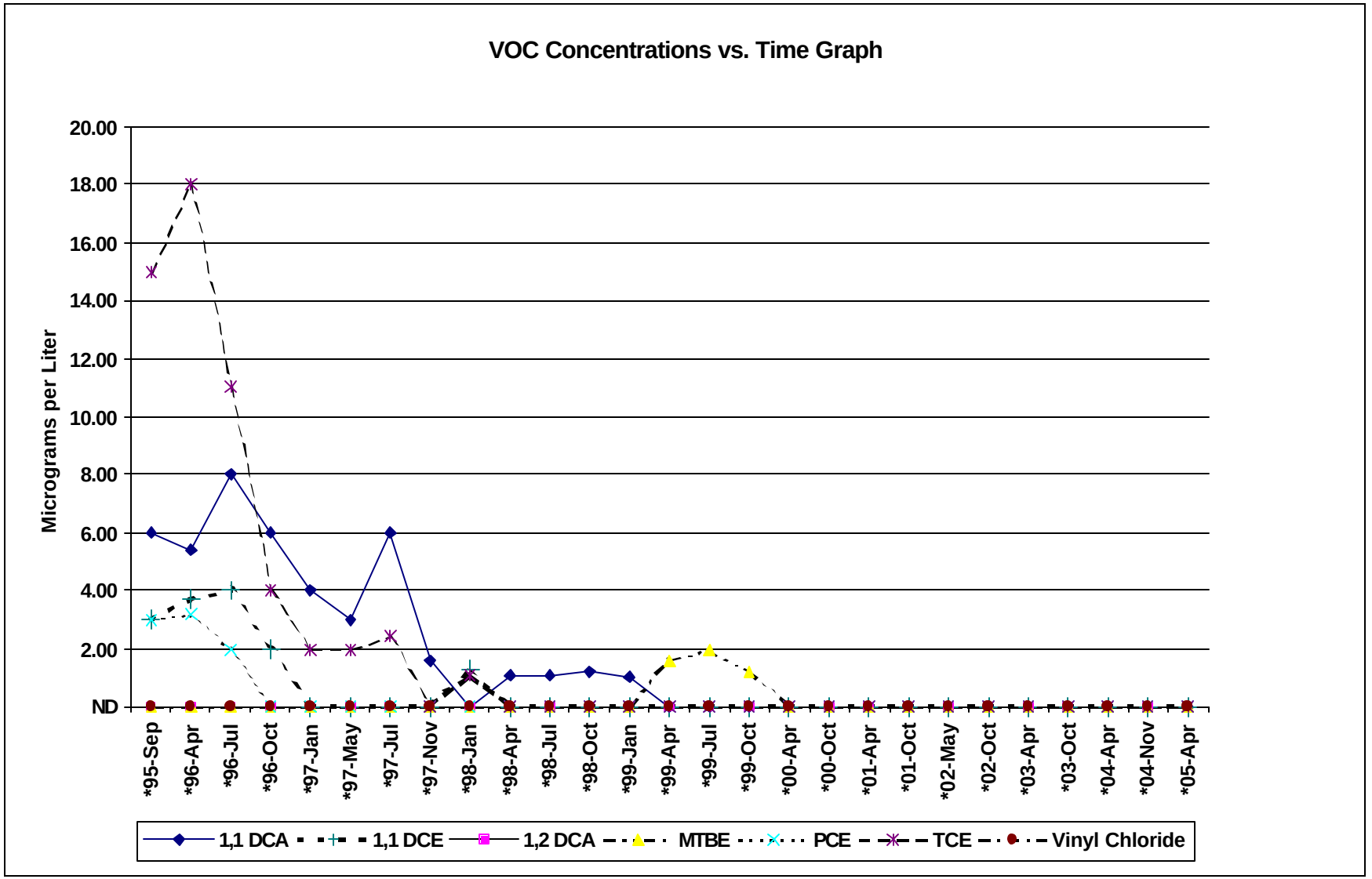
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-25P
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



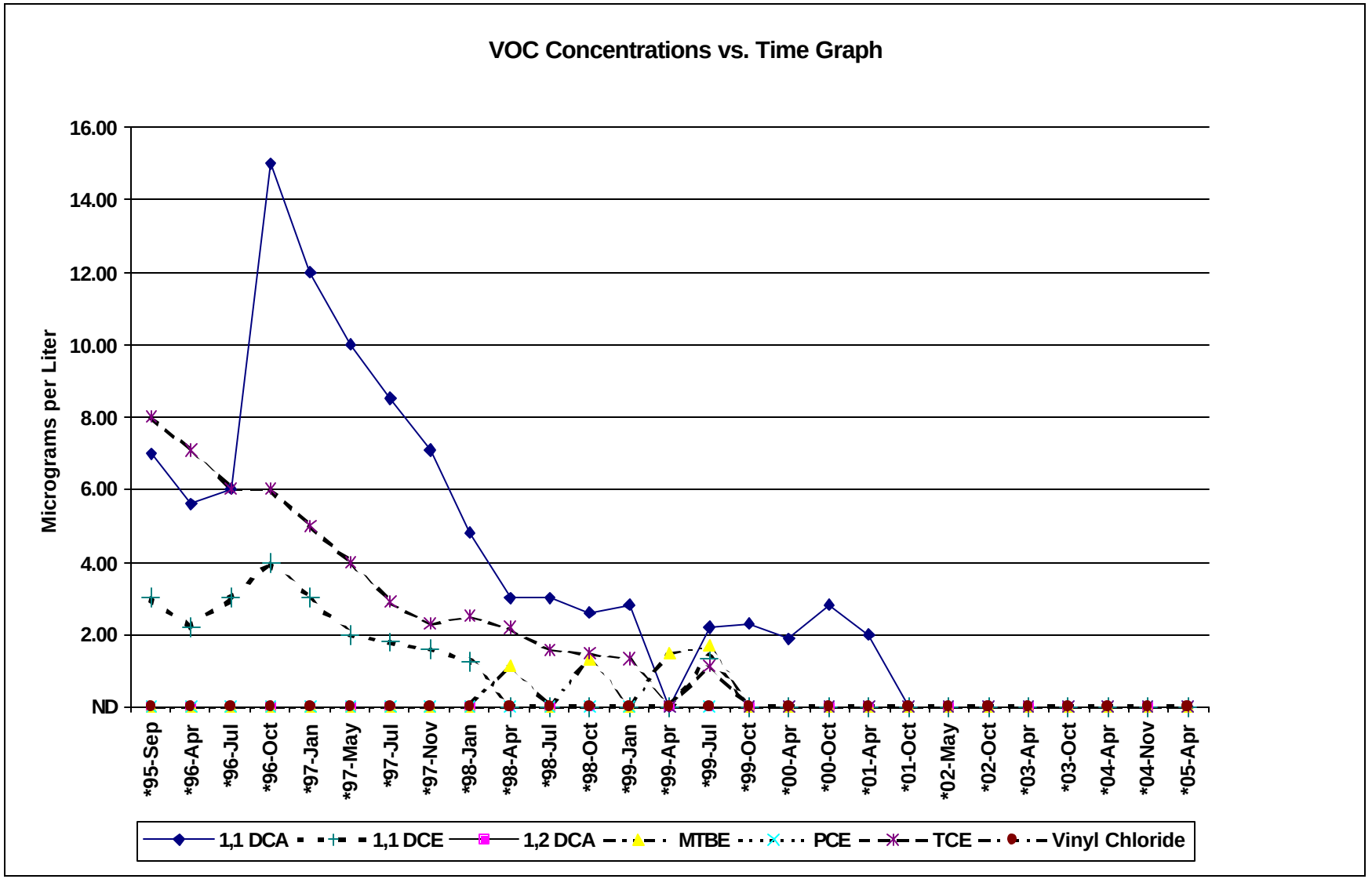
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-25S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



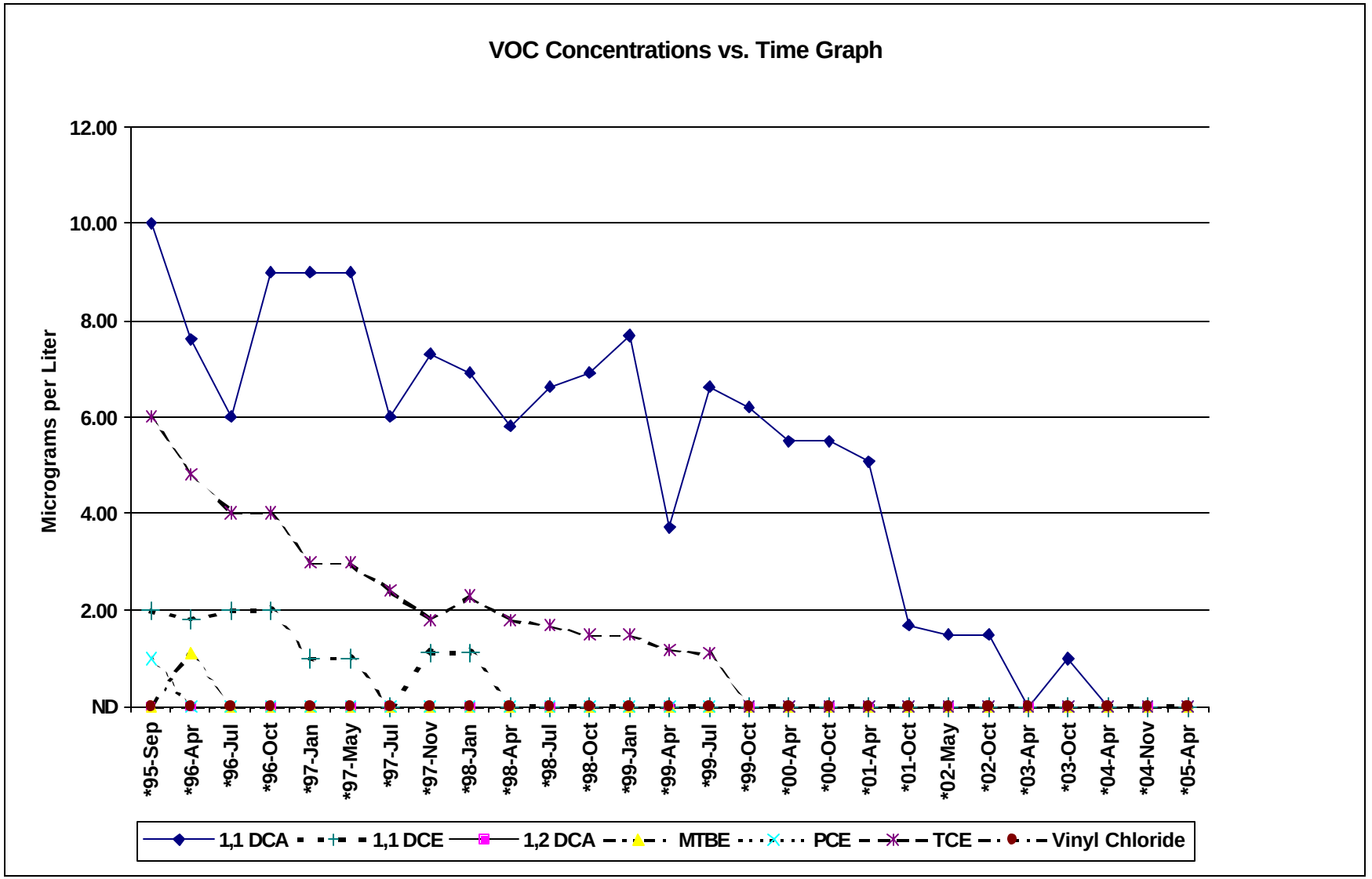
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-26D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



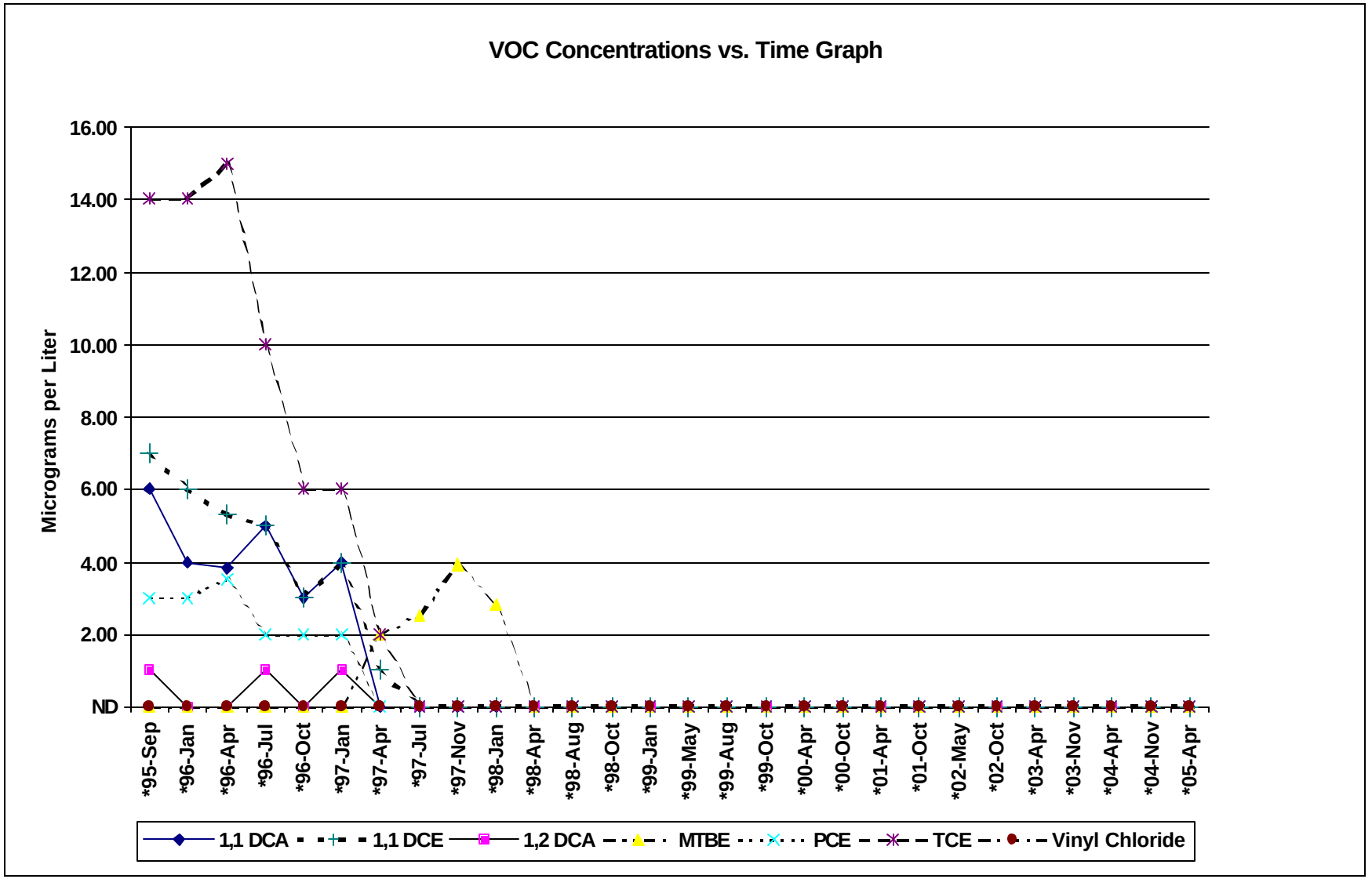
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-26M
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



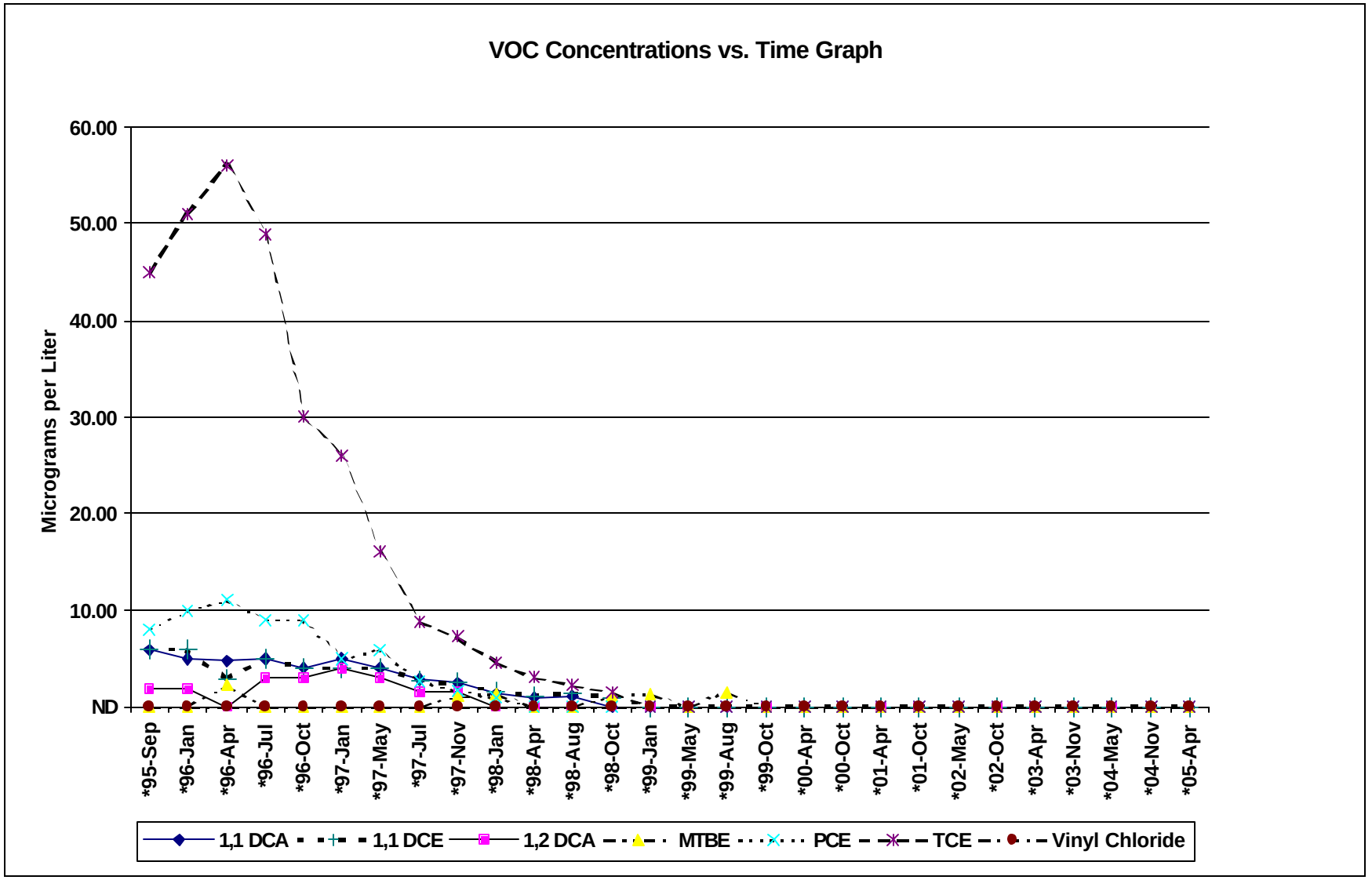
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-26S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



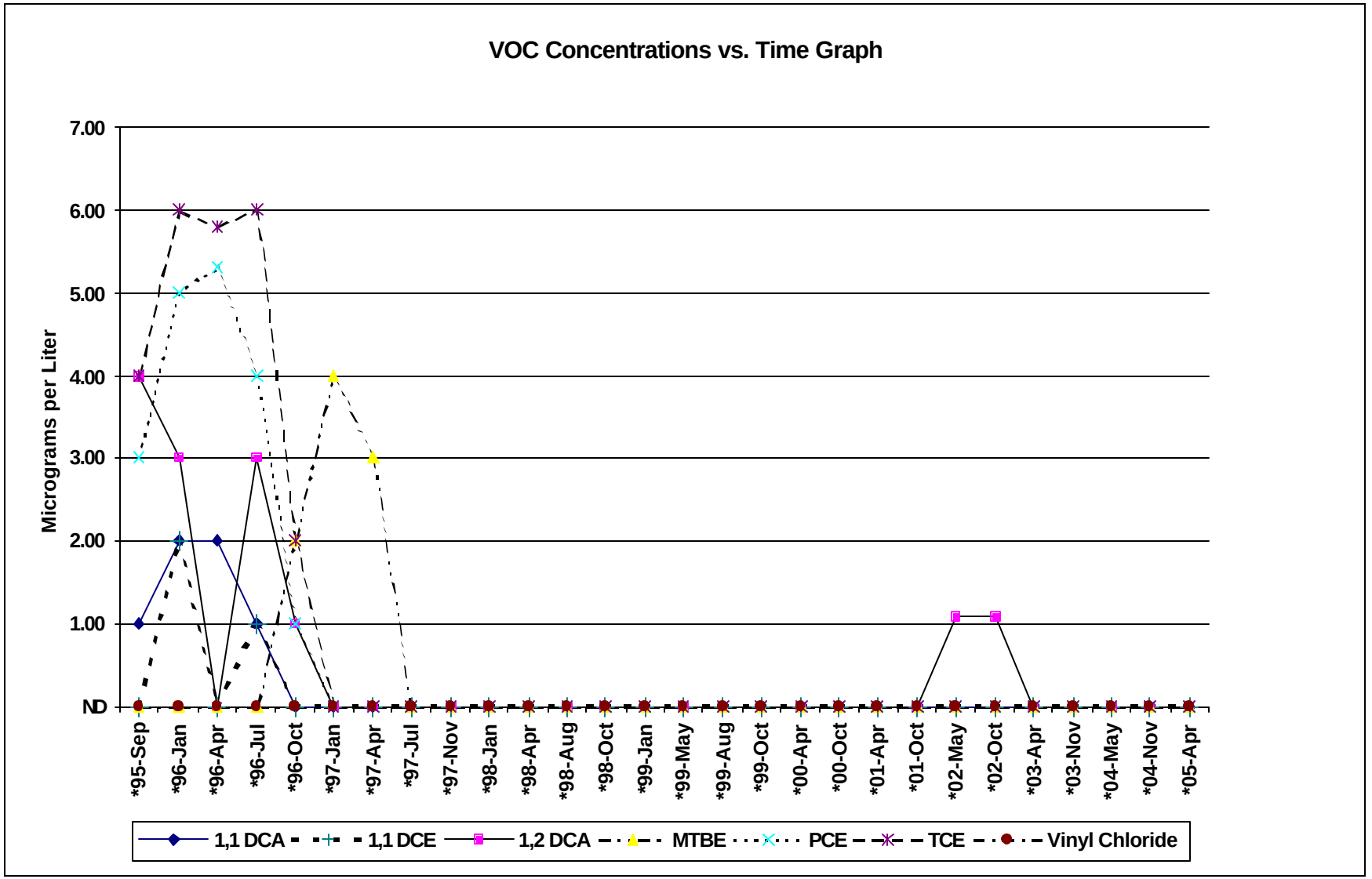
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-27D
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



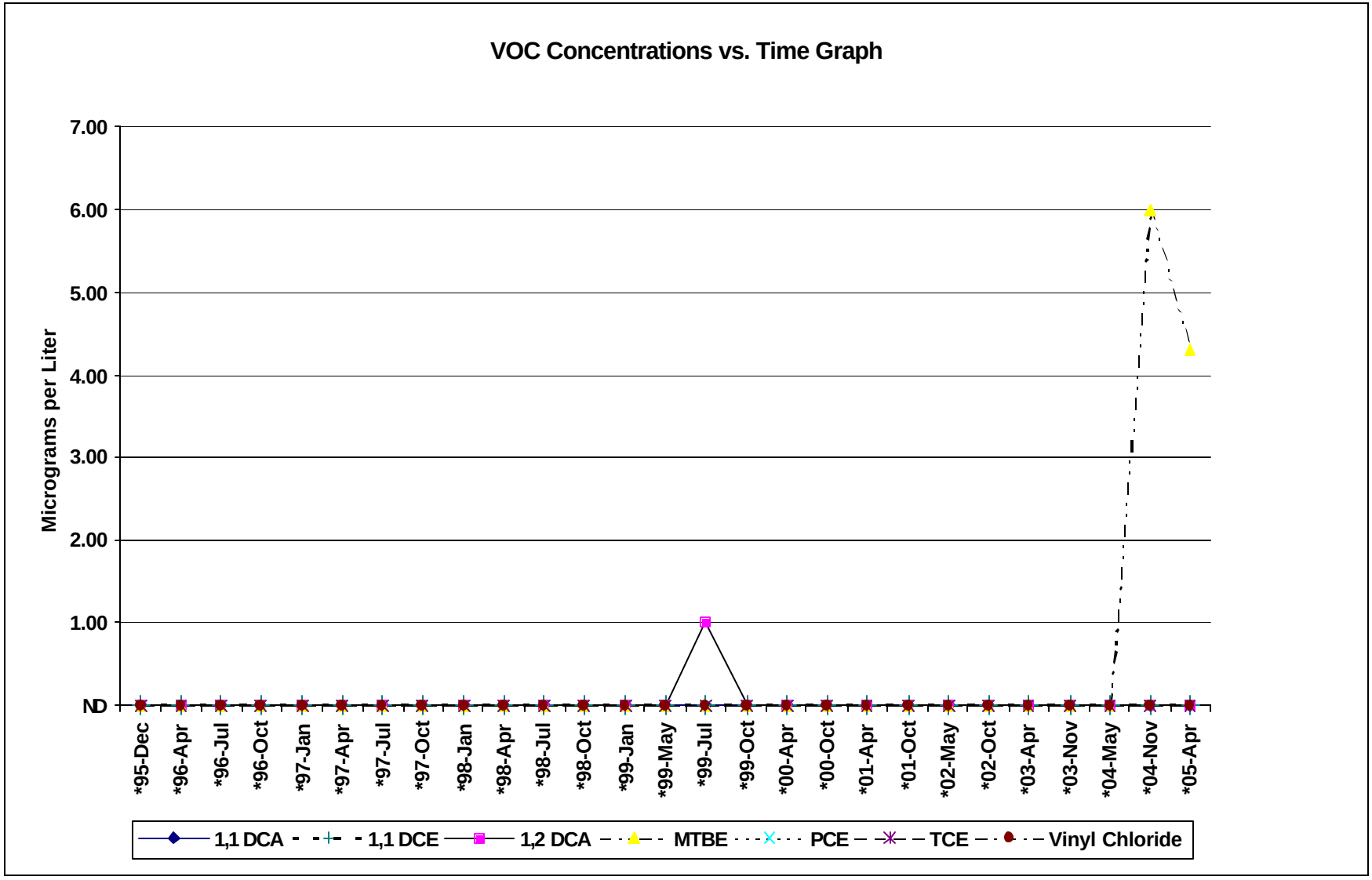
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-27M
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



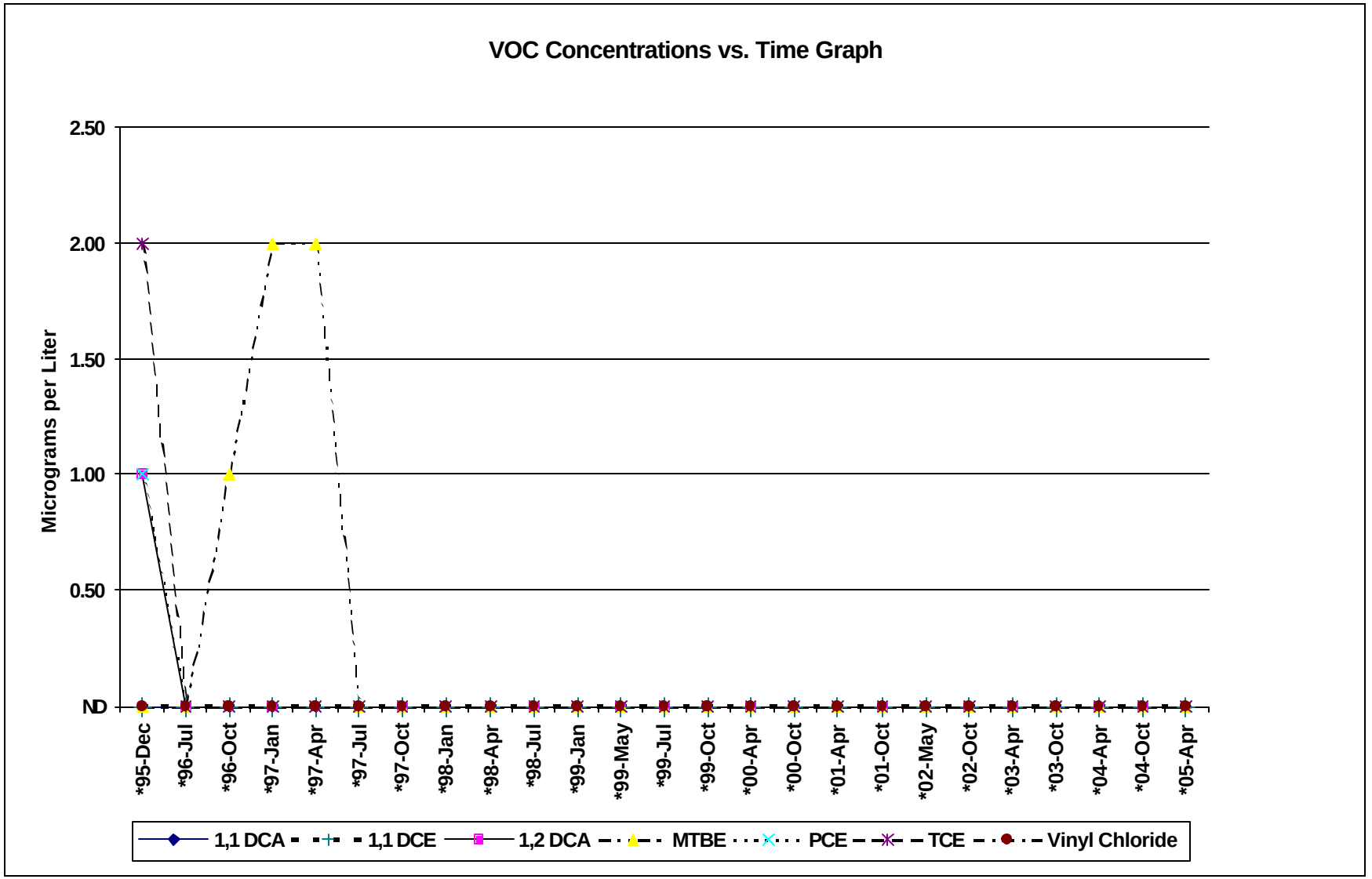
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-27S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



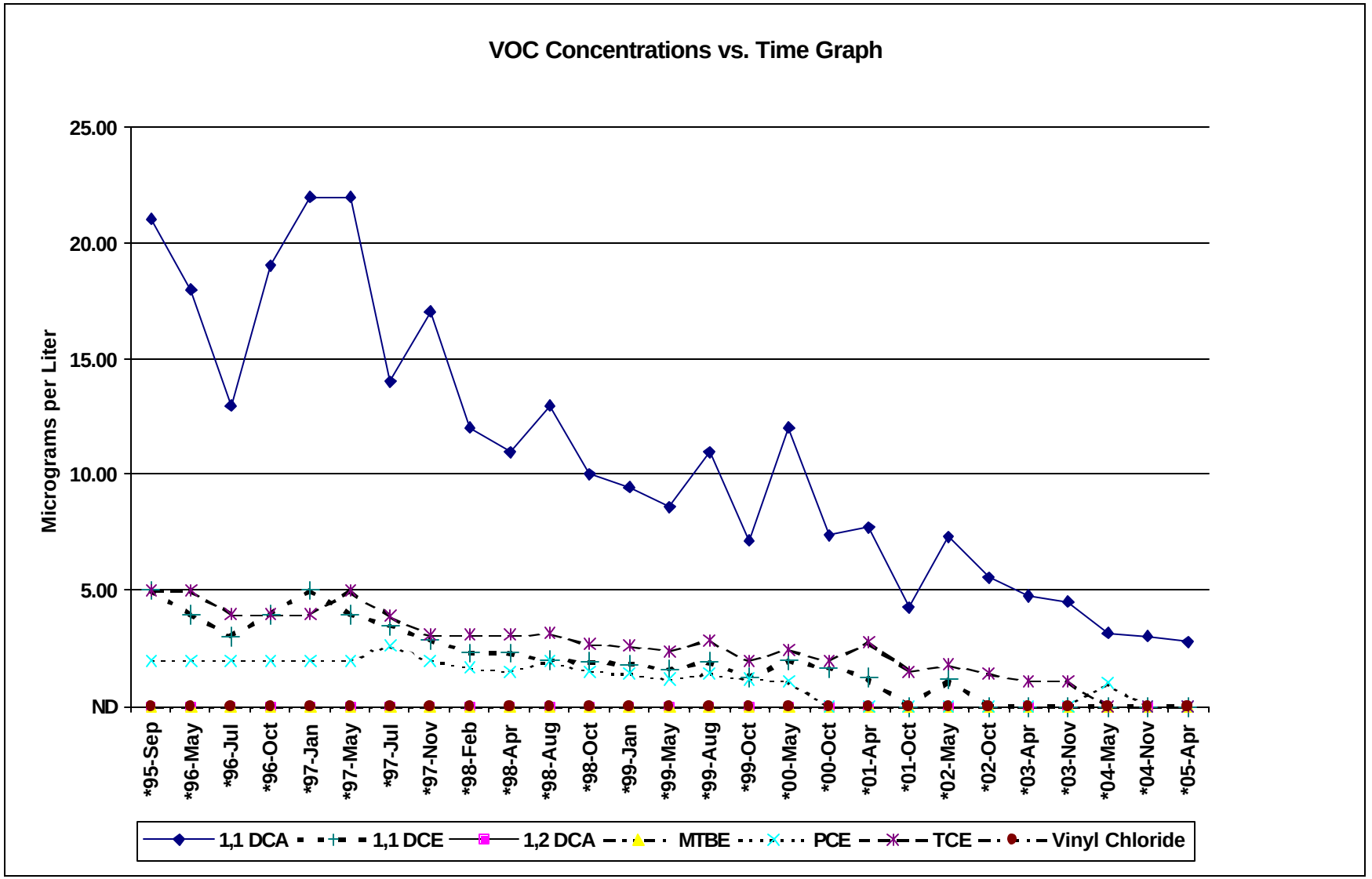
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-28P
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



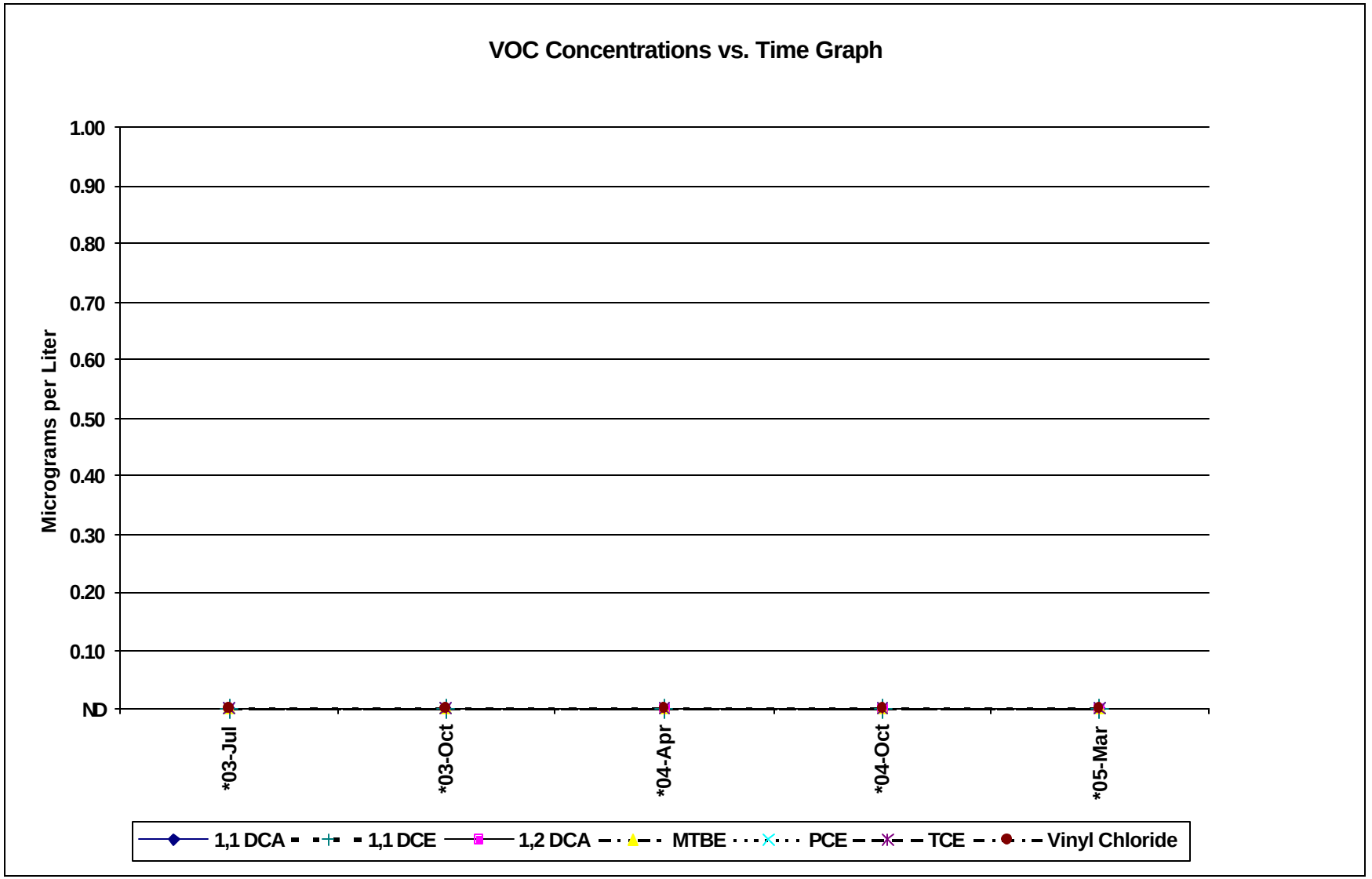
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-28S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-29S
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



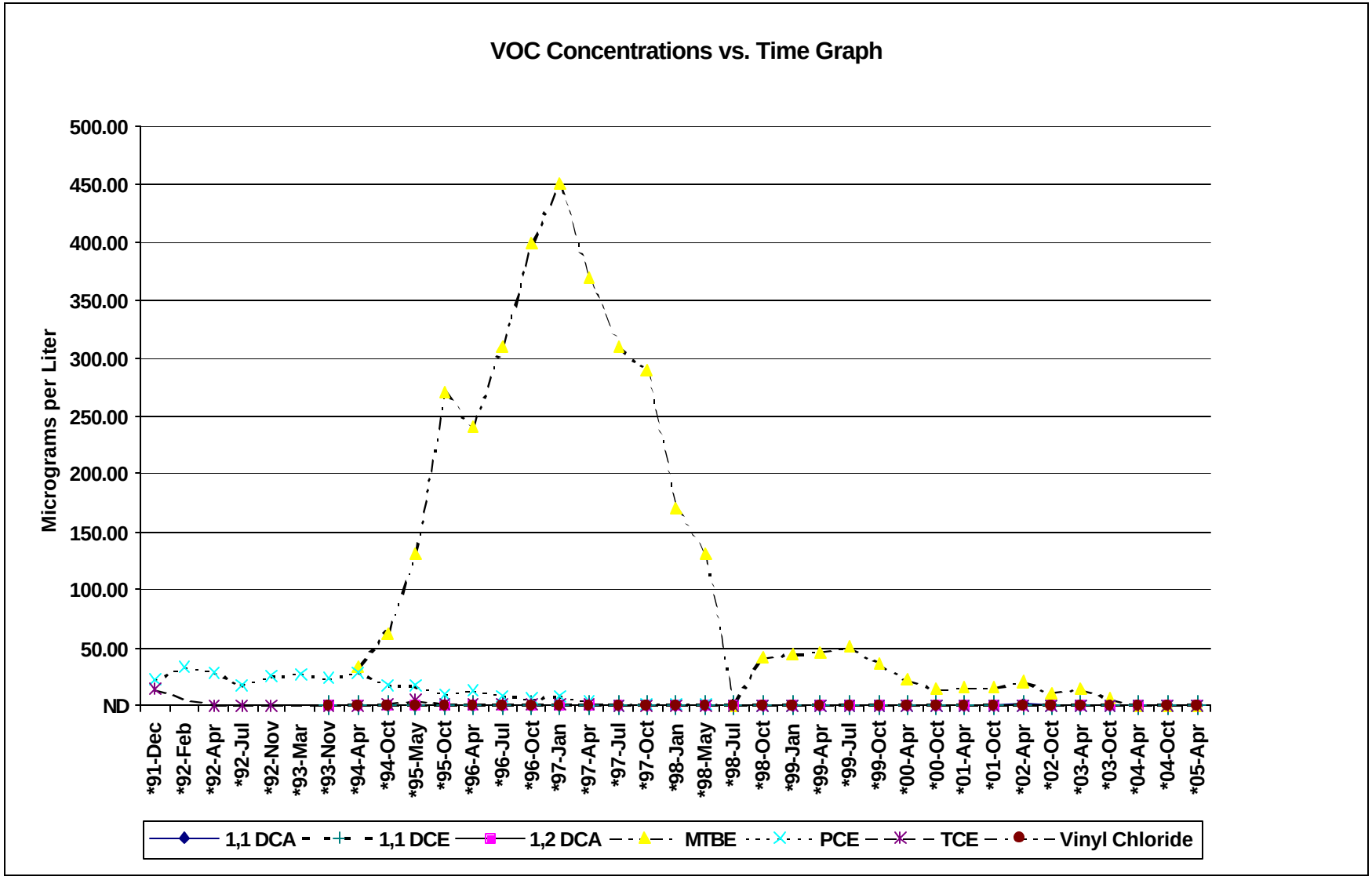
Appendix E1:Summary of Selected VOC Concentrations over Time - Conventional Wells
P83-30D-2
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



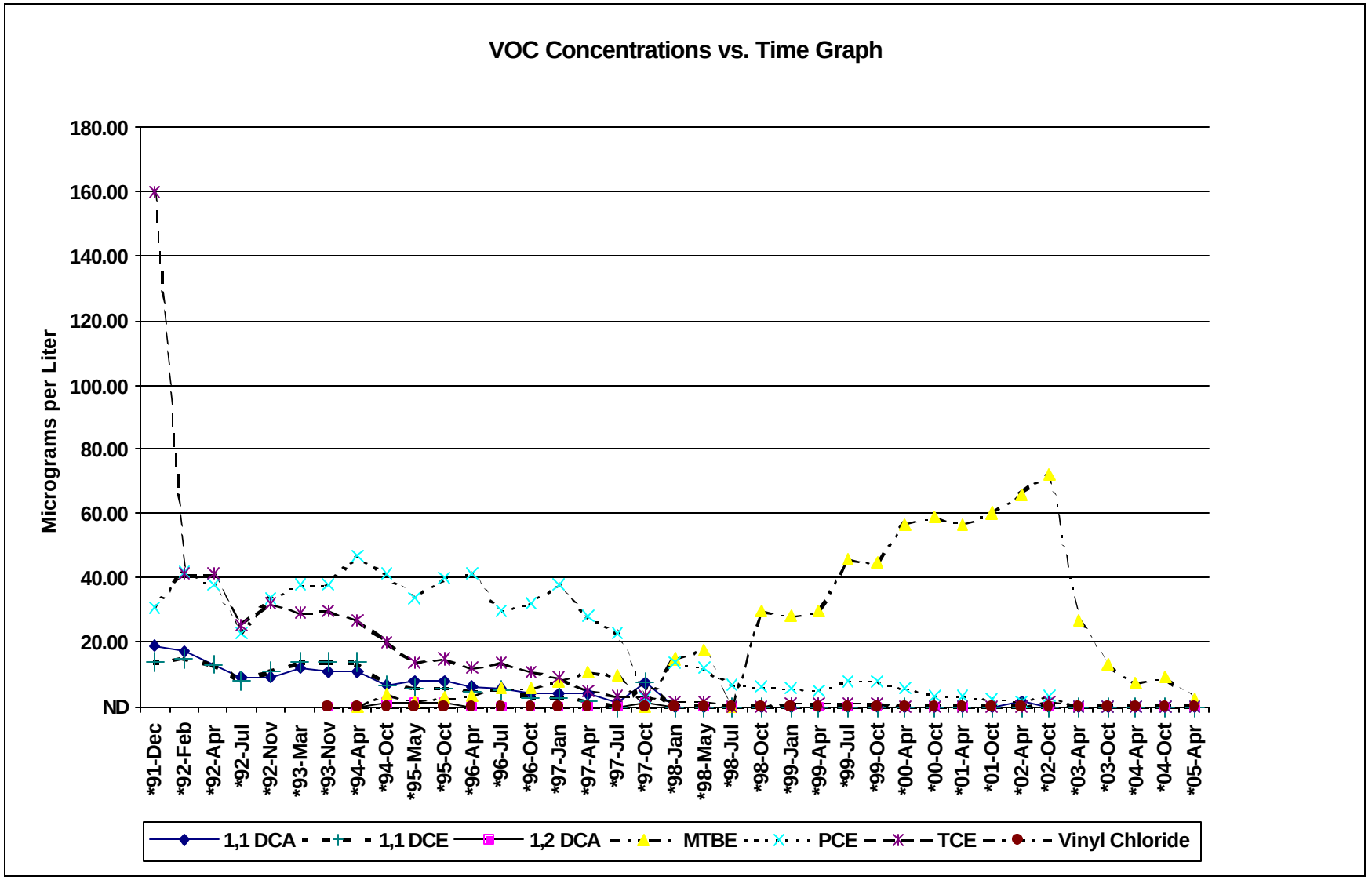
Appendix E-2

VOC Concentrations Over Time – Westbay™ Monitoring Wells

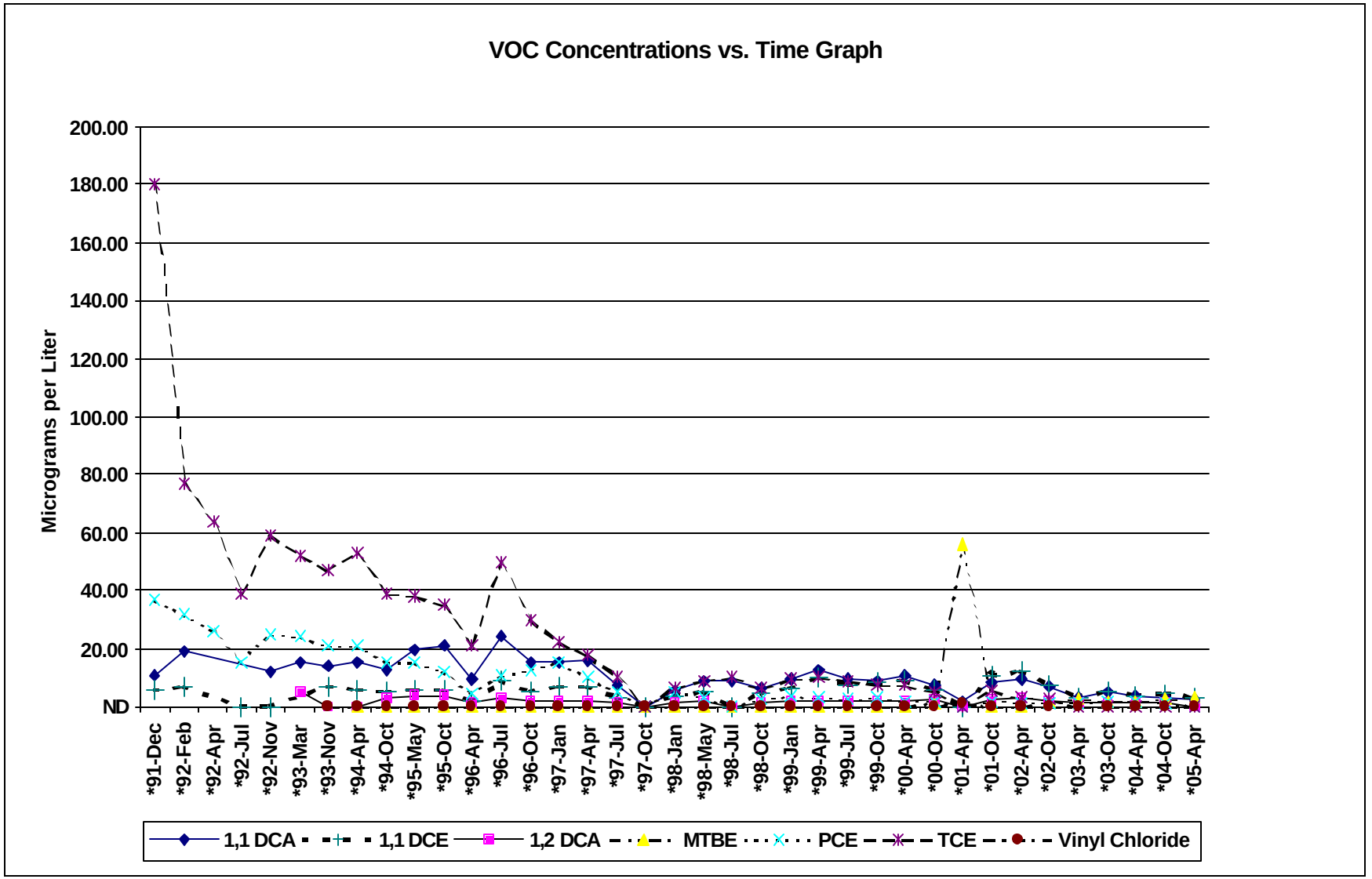
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-01(1)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



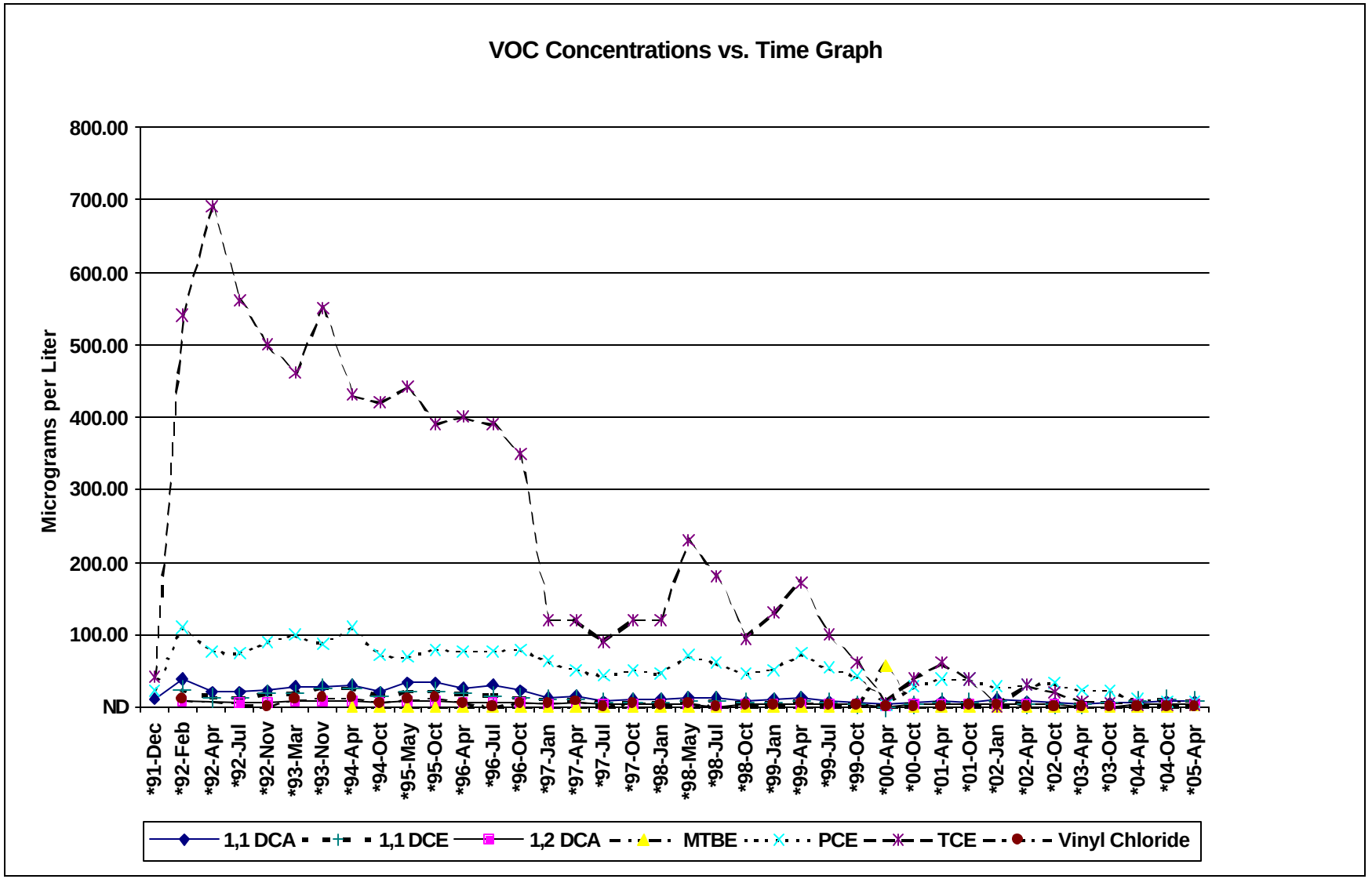
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-01(2)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



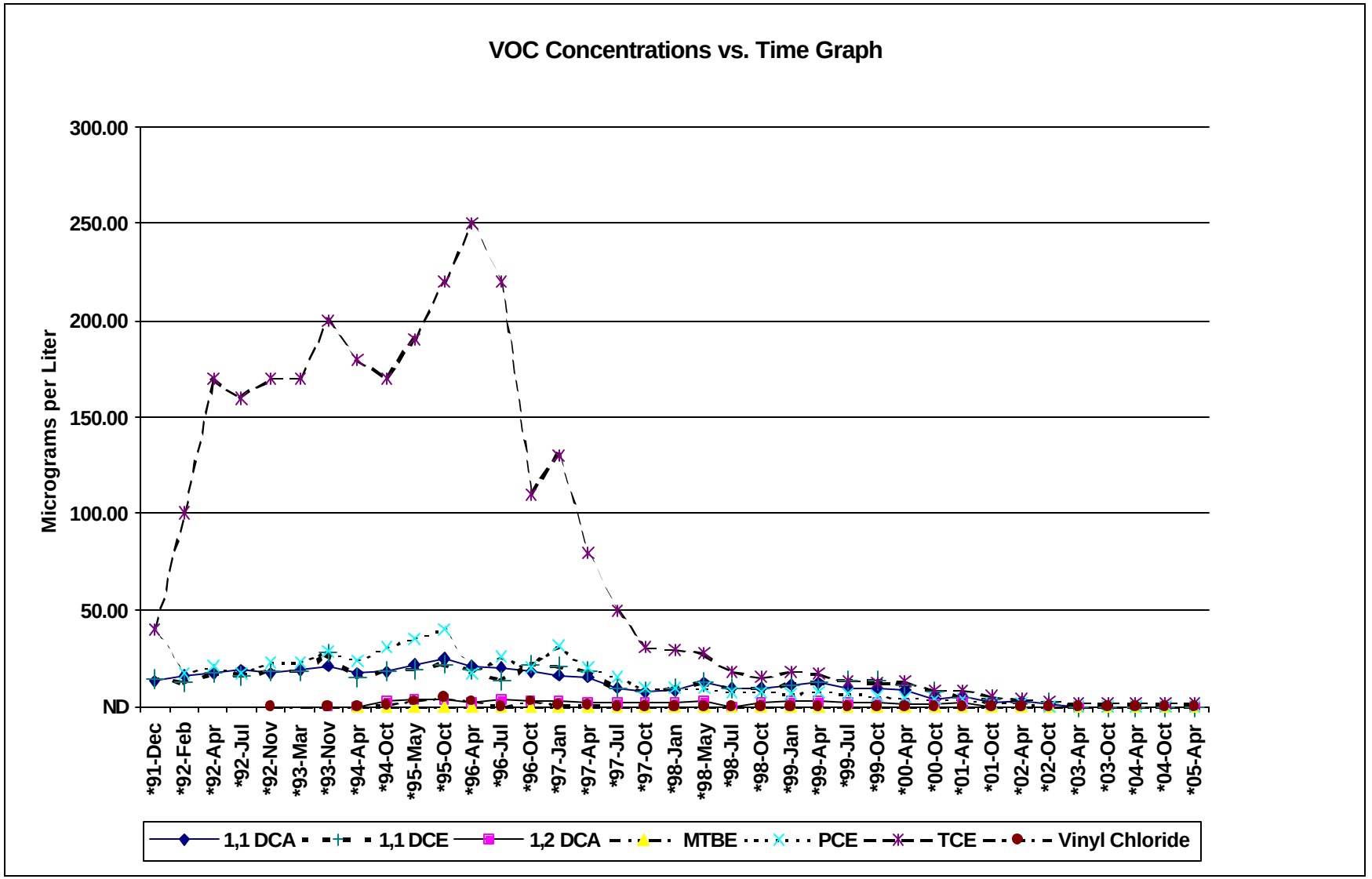
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-01(3)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



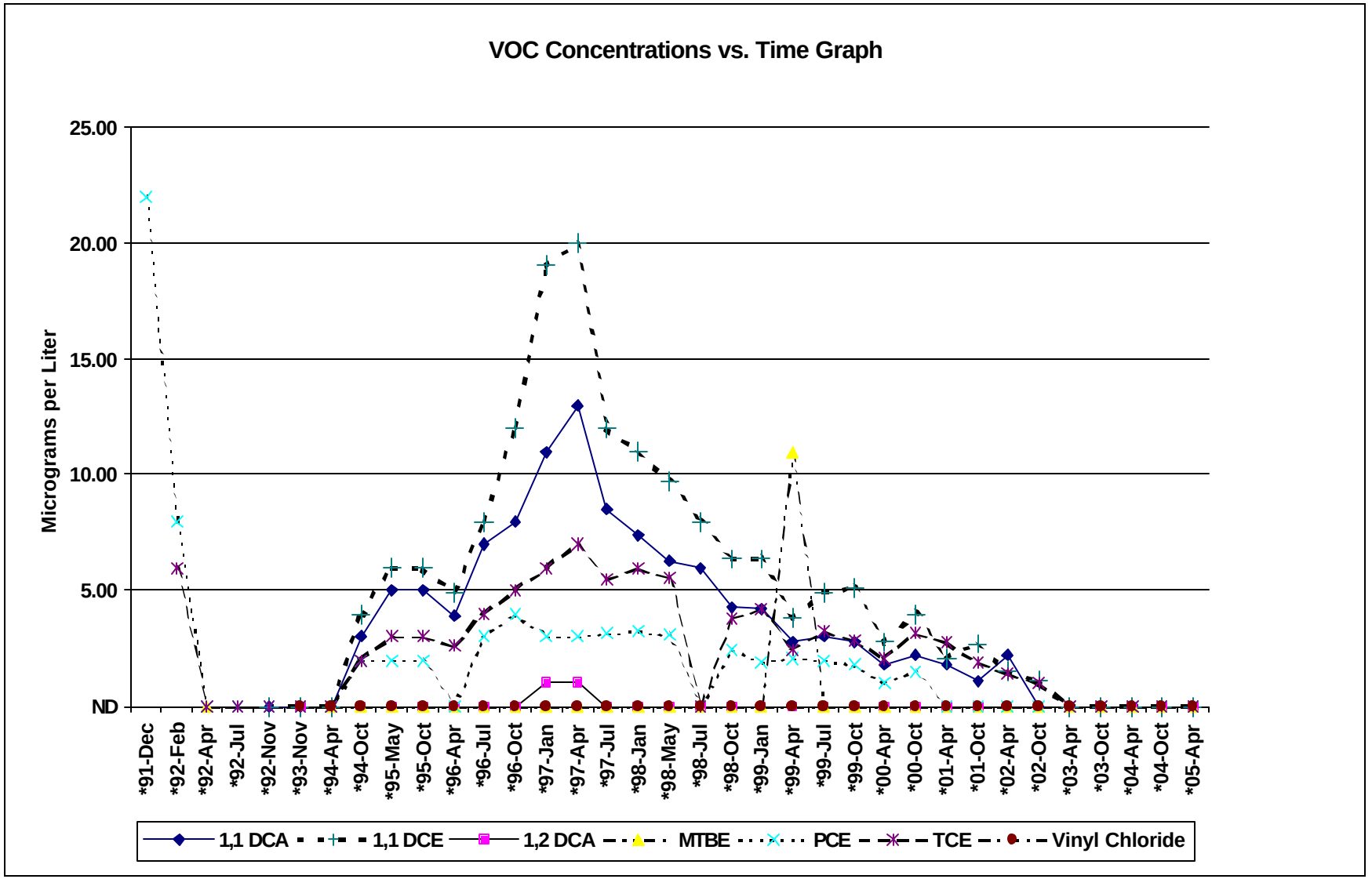
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-01(4)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



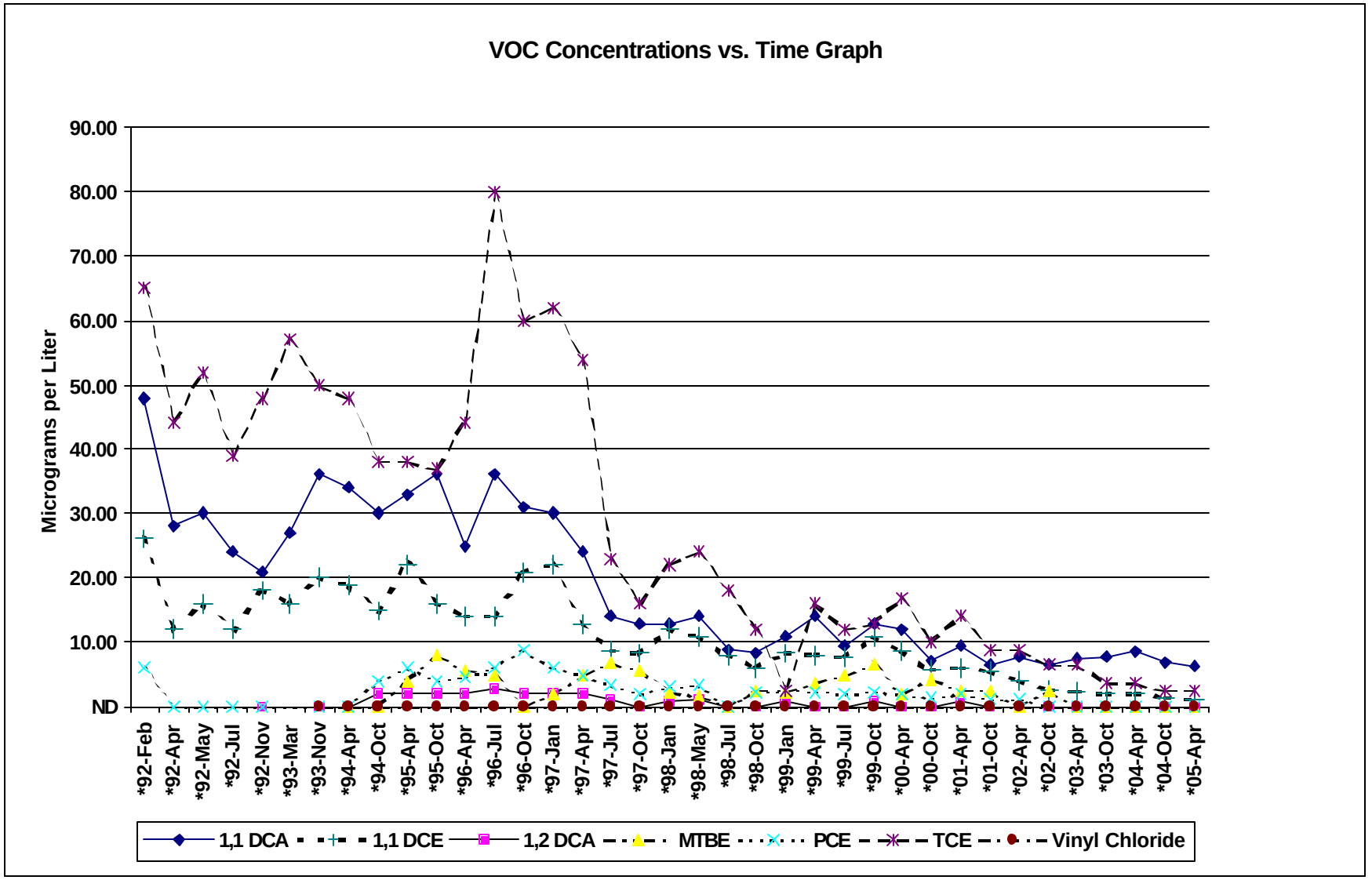
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-01(5)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



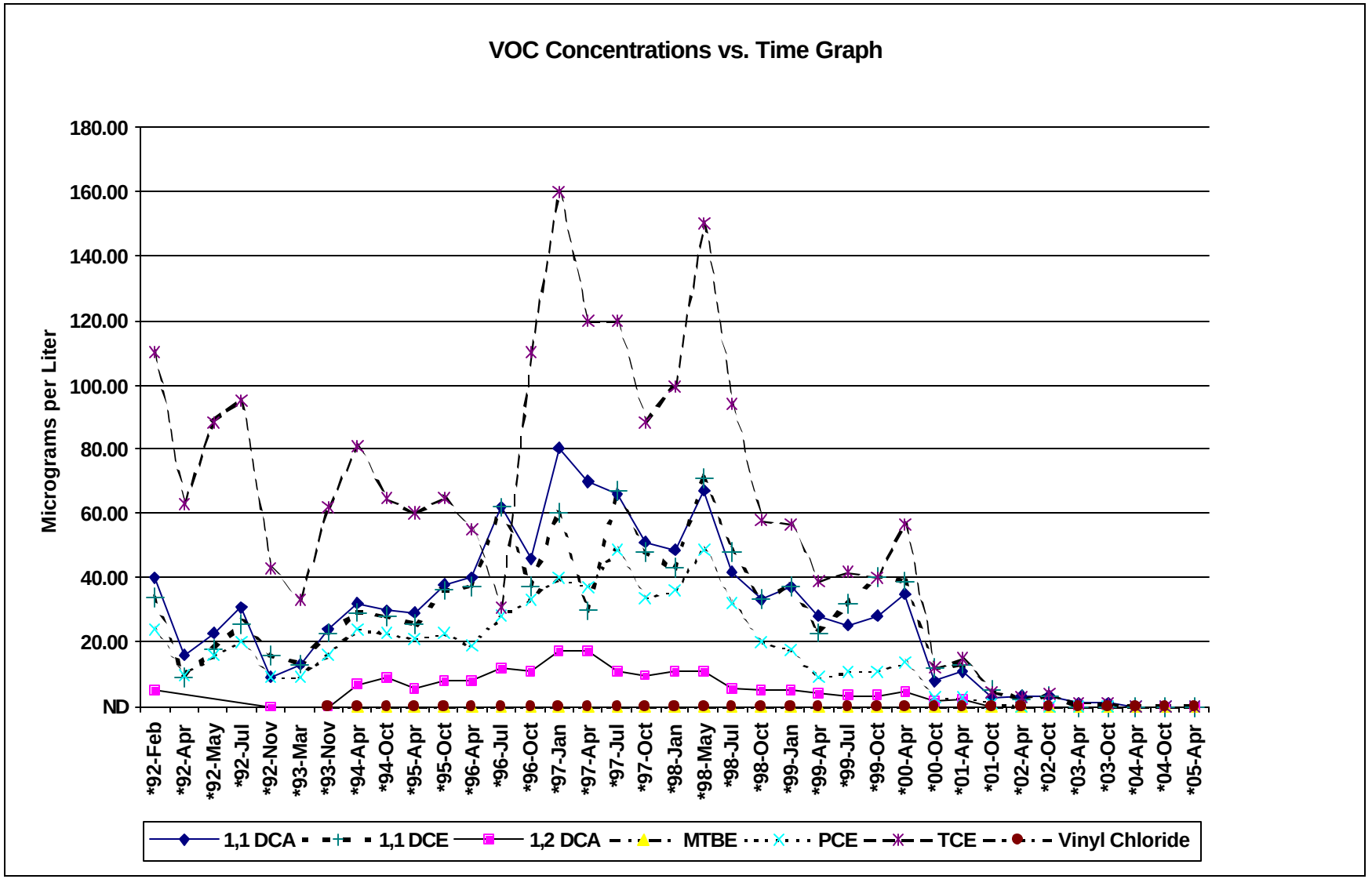
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-01(6)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



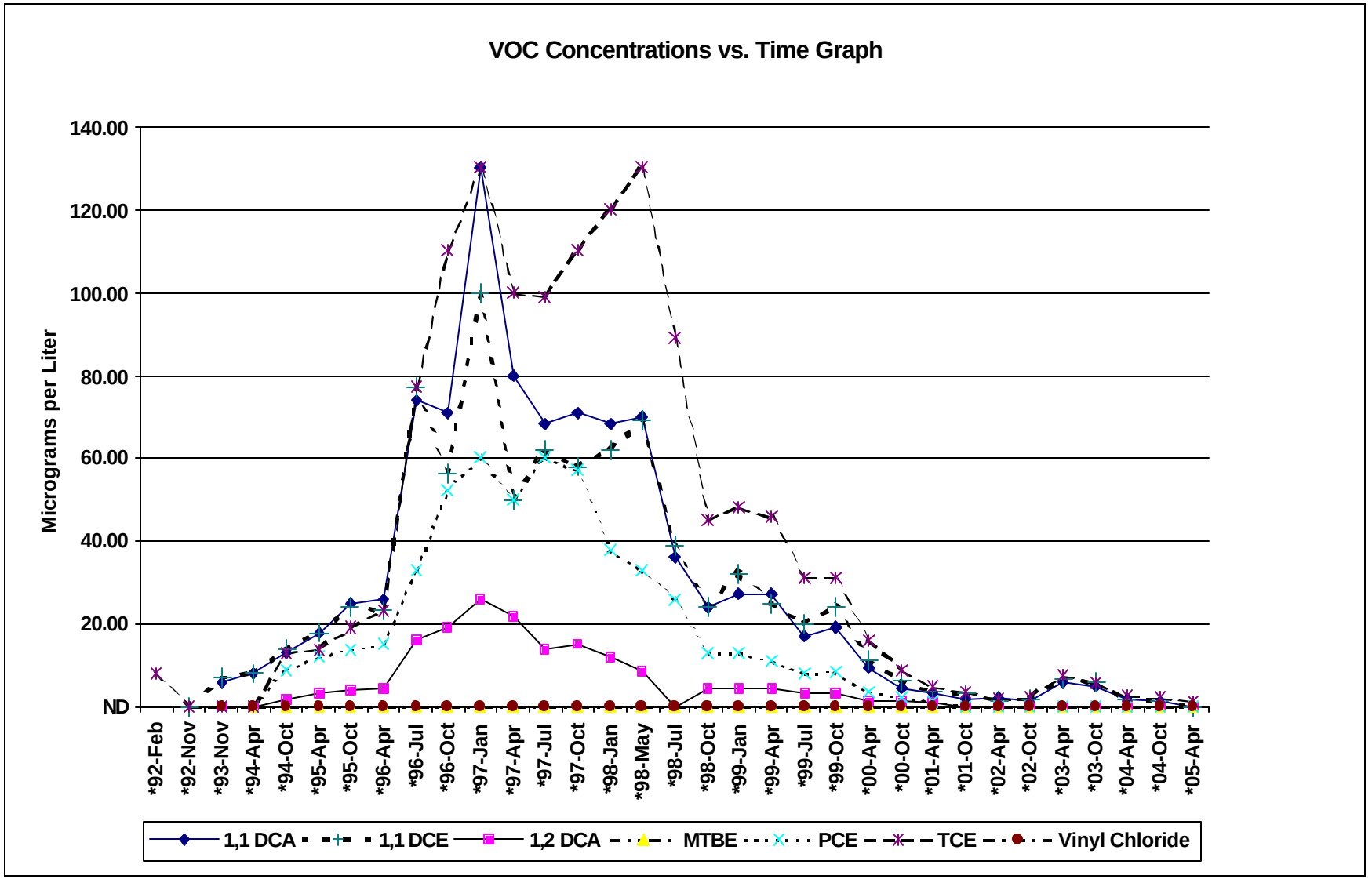
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-02(1)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



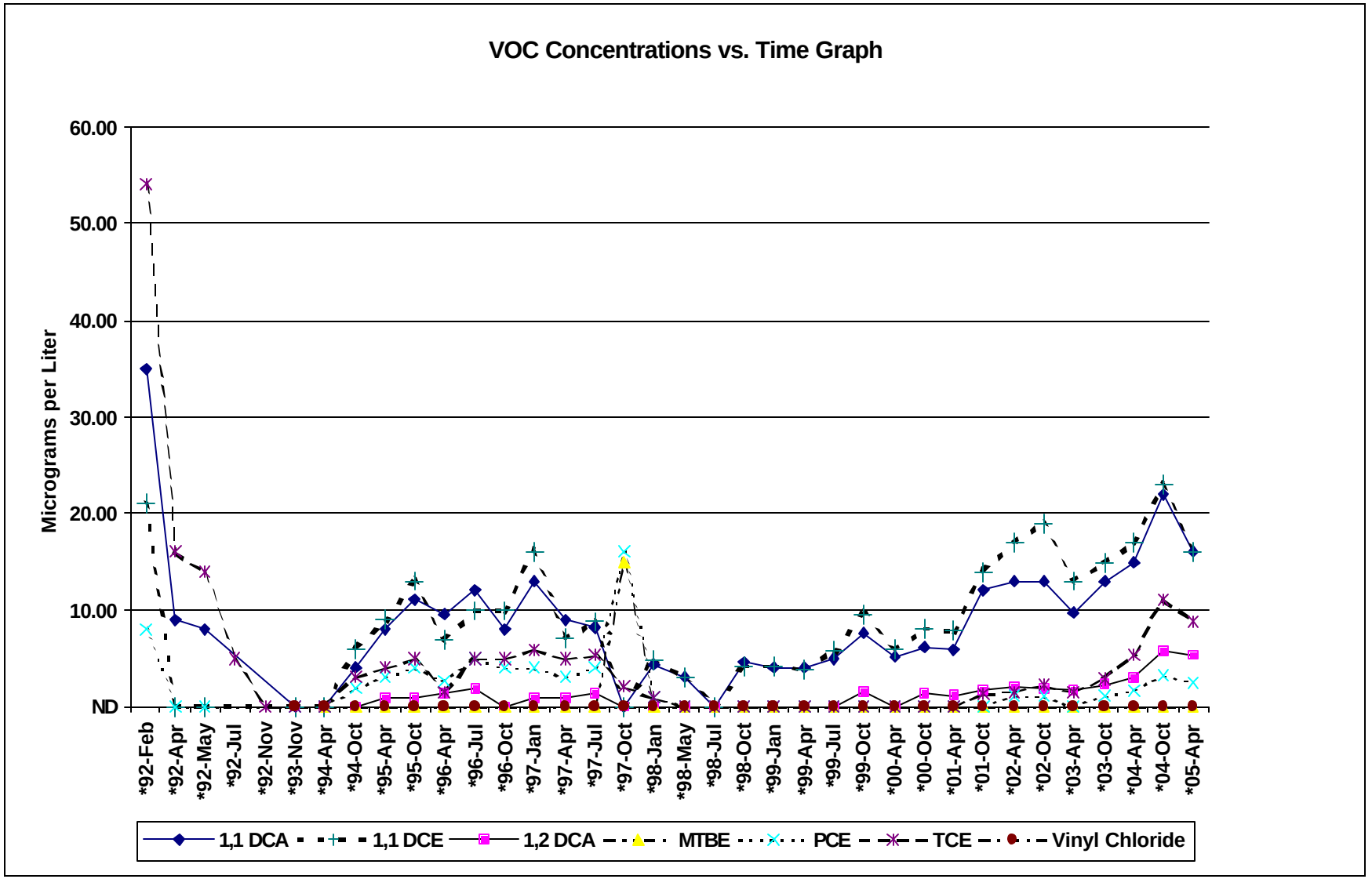
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-02(2)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



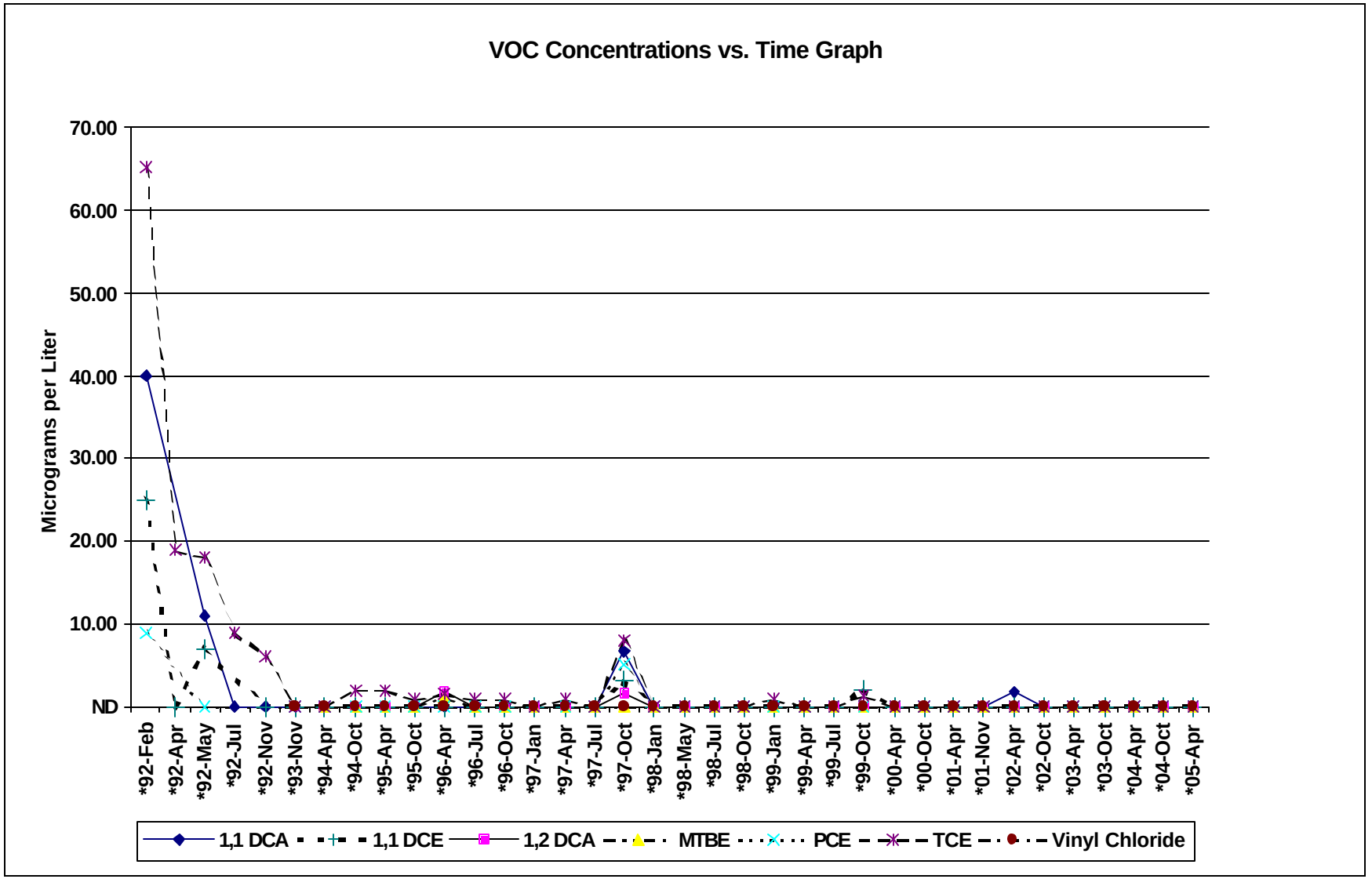
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-02(3)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



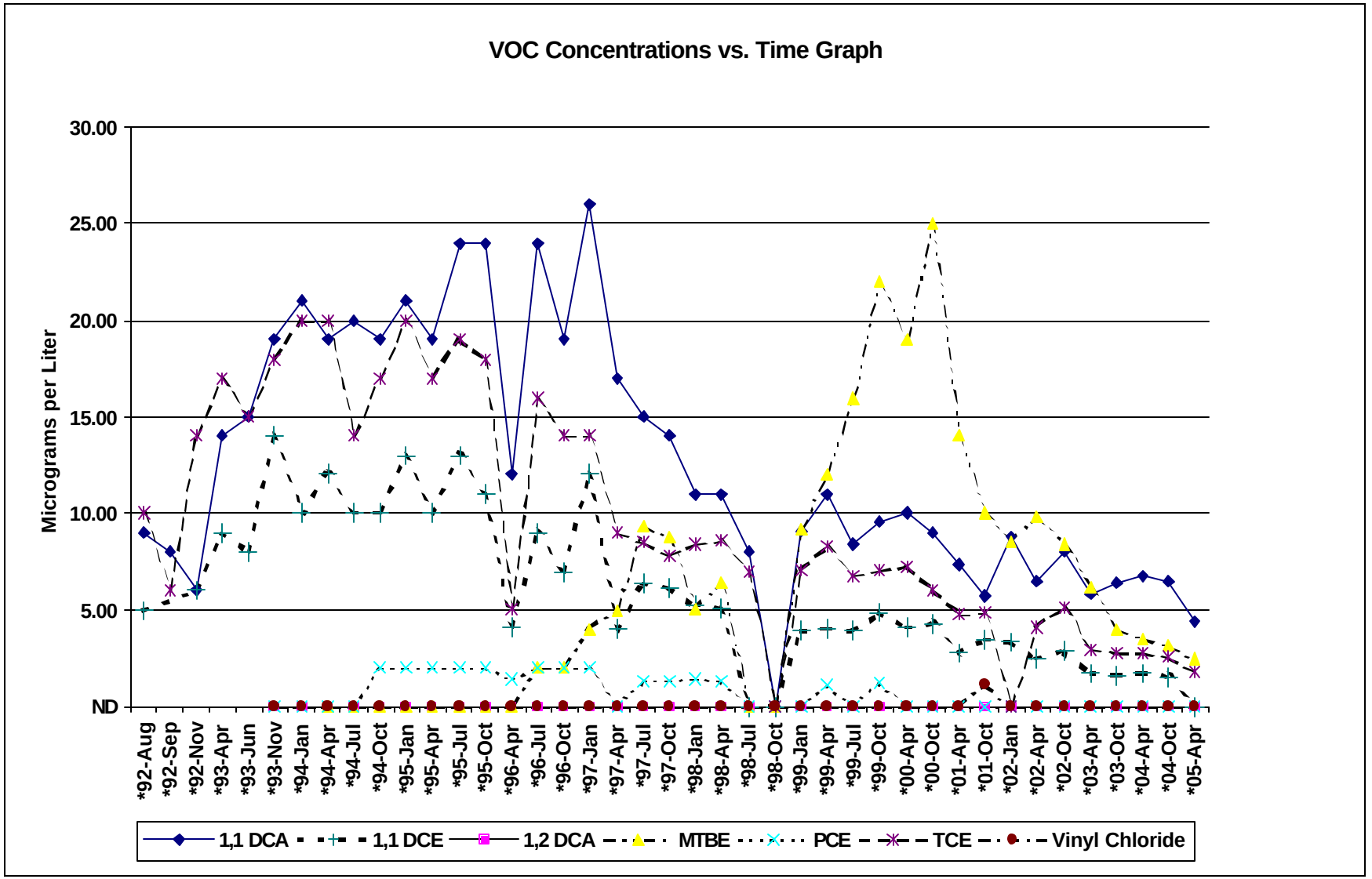
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-02(4)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



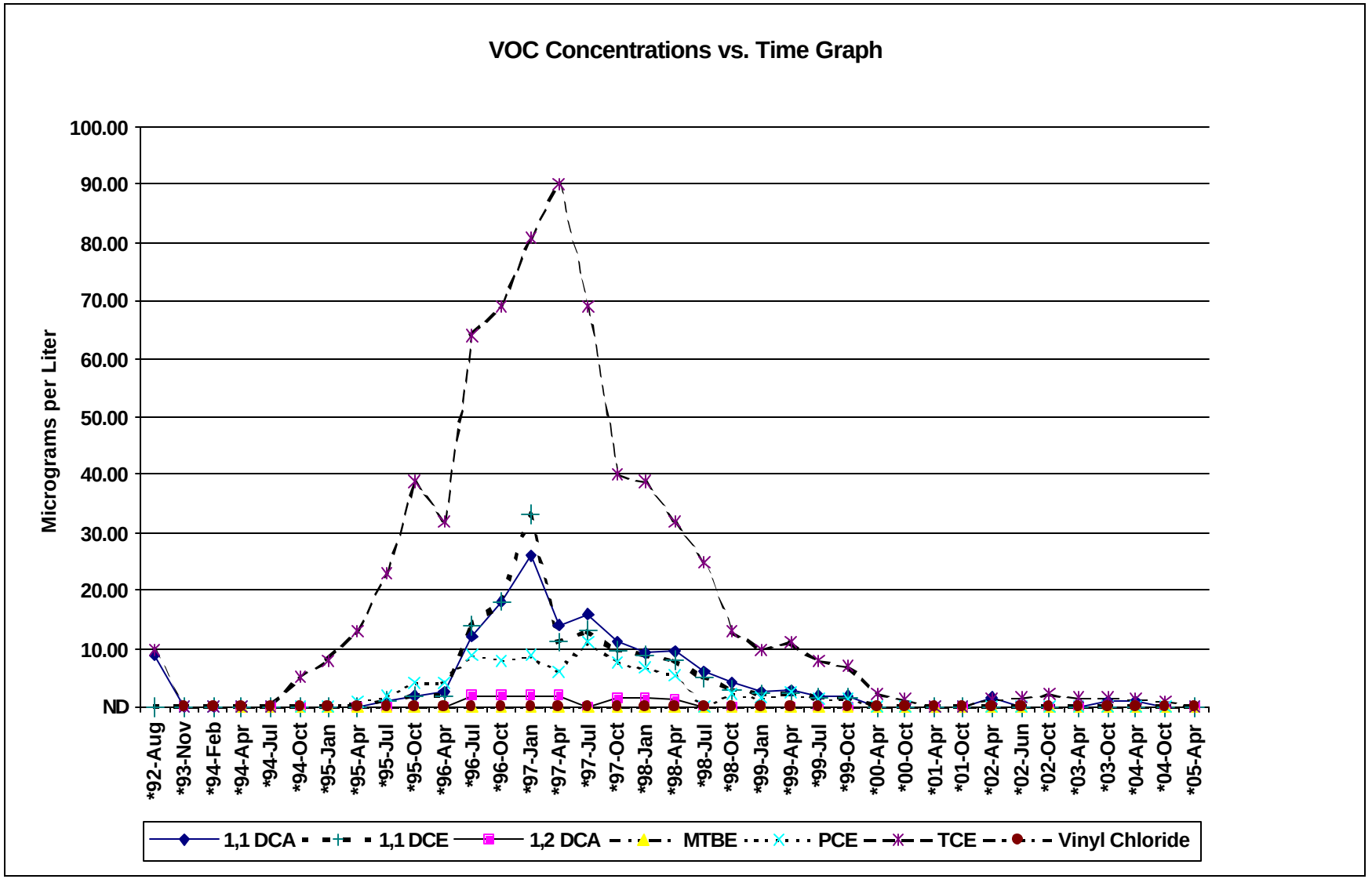
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-02(5)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



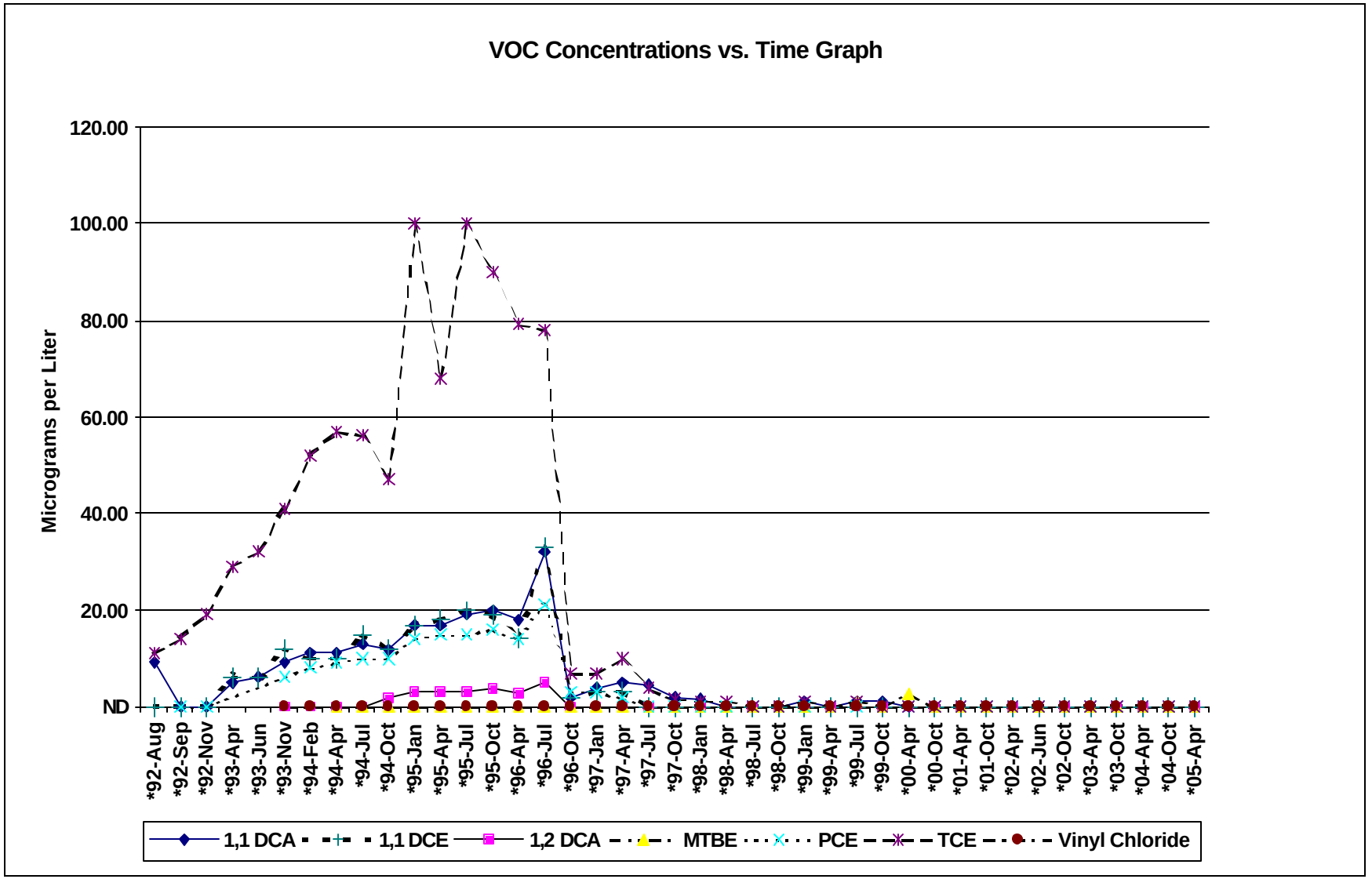
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-04(1)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



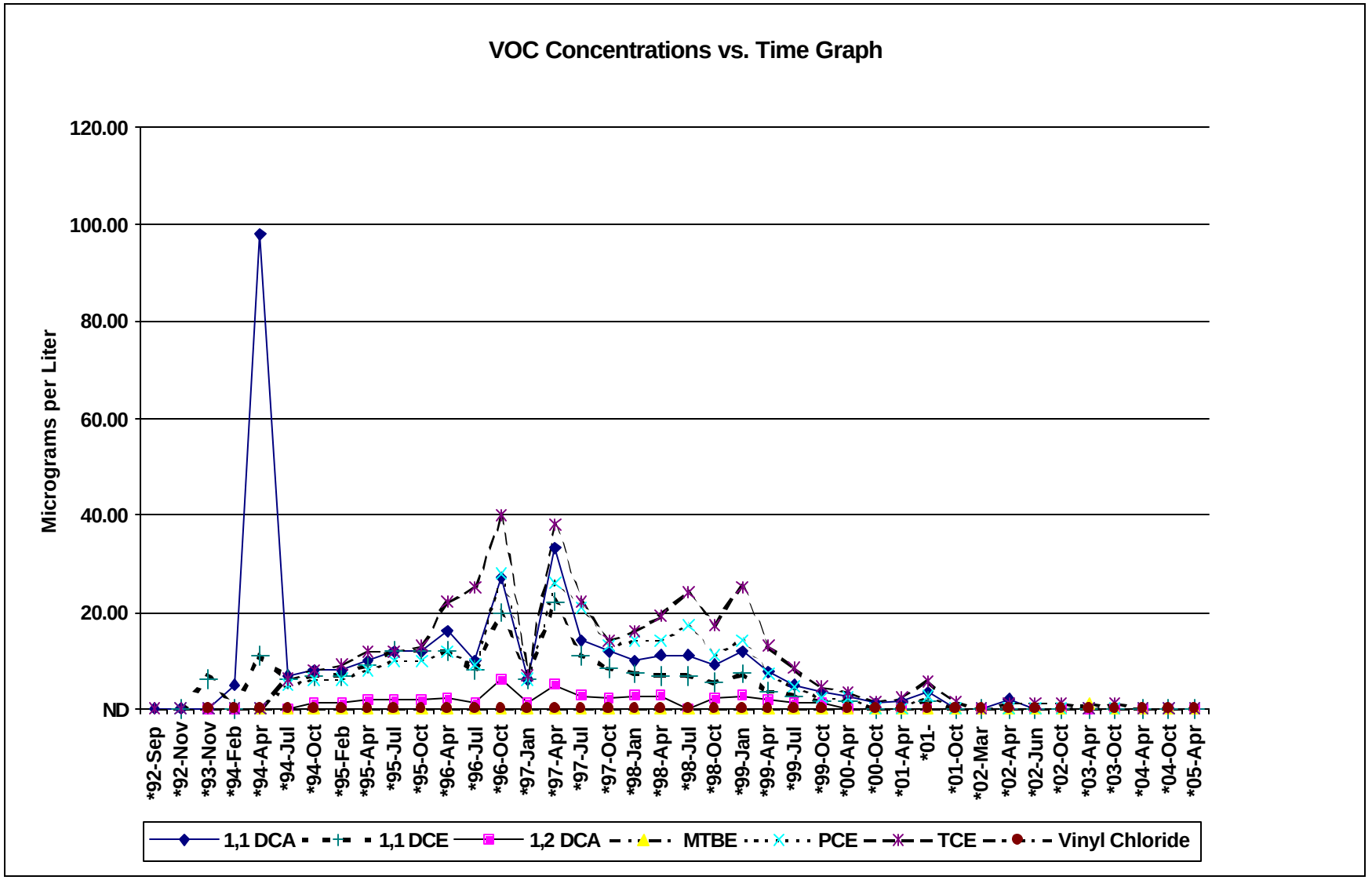
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-04(2)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



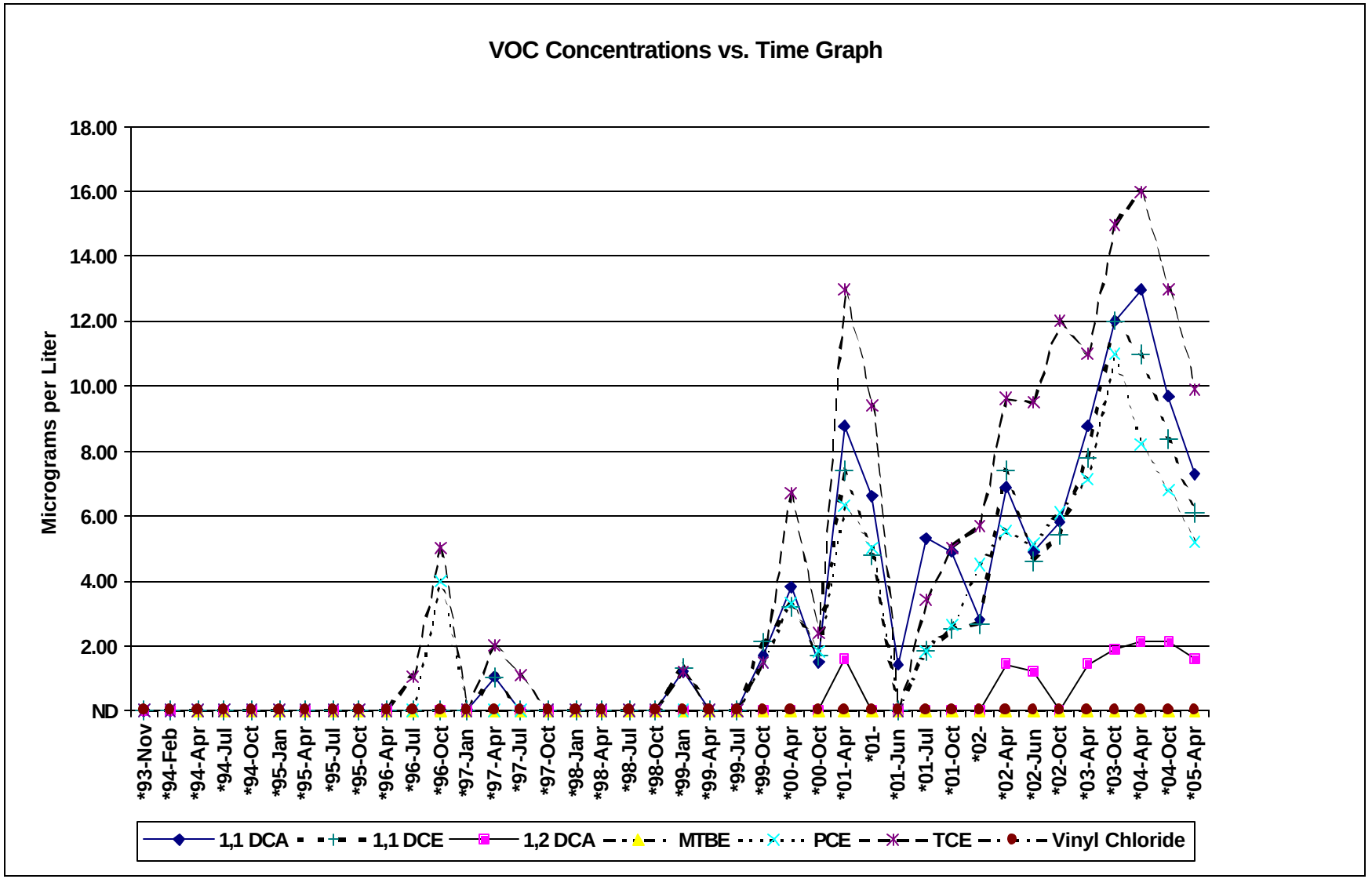
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-04(3)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



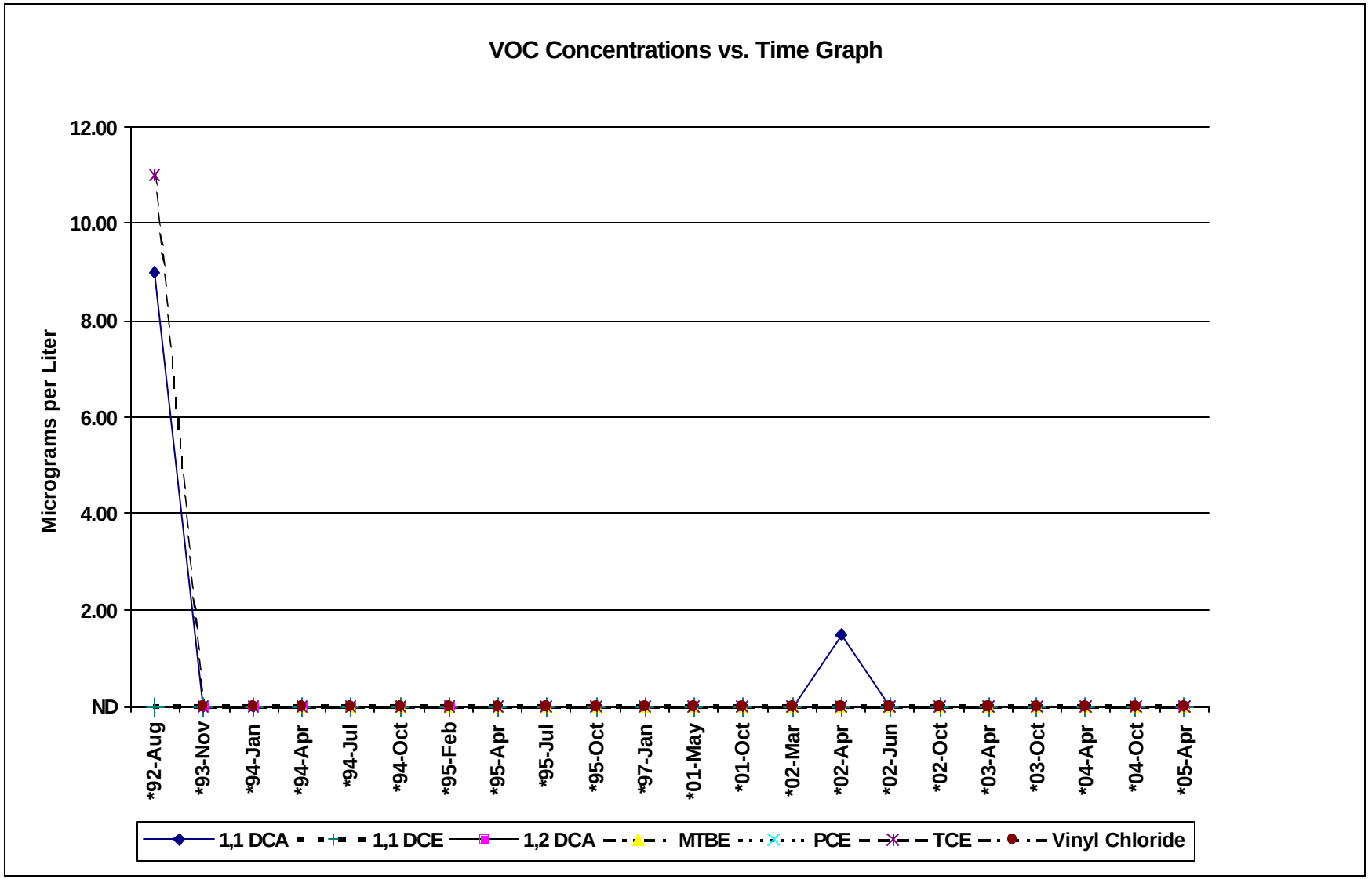
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-04(4)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



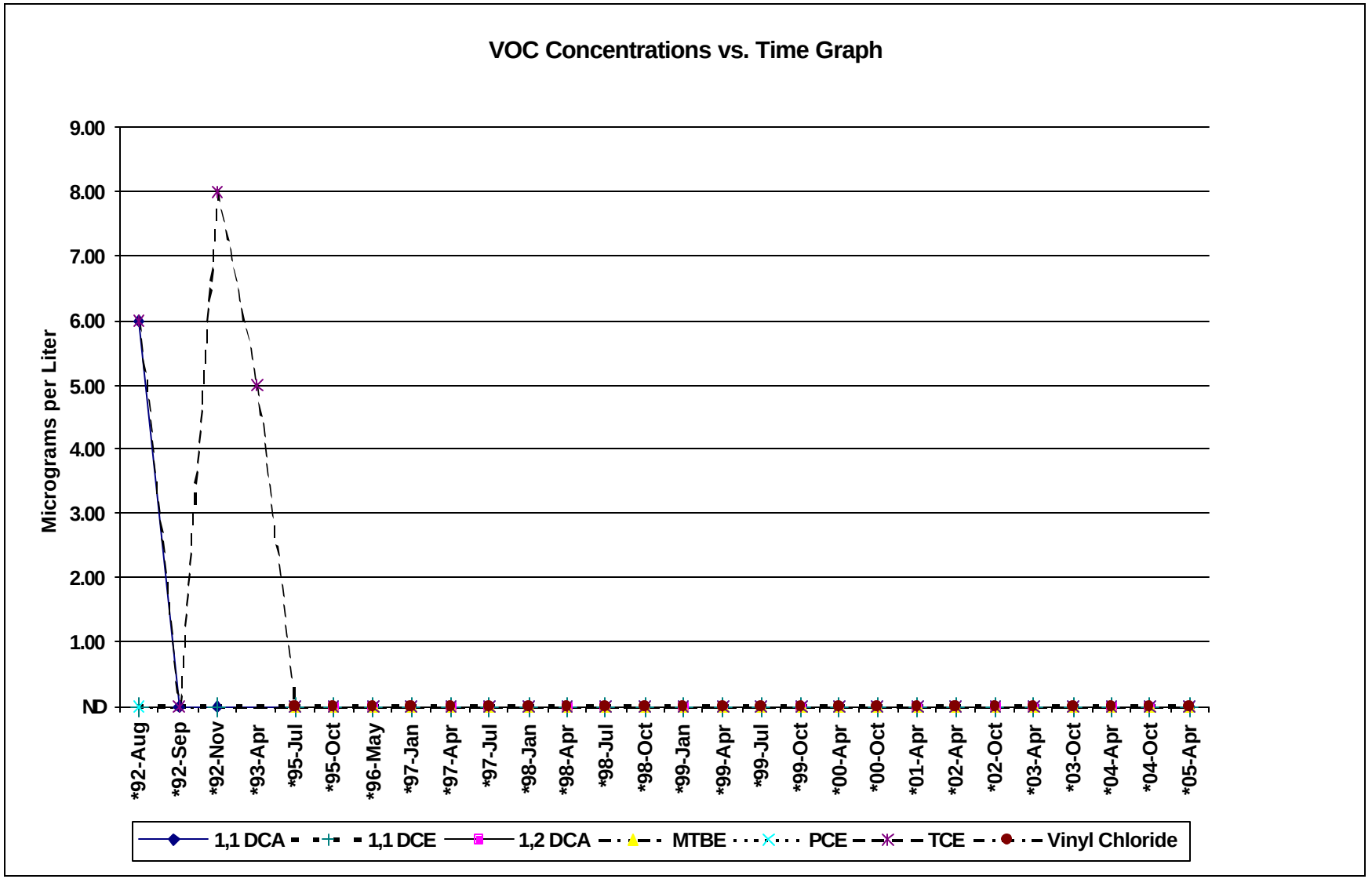
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-04(5)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



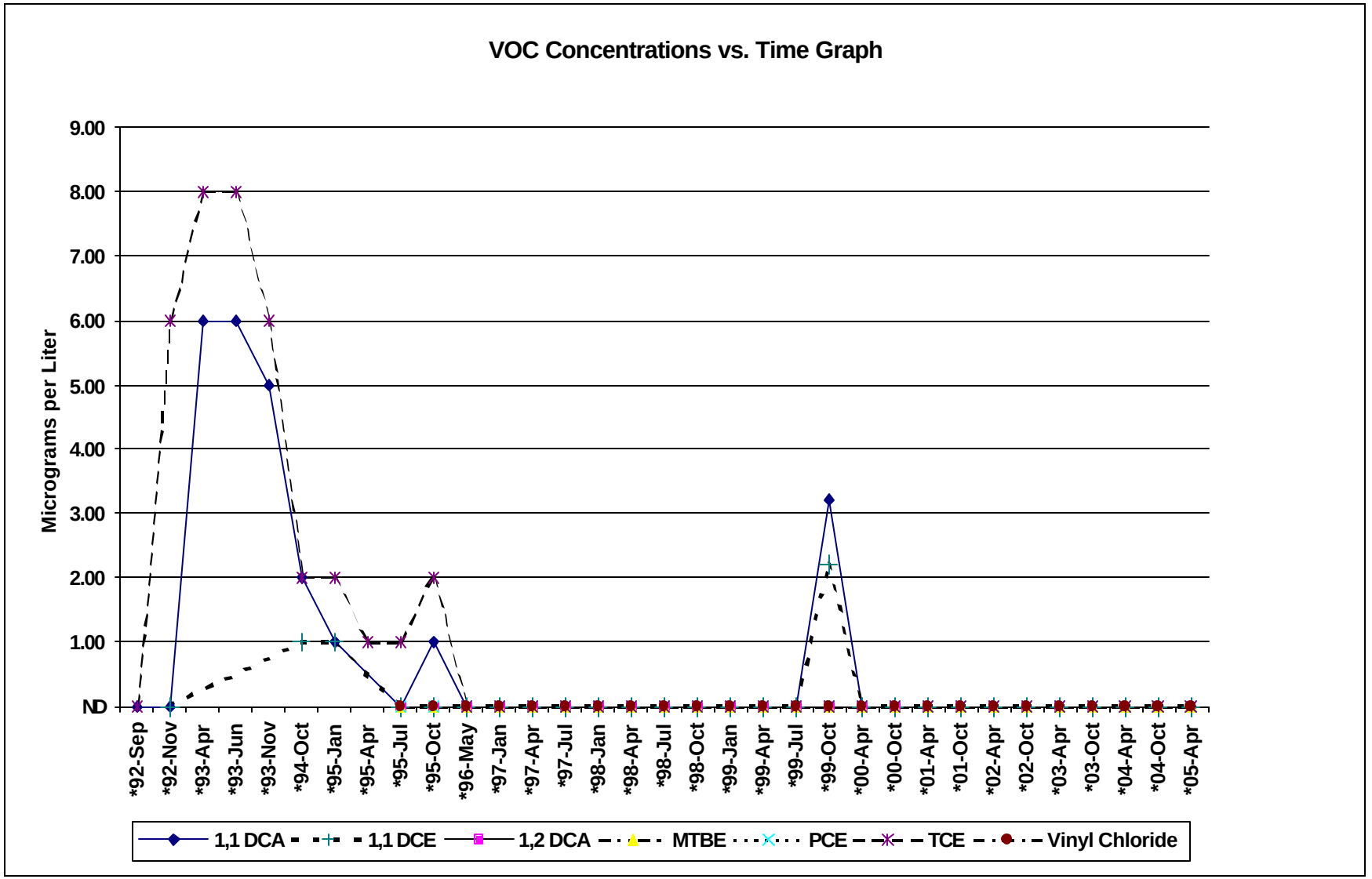
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-04(6)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



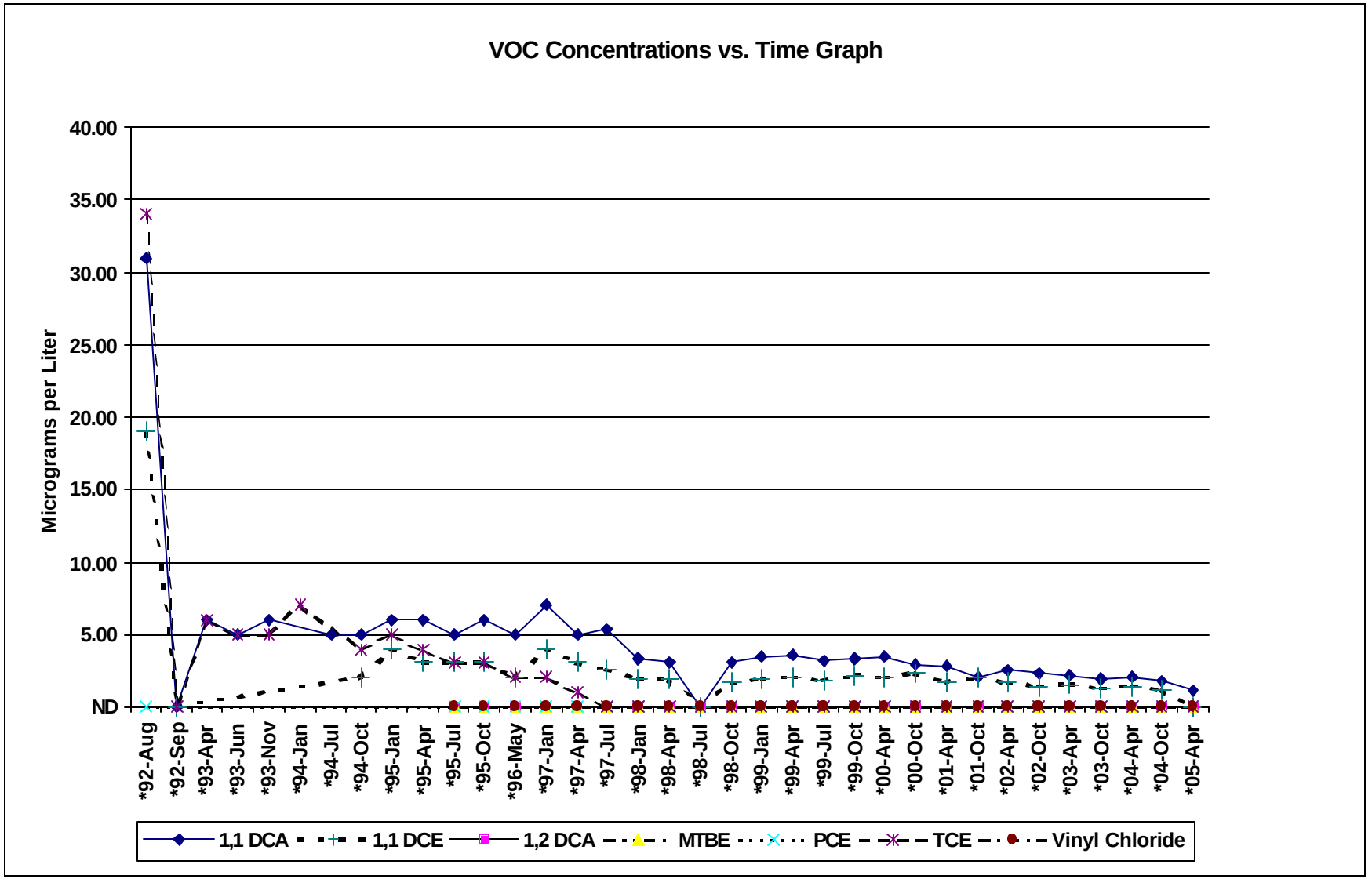
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-04(10)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



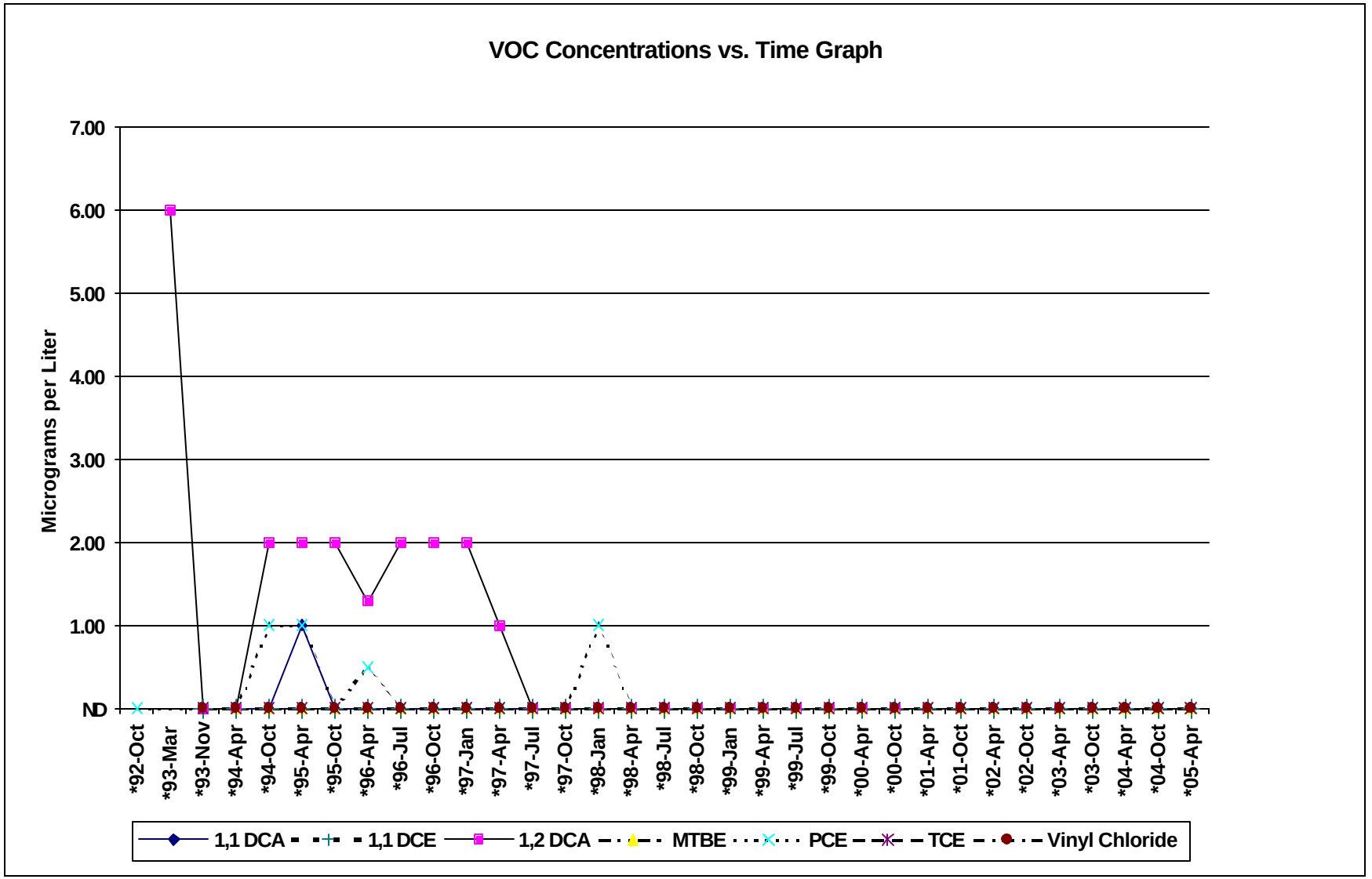
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-04(11)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



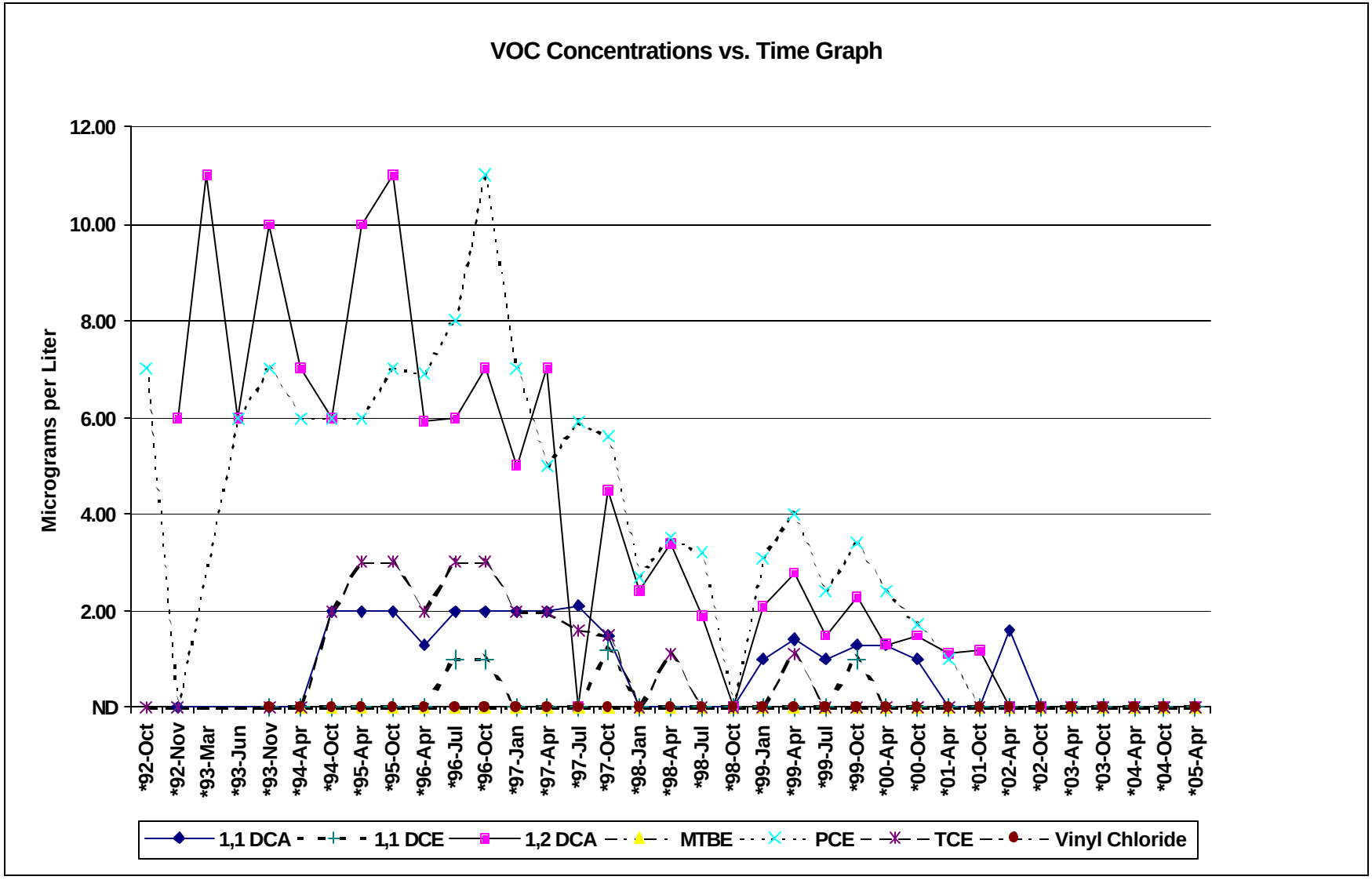
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-04(12)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



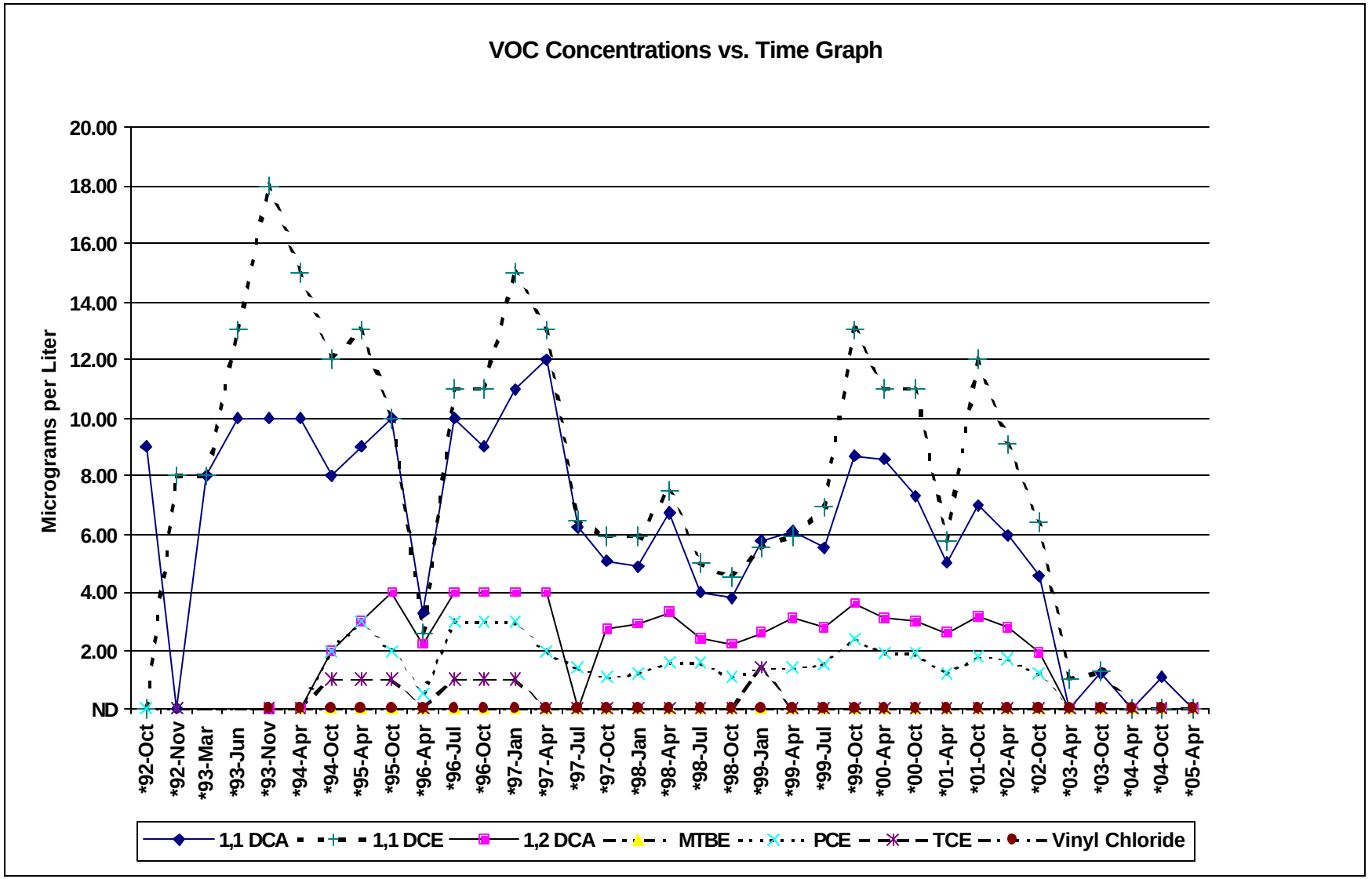
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-05(1)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



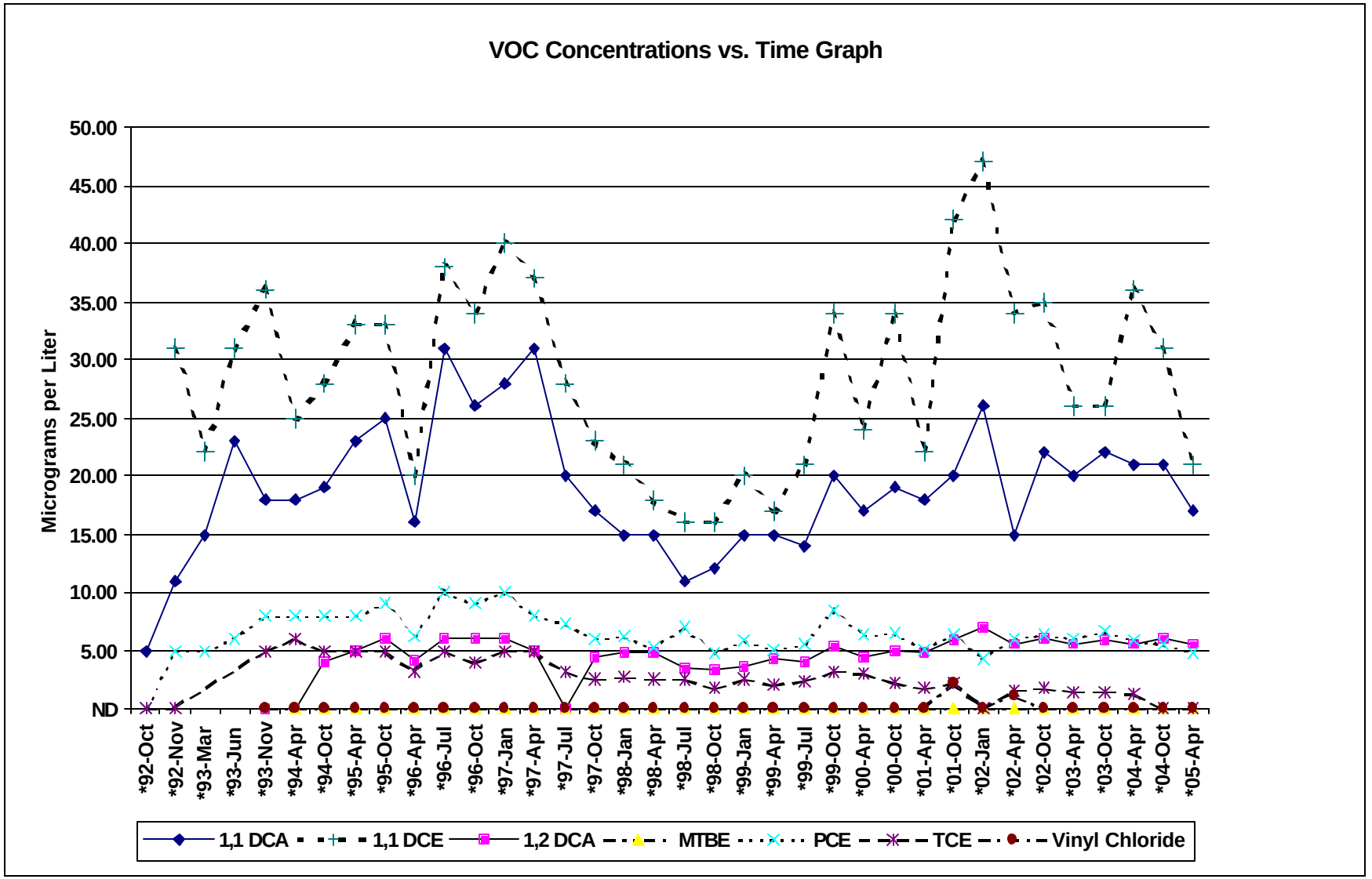
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-05(2)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



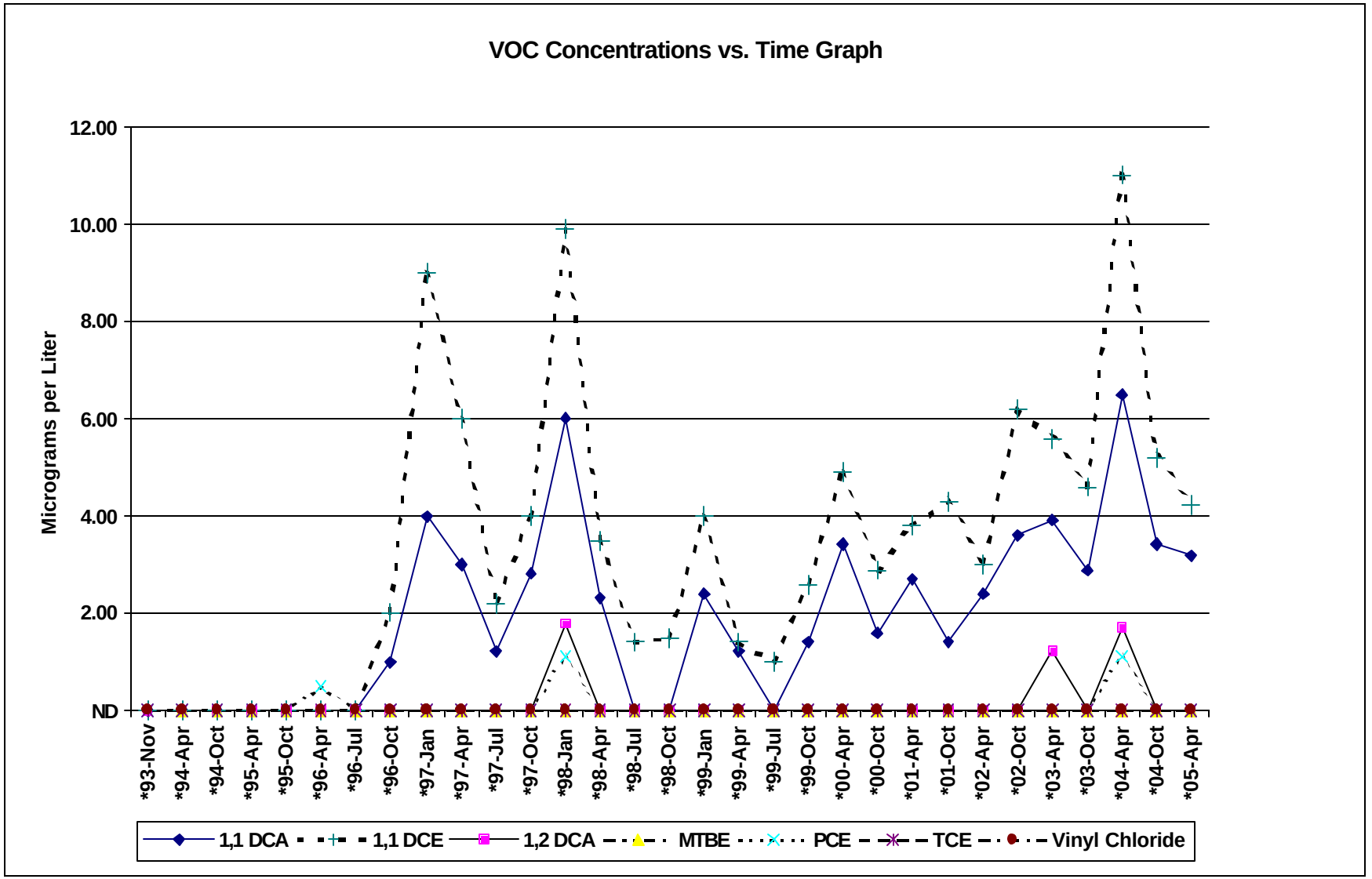
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-05(3)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



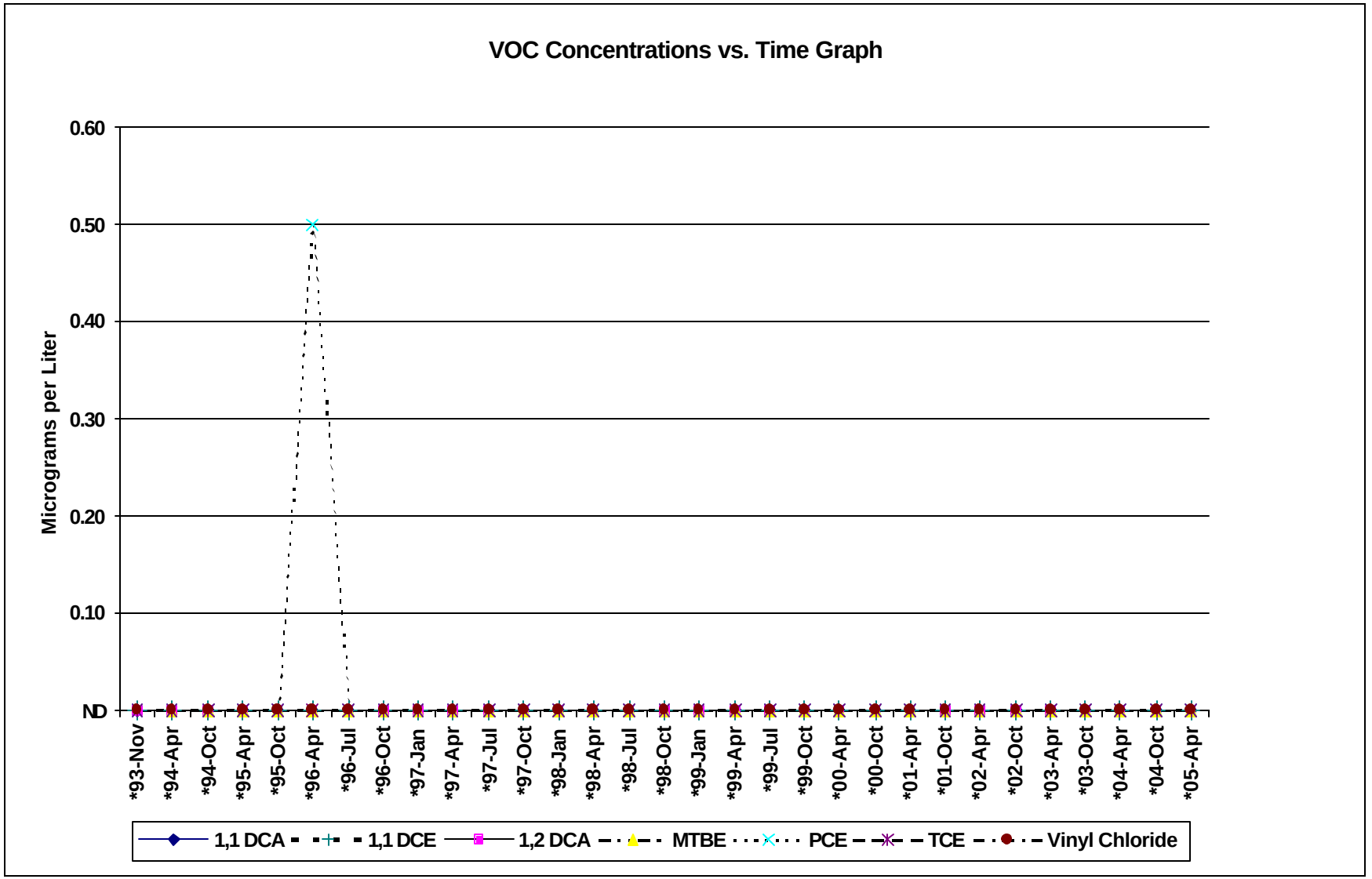
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-05(4)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



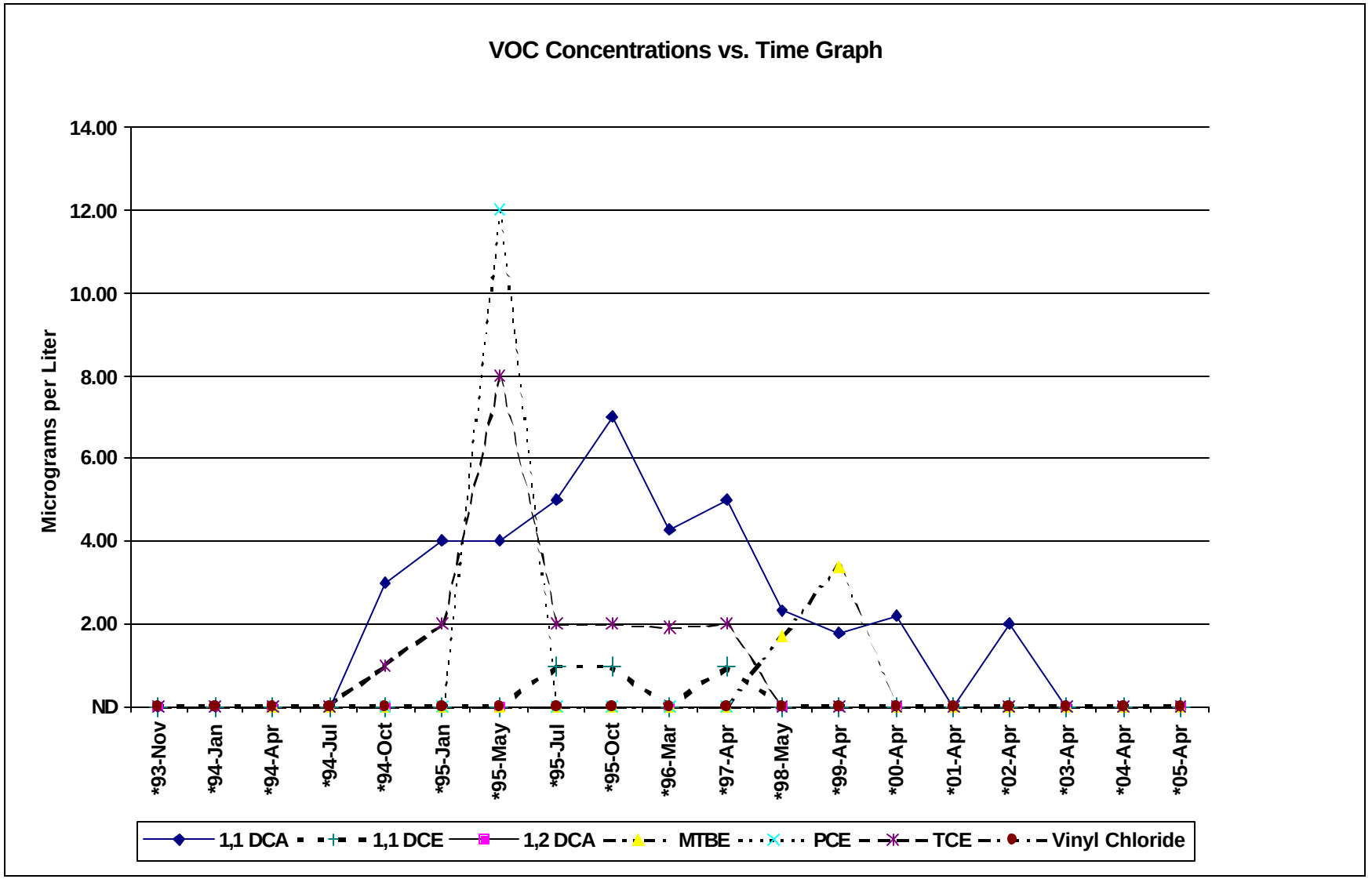
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-05(5)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



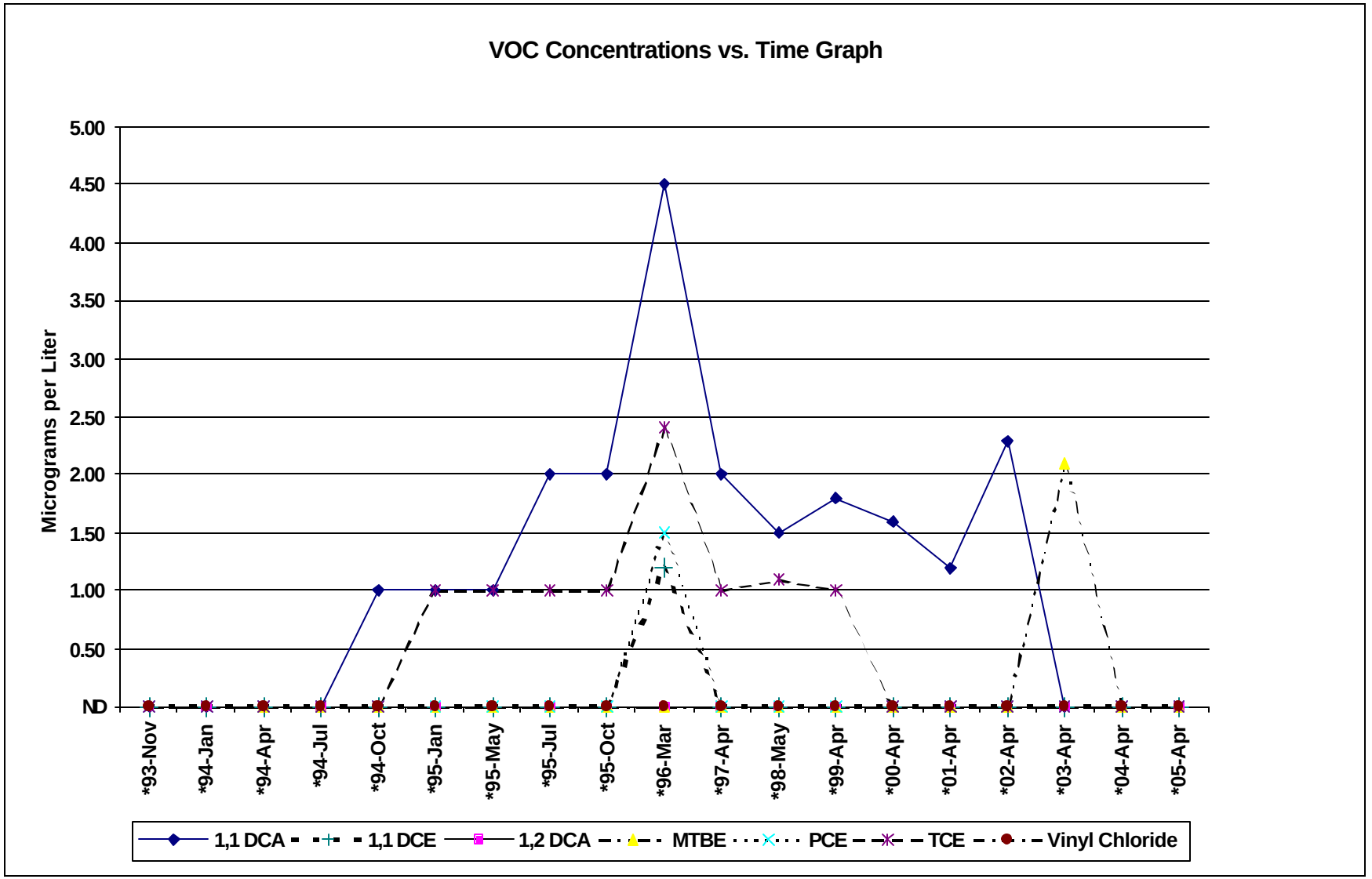
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-05(6)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



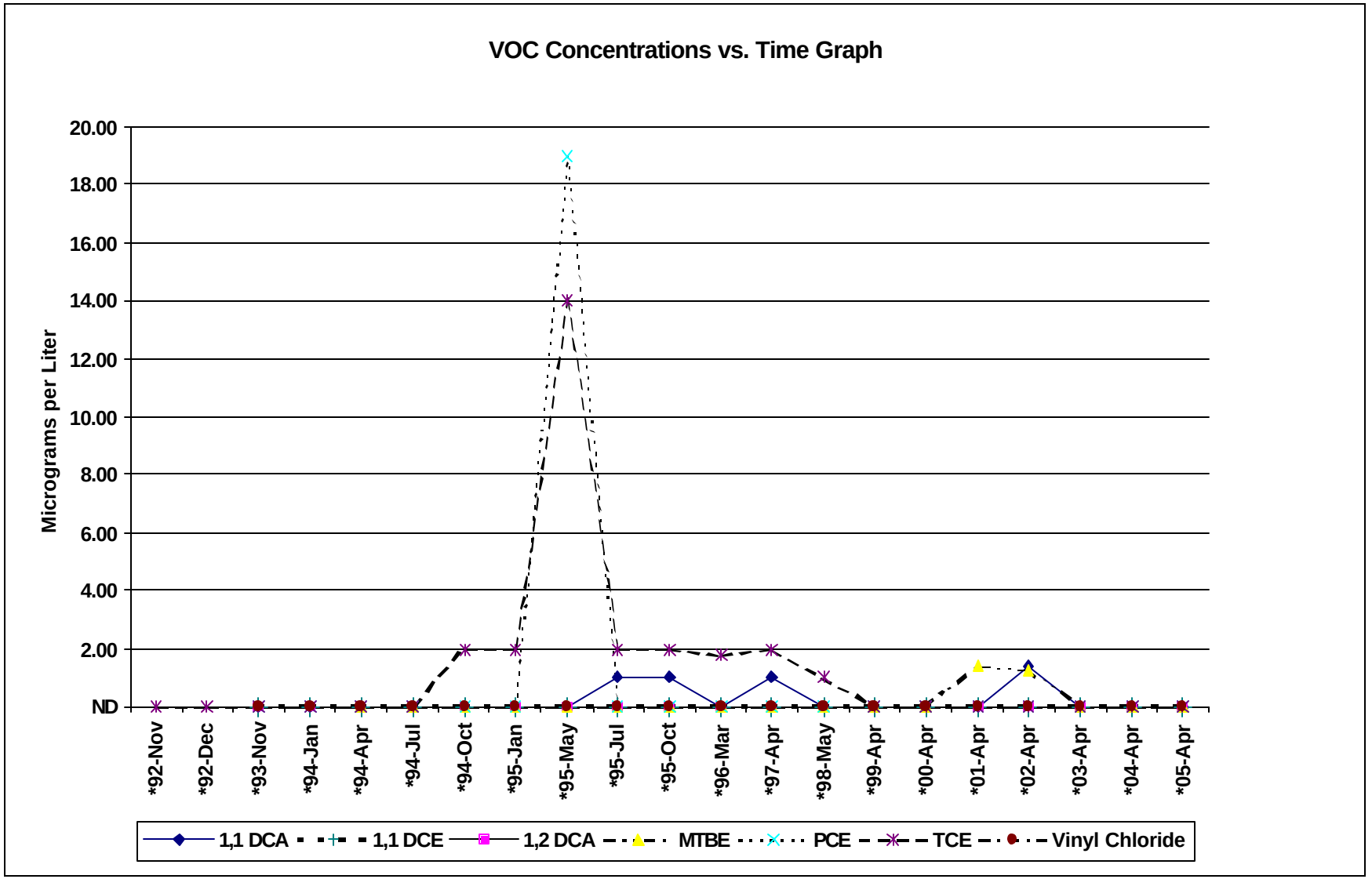
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-06(1)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



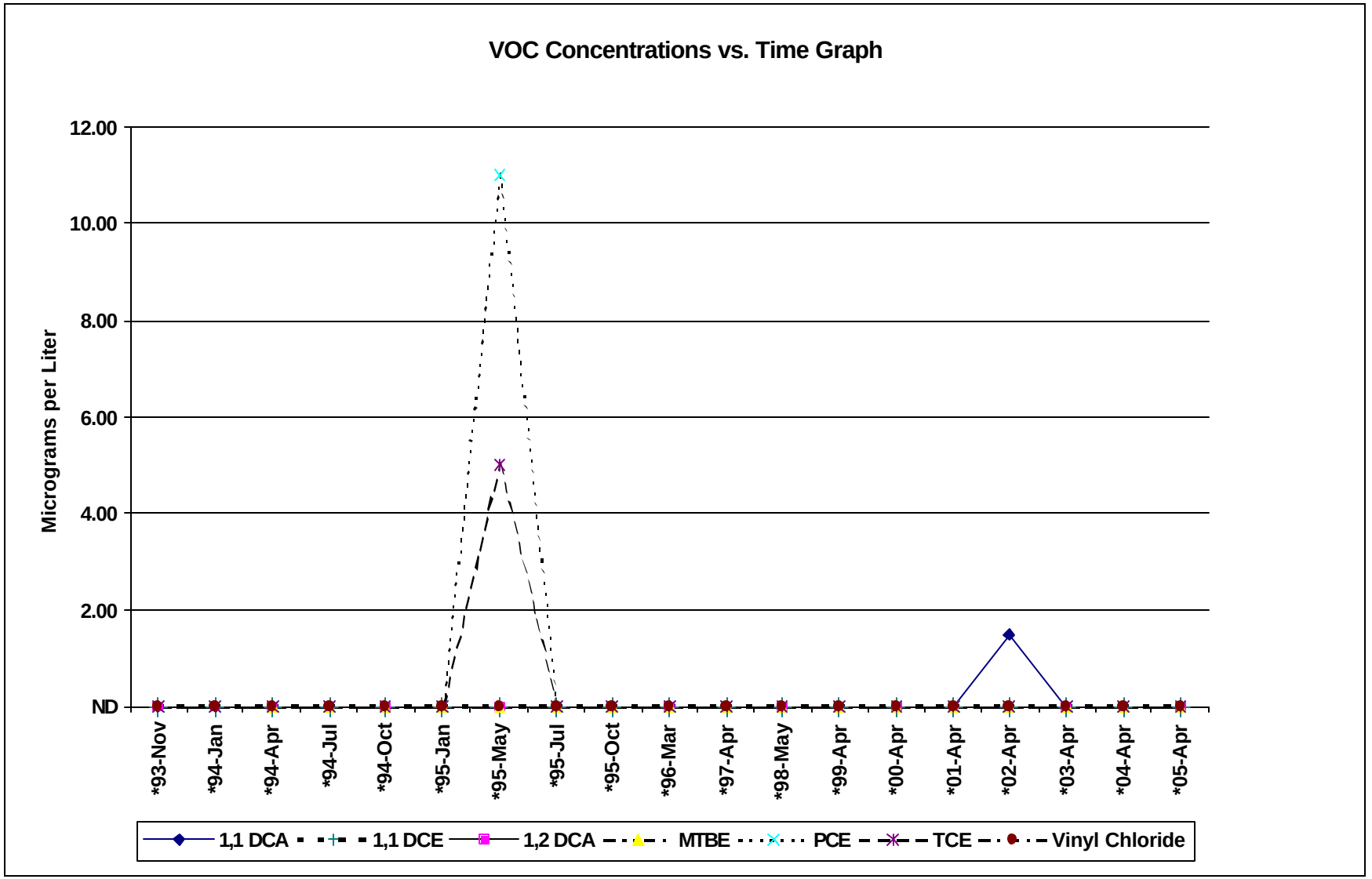
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-06(2)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



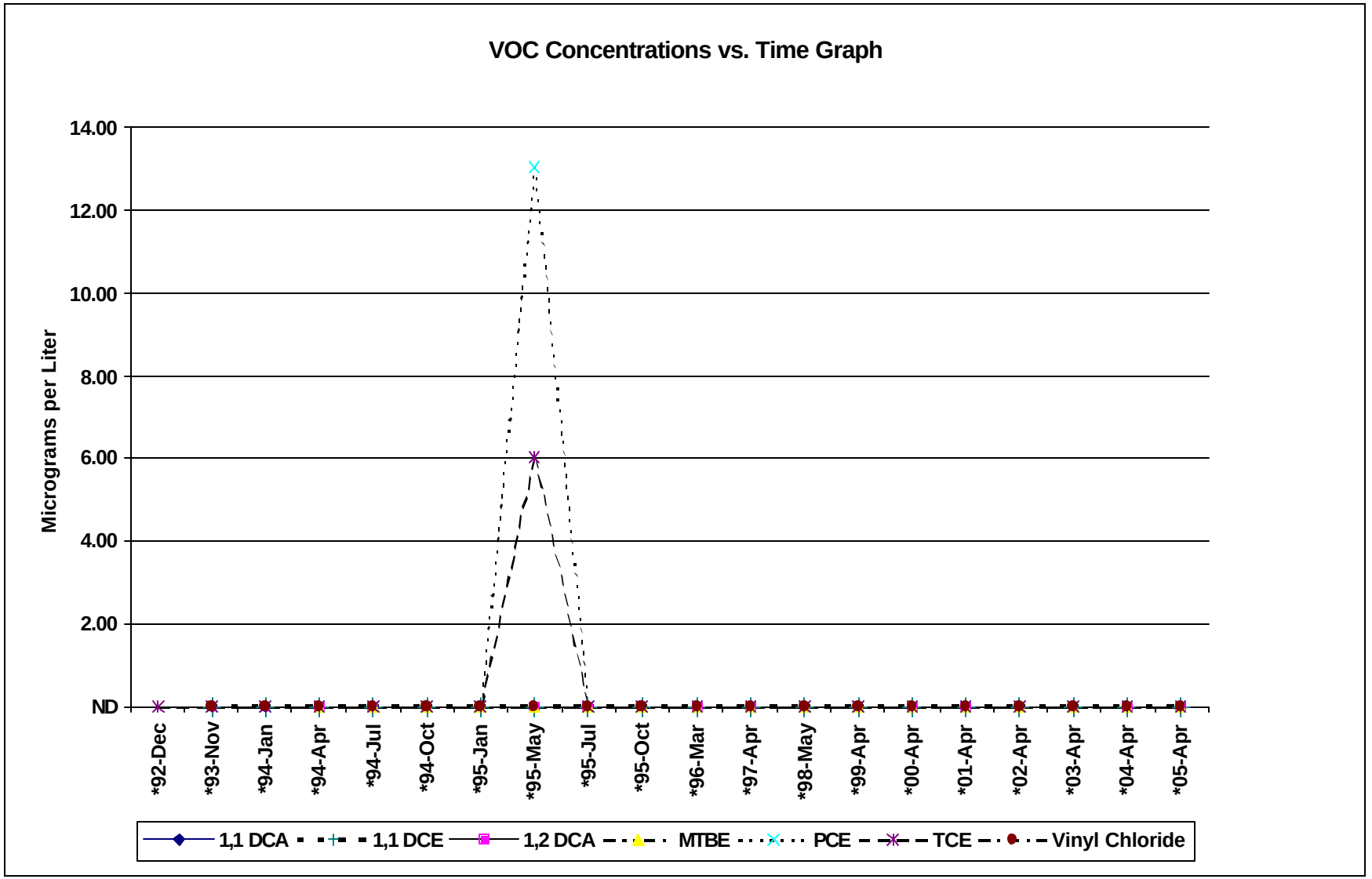
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-06(3)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



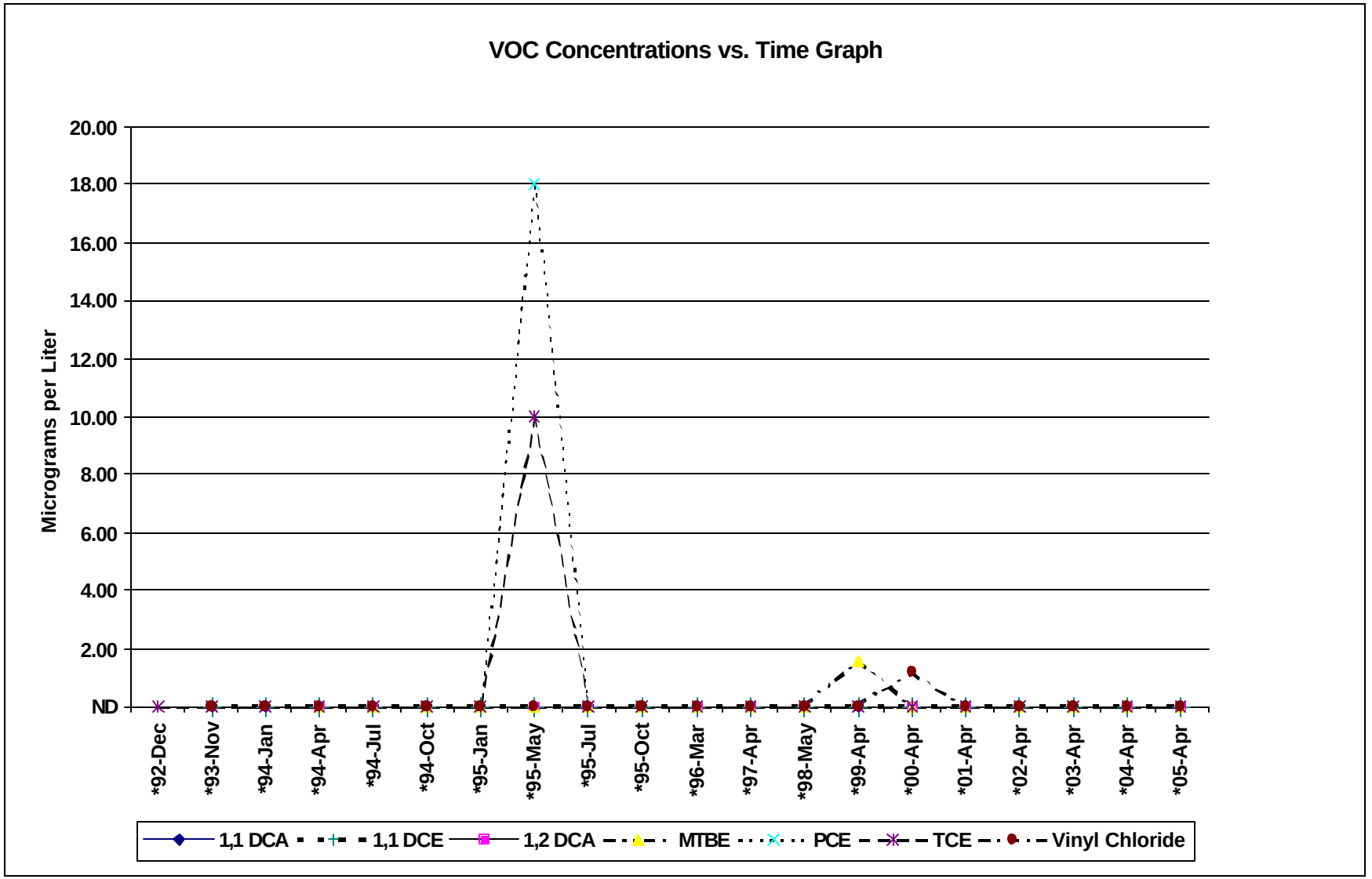
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-06(4)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



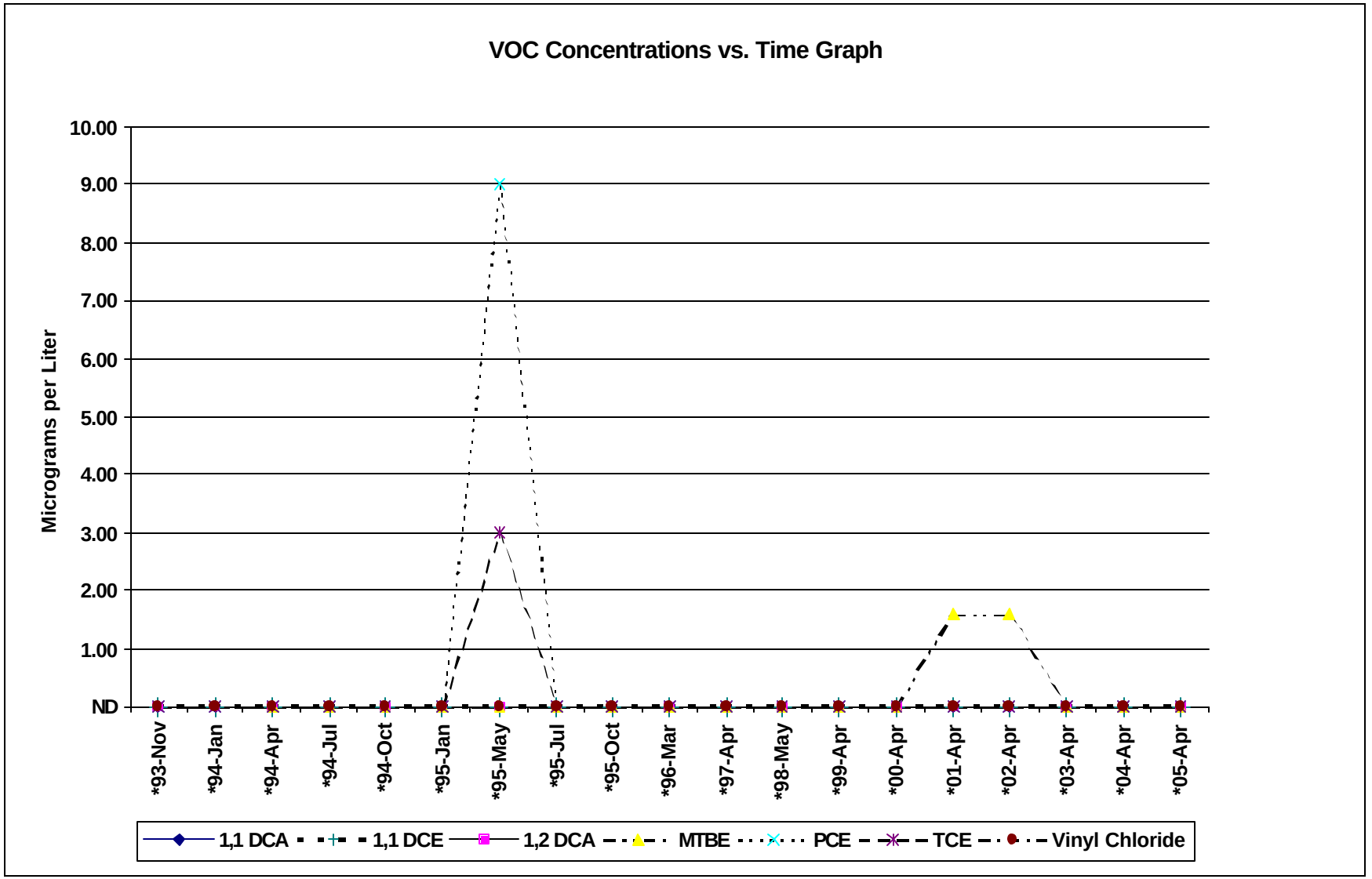
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-06(5)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



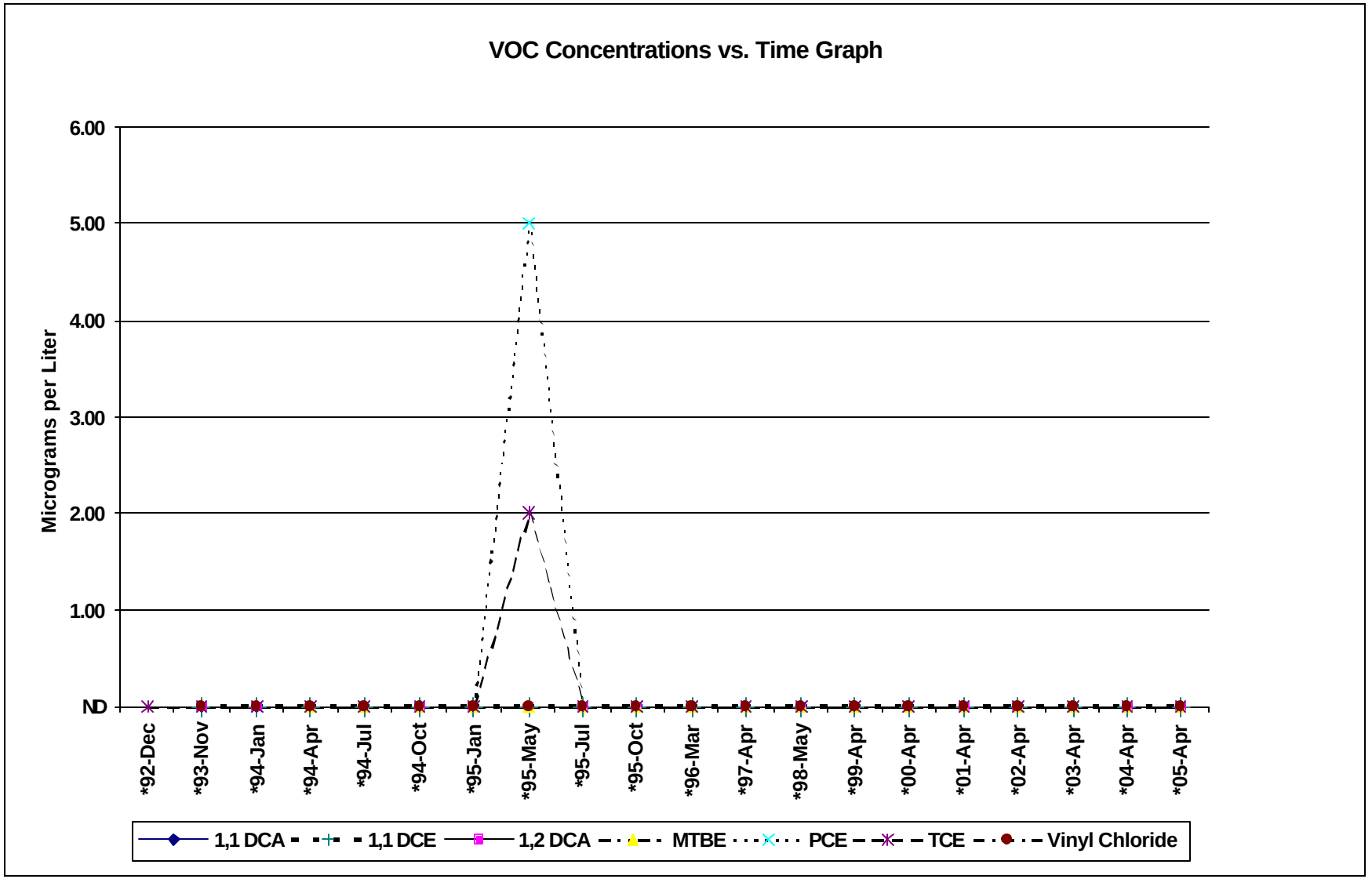
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-06(6)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



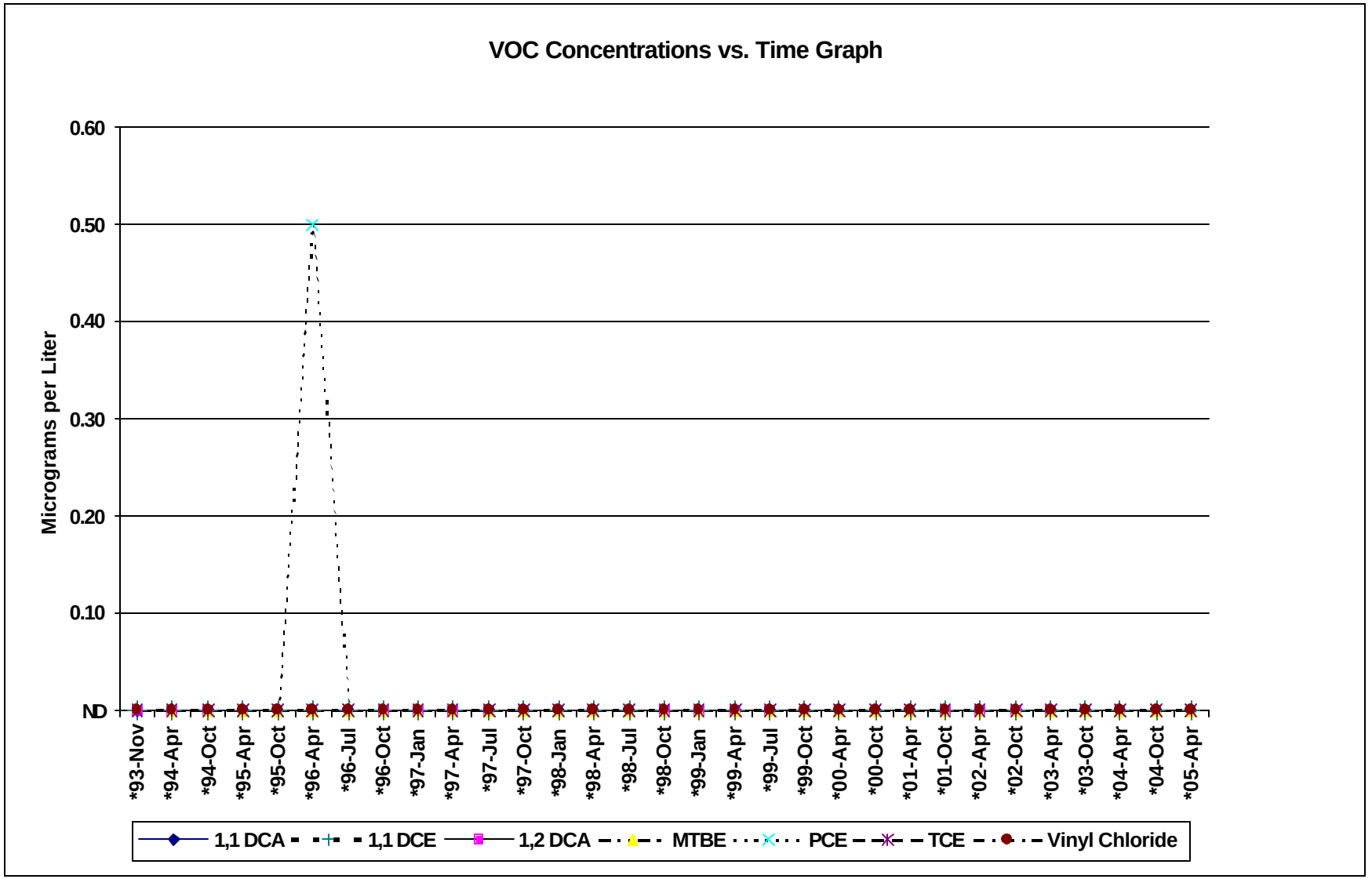
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-06(7)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



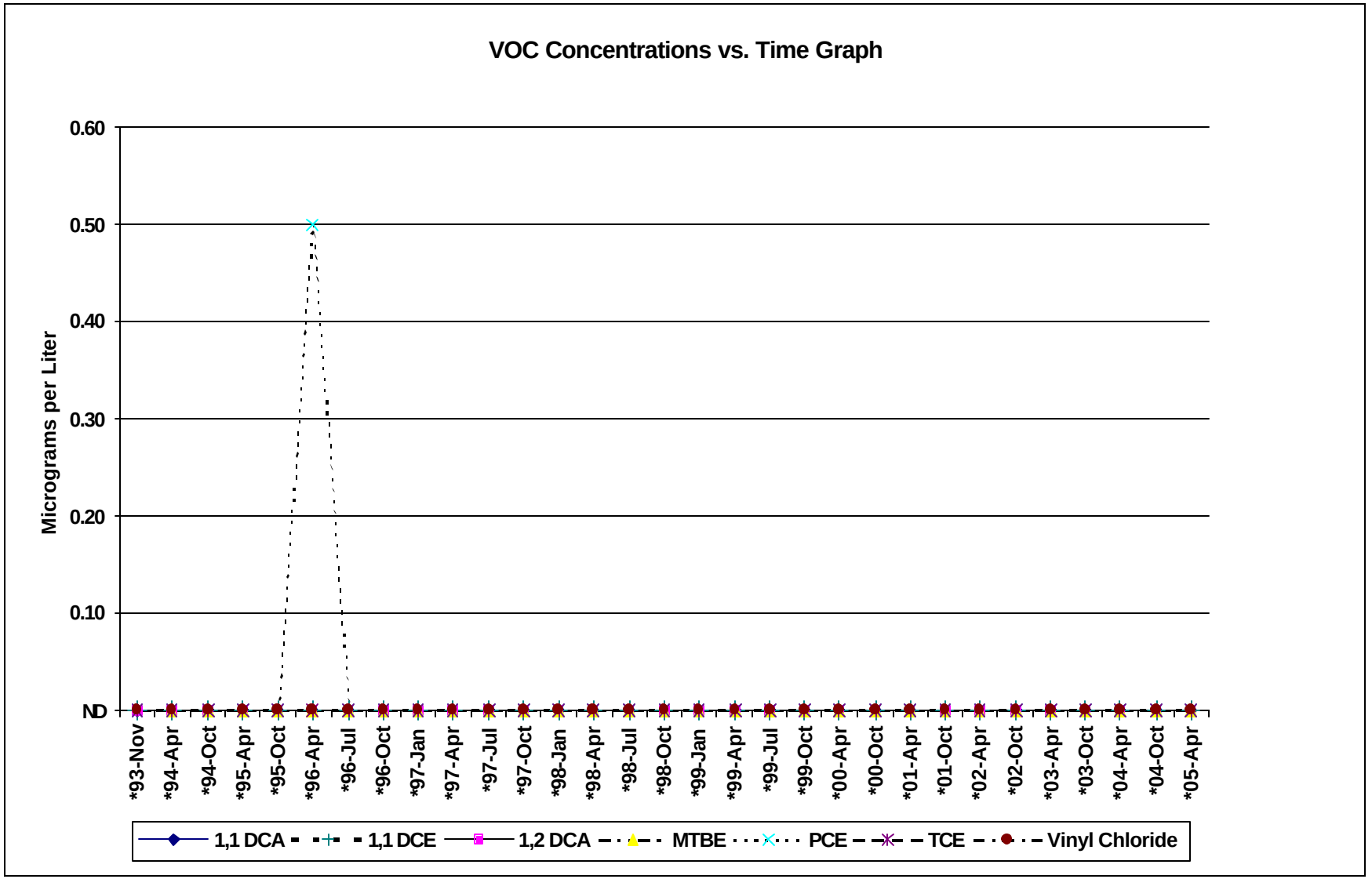
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-06(8)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



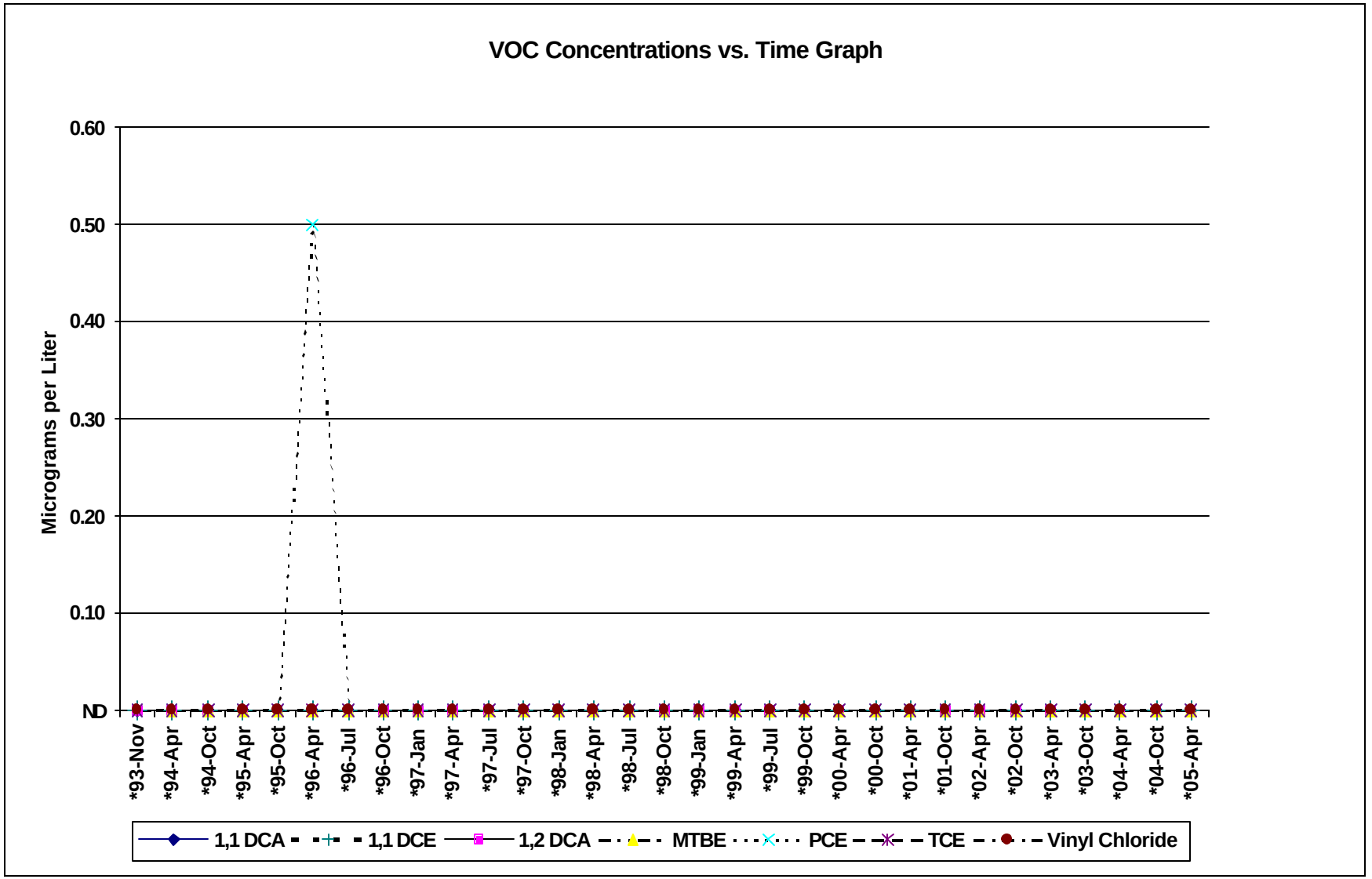
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-07(1)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



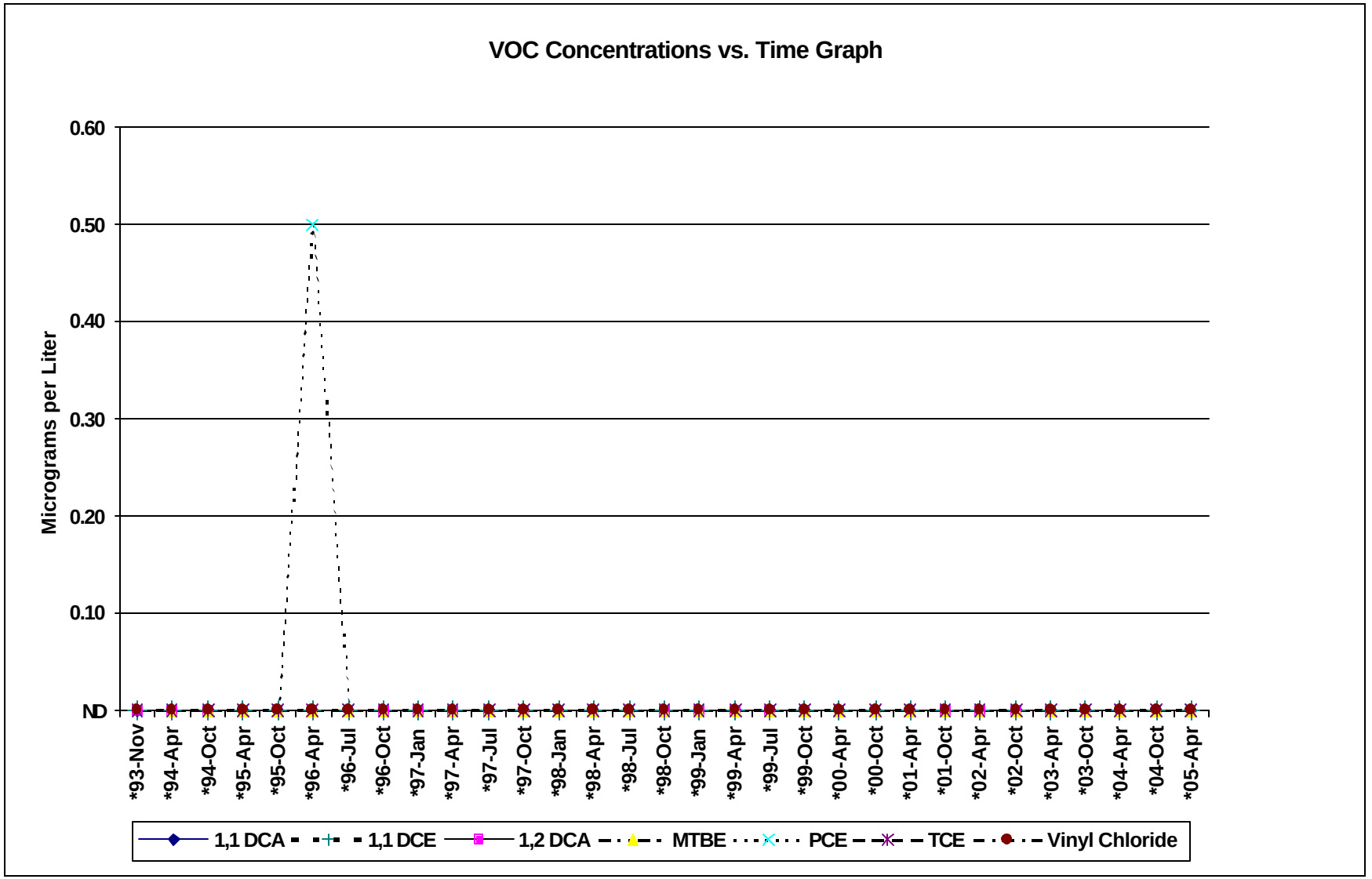
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-07(2)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



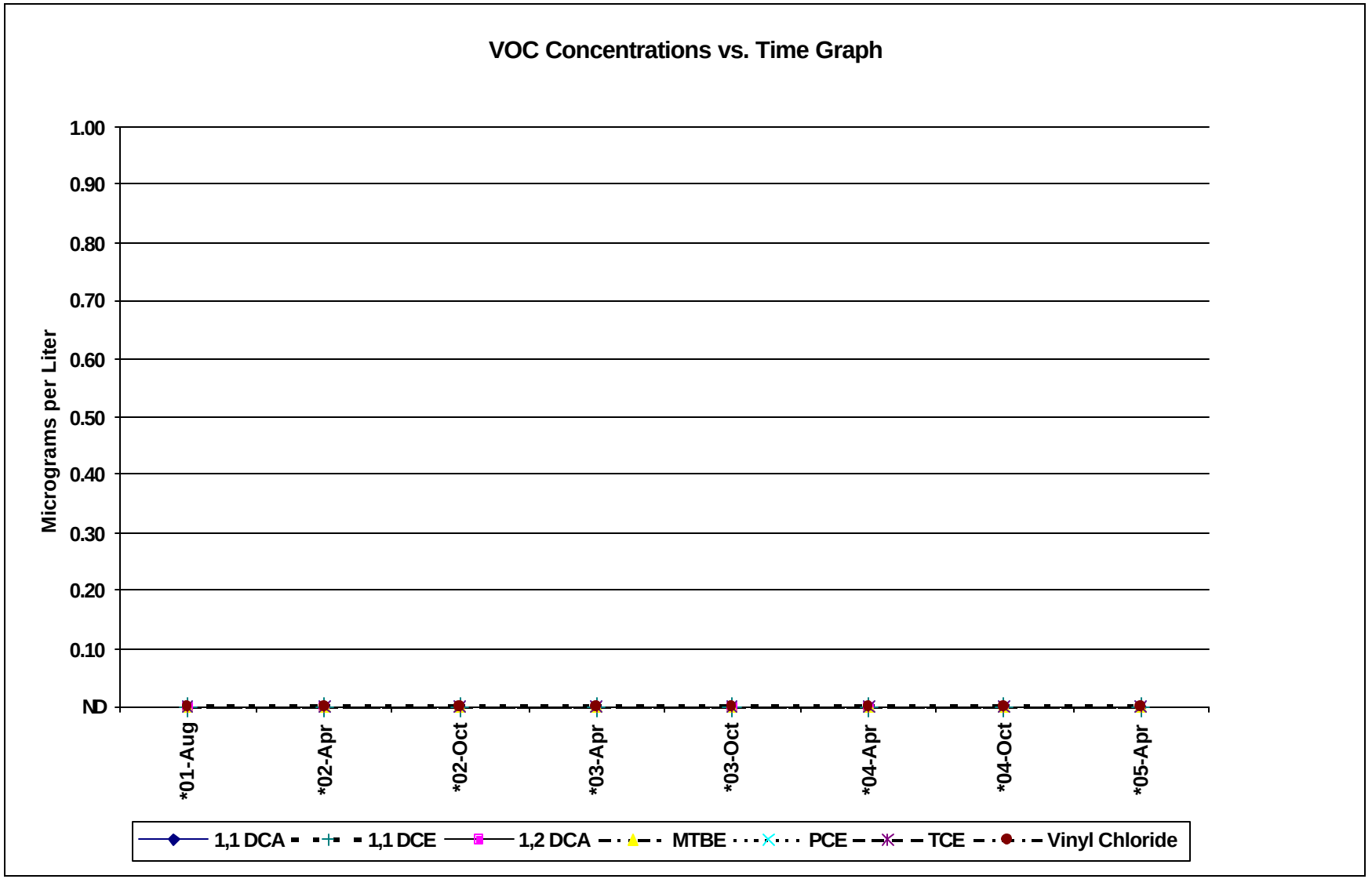
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-07(3)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-07(4)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



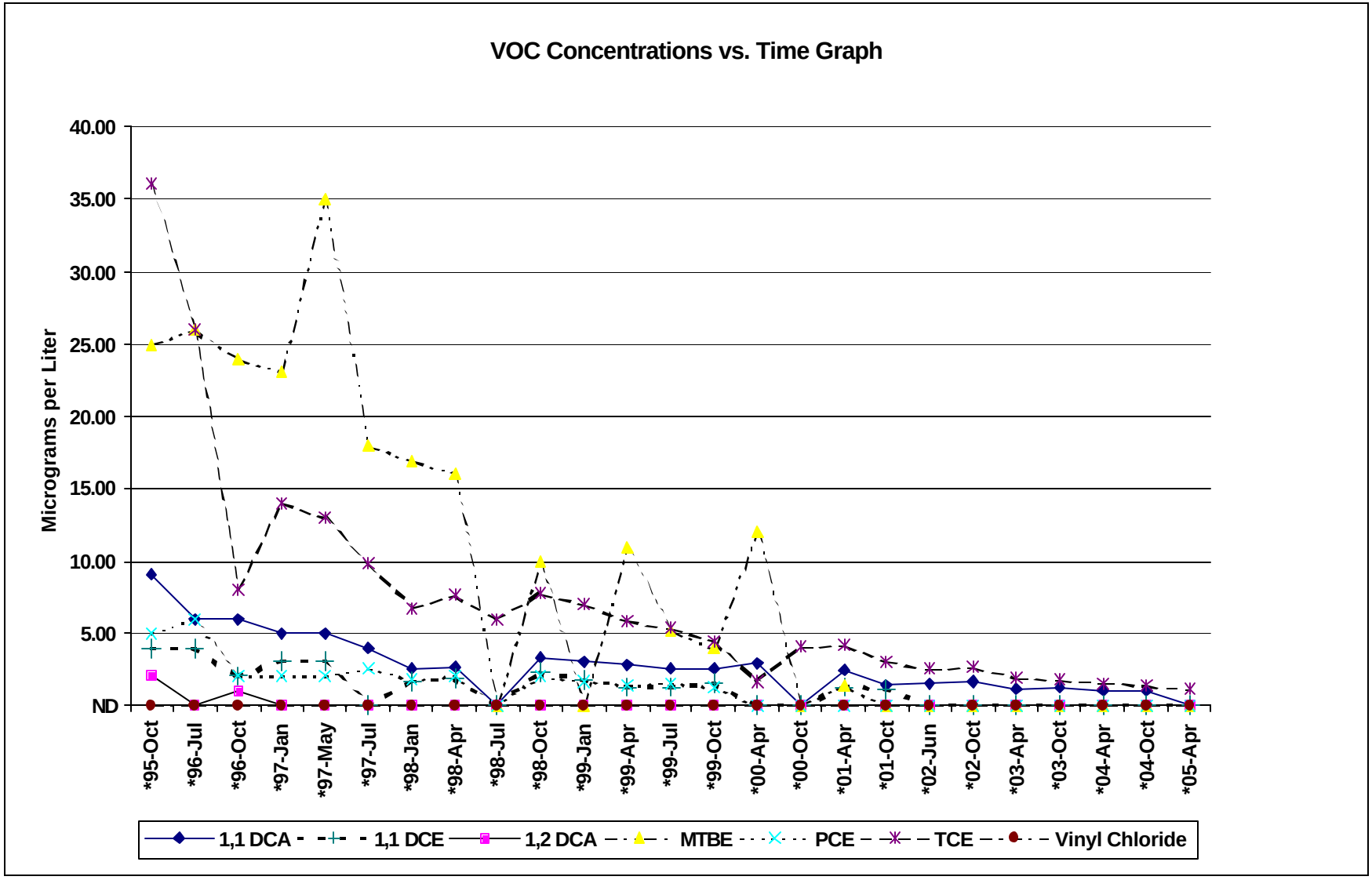
Appendix E2:Summary of Selected VOC Concentrations over Time - Westbay Monitoring Wells
WB-07(5)
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



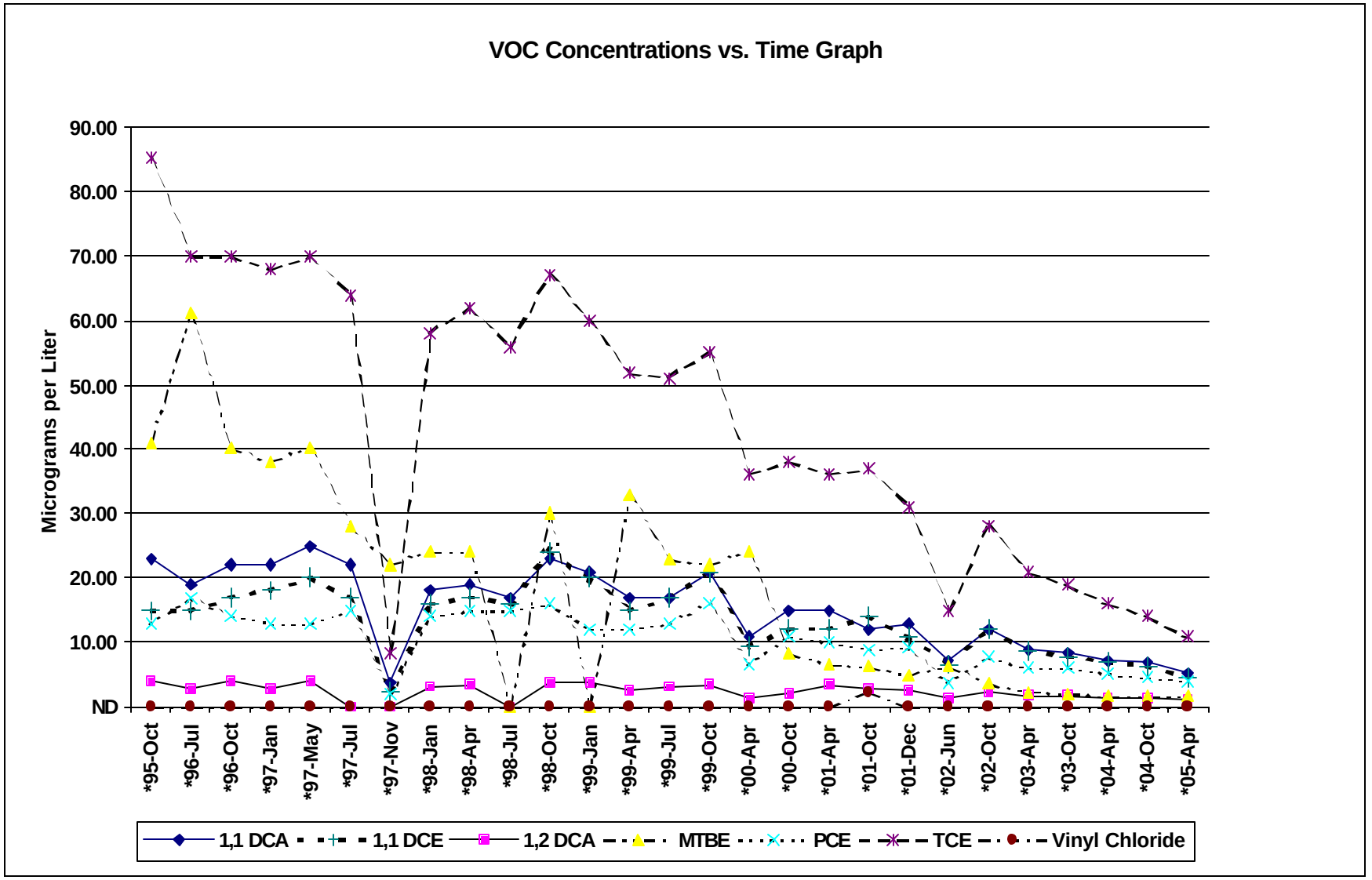
Appendix E-3

VOC Concentrations Over Time – Extraction Wells

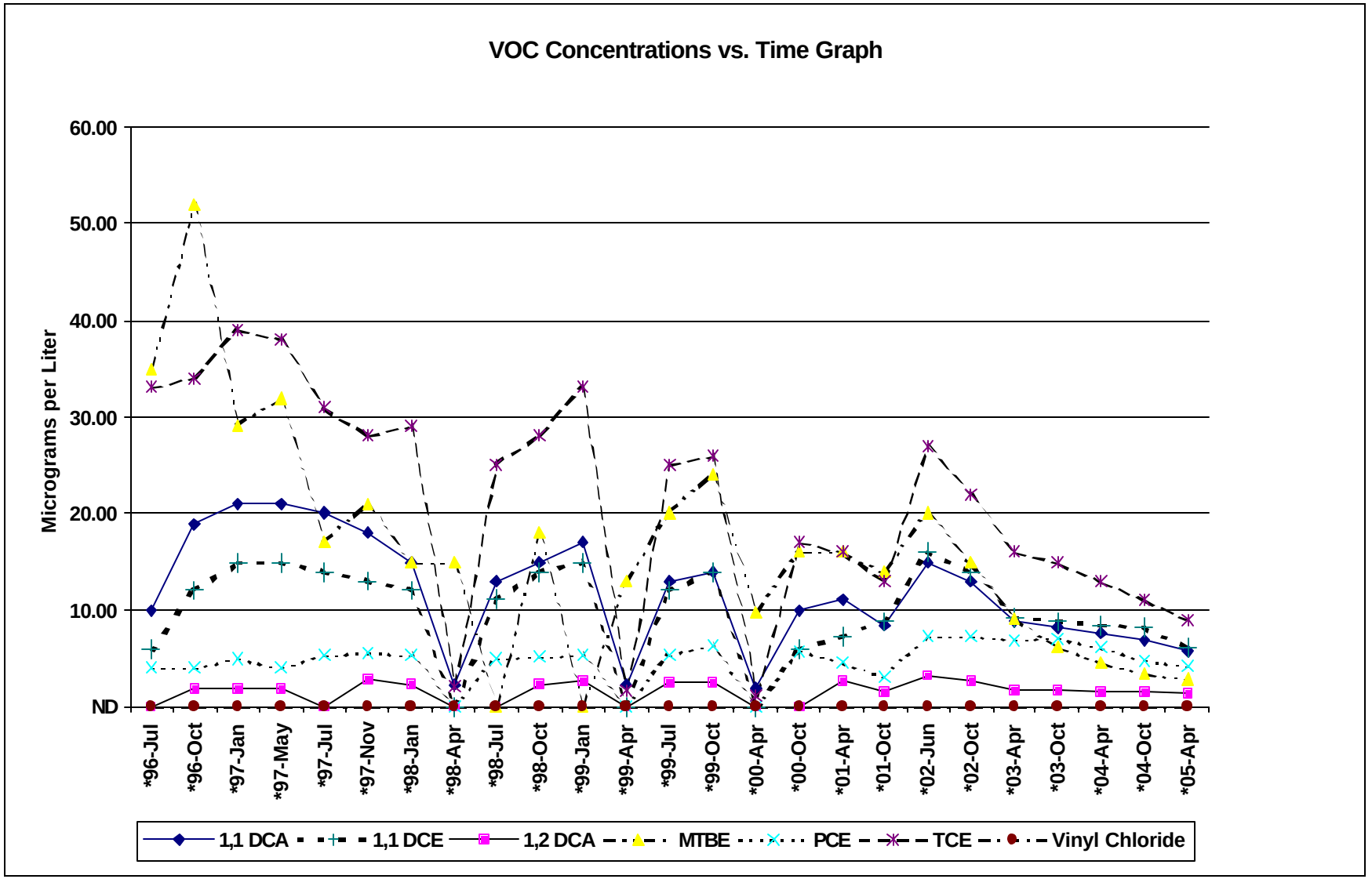
Appendix E3:Summary of Selected VOC Concentrations over Time - Extraction and Injection Wells
EW-001
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



Appendix E3:Summary of Selected VOC Concentrations over Time - Extraction and Injection Wells
EW-002
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



Appendix E3:Summary of Selected VOC Concentrations over Time - Extraction and Injection Wells
EW-003
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]



Appendix E3:Summary of Selected VOC Concentrations over Time - Extraction and Injection Wells
EW-004
Deep Zone Groundwater Remediation System
Former Air Force Plant 83/General Electric Operable Unit - Albuquerque, New Mexico
[Concentrations in Micrograms Per Liter (ug/l)]