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JUN 15 2009

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Dear Ms. Lee and Ms. Wells:

**SUBJECT: 2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS,
FORMER NAVAL AIR STATION MOFFETT FIELD, MOFFETT
FIELD, CA**

The Navy is pleased to submit the 2008 Annual Groundwater Monitoring Report for the West Side Aquifer Treatment System and the East Side Aquifer Treatment System.

If you have any questions, please contact Ms. Julie Crosby, Navy Remedial Project Manager, at (619) 532-0929.

Sincerely,

A handwritten signature in black ink, appearing to read "John Hill", written over a large, stylized flourish.

JOHN HILL
BRAC Environmental Coordinator
By direction of the Director

Enclosure: 1. 2008 Annual Groundwater Report for WATS and EATS, Former Naval Air Station Moffett Field, Moffett Field, California, 15 June 2009

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**Base Realignment and Closure
Program Management Office West
1455 Frazee Road, Suite 900
San Diego, California 92108-4310**

**CONTRACT NO. N62473-07-D-3220
CTO No. 0004**

FINAL
2008 ANNUAL GROUNDWATER REPORT
FOR WATS AND EATS
June 2009

DCN: SEST-3220-0004-0038

**FORMER NAVAL AIR STATION MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

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1455 Frazee Road, Suite 900
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MOFFETT FIELD, CALIFORNIA**

DCN: SEST-3220-0004-0038

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EXECUTIVE SUMMARY

The objective of this 2008 Annual Groundwater Report is to document and evaluate the progress of remedial actions performed during the 2008 calendar year at Installation Restoration (IR) Sites 26 and 28, within the former Naval Air Station (NAS) Moffett Field (Moffett), located adjacent to the City of Mountain View, California.

Impacted groundwater at Moffett occurs in two areas in the A aquifer, the west-side (IR Site 28) aquifers and the east-side (IR Site 26) aquifer. The westernmost air field taxiway on Moffett serves as a physiographic line separating IR Site 26 on the east from IR Site 28 on the west. Historical releases of chemicals to the subsurface have impacted both west-side and east-side aquifers with volatile organic compounds (VOCs), namely trichloroethene (TCE) and tetrachloroethene (PCE). The west-side aquifers are also affected by a regional plume of VOCs from the Region 9 U.S. Environmental Protection Agency (EPA)-lead Middlefield-Ellis-Whisman (MEW) Superfund site south of U.S. Highway 101, whereas the east-side aquifer is not.

IR Site 28 and WATS

The West-Side Aquifers Treatment System (WATS) is the IR Site 28 groundwater treatment system, located on the west-side of the runways near Hangar 1. WATS began operating in November 1998. The chemicals of concern (COCs) identified at IR Site 28 in the MEW Record of Decision (ROD) include chloroform, 1,2-dichlorobenzene (1,2-DCB), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethene (1,2-DCE), freon 113, phenol, PCE, 1,1,1-trichloroethane (1,1,1-TCA), TCE, and vinyl chloride (VC) (EPA 1989). WATS extracts groundwater from the upper portion of the A aquifer with six shallow-screened extraction wells and from the lower portion of the A aquifer with three deeper-screened extraction wells. WATS uses an advanced oxidation process and granular activated carbon (GAC) to treat groundwater.

During the 2008 reporting period, WATS operated 98.9 percent of the time. The volume of groundwater extracted, treated, and discharged during 2008 is approximately 36,110,149 gallons. The calculated mass of VOCs removed during 2008 is approximately 364.8 pounds. Total operation and maintenance (O&M) costs for 2008 are approximately \$760,644. The average cost per pound of contaminant removed in 2008 is \$1,085. In accordance with National Pollutant Discharge Elimination System (NPDES) Self-Monitoring Program, NPDES Permit Number (No.) CAG912003, Order No. R2-2004-0055, effluent samples were collected monthly and analyzed for VOCs and other permit-mandated constituents. All effluent samples were in compliance with discharge requirements.

Zinc was detected above the NPDES trigger limit in December 2007; however, zinc is not a COC at Moffett. Per the requirements of the NPDES permit, three rounds of samples were subsequently collected and analyzed. Based on the sample results, it was determined that zinc detections were below the NPDES trigger limit and that the discharge load for zinc was below the permitted volume. No further action was warranted.

Time series concentration graphs show decreasing or stable TCE concentration trends for A aquifer wells located downgradient of the WATS extraction wells. Potentiometric surface map interpretations, which are based upon a flow-net method of well pumping and capture analysis, indicate that the target capture zone was maintained throughout 2008. Decreasing or stable contaminant concentrations in downgradient wells combined with potentiometric evidence of hydraulic capture supports the conclusion that WATS is achieving complete hydraulic containment of the target contaminant capture zone.

Although WATS is functioning as intended, dissolved VOCs in the regional plume continue to migrate north into IR Site 28 with groundwater underflow from off-site areas. As long as contaminant flow continues to migrate into IR Site 28 from an upgradient source (south of U.S. Highway 101), the remedial objective will not be achieved.

IR Site 28 Groundwater Potentiometric Trends

Groundwater elevation trends in the vicinity of WATS for 2008 are similar to those observed during 2007. Most groundwater elevations continue to exhibit seasonal fluctuations. The high and low groundwater elevations typically occur at the end of the wet season (March) and dry season (November) measurement events, respectively.

Groundwater in the upper and lower portions of the A aquifer flows in a northerly direction across Moffett at a gradient of approximately 0.003 foot per foot (ft/ft) between U.S. Highway 101 and Hangar 1. The gradient in the general vicinity of Hangar 1 is affected by the WATS pumping; however, the overall flow is northerly from Hangar 1 toward the National Aeronautics and Space Administration (NASA) Ames research center at a gradient of approximately 0.006 ft/ft.

IR Site 28 Groundwater Analytical Trends

Analytical data collected from wells in November/December 2008 indicates that there have been some changes in the shape and/or extent of the TCE, cis-1,2-dichloroethene (cis-1,2-DCE), PCE, and VC plumes in the upper and lower portions of the A aquifer since 2007. These changes are generally due to the sampling of additional monitoring wells by the U.S. Department of the Navy (Navy) and MEW companies in 2008.

TCE and cis-1,2-DCE made up approximately 95.7 percent of the mass removed by WATS in 2008. Sampling analytical data from monitoring wells located in areas considered representative of WATS groundwater contamination exhibit long-term trends of decreasing or stable TCE concentrations (88 percent of evaluated wells in the upper portion of the A aquifer and 90 percent of evaluated wells in the lower portion of the A aquifer). Groundwater samples from monitoring wells evaluated for long-term trends have decreasing or stable cis-1,2-DCE concentrations (92 percent in the upper portion of the A aquifer and 80 percent in the lower portion of the A aquifer).

IR Site 26 and EATS

The East-Side Aquifer Treatment System (EATS) is the IR Site 26 groundwater treatment system, located on the east side of the runways, northeast of Hangar 3. The COCs identified in the Operable Unit (OU) 5 ROD include TCE, 1,2-DCE, PCE, VC, 1,1-DCE, and 1,2-dichloroethane (1,2-DCA) (Navy 1996). EATS began operating in January 1999. Prior to its shutdown in July 2003, EATS processed 67,050,786 gallons of extracted groundwater and removed 23.65 pounds of VOCs. EATS treated groundwater extracted from five wells completed in the upper A aquifer using a combination of an air stripper and GAC. EATS was taken off-line in July 2003 to evaluate plume stability, COC rebound, natural attenuation, and the efficiency of Hydrogen Release Compound[®] in remediating plume hot spots. EATS remained off-line for the entire 2008 reporting period.

IR Site 26 Groundwater Potentiometric Trends

The groundwater elevation trends across IR Site 26 for 2008 are similar to those observed during 2007. The groundwater elevations in most monitoring wells exhibit seasonal fluctuations. The high and low groundwater elevations typically occur during the end of the wet season (March) and dry season (November) measurement events, respectively.

IR Site 26 groundwater in the upper portion of the A aquifer flows in a northerly direction. North of the intersection of Marriage Road and Macon Road, the hydraulic gradient is approximately 0.002 ft/ft. South of the intersection, the gradient is approximately 0.003 ft/ft.

IR Site 26 Groundwater Analytical Trends

TCE concentrations for groundwater samples collected from some monitoring wells in 2008 decreased relative to 2007, while cis-1,2-DCE concentrations in samples collected from the same wells increased.

The 2008 VOC plume shapes were determined to be stable based on a comparison to previous years. The plumes have not shifted or changed shape. PCE and other COCs are predominantly

detected in groundwater samples collected from wells located within the boundaries of the TCE plume and coincide with the higher TCE concentrations.

PLANNED ACTIVITIES

With respect to IR Site 28, O&M of WATS will continue in 2009. The base-wide water level gauging events will be conducted in March and November 2009 and coordinated with the MEW companies and NASA as part of continued regional plume monitoring efforts. WATS maintenance will also include well redevelopment and pump replacement in the spring of 2009. The 2009 annual ground water sampling event will be held in November/December 2009. An application for renewal of the WATS Self-Monitoring NPDES Permit to operate and discharge treated groundwater was submitted to the California Regional Water Quality Control Board (Water Board) prior to the January 21, 2009 deadline. A draft Optimization Evaluation of the WATS was submitted in November 2008. This report will likely be finalized in 2009.

Activities planned for IR Site 26 include the base-wide water level gauging events in March and November 2009 and the annual groundwater sampling program in November/December 2009. In addition, the Navy is conducting a pilot test to evaluate the effectiveness of combined biotic/abiotic treatment using EHC[®]. The pilot test should be complete in 2010.

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ABBREVIATIONS AND ACRONYMS

1,1,1-TCA	1,1,1-trichloroethane
1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
1,2-DCA	1,2-dichloroethane
1,2-DCB	1,2-dichlorobenzene
1,2-DCE	1,2-dichloroethene
µg/L	micrograms per liter
®	registered trademark
™	trademark
AOP	advanced oxidation process
bgs	below ground surface
CD	compact disc
cis-1,2-DCE	cis-1,2-dichloroethene
COC	chemical of concern
CTO	contract task order
DCN	document control number
DoD	U.S. Department of Defense
EATS	East-Side Aquifer Treatment System
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Differences
ft/ft	foot per foot
FWENC	Foster Wheeler Environmental Corporation
GAC	granular activated carbon
GIS	geographic information system
IR	Installation Restoration
IRP	Installation Restoration Program
MCL	Maximum Contaminant Level
MEW	Middlefield-Ellis-Whisman
mg/L	milligrams per liter
Moffett	Moffett Field

ABBREVIATIONS AND ACRONYMS

(Continued)

msl	mean sea level
NAS	Naval Air Station
NASA	National Aeronautics and Space Administration
Navy	U.S. Department of the Navy
No.	number
NPDES	National Pollutant Discharge Elimination System
O&M	operation and maintenance
OU	Operable Unit
PAH	polynuclear aromatic hydrocarbon
PCE	tetrachloroethene (also known as perchloroethene)
PRC	PRC Environmental Management, Inc.
QA	quality assurance
QC	quality control
RAO	Remedial Action Operation
RGRP	Regional Groundwater Remediation Program
ROD	Record of Decision
SDA	storm drain action
SVOC	semi-volatile organic compound
TCE	trichloroethene
TDS	total dissolved solids
TN&A	T N & Associates, Inc.
TPH	total petroleum hydrocarbons
trans-1,2-DCE	trans-1,2-dichloroethene
TtEC	Tetra Tech EC, Inc.
TtFW	Tetra Tech FW, Inc.
VC	vinyl chloride
VOC	volatile organic compound
Water Board	California Regional Water Quality Control Board
WATS	West-Side Aquifers Treatment System

1.0 INTRODUCTION

As part of the Installation Restoration Program (IRP), the U.S. Department of the Navy (Navy) is conducting environmental restoration activities at the former Naval Air Station (NAS) Moffett Field (Moffett), California. The objective of this report is to document and evaluate the progress of remedial actions performed during the 2008 calendar year at Installation Restoration (IR) Site 28, the West-Side Aquifers Treatment System (WATS), and at IR Site 26, the East-Side Aquifer Treatment System (EATS), at Moffett.

This report has been prepared on behalf of the Navy's Base Realignment and Closure Program Management Office West. This work was conducted under Contract Task Order (CTO) Number (No.) 0004, issued under Remedial Action Contract No. N62473-07-D-3220.

1.1 SITE BACKGROUND – DESCRIPTION LOCATION AND LAND USE

Moffett is located at the northern end of the Santa Clara Valley Basin, approximately 1 mile south of San Francisco Bay (Figure 1-1). Moffett was originally commissioned as NAS Sunnyvale in 1933. In 1935, NAS Sunnyvale was transferred to the U.S. Army Air Corps. In 1939, a permit was granted to Ames Aeronautical Laboratory to use a portion of the base. NAS Sunnyvale was returned to Navy control in 1942 and was renamed NAS Moffett Field. In 1994, NAS Moffett Field was closed as an active Navy base under the U.S. Department of Defense's (DoD's) Base Realignment and Closure program. The property was transferred to the National Aeronautics and Space Administration (NASA) on July 1, 1994.

Impacted groundwater at Moffett occurs at IR Sites 26 and 28. Groundwater within IR Site 28 includes the Middlefield-Ellis-Whisman (MEW) Superfund Site volatile organic compound (VOC) plume, which extends from the off-site source south of U.S. Highway 101 onto Moffett. IR Site 26 is not part of the regional VOC plume. The physiographic dividing line between IR Sites 26 and 28 is the westernmost air field taxiway on Moffett (Figure 1-2).

WATS is a groundwater pump-and-treat system located in the area west of the runways at IR Site 28 (Figure 1-2). WATS extracts and treats groundwater impacted by the regional plume, where contaminants from Navy sources have commingled with the off-site regional VOC plume originating south of U.S. Highway 101. EATS is a groundwater pump-and-treat system located at IR Site 26, northeast of Hanger 3 (Figure 1-2). EATS was installed to extract and remediate VOC-impacted groundwater. Tetrachloroethene (PCE) and possibly trichloroethene (TCE) are believed to have been used at Hangars 2 and 3 and released at the northeast corner of Hangar 3. EATS was taken off-line in July 2003 to evaluate plume stability, chemical of concern (COC) rebound, natural attenuation, and the efficiency of Hydrogen Release Compound[®] in remediating plume hot spots. EATS remained off-line for the entire 2008 reporting period.

Land usage in the vicinity of WATS is specified in the NASA *Moffett Field Comprehensive Use Plan* (NASA 1994). Current primary uses of the area include airfield operations, administrative offices, and various storage buildings (NASA 1994). Hangar 1 and several of the surrounding buildings are part of the Historic District, which was established in 1994 (NASA 1994). WATS is located within NASA's redevelopment area. Future land use is described in the *NASA Ames Development Plan Final Programmatic Environmental Impact Statement* (NASA 2002). The area is within portions of two planning areas: the NASA Research Park and the Ames Campus. New educational, office, research and development, museum, conference center, housing, and retail space is planned for the NASA Research Park. Plans also include demolition of non-historic structures (NASA 2002). Residential development is not planned in areas overlying the regional plume having high concentrations of contaminants. High-density office, research, and development space is planned for the Ames Campus (NASA 2002). There are currently no plans for this land to change ownership. This section references the widely used *Elements for Effective Management of Operating Pump and Treat Systems* (U.S. Environmental Protection Agency [EPA] 2002).

Land usage in the EATS area is specified in the *Moffett Field Comprehensive Use Plan* (NASA 1994). The area east of the runways includes two planning areas. One of the planning areas contains approximately 174 acres and is used for air operations. The other planning area is approximately 248 acres and is used for ordnance and fuel storage facilities. The *Moffett Field Comprehensive Use Plan* (NASA 1994) restricts access and development in the area east of the runways because of safety considerations related to munitions storage and runway/air operations and indicates that no land use change is planned.

1.2 LOCAL HYDROGEOLOGY

Moffett is located at the northern end of the Santa Clara Valley Basin. Regionally, the northwesterly trending Santa Clara Valley Basin contains interbedded alluvial, fluvial, and estuarine deposits to a depth of 1,500 feet (Iwamura 1980). Soils consist of varying combinations of clay, silt, sand, and gravel that represent the interfingering of estuarine and alluvial depositional environments during the late Pleistocene and Holocene epochs. The fluvial soils were derived from the Santa Cruz highlands west of the basin and deposited on an alluvial plain bounded by alluvial fan deposits to the west and baylands to the northeast (Iwamura 1980). The heterogeneous nature of channel and interchannel sediments deposited in the fluvial depositional environment is evident in the many subsurface explorations that have been conducted at Moffett.

Groundwater beneath Moffett is encountered in the A, B, C, and Deep aquifers (Table 1-1). Only groundwater from the A aquifer is extracted and treated by WATS. The A aquifer is the uppermost aquifer in the Moffett area and consists of multiple interconnected permeable lenses or layers separated by lower permeability layers. The permeable layers consist of sediments

ranging from silts and sandy silts to medium to coarse gravelly sands. The number, thickness, depths, and interconnection of these permeable layers vary throughout Moffett. The A aquifer is divided into upper and lower portions. The upper portion of the A aquifer extends from zero to a maximum of approximately 35 feet below ground surface (bgs). The lower portion of the A aquifer ranges in depth from approximately 15 to 77 feet bgs. There is no continuous aquitard between the upper and lower portions of the A aquifer.

Groundwater flow directions in the upper and lower portions of the A aquifer west of the runways at Moffett are generally to the north-northeast. The groundwater flow direction in the upper portion of the A aquifer east of the runways is generally to the north.

The A aquifer is not currently used as a drinking water source; however, the California Regional Water Quality Control Board (Water Board) determined that the Santa Clara Valley Basin's beneficial use designation as a municipal and domestic water source is consistent with the California State Water Resource Control Board's Resolution No. 88-63, which describes criteria for designating sources of drinking water. The northern portion of IR Site 26 is located within an area where the total dissolved solids (TDS) in groundwater are greater than 3,000 milligrams per liter (mg/L). Groundwater having TDS values greater than 3,000 mg/L is not commonly considered to be a beneficial resource and does not satisfy the California State Water Resource Control Board's criteria as a potential drinking water source and poses no unacceptable risk to human health or the environment (Navy 1996).

1.3 DESCRIPTION OF REMEDY AND SUMMARY OF REMEDIAL ACTIONS – GOALS AND OBJECTIVES

IR Site 28

The requirements for the remediation of impacted groundwater at IR Site 28 are set forth in the Record of Decision (ROD) for the Fairchild, Intel, and Raytheon National Priorities List sites in the MEW Superfund Site study area (MEW ROD) (EPA 1989), which was adopted by the Navy in an amendment to the Federal Facilities Agreement (EPA 1990a). The selected remedy for groundwater at IR Site 28 is extraction and ex situ treatment to restore groundwater to the cleanup standards specified in the MEW ROD.

There have been two Explanation of Significant Differences (ESDs) for the MEW ROD (September 1990 and April 1996). The September 1990 ESD (EPA 1990b) clarified that the cleanup goals constituted final cleanup standards that the remedial activity must meet. The September 1990 ESD stated that the final cleanup standard for TCE in the upper and lower portions of the A aquifer is 5 micrograms per liter ($\mu\text{g/L}$). TCE was selected as an indicator chemical because it was assumed that by remediating TCE, the other COCs would be remediated simultaneously. The April 1996 ESD (EPA 1996) clarified that the groundwater remedy

includes the use of liquid-phase granular activated carbon (GAC) as a treatment option for extracted groundwater.

WATS is comprised of nine groundwater extraction wells in the upper and lower portion of the A aquifer. These wells extract VOC-impacted groundwater and treat the groundwater using advanced oxidation process (AOP) and liquid-phase GAC units. The treated water is then discharged to the Moffett storm drain system, which conveys the water to a settling basin and ultimately discharges to the Eastern Diked Marsh and Stormwater Retention Basin. WATS began operating in November 1998. WATS is operated to maintain a capture zone that is adequate enough to create hydraulic control of affected groundwater downgradient of IR Site 28 and to extract and treat groundwater to meet cleanup standards established by the MEW ROD and clarified in the September 1990 ESD and the April 1996 ESD.

IR Site 26

The impacted groundwater at IR Site 26 has been designated as Operable Unit (OU) 5. The OU5 ROD (Navy 1996) governs the cleanup of VOCs in OU5 groundwater. The ROD was signed by the Navy, EPA Region 9, California Department of Toxic Substances Control, and the Water Board in June 1996. There are no ESDs for OU5. Groundwater contamination in OU5 was identified as two separate VOC plumes, the northern and southern plumes. The northern plume is located within an area where the TDS in groundwater are greater than 3,000 mg/L. Groundwater having TDS values greater than 3,000 mg/L is not commonly considered to be a beneficial resource. The selected remedy for groundwater in the southern OU5 plume was extraction and ex situ treatment to restore groundwater quality to cleanup goals. Based on the TDS criterion, no further action, beyond groundwater monitoring, is required for the northern plume.

The OU5 ROD identified six COCs. The groundwater cleanup standards for the OU5 southern plume, as specified in the OU5 ROD, are the more stringent than the federal or state Maximum Contaminant Levels (MCLs) for each COC. The following organic compounds and corresponding MCLs were identified in the OU5 ROD:

- 1,2-dichloroethane (1,2-DCA) - 0.5 µg/L
- 1,2-dichloroethene (1,2-DCE) - 6 µg/L
- 1,1-dichloroethene (1,1-DCE) - 6 µg/L
- PCE - 5 µg/L
- TCE - 5 µg/L
- Vinyl chloride (VC) - 0.5 µg/L

EATS began operation in January 1999 and was operated to maintain a capture zone adequate for hydraulic control of affected groundwater and to restore groundwater quality to cleanup standards established by the OU5 ROD (Navy 1996).

EATS treated groundwater extracted from five wells completed in the upper A aquifer using a combination of an air stripper and GAC. The treated water was discharged to the Moffett storm drain system.

In July 2003, EATS was taken off-line to evaluate plume stability, COC rebound, natural attenuation, and the efficiency of Hydrogen Release Compound[®] in remediating plume hot spots. EATS remained off-line for the entire 2008 reporting period. Although the EATS is turned off, groundwater monitoring is still required.

1.4 SUMMARY OF 2008 ACTIVITIES AND DELIVERABLES

A summary of monitoring activities and deliverables for WATS and EATS is provided in Table 1-2. Progress toward completing EPA five-year recommendations is provided in Appendix A. The 2008 annual remedy performance checklists are provided in Appendix B.

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2.0 WEST-SIDE AQUIFERS TREATMENT SYSTEM

This section provides a description, performance summary, and operation and maintenance (O&M) summary of WATS, located at IR Site 28. This section also provides an evaluation and analysis of WATS' capture zones, discusses contaminant migration from off-site sources, and provides a compilation and evaluation of the groundwater analytical results.

2.1 SYSTEM DESCRIPTION AND PERFORMANCE

WATS began operating on November 26, 1998, and completed its tenth year of operation in November 2008. Located in the area west of the runways at Moffett, WATS remediates groundwater contaminants originating from Navy sources that have commingled with a regional volatile organics plume originating from off-site sources south of U.S. Highway 101. WATS currently consists of an AOP and liquid-phase GAC units. The AOP unit destroys the majority of the influent VOCs, and the liquid-phase GAC unit removes any remaining VOCs. To eliminate discharge of VOCs to the air, the WATS air stripper was removed from the treatment train on May 8, 2003.

Groundwater is pumped from nine extraction wells to maintain a capture zone adequate to create hydraulic control of affected groundwater downgradient of Navy sources at IR Site 28. Six groundwater extraction wells (EA1-1 through EA1-6) are completed in the upper portion of the A aquifer, and three extraction wells (EA2-1 through EA2-3) are completed in the lower portion of the A aquifer. Figure 2-1 illustrates the locations of extraction and monitoring wells in the upper portion of the A aquifer. Figure 2-2 illustrates the locations of extraction and monitoring wells in the lower portion of the A aquifer. Figures 2-1 and 2-2 also include NASA and MEW extraction well and monitoring well locations. Data from a selected set of wells shown on these two figures were used to develop potentiometric surface maps, capture zone maps, and contaminant distribution maps for this 2008 Annual Groundwater Report.

WATS also treats water collected in two on-site sumps near Hangar 1. The first sump, the Electrical Vault #5 sump, collects stormwater from electrical conduits and groundwater seeping in from the bottom of the vault. The second sump, the Hangar 1 sump, spans the width of Hangar 1, and it collects condensate from steam lines underlying the base. The Hangar 1 sump is completed to a depth of between 8 feet and 9 feet below grade and also likely receives groundwater infiltration.

2.1.1 Influent and Discharge Information and Discussion

The VOCs in the upper and lower portions of the A aquifer are predominantly TCE, cis-1,2-dichloroethene (cis-1,2-DCE), PCE, and VC (Foster Wheeler Environmental Corporation [FWENC] 2002). The influent VOC concentrations for these four constituents and the system

flow rates were used to calculate the mass of VOCs removed by WATS. The system flow rate (system data) is measured at the influent of WATS and includes groundwater from the extraction wells and storm drain action (SDA) water. The volume of groundwater extracted since WATS start-up is approximately 340,413,017 gallons. The volume of groundwater extracted during 2008 is approximately 36,110,149 gallons. The mass of VOCs removed since WATS start-up is approximately 4,361.9 pounds. The mass of VOCs removed during 2008 is approximately 364.8 pounds. Figure 2-3 shows cumulative volume of groundwater extracted and the contaminant mass removed by WATS from 1998 through 2008. This graph illustrates that the rate of groundwater treatment and contaminant mass removed has remained relatively constant since WATS began operating in 1998, including the entire 2008 time period.

For the reporting period of January 1, 2008, through December 30, 2008, the SDA water flow was 2,991,438 gallons, or 8 percent of the total WATS flow for the year (36,110,149 gallons).

Figure 2-4 illustrates PCE, TCE, cis-1,2-DCE, and VC average influent concentrations and the sum of these average concentrations to WATS from 1999 through 2008. Average influent VOC concentrations have declined during the period from system startup in November 1998 through late (November-December) 2005. The average influent VOC concentrations increased in late 2006, followed by a decrease in late 2007 (November-December 2006 and 2007 sampling events, respectively). Average influent VOC concentrations increased slightly in 2008.

In 2008, approximately 66.4 percent of the total VOC mass removed by WATS was TCE, 29.3 percent was cis-1,2-DCE, 1.6 percent was PCE, and 2.7 percent was VC (well data). The percentages were calculated from groundwater concentration data collected from each extraction well during the November-December 2008 sampling event. The concentration of each contaminant was multiplied by the total flow of the extraction well for the year to determine the total mass of each contaminant removed for that well. The mass from all the extraction wells was summed to determine the total mass of each contaminant removed for the year. The percentage of the total mass for each contaminant was then calculated. For 2008, approximately 92.4 % of the TCE mass removed came from the extraction wells installed in the lower portion of the A aquifer and 7.6 % came from extraction wells installed in the upper portion of the A aquifer. A summary of the percentage mass removed from the upper and lower portions of the A aquifer is provided below. These relative percentages are very similar to those estimated during the 2004 through 2007 time period.

VOC	Percentage Mass from Lower Portion of the A Aquifer	Percentage Mass from Upper Portion of the A Aquifer
TCE	92.4	7.6
cis-1,2-DCE	87.2	12.8
PCE	78.1	21.9
VC	87.9	12.1

WATS sampling was conducted in accordance with the National Pollutant Discharge Elimination System (NPDES) Self-Monitoring Program, NPDES Permit No. CAG912003, Order No. R2-2004-0055, adopted on July 21, 2004. Throughout 2008, the WATS discharge water complied with the permit limits for all VOCs and total petroleum hydrocarbons (TPH). The WATS effluent and influent were sampled and analyzed monthly for VOCs using EPA Test Method 8260B and for TPH using EPA Test Method 8015B. In accordance with the NPDES requirements, the WATS effluent was also sampled and analyzed on an annual basis for turbidity and fish bioassay and on a semiannual basis for 1,4-dioxane, semi-volatile organic compounds (SVOCs), and polynuclear aromatic hydrocarbons (PAHs). The WATS influent was also sampled on an annual basis for PAHs.

Triennial testing for Title 22 metals in the system effluent was performed during the fourth quarter of 2007. Analytical testing indicated the presence of one NPDES trigger compound, zinc, in the effluent stream. Zinc is not a COC at Moffett, but it is listed as a concentration-based trigger compound in Table E.6 of the NPDES Permit. Triggers are not effluent limitations; rather, they are levels at which additional investigation is warranted to determine whether a numeric limit for a particular constituent will be necessary.

The trigger concentration for zinc is 35 µg/L. The zinc concentration in the December 2007 effluent sample was reported at 58 µg/L. In accordance with Provision E.6 of the NPDES Permit, both the influent and effluent streams of the system were sampled and analyzed for zinc by EPA Method 6010B three times during the next three months.

Zinc was detected in two of the three additional samples. One of the zinc detections exceeded the trigger limit. Samples were also collected along the WATS treatment train to delineate zinc concentrations within the system. The detections of zinc were found to be inconsistent along the treatment train. The results were inconclusive and did not contribute to an understanding of zinc with the WATS system process. Further details are provided in the *First Quarter 2008 National Pollutant Discharge Elimination System Self-Monitoring Report for the West-Side Aquifers Treatment System, NPDES Permit No. CAG912003, Order No. R2-2004-0055, Self-Monitoring Program* (SES-TECH 2008).

Treated effluent from WATS is discharged to the Moffett storm drain system, which drains to the Eastern Diked Marsh and Stormwater Retention Pond located near the northern boundary of Moffett. System analytical data and NPDES compliance evaluation are provided in separate quarterly and annual NPDES reports.

2.1.2 System Performance

As of December 30, 2008, WATS had processed approximately 340,413,017 gallons (system data) of extracted groundwater and SDA water since system start-up. Of that total, approximately 36,110,149 gallons (system data) were processed during 2008 (Figure 2-3).

An estimated total volume of 33,118,711 gallons of groundwater was removed by the extraction wells in 2008, which is about 4.6% more than the 34,532,488 gallons removed in 2007. During 2008, an estimated 70.7% of the groundwater flow came from the lower portion of the A aquifer, and 29.3% came from the upper portion of the A aquifer. These estimates are determined based on monthly flow rates. Table 2-1 shows the monthly average flow rates for the extraction wells and the total system. Table 2-2 shows monthly extraction totals for each well and the total system.

Figure 2-5 provides the cumulative system costs and the cost per pound of contaminant mass removed by WATS. System costs were calculated using WATS O&M costs, including all miscellaneous costs. System O&M costs prior to October 1999 are considered start-up costs and are included in the system construction costs. Construction costs for WATS were not used in this analysis according to the Navy's *Guidance for Optimizing Remedial Action Operation (RAO)* (Navy 2001).

The cumulative cost per pound of VOCs removed from start-up through December 2008 was \$1,085, a slight increase from the \$994-per-pound cumulative cost reported in 2007. The 2008 monthly cost per pound removed averaged \$2,085. The total O&M costs for 2008 were \$760,644.

WATS operated approximately 98.9 percent of the time during the 2008 calendar year. There was no change in the percent-run-time relative to the 2007 operating year. WATS system run-times by month are included in Table 2-1. Monthly regularly scheduled maintenance and minor system repairs resulted in brief periods of system downtime ranging from two to six hours, one or two days per month. Descriptions of these brief downtime periods are provided below:

- 5 hours during the January 2008 reporting period due to maintenance on the air compressor and quarterly inspection of and repairs to the ozone generators
- 2 hours during the February 2008 reporting period to perform monthly maintenance
- 4 hours during the March 2008 reporting period to perform quarterly maintenance
- 2 hours during the April 2008 reporting period to perform maintenance on the air compressor
- 3 hours during the May 2008 reporting period due to a base-wide power failure and to perform monthly maintenance

- 17 hours during the June 2008 reporting period due to base-wide power failures and to perform quarterly maintenance
- 9.5 hours during the July 2008 reporting period due to a base-wide power failure, to perform repairs and maintenance, and to change tubing in a pump
- 28 hours during the August 2008 reporting period to perform monthly maintenance, to perform annual maintenance on the air compressor, and due to a programmable logic controller malfunction and a high tank level alarm
- 5 hours during the September 2008 reporting period to perform monthly maintenance and to repair the flow control valve at well EA1-4
- 5 hours during the October 2008 reporting period to perform monthly maintenance and to install two refurbished power supplies for an ozone generator
- 10 hours during the November 2008 reporting period due to a base-wide power failure
- 4 hours during the December 2008 reporting period to perform monthly maintenance

2.2 WATS OPERATION AND MAINTENANCE

During the 2008 reporting period, WATS operated approximately 98.9 percent of the time. There were no unexpected O&M difficulties.

Key System Events

The key events for 2008 were as follows:

- Pump and motor replacement in extraction well EA1-5
- Installed refurbished power supplies for ozone generator X-112A
- Repaired flow control valve at extraction well EA1-4
- Replaced a relay in the controller for extraction well EA2-3
- Changed out carbon in the GAC vessels in January, April, August, and December

Significant Changes in Operation and Maintenance Requirements, Schedule, or Sampling Routines

There were no significant changes in the O&M requirements, schedule, or sampling routines during 2008, with the exception of the zinc trigger sampling discussed in Section 2.1.1.

2.3 HYDRAULIC CONTROL AND CAPTURE ZONE ANALYSIS

The following section describes how capture zones for IR Site 28 were estimated and evaluated.

2.3.1 Methodology

Capture zone analysis for IR Site 28 was performed in accordance with *A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems* (EPA 2008) and *Elements of Effective Management of Operating Pump & Treat Systems* (EPA 2002). Current and historical analytical and water level data have been used to evaluate the efficacy of WATS to maintain adequate capture zones.

2.3.2 Estimated Capture Zones for 2008

Capture zone analysis includes the following steps (EPA 2004 and 2008):

Step 1 – Review Site Data, Site Conceptual Model, and Remedial Objectives

Review Site Data

Site data required to evaluate capture zones include analytical results for groundwater samples and water level measurements collected from a network of extraction and monitoring wells installed throughout IR Site 28. Groundwater extraction and monitoring wells installed in the upper and lower portions of the A aquifer are shown on Figures 2-1 and 2-2, respectively. Data from these wells were used to create plume maps, potentiometric surface maps and capture zone maps.

VOCs are present in the upper and lower portions of the A aquifer. Plume maps for PCE, TCE, cis-1,2-DCE, and VC have been developed for the upper and lower portions of the A aquifer in order to evaluate VOC distribution in three dimensions. TCE was selected in the MEW ROD (EPA 1989) as an indicator chemical because it was assumed that by remediating TCE, the other COCs would be remediated simultaneously.

TCE plume maps for the upper and lower portions of the A aquifer are provided on Figures 2-6 and 2-7, respectively. TCE isoconcentration contours were generated by posting groundwater sample concentrations at each monitoring well and contouring them. The concentration lines were adjusted based on an understanding of the hydrogeology of the site. The contours were then transferred into a geographic information system (GIS) to create the plume maps.

The TCE plume in the upper portion of the A aquifer is considered sufficiently defined for the purposes of capture zone analysis. The Navy added wells 14D24A, 14D26A, 14D36A, and 14D39A to the sampling program in 2008, which improve the resolution of the leading edge of the TCE plume within the upper portion of the A aquifer (Figure 2-6). Similarly, the MEW companies added monitoring wells WT14-1, W14-3, W9-16, W89-2, W89-8, W89-9, and W89-5 in 2008, which better define the areal extent of the two main lobes of the TCE plume within the upper portion of the A aquifer (Figure 2-6). Portions of the leading edge of the plume are shown as inferred where downgradient control is not immediate.

The TCE plume in the lower portion of the A aquifer is also considered sufficiently defined for the purposes of capture zone analysis. The additional sampling of monitoring wells W89-11, W89-12, W89-14, W9-25, W9-41, WU4-7, WU4-12, and WU4-13 in 2008 by MEW have better defined the areal extent of the TCE plume in the lower portion of the A aquifer (Figure 2-7). These wells were not sampled in 2007 (T N & Associates, Inc. [TN&A 2008]). Portions of the leading edge of both the eastern and western lobes of the TCE plume are shown as inferred due to a lack of downgradient control.

Base-wide groundwater elevation data were collected semiannually in March and November of 2008. Groundwater elevations were gauged on a site-wide basis during a single day. Groundwater elevation gauging is coordinated with the Regional Groundwater Remediation Program (RGRP), including the Navy, MEW parties and NASA, so that all parties conduct gauging on the same day. Table 2-3 provides the Navy groundwater elevation data for IR Site 28 wells measured in 2008. These elevations were calculated by converting depth-to-water measurements to a common datum in feet above mean sea level (msl). Groundwater elevation data are used to create potentiometric surface maps (Step 3). Site hydrogeologic information (such as potentiometric surface maps, hydraulic gradient values, extraction well pumping rates, and water loss calculations) and current and historic water quality data are considered adequate to perform capture zone analysis.

Site Conceptual Model

IR Site 28 subsurface geology is fluvial and is characterized by anastomosing coarse-grained channels and discontinuous finer-grained interchannel and overbank deposits. The channels generally trend northwest to southeast becoming more northerly in the vicinity of WATS. Thicker more continuous channels of sands and gravels trending northwest to southeast exist to the south of WATS, extending south of U.S. Highway 101. The sand and gravel intervals are thin, and the clay and silt intervals become thicker near WATS.

Hydrostratigraphically, there are discontinuous sand and gravel channels and discontinuous clay layers surrounded by silty sands, sandy silts, and silts. A hydraulic connection exists between the upper and lower portions of the A aquifer. Locally, there is no continuous aquitard that separates these portions.

VOCs in the upper and lower portions of the A aquifer are migrating onto Moffett from south of U.S. Highway 101. VOCs from south of U.S. Highway 101 are commingled with PCE contamination from the former Building 88 area (former Navy dry cleaning facility) (Tetra Tech EC, Inc. [TtEC] 2008b). The primary groundwater flow direction is to the north-northeast.

Environmental receptors for VOC contamination have not been identified. The contaminated groundwater does not reach any ecological receptors (TtEC 2008b). The A aquifer is not

currently used as a drinking water source; however, the aquifer meets the Water Board's criteria for beneficial use designation.

Remedial Action Objectives

WATS is operated to maintain a capture zone adequate to create hydraulic control of impacted groundwater and to restore groundwater quality to the cleanup standards established by the MEW ROD (EPA 1989) and clarified in the September 1990 and the April 1996 ESDs.

Step 2 – Define Site-specific Target Capture Zone

The target capture zone is defined as a three-dimensional zone of groundwater that must be captured by the remedy extraction wells for the hydraulic containment portion of a remedy to be considered successful (EPA 2008). The target capture zone for the upper and lower portions of the A aquifer at IR Site 28 is established by the plume extent defined at the 5 µg/L TCE concentration for each portion of the aquifer and, where appropriate, the geographic boundaries of IR Site 28. The TCE concentration of 5 µg/L is the final cleanup standard that the remedial activity must meet in the upper and lower portions of the A aquifer (EPA 1990b). The target capture zone provides a reference by which to compare the actual determined capture zones as determined by simple horizontal analysis (Step 4).

Step 3 – Interpret Water Levels

Hydrographs were prepared from the groundwater elevation data to aid in the evaluation of site-specific trends. The hydrographs are provided in Figures 2-8 through 2-52. Selections of groundwater monitoring wells for hydrograph preparation were based on the aquifer designation (upper portion of the A aquifer, lower portion of the A aquifer, and B2), monitoring well location (relation to plume and proximity to, or remoteness from, extraction wells), and period of record (1995 to present). Figures 2-8 through 2-29 were prepared using monitoring wells close to extraction wells. Figures 2-30 through 2-52 were prepared using monitoring wells remote from extraction wells. Seasonal groundwater elevation trends for 2008 appear consistent with the trends described in the annual reports from 2001 to 2007.

Before 2004, water level measurements were collected quarterly (February, May, August, and November). The lowest seasonal water levels were usually reported in the August measuring period. Beginning in 2004, water level measurements were collected bi-annually in March and November. During the November 2005 reporting period, groundwater levels in many monitoring wells were lower than in previous reporting periods. A gradual trend of decreasing groundwater levels was also documented in 2007 and continued throughout 2008. Though groundwater elevations in many monitoring wells have gradually decreased, most groundwater elevations continue to exhibit seasonal fluctuations. The high and low groundwater elevations typically occur at the end of the wet season (March) and dry season (November) base-wide groundwater monitoring events, respectively.

The hydrographs also show that groundwater elevations in monitoring wells near extraction wells and completed in the upper and lower portions of the A aquifer have declined as a result of the WATS and RGRP groundwater extraction. The amount of groundwater elevation decline lessens with distance from the extraction wells. (TN&A 2007, 2008). The declines in groundwater elevations in upper portion of the A aquifer monitoring well W9-43 (Figure 2-32), located near lower portion of the A aquifer extraction well EA2-3, indicate a hydraulic connection between the upper and lower portions of the A aquifer.

Hydrographs for the groundwater elevations in monitoring wells completed in the upper and lower portions of the A aquifer at a distance from the extraction wells also registered declines in groundwater elevations, though less pronounced than those located near extraction wells. These declines may be a result of a general lowering of the local potentiometric surfaces caused by the pumping of the extraction wells.

Potentiometric Surface Map

Potentiometric surface maps were prepared to evaluate flow directions and hydraulic gradients using groundwater elevation data collected during the March and November 2008 base-wide groundwater gauging events (Figures 2-53 through 2-56). Well loss values calculated for WATS extraction wells were used to correct the extraction well water level elevation for well loss. The well loss calculations are summarized in Table 2-4. The corrected values for WATS extraction wells were used on the potentiometric surface maps, with the exception of extraction wells EA1-1 and EA1-3 (see Step 4 – Perform Appropriate Calculations). The potentiometric surface maps were computer generated using Surfer™ and the natural-neighbor gridding method. A California professional geologist reviewed the maps and subsequently adjusted the maps using best professional judgment and an understanding of the hydrogeology of the site. The groundwater flow direction in the upper and lower portions of the A aquifer is generally to the north-northeast. The groundwater gradient north of Hangar 1 in the upper and lower portions of the A aquifer is approximately 0.003 foot per foot (ft/ft), and approximately 0.006 ft/ft south of Hangar 1.

Extraction well EA2-3, located due north of Hangar 1, was completed within the lower portion of the A aquifer in 2004 to increase capture along the eastern edge of the plumes. As observed from 2005 through 2008, additional groundwater extraction from well EA2-3 affected the potentiometric surface maps compared to previous years. The combined pumping of extraction wells EA2-2 and EA2-3 created larger areas of radial flow toward these wells. The area in the vicinity of monitoring wells 90A and W9-43, completed within the upper portion of the A aquifer, demonstrates a water-level response to extraction well pumping in the lower portion of the A aquifer (Figures 2-53 through 2-56). Groundwater monitoring wells 90A and W9-43, completed within the upper portion of the A aquifer, are located above lower portion of the A aquifer extraction wells EA2-2 and EA2-3, respectively. The response in groundwater levels in

monitoring wells completed within the upper portion of the A aquifer, caused by extraction well pumping in the lower portion of the A aquifer provides evidence that the two portions of the A aquifer are hydraulically connected.

Water Level Pairs

Individual well pairs were not evaluated because the location and distance of observation wells and pumping wells within the WATS capture zone are not conducive to this type of analysis. Horizontal influence, capture zones, and stagnation points are based on potentiometric surface map interpretation, which is discussed in the following section.

Step 4 – Perform Appropriate Calculations

Hydraulic control of the contaminant plumes is accomplished by the cumulative effect of capture zones from nine Navy extraction wells working together with RGRP extraction wells. The predominant component of groundwater flow at the site is in the horizontal direction and, even under pumping conditions, remains mainly horizontal with an overall site gradient of 0.003 to 0.006 ft/ft.

The flow-net analysis method for capture zone estimation takes into consideration site-specific aquifer heterogeneities and hydraulic interference effects from other extraction wells. This information cannot be readily incorporated into a numerical analytical estimate of capture zones. For this reason, the flow-net analysis methodology and results are considered appropriate for hydrogeological conditions at Moffett, and flow budget and capture zone width calculations were not used in the capture zone analysis.

The flow-net analysis method of capture zone estimation includes selecting a stagnation point downgradient of the extraction well based on potentiometric surface map interpretation. The estimated capture zone is drawn by hand, starting at the stagnation point (zero gradient) and continuing in the upgradient direction, perpendicular to the groundwater elevation contours. A capture zone theoretically extends hydraulically upgradient of each functioning extraction well to the first-encountered groundwater flow divide. However, there are no obvious or universally identified hydraulic groundwater flow divides within the study area. Therefore, the capture zones are estimated to extend upgradient to the Moffett boundary.

The illustrated capture zones provided in Figures 2-57 through 2-60 are conservative because the groundwater elevations from EA1-1, EA1-3 and the RGRP extraction wells have not been corrected for well loss and have therefore not been used during contouring. The elevations of the groundwater in the extraction wells are lower than what actually exists in the surrounding aquifers, due to frictional head loss in the extraction wells. Using these values would overestimate the drawdown and extent of capture zones. Pumping tests were performed on extraction wells EA1-2 through EA1-6 and EA2-1 through EA2-3 in 2004. The results of the

pumping tests were used to calculate well loss at each extraction well (Table 2-4). The well loss was applied to these extraction wells to correct the groundwater elevations (Tetra Tech FW, Inc. [TtFW] 2005c). It is assumed that the calculated well losses remain relatively constant and, therefore, are useful in evaluating 2008 data and conditions. Consequently, these aforementioned corrected elevations were used to construct the potentiometric surface and capture zone maps, in accordance with published EPA guidance (EPA 2002). Extraction well EA1-1 does not pump at a rate sufficient to conduct a pumping test; therefore, a well loss was not calculated (TtFW 2005c). Since the 2008 flow rate in EA1-3 is below historical averages (did not remain relatively constant), well loss was not calculated for this extraction well in 2008, and it was not used during 2008 groundwater contouring (Figures 2-53 and 2-55).

A qualitative review of the site conceptual model and potentiometric contour figures also indicates that WATS produces conditions favorable for vertical hydraulic containment as exemplified by extraction wells EA2-2 and EA2-3. Extraction wells EA2-2 and EA2-3 are completed in the lower portion of the A aquifer but effective drawdown is recorded locally in wells completed in the upper portion of the A aquifer (Figures 2-57 and 2-59).

It should also be noted that the narrow hydraulic capture area (“finger”) located on the west side of Figures 2-57 and 2-58 illustrates the extent of capture associated with NASA extraction wells NASA-1A, NASA-2A. Water level measurements in 2008 at monitoring wells 14D24A and 14D26A show the capture in this area

Step 5 – Evaluate Concentration Trends at Monitoring Wells

Historical data were compiled to evaluate TCE concentration trends in groundwater samples collected from monitoring wells near WATS. Monitoring wells were selected based on their proximity to King Road and the availability of analytical data.

Upper Portion of the A Aquifer

Groundwater monitoring wells W9-2, 14D12A, W9-10, and WU4-14 were selected for TCE concentration trend analysis because groundwater samples collected from these wells at the onset of groundwater monitoring in 1992 had the highest TCE concentrations of the sampled wells. These monitoring wells are placed within the demarcated IR Site 28 TCE plume (Figure 2-6 and 2-58).

Time series concentration plots for TCE in monitoring wells W9-2, 14D12A, W9-10 and WU4-14 are provided on Figures 2-61 through 2-64. Time series plots for groundwater samples collected from monitoring wells W9-2, 14D12A and W9-10 illustrate a general decreasing TCE concentration trend since the start-up of WATS in 1998, where the TCE concentration trend for monitoring well WU4-14 shows a generally increasing trend over this period. From mid-1992 through 2000, the time series concentration plot for monitoring well WU4-14 showed a

decreasing TCE concentration trend; however, a reversal of this trend occurred in 2000, which could be attributed to the start-up of WATS in 1998 (Figure 2-64). These increasing TCE concentrations are likely due to the proximity of monitoring well WU4-14 to extraction well EA1-4 (Figure 2-6). The extraction well appears to be drawing water from a zone of relatively higher TCE concentration; however, TCE concentrations have decreased below 1,000 µg/L. The zone of TCE with relatively high concentrations originates from the southern, off site border, and terminates in the vicinity of extraction well EA1-4 and monitoring well WU4-14 (Figure 2-6).

In 2008, there was one relatively small area in the upper portion of the A aquifer in which TCE concentrations were relatively high (greater than 1,000 µg/L). This area is located in the main body of the contaminant plume and is associated with monitoring well W9-2, located southeast of the intersection of McCord Avenue and Bushnell Road (Figure 2-6). The relatively high TCE concentrations originated from beyond the southern site border. The time-series plot for groundwater samples collected from monitoring well W9-2 illustrates a general increasing trend in TCE concentrations from late-1993 to mid-1997, followed by a general decreasing trend in TCE concentrations until mid-1999 (Figures 2-61). TCE concentrations returned to an increasing trend from mid-1999 (following the WATS start-up in 1998) through late 2001 and have since generally declined through December 2008. The most recent decreasing trend in TCE concentrations within groundwater samples collected from monitoring well W9-2 appears to be due to its proximity to extraction well EA1-3 and result from continuous and effective removal of contaminated groundwater by WATS (Figure 2-6).

Figures 2-65 through 2-67 illustrate the time series TCE concentration trend downgradient of WATS. The downgradient edge of the TCE plume is located approximately 50 ft south (upgradient) of monitoring well 14D02A. The time series plot for groundwater samples collected from monitoring well 14D02A indicates concentrations of TCE similar to those reported since 1992, most of which were analyzed at or below the laboratory reporting limit of 0.5 µg/L. Monitoring well 14D28A, also completed within the upper portion of the A aquifer and downgradient of WATS extraction wells, is located within the 10 - 100 µg/L boundary of the TCE plume, near the downgradient edge (Figure 2-6). The time series concentration plot for groundwater samples collected from monitoring well 14D28A indicates a general decreasing trend in TCE concentrations from the WATS start-up in 1998 through late 2002, followed by fluctuating TCE concentrations until late 2004, and a subsequent stable TCE concentration trend until December 2008. The time series plot for groundwater samples collected from monitoring well WU4-16 indicates a decreasing TCE concentration trend to below the TCE cleanup standard of 5 µg/L since late 2001. TCE concentrations within the upper portion of the A aquifer have decreased to below 1,000 µg/L along the leading edge of the plume.

TCE, cis-1,2-DCE, PCE, and VC trend analysis for groundwater samples collected from selected monitoring wells installed in the upper portion of the A aquifer throughout IR Site 28 is included in Section 2.4.1.

Lower Portion of the A Aquifer

Groundwater monitoring wells 154B1, W9-25, W29-7, and WU4-15, completed within the lower portion of the A aquifer, were selected for TCE concentration trend analysis because these monitoring wells are representative observation wells that are located within the 5 µg/L TCE plume boundary (Figure 2-7). Monitoring well W29-7 is located in a zone of reduced TCE concentration (analyzed at 1.9 µg/L in 2008). However, it will still be used for trend analysis since it is centered within the 5 µg/L boundary of the plume (Figure 2-7). These monitoring wells are located downgradient of the WATS extraction wells but are within the WATS estimated capture zone (Figure 2-60).

Time series TCE plots for groundwater samples collected from monitoring wells 154B1, W9-25, W29-7, and WU4-15 are provided on Figures 2-68 through 2-71, respectively. Time series plots for groundwater samples collected from monitoring wells 154B1, W9-25, and W29-7 indicate decreasing TCE concentration trends. The time series TCE concentration plot for groundwater samples collected from monitoring well WU4-15 indicates a slight increasing trend from approximately 6 µg/L in 1999 to 13 µg/L in 2008.

Groundwater monitoring wells 139B1, WNB-14 and WU4-19 completed within the lower portion of the A aquifer, are located along the leading edge of the TCE plume, downgradient of the WATS extraction wells (Figure 2-7). The downgradient edge of the TCE plume in 2008 is located about 175 feet upgradient from monitoring well 139B1 (Figure 2-7). Well WU4-19 is located within the lower portion of the A aquifer TCE plume and well WNB-14 is located sidegradient of the 5 µg/L boundary of the TCE plume in the lower portion of the A aquifer.

Time series TCE concentration plots for groundwater samples collected from monitoring wells 139B1, WNB-14 and WU4-19 are provided in Figures 2-72 through 2-74, respectively. Since 1992, the time series plot for groundwater samples collected from monitoring well 139B1 indicates consistent TCE concentrations that are below the laboratory reporting limit of 0.5 µg/L. Time series plots for groundwater samples collected from monitoring well WNB-14 indicates an overall decrease in TCE since the start-up of WATS in mid-1998. The 2008 groundwater sample analysis is nearly an order of magnitude lower than the 2007 groundwater sample analysis and is detected at an estimated value below the laboratory reporting limit of 0.5 µg/L. The time series plot for groundwater samples collected from monitoring well WU4-19 indicate a stable, minor cycling of TCE concentrations since the start-up of WATS in mid-1998 through 2005. Although WU4-19 was not sampled in 2006 or 2007, sampling resumed in 2008 and TCE concentrations have decreased from 190 µg/L in 2005 to 45 µg/L in 2008.

TCE, cis-1,2-DCE, PCE, and VC trend analysis for groundwater samples collected from selected monitoring wells completed within the lower portion of the A aquifer is included in Section 2.4.1.

Step 6 – Interpret Actual Capture

The extent of the TCE plume in the upper and lower portions of the A aquifer is considered sufficiently well defined (Step 1) throughout the target capture zone (Step 2). Potentiometric surface maps (Step 3) were used to manually develop capture zone maps (Step 4). In the assessment of capture zones, the following should be noted:

- The depicted capture zones are conservative since the groundwater elevations in EA1-1, EA1-3, and the RGRP extraction wells are not used in capture zone analysis.
- WATS and its resulting capture zones are designed to work together with the RGRP extraction systems.

The efficacy of WATS and its resulting capture zones to ultimately achieve remedial objectives (Step 1) are demonstrated by the declining TCE concentration trends in groundwater samples collected from monitoring wells completed within the upper and lower portions of the A aquifer (Step 5 and Section 2.4.1.2). TCE concentration trends are asymptotic or decreasing in groundwater in samples collected from monitoring wells completed within the upper and lower portions of the A aquifer wells located downgradient of the WATS extraction wells. However, as long as there is contaminant flow from a continuing upgradient source (south of U.S. Highway 101) into IR Site 28 that is above the cleanup standards, the remedial objective to restore groundwater quality to cleanup standards cannot be achieved.

2.3.3 Hydraulic Gradient

The groundwater flow direction in the upper and lower portions of the A aquifer is generally to the north-northeast (Figures 2-53 through 2-56). A localized groundwater depression in the upper and lower portions of the A aquifer occurs immediately north of Hanger 1 (TtEC 2006). Hydraulic gradients are approximately 0.003 ft/ft for the upper portion of the A aquifer immediately north of the inflection and approximately 0.006 ft/ft south of the localized groundwater depression. The change in groundwater gradient appears related to natural conditions and is not a result of pumping from the extraction wells. The change in gradient reflects the same general change in slope of the surface topography that occurs north of Hangar 1. A decrease in gradient is indicative of the movement of groundwater from an area of lower transmissivity to an area of higher transmissivity. Transmissivity is a function of hydraulic conductivity and aquifer thickness. Therefore, the higher transmissivity area would either have a thicker or more contiguous aquifer and/or higher hydraulic conductivity. It is believed that the surficial geology changes in this general area are from flood basin to estuary deposits. This surficial geology would explain the change in gradient as floodplain deposits would be characterized by channels of limited areal extent that contain higher hydraulic conductivity sands and gravels surrounded by lower hydraulic conductivity silts and clays. Estuary deposits would have contiguous layers of sand that could have higher transmissivity.

An obvious localized groundwater depression in the lower portion of the A aquifer was observed in the March and November 2008 potentiometric surface maps. The groundwater depression is located on the west side of WATS near groundwater monitoring wells 78B1, 111B1, and 155B1 (Figures 2-54 and 2-56). It is believed the noted localized groundwater depression results from extraction well pumping at REG-10B(1).

Potentiometric surface maps of the upper and lower portions of the A aquifer for March and November 2008 (Figures 2-53 through 2-56) illustrate the effects from WATS and RGRP extraction wells on the direction of groundwater flow similar to those depicted in the annual reports from 1999 to 2003 (FWENC 2002, 2003a, 2003b; TtFW 2004a).

However, beginning in 2004 (TtFW 2005a) and continuing throughout 2008, there is a notable change to the direction of groundwater flow in the upper and lower portions of the A aquifer in the vicinity of extraction wells EA2-2 and EA2-3. Extraction well EA2-3 was installed in January 2004. The combined pumping of extraction wells EA2-2 and EA2-3 has created larger areas of radial flow toward these wells. The area in the immediate vicinity of 90A and W9-43 completed within the upper portion of the A aquifer continues to indicate a water-level response to pumping of the lower portion of the A aquifer (Figures 2-53 through 2-54). The response in upper portion of the A aquifer wells to extracting water from the lower portion of the A aquifer is evidence of the interconnection of the two portions of the A aquifer.

2.4 ANALYTICAL RESULTS

This section summarizes and evaluates the analytical results from the 2008 WATS annual sampling event. Contaminant groundwater plumes at IR Site 28 were evaluated to assess current conditions and changes that have taken place from previous years. TCE, cis-1,2-DCE, PCE, and VC were evaluated.

Analytical data for the 2008 WATS annual sampling event are provided in Table 2-5. Appendix C provides the chain-of-custody documentation, data validation packages, case narratives, and laboratory analytical summary sheets (on compact disc [CD] only). Quality assurance/quality control (QA/QC) evaluation of analytical data is presented in Appendix D.

This report incorporates analytical data supplied by the MEW companies and NASA in the evaluation of contaminant groundwater plumes at IR Site 28. Analytical data from the RGRP are not provided in tables but are shown on various figures. It has been assumed that the MEW and NASA analytical data have been properly validated and are acceptable for use.

2.4.1 Chemical Data Evaluation and Trend Analysis

Analytical data for the 2008 WATS annual sampling event are provided in Table 2-5. Analytical data for TCE, cis-1,2-DCE, PCE, and VC are summarized in this section. TCE plume maps for

the upper and lower portions of the A aquifer were discussed in Section 2.3.2. Upper and lower portions of the A aquifer plume maps for cis-1,2-DCE, PCE, and VC are provided in the following sections. VOC plume maps were developed using the method described in Section 2.3.2.

Historical groundwater analytical data for TCE, cis-1,2-DCE, PCE, and VC from 1992 through 2008 for samples collected from all IR Site 28 monitoring wells currently sampled by the Navy are provided in Table 2-6. A subset of these monitoring wells was selected to evaluate VOC concentration trends. Monitoring wells were selected according to the *Final West-Side Aquifers Treatment System Long-Term Groundwater Monitoring Plan* (TtFW 2004b). The list of wells was approved by the EPA. Time series graphs of VOC concentrations for actively monitored, listed wells are provided in Figures 2-75 through 2-110. Trend analysis and interpretation were based on a visual evaluation of the historical time series VOC concentration trend graphs.

2.4.1.1 TCE Evaluation

Upper Portion of the A Aquifer – TCE Plume

The regional TCE plume in the upper portion of the A aquifer extends downgradient (north) from south of U.S. Highway 101 (Figure 2-6). The regional plume has an axis that generally trends south to north, with at least two main lobes north of U.S. Highway 101: the eastern lobe through the WATS capture area and a smaller western lobe west of the WATS capture area. The plume is similar in shape and extent to the TCE plume maps prepared since 2003. However, monitoring wells added to the Navy and MEW sampling programs in 2008 have better defined the extent of each lobe.

In 2008, monitoring wells 14D24A, 14D26A, 14D36A, and 14D39A were added to the Navy's annual sampling program. Monitoring wells 14D36A and 14D39A have better defined the leading edge of the eastern lobe of the TCE plume. Analytical data collected from monitoring wells 14D24A and 14D26A provided a potential connection to TCE concentrations detected in monitoring well 95A, indicating a separate plume downgradient of the WATS capture area (Figure 2-6).

In 2008, monitoring wells WT14-1, W14-3, W9-16, W89-2, W89-8, W89-9, and W89-5 were sampled by MEW. Monitoring wells WT14-1 and W14-3 have better defined the eastern edge of eastern lobe of the TCE plume. Monitoring wells W89-8 and W9-16 have better defined the area between the eastern and western lobes. Monitoring wells W89-2, W89-5, and W89-9 have better defined the western lobe. Additionally, TCE concentrations detected in W89-9 has increased the areal extent along the leading edge of the western lobe, where groundwater may be drawn eastward by extraction well REG-7A to reconnect with the eastern lobe (Figure 2-6).

The highest TCE concentration in 2008 samples collected from groundwater monitoring wells installed in the upper portion of the A aquifer at IR Site 28 is from monitoring well W9-2. The reported TCE concentration in 2008 is 2,000 µg/L, which is a decrease from the 2,600 µg/L concentration reported in 2007. Monitoring well W9-2 is located approximately 750 ft west of Hangar 1.

Lower Portion of the A Aquifer – TCE Plume

The regional plume extends downgradient (north) from south of U.S. Highway 101. There are at least two main lobes north of U.S. Highway 101 (Figure 2-7): the eastern lobe through the WATS capture area and a western lobe west of the WATS capture area. The 2008 TCE plume in the lower portion of the A aquifer at IR Site 28 is similar in shape and extent to the TCE plume contoured in 2007 and is generally similar in shape and extent to the 2008 TCE plume in the overlying upper portion of the A aquifer. However, monitoring wells added to the RGRP sampling program in 2008 have better defined the extent of each lobe.

In 2008, monitoring wells W89-11, W89-12, W89-14, W9-25, W9-41, WU4-7, WU4-12, and WU4-13 were sampled by MEW. Monitoring wells WU4-7 and W9-41 have better defined the eastern lobe of the TCE plume, whereas monitoring wells W89-14 and WU4-13 have better defined the western lobe of the TCE plume. The lack of TCE concentrations detected in monitoring wells W89-11 and W89-12 prompted a change in the interpreted areal extent for both lobes. Prior to 2008, monitoring well 68B1 was associated with the eastern lobe of the TCE plume (TN&A 2008). However, it appears monitoring well 68B1 is associated with the western lobe (Figure 2-7). TCE concentrations detected in monitoring well WU4-12 indicates that the eastern and western lobes may reconnect as groundwater with higher concentrations of TCE drawn from the eastern lobe toward extraction well REG-8B(1).

The highest TCE concentration in 2008 samples collected from groundwater monitoring wells installed in the lower portion of the A aquifer at IR Site 28 is from monitoring well WU4-6 (4,700 µg/L), which was sampled by MEW. Data from this well was not provided in 2006 or 2007 (TN&A 2007, 2008). However, TCE concentrations detected in WU4-6 in 2005 was 3,500 µg/L. Monitoring well WU4-6 is nearly centered within the eastern lobe and located approximately 750 ft north of U.S. Highway 101.

2.4.1.2 TCE Trends

Historical TCE data are included in Table 2-6 and in time series concentration graphs (Figures 2-75 through 2-110). These data are considered representative of chemical concentrations at IR Site 28.

Upper Portion of the A Aquifer – TCE Trends

The historical time series TCE concentration plots prepared for groundwater samples collected from 26 monitoring wells completed within the upper portion of the A aquifer are provided in Figures 2-75 through 2-100. Analytical data for 19 out of 26 indicate a long-term decreasing trend of TCE concentrations. Groundwater samples collected from 4 out of 26 monitoring wells indicate relatively stable TCE concentrations (Figures 2-75, 2-76, 2-88, and 2-89). Groundwater samples collected from 3 out of 26 monitoring wells indicate a long-term increasing TCE concentration trend (see Figures 2-90, 2-95, and 2-97). There does not appear to be any correlation between monitoring well locations, reported concentrations for collected groundwater samples, and the observed long-term concentration trend for individual monitoring wells.

Lower Portion of the A Aquifer – TCE Trends

The historical time series TCE concentration plots prepared for groundwater samples collected from 10 monitoring wells completed within the lower portion of the A aquifer are provided in Figures 2-101 through 2-110. Analytical data for 9 out of 10 monitoring wells indicate long-term decreasing TCE concentration trends. Groundwater samples collected from monitoring well WU4-15 indicate a long-term increasing TCE concentration trend (Figure 2-110).

2.4.1.3 Cis-1,2-DCE Evaluation

Upper Portion of the A Aquifer – cis-1,2-DCE Plume

Similar to the TCE plume, the cis-1,2-DCE plume extends downgradient (north) from south of U.S. Highway 101. The regional plume has an axis that generally trends south to north with the plume centered over the WATS capture area (Figure 2-111). The 2008 cis-1,2-DCE plume in the upper portion of the A aquifer at IR Site 28 is similar in shape to the cis-1,2-DCE plume mapped in 2007. However, monitoring wells added to the Navy and RGRP sampling programs in 2008 have better defined the extent of the cis-1,2-DCE plume.

In 2008, monitoring wells 14D24A, 14D26A, 14D36A, and 14D39A were added to the Navy annual sampling program. Monitoring wells 14D36A and 14D39A have better defined the leading edge of the cis-1,2-DCE plume. Analytical data collected from monitoring wells 14D24A and 14D26A have provided a potential connection to concentrations detected in monitoring well 95A, indicating a separate plume downgradient of the WATS capture area (Figure 2-111). This downgradient cis-1,2-DCE plume is similar in areal extent to the downgradient TCE plume discussed in Section 2.4.1.1.

In 2008, monitoring wells WT14-1, W14-3, W9-16, W89-2, W89-8, W89-9, and W89-5 were sampled by MEW. Monitoring wells WT14-1 and W14-3 have better defined the eastern edge of the cis-1,2-DCE plume originating south of the site border. Monitoring wells W9-16, W89-2, W89-8, W89-9, and W89-5 have better defined the southwestern portion of the cis-1,2-DCE

plume. Concentrations for these wells range from non-detect at the reporting limit of 0.5 µg/L to 150 µg/L and have increased the areal extent of the interpreted southwestern portion of the cis-1,2-DCE plume (Figure 2-111).

The highest cis-1,2-DCE concentration in 2008 samples collected from groundwater monitoring wells installed in the upper portion of the A aquifer at IR Site 28 is from monitoring well W9-18. The reported TCE concentration in 2008 is 15,000 µg/L, which is an increase from the 10,000 µg/L concentration reported in 2007. Monitoring well W9-18, located approximately 225 ft southwest of Hangar 1, has been consistently analyzed with the highest cis-1,2-DCE concentrations within IR Site 28 since 2000.

Lower Portion of the A Aquifer – cis-1,2-DCE Plume

The shape and areal extent of the cis-1,2-DCE plume in the lower portion of the A aquifer is characterized by a generally south-to-north trending axis (Figure 2-112). Concentrations of cis-1,2-DCE detected in 2008 groundwater samples collected from monitoring wells WU4-2, WU4-6, WU4-4, and 80B1 are greater than those reported in 2007 and suggest an elongated and continuous plume of cis-1,2-DCE greater than 100 µg/L. Additionally, monitoring wells added to the RGRP sampling program in 2008 have better defined the extent of the cis-1,2-DCE plume and support the elongated 100 µg/L cis-1,2-DCE isoconcentration contour originating off-site from the south.

In 2008, monitoring wells W89-11, W89-12, W89-14, W9-25, W9-41, WU4-7, WU4-12, and WU4-13 were sampled by MEW. Monitoring wells WU4-7 and W9-41 have better defined the center of the cis-1,2-DCE plume. Monitoring wells W89-11, W89-12, W89-14, W9-25, WU4-12, and WU4-13 have better defined and increased the areal extent of the western portion of the cis-1,2-DCE plume (Figure 2-112).

The highest cis-1,2-DCE concentration in 2008 samples collected from groundwater monitoring wells installed in the lower portion of the A aquifer at IR Site 28 was from well W9SC-3 (2,400 µg/L). This concentration is an increase from data collected in 2006 (an estimated concentration of 1,700 µg/L) and 2007 (2,000 µg/L). Monitoring well W9SC-3 is nearly centered within the cis-1,2-DCE plume and located approximately 100 ft west of Hangar 1.

2.4.1.4 Cis-1,2-DCE Trends

Historical cis-1,2-DCE data are included in Table 2-6 and on time series graphs (Figures 2-75 through 2-110) and are considered representative of chemical concentrations at IR Site 28.

Upper Portion of the A Aquifer – cis-1,2-DCE Trends

The historical time series graphs for cis-1,2-DCE concentrations in 26 monitoring wells completed within the upper portion of the A aquifer are provided in Figures 2-75 through 2-100.

Groundwater samples collected from 10 out of 26 monitoring wells indicate a long-term decreasing trend for cis-1,2-DCE concentrations. Groundwater samples collected from 14 out of 26 monitoring wells had cis-1,2-DCE concentrations that are stable. Groundwater samples collected from 2 out of 26 monitoring wells from the upper portion of the A aquifer indicate an increasing long-term cis-1,2-DCE concentration trend. The graphs for monitoring wells W9-2 and W9SC-1 (Figures 2-77 and 2-81) show generally increasing cis-1,2-DCE concentration and decreasing TCE concentration trends, suggesting degradation of the TCE to cis-1,2-DCE. There does not appear to be any correlation between monitoring well locations, reported concentrations for collected groundwater samples, and the observed long-term concentration trend for individual monitoring wells.

Lower Portion of the A Aquifer – cis-1,2-DCE Trends

The historical time series plots for cis-1,2-DCE concentrations of groundwater samples collected from 10 monitoring wells completed within the lower portion of the A aquifer are provided in Figures 2-101 through 2-110. Groundwater samples collected from 5 out of 10 monitoring wells have a long-term decreasing trend of cis-1,2-DCE concentrations. Groundwater samples collected from 3 out of 10 monitoring wells have cis-1,2-DCE concentrations that are relatively stable. Groundwater samples collected from 2 out of 10 monitoring wells have a long-term increasing trend for cis-1,2-DCE concentrations (Figures 2-106 and 2-110). The graph for monitoring well W9-34 shows a generally increasing cis-1,2-DCE concentration trend and a generally decreasing TCE concentration trend, suggesting degradation of the TCE to cis-1,2-DCE. There does not appear to be any correlation between monitoring well locations, reported concentrations for collected groundwater samples, and the observed long-term concentration trend for individual monitoring wells.

2.4.1.5 PCE Evaluation

Upper Portion of the A Aquifer – PCE Plume

The highest PCE concentration was reported in monitoring well W9-45 at 11 µg/L. Monitoring well W9-45 is located approximately 50 ft west of Hangar 1 and is approximately 500 ft downgradient of the Building 88 area (Figure 2-113). The PCE plume in the upper portion of the A aquifer trends in a north-south direction and is similar in shape and extent to the 2007 PCE plume (TN&A 2008). While the plume has been delineated, the limits are estimated using dashed contours to reflect uncertainty over the scale of the plume and well array.

In 2008, monitoring wells 14D24A, 14D26A, 14D36A, and 14D39A were added to the Navy's annual sampling program, and monitoring wells WT14-1, W14-3, W9-16, W89-2, W89-8, W89-9, and W89-5 were sampled by MEW. Concentrations for these wells range from not detected at the reporting limit of 0.5 µg/L to 0.79 µg/L and have not increased the areal extent of the PCE plume (Figure 2-113).

PCE concentrations detected in a sample collected from monitoring well 72A (5.4 µg/L) in 2008 indicate PCE in the southeastern portion of the base (Figure 2-113). Analytical data for this monitoring well was not provided in 2006 or 2007 (TN&A 2007, 2008); however, PCE was reported at a concentration of 6.3 µg/L in monitoring well 72A in 2005 (TtEC 2006).

Lower Portion of the A Aquifer – PCE Plume

The elongated shape of the lower portion of the A aquifer in the north-south direction is similar in shape and extent to 2007 (TN&A 2008).

In 2008, monitoring wells W89-11, W89-12, W89-14, W9-25, W9-41, WU4-7, WU4-12, and WU4-13 were sampled by MEW. No concentrations of PCE were detected above the laboratory reporting limit for these wells (Figure 2-114).

The highest PCE concentration in 2008 samples collected from groundwater monitoring wells installed in the lower portion of the A aquifer at IR Site 28 is from monitoring well W9SC-15 (120 µg/L). This is the same concentration that was reported for W9SC-15 in 2007 (120 µg/L) and a decrease to the concentration reported for W9SC-15 in 2006 (estimated concentration of 210 µg/L). Monitoring well W9SC-15 is located approximately 275 feet southwest of Hanger 1, and 50 feet downgradient of the former Building 88 area (Figure 2-114).

2.4.1.6 PCE Trends

Historical PCE data are included in Table 2-6 and on time series graphs (Figures 2-75 through 2-110) and are considered representative of chemical concentrations at IR Site 28.

Upper Portion of the A Aquifer – PCE Trends

Historical time series PCE concentration plots prepared for groundwater samples collected from 26 monitoring wells completed within the upper portion of the A aquifer are provided on Figures 2-75 through 2-100. These graphs indicate a long-term decreasing trend for PCE concentrations for 8 out of 26 monitoring wells completed in the upper portion of the A aquifer. Groundwater samples collected from 18 out of 26 of evaluated monitoring wells contained PCE concentrations that are stable. Eight out of the 26 groundwater monitoring wells, W9-18, W9SC-1, W9-31, W9-37, W9-45, W9SC-14, W29-4, and WIC-1, are located within 100 feet of the PCE plume footprint in the upper portion of the A aquifer (Figure 2-113).

Lower Portion of the A Aquifer – PCE Trends

Historical time series PCE concentration plots prepared for groundwater samples collected from 10 monitoring wells completed within the lower portion of the A aquifer are provided in Figures 2-101 through 2-110. These plots indicate a trend of decreasing PCE concentrations for groundwater samples collected from 3 out of 10 monitoring wells. Groundwater samples

collected from 7 out of 10 contained PCE concentrations that are stable or below laboratory detection limits.

There are four monitoring wells, 80B1, W9-14, W9-20, and W9-21, located in or within 100 feet of the PCE plume footprint that are used for long-term evaluation of concentration trends for the lower portion of the A aquifer (Figure 2-114). PCE concentration trends are decreasing for groundwater samples collected from monitoring wells 80B1, W9-14, and W9-21. The PCE concentration trend is stable for groundwater samples collected from monitoring well W9-20.

2.4.1.7 VC Evaluation

Upper Portion of the A Aquifer - VC Plume

The areal extent of VC detected in wells completed within the upper portion of the A aquifer is illustrated in Figure 2-115. One lobe of the VC plume appears to originate near the former Building 88 area, and the plume extends to the north. In 2008, monitoring wells 14D24A, 14D26A, 14D36A, and 14D39A were added to the Navy annual sampling program. Each of the four monitoring wells provide data that better defines the leading edge of the VC plume. Analytical data collected from monitoring wells 14D24A and 14D26A indicates a potential connection to VC concentrations detected in monitoring well 95A (Figure 2-115). The current interpretation of the VC plume is different in areal extent to the downgradient TCE and cis-1,2-DCE plumes discussed in Section 2.4.1.1 and 2.4.1.3, respectively, because it connects the downgradient VC plume to the main VC plume (Figure 2-115).

In 2008, monitoring wells WT14-1, W14-3, W9-16, W89-2, W89-8, W89-9, and W89-5 were sampled by MEW. VC was not detected at the reporting limit of 0.5 µg/L in monitoring wells WT14-1, W14-3, W9-16, and W89-5. The sample collected from well W89-2 was determined to have a VC concentration of 51 µg/L. The results for samples collected from monitoring wells W89-8 and W89-9 extend the southwestern lobe of the VC plume in comparison with 2007 interpretations (Figure 2-115).

The highest VC concentration in 2008 samples collected from groundwater monitoring wells installed in the upper portion of the A aquifer at IR Site 28 is from monitoring well W9-18. The reported VC concentration in 2008 is 1,100 µg/L, which is a significant increase from the 320 µg/L concentration reported in 2007. Well W9-18 is located approximately 250 feet west of Hangar 1. In 2007, the highest VC concentration was detected in groundwater from monitoring well W9-26 (440 µg/L). Concentrations detected in monitoring well W9-26 have slightly decreased in 2008 (400 µg/L). A significant increase in VC concentration (from 10 µg/L in 2007 to 300 µg/L in 2008) was detected in groundwater from monitoring well W56-2.

Lower Portion of the A Aquifer – VC Plume

The 2008 VC plume in the lower portion of the A aquifer is similar in shape and areal extent relative to the plume reported in 2007. The southeastern edge of the VC plume appears to originate near the former Building 88 area, and the plume extends to the north (Figure 2-116).

In 2008, monitoring wells W89-11, W89-12, W89-14, W9-25, W9-41, WU4-7, WU4-12, and WU4-13 were sampled by MEW. VC was not detected at the reporting limit of 0.5 µg/L in monitoring wells W89-11, W89-14, W9-41, WU4-7, WU4-12, and WU4-13. These monitoring wells provide data that better defines the extent of the VC plume. Analytical data collected from monitoring well W9-25 has better defined the western portion of the VC plume. Analytical data collected from monitoring well W89-12 indicates VC concentrations are originating from beyond the southern site border (Figure 2-116).

The highest VC concentration in 2008 samples collected from groundwater monitoring wells installed in the lower portion of the A aquifer at IR Site 28 is from monitoring well W9-9. The reported VC concentration in 2008 is 500 µg/L, which is a significant increase from the 250 µg/L concentration reported in 2007. Monitoring well W9-9 also had the highest VC concentration in 2007. Monitoring well W9-9 is located approximately 725 feet west of Hangar 1 (Figure 2-116).

2.4.1.8 VC Trends

Historical VC data are included in Table 2-6 and on time series graphs (Figures 2-75 through 2-110) and are considered representative of chemical concentrations at IR Site 28.

Upper Portion of the A Aquifer – VC Trends

The historical VC time series concentration graphs prepared for groundwater samples collected from 26 monitoring wells completed within the upper portion of the A aquifer are provided in Figures 2-75 through 2-100. These plots indicate a long-term trend of decreasing VC concentrations for groundwater samples collected from 7 out of 26 monitoring wells evaluated within the upper portion of the A aquifer. Groundwater samples collected from 11 out of 26 monitoring wells evaluated within the upper portion of the A aquifer contained VC concentrations that are stable. Groundwater samples collected from 8 out of 26 monitoring wells within the upper portion of the A aquifer have an increasing long-term VC trend (Figures 2-78, 2-79, 2-80, 2-84, 2-89, 2-91, 2-92, and 2-93). The increasing long-term VC concentration may be the result of TCE and PCE degradation. All of the monitoring wells with increasing VC concentrations also have stable or decreasing TCE and PCE concentrations. Five of these eight monitoring wells are located in the vicinity of former Building 88. The remaining three monitoring wells are located nearer to the downgradient edge of the plume.

Lower Portion of the A Aquifer – VC Trends

The historical time series concentration plots prepared for groundwater samples collected from 10 monitoring wells completed within the lower portion of the A aquifer are provided in Figures 2-101 through 2-110. Groundwater samples collected from 3 out of 10 monitoring wells completed within the lower portion of the A aquifer indicate a long-term trend of decreasing VC concentrations. Groundwater samples collected from 2 out of 10 monitoring wells completed within the lower portion of the A aquifer were reported to have VC concentrations that are stable and below the laboratory detection limit. Groundwater collected from 5 out of 10 monitoring wells evaluated within the lower portion of the A aquifer demonstrate increasing long-term VC concentrations (Figures 2-102, 2-103, 2-106, 2-107, and 2-110). The increasing VC concentration may be due to TCE and PCE degradation. Groundwater samples collected from four of the five monitoring wells have increased VC concentrations as well as stable or decreasing TCE and PCE concentrations.

2.4.2 Historical Data Summary

Historical analytical results for groundwater monitoring wells at IR Site 28 are provided in Table 2-6. Available analytical results from 1992 to the present and data related to all monitoring wells currently or previously sampled by the Navy in the vicinity of WATS are included in Table 2-6. Historical trend analysis is included in Section 2.4.1.

3.0 EAST-SIDE AQUIFER TREATMENT SYSTEM

This section provides a description of EATS and an evaluation of 2008 groundwater elevation and annual groundwater chemical analytical results. EATS was taken off-line in July 2003 as part of implementing the *Final East-Side Aquifer Treatment System Evaluation Work Plan* (FWENC 2003b). The Work Plan was implemented to evaluate plume stability, COC rebound, natural attenuation, and the efficiency of Hydrogen Release Compound® in remediating plume hot spots. The *Final Site 26, East-Side Aquifer Treatment System Evaluation Report* details the results of this Work Plan (TtEC 2008a).

EATS remained off-line through the 2008 reporting period. Therefore, EATS extraction treatment system operations and maintenance and hydraulic control/capture zone analyses are not included in this report.

3.1 SYSTEM DESCRIPTION AND PERFORMANCE

EATS began operating on January 26, 1999. EATS consists of five extraction wells piped to a treatment system located north of Hangar 3. All of the extraction wells (EXW-1 through EXW-5) are completed in the upper portion of the A aquifer. Upper portion of the A aquifer EATS area extraction and monitoring wells are shown on Figure 3-1. Contaminated groundwater was pumped from the extraction wells and treated to remove contaminants before being discharged to the Moffett storm drain system. EATS consists of two major unit operations designed to remove influent VOCs from groundwater: an air stripper and liquid-phase GAC unit in series.

EATS operated from January 1999 until July 2003. During that time, EATS processed 67,050,786 gallons of extracted groundwater and approximately 23.65 pounds of VOCs.

3.2 GROUNDWATER ELEVATION DATA

Base-wide groundwater elevation data were collected semiannually during 2008. Groundwater elevations were gauged on a site-wide basis during a single day in March and November. Groundwater elevation gauging is coordinated with the MEW companies and NASA so that all gauging is conducted on a single day. Table 3-1 provides the Navy groundwater elevation data for IR Site 26 wells measured in 2008. These elevations were calculated by converting depth to water measurements to a common datum in feet above msl.

Hydrographs were prepared from the groundwater elevation data to aid in the evaluation of site-specific trends. The hydrographs are provided on Figures 3-2 through 3-17. Selections of monitoring wells for hydrograph presentation were based on the methodology described in Section 2.3.2, Step 3. Seasonal groundwater elevation trends for 2008 appear consistent with the

trends described in previous reports (FWENC 2002, 2003a; TtFW 2004a, 2005a, 2005b; TtEC 2006; TN&A 2007, 2008) showing an annual wet and dry season.

Historically, the groundwater levels in monitoring wells completed in the upper portion of the A aquifer have not shown a well-defined response when EATS was pumping (TtEC 2006). Similarly, groundwater levels in the lower portion of the A aquifer and B2 aquifer zone have not shown a response to pumping of the upper portion of the A aquifer extraction wells. Groundwater levels in most of the wells completed in the upper and lower portions of the A aquifer and B2 aquifer zone appear to have increased slightly since EATS was taken off-line on July 2, 2003 (Figures 3-2 through 3-17). The increase in water levels could be in response to above normal precipitation received during the 2004-2005 wet season. Precipitation between December 2004 and March 2005 was 4.74 inches above average. Precipitation from 2006 through 2008 remained slightly below average. Consequently, groundwater elevations in 2008 measured slightly lower than corresponding measurements taken during 2005. These observations support the trend that groundwater elevations fluctuate with precipitation levels.

Most groundwater elevations in monitoring wells continue to exhibit seasonal fluctuations. The highest groundwater elevations typically occur at the end of the wet season (March). The lowest groundwater elevations typically occur at the end of the dry season/beginning of the wet season (November).

Potentiometric Surface Map

Potentiometric surface maps (Figures 3-18 and 3-19) were prepared to evaluate flow directions and hydraulic gradients in the upper portion of the A aquifer. Potentiometric surface maps were generated using groundwater elevation data collected during the March and November base-wide groundwater gauging events by the same method described in Section 2.3.2, Step 3.

With EATS off-line for all of 2008, the direction of groundwater flow in the upper portion of the A aquifer at IR Site 26 was influenced by the groundwater depression associated with pumping at Building 191 and its associated network of ditches and drains (Figures 3-18 and 3-19). The direction of groundwater flow in the southern portion of the area is toward the north; in the northern portion of the area, groundwater flow is north-northwest, toward the groundwater depression near Building 191.

North of the intersection of Marriage Road and Macon Road, the hydraulic gradient is approximately 0.002 ft/ft. South of the intersection, the gradient is approximately 0.003 ft/ft. The hydraulic gradient in the upper portion of the A aquifer decreases from south to north, similar to the hydraulic gradient at IR Site 28. A decrease in gradient is indicative of the movement of groundwater from an area of lower transmissivity to an area of higher transmissivity. Transmissivity is a function of hydraulic conductivity and aquifer thickness. Therefore, the higher transmissivity area would either have a thicker or more contiguous aquifer

and/or higher hydraulic conductivity. It is believed that the surficial geology changes in this general area from flood basin to estuary deposits. This surficial geology would explain the change in gradient as flood plain deposits would be characterized by channels of limited areal extent that contain higher hydraulic conductivity sands and gravels surrounded by lower hydraulic conductivity silts and clays. Estuary deposits would have contiguous layers of sand that could have higher transmissivity.

3.3 ANALYTICAL RESULTS

Groundwater monitoring of both the northern and southern plumes occurred during 2008. Analytical results are summarized in this section.

The 2008 groundwater concentrations for EATS (southern plume) COC were evaluated against the cleanup standards in the OU5 ROD (Navy 1996). The COC for EATS, as specified in the OU5 ROD (Navy 1996), are TCE, 1,2-DCE, PCE, VC, 1,1-DCE, and 1,2-DCA. The compound 1,2-DCE is composed of two isomers: cis-1,2-DCE and trans-1,2-dichloroethene (trans-1,2-DCE), which are reported separately by the laboratory. The vast majority of 1,2-DCE at EATS is made up of cis-1,2-DCE. Thus, the evaluation in this report focuses on cis-1,2-DCE.

3.3.1 Chemical Data Evaluation and Trend Analysis

Analytical data for the 2008 EATS annual sampling event are presented in Table 3-2. Appendix C provides the chain-of-custody documentation, data validation packages, case narratives, and laboratory analytical summary sheets (on CD only). Analytical data, quality QA/QC and validation results are presented in Appendix D. For the EATS southern plume area, analytical data for each COC are summarized below. Northern plume data are summarized in Section 3.3.2.

Available historical analytical data for TCE, cis-1,2-DCE, PCE, and VC from 1992 through 2008 for EATS area wells currently sampled by the Navy are presented in Table 3-3. Groundwater monitoring wells were selected to evaluate VOC concentration trends at IR Site 26, as described in Section 2.4.1. The list of wells was approved by the EPA. Time series graphs of VOC concentration for the listed wells are presented in Figures 3-20 through 3-29. Trend analysis and interpretation were based on a visual inspection of the historical concentration trend graphs.

3.3.1.1 TCE Evaluation

TCE within the upper portion of the A aquifer has been historically depicted as two separate plumes: a southern and a northern plume. However, TCE concentrations in the northern plume have decreased to below the 5 µg/L cleanup standard in 2008 and have not been contoured (Figure 3-30). The general location of the southern TCE plume area in the upper portion of the A aquifer has remained approximately the same since 1998, the baseline year. The plume,

extending downgradient from the northeast corner of Hangar 3, is generally centered east of the intersection of Marriage Road and Macon Road. Although the EATS extraction wells have been off-line since July 2003, the general shape and location of the plume in 2008 appears stable when compared to the 2005, 2006, and 2007 depictions (TtFW 2005b; TN&A 2007, 2008).

In 2008, the highest concentration of TCE in the upper portion of the A aquifer was reported as 22 µg/L in a groundwater sample collected from monitoring well W43-2. The highest TCE concentration reported in 2007 was 28 µg/L, which was collected from well WU5-24. The two areas having the highest TCE concentrations have been, and remain, near extraction wells EXW-1 and EXW-2. TCE concentrations in groundwater samples collected from wells EXW-1, EXW-2, and adjacent monitoring wells have generally decreased between 1 and 7 µg/L when compared to concentrations reported in 2007.

The four groundwater monitoring wells completed in the lower portion of the A aquifer that were sampled in 2008 are W6-2, WU5-11, WU5-12, and WU5-13. Since 2003, TCE has not been detected in monitoring wells WU5-12 and W5U-13. In 2008, TCE was reported in groundwater samples from monitoring wells W6-2 at a concentration of 1.9 µg/L and WU5-11 at a concentration of 0.16 µg/L, which is below the cleanup standard for TCE. Between 2003 and 2008, groundwater samples collected from monitoring wells W6-2 and WU5-11 contained equally low TCE concentrations.

3.3.1.2 TCE Trends

Historical data are included in Table 3-3. The historical time series concentration graphs (Figures 3-20 through 3-29) are considered representative of chemical concentrations in the upper portion of the A aquifer at IR Site 26.

Visual inspection of historical concentration graphs for 10 monitoring wells show a long-term trend of decreasing TCE concentrations for each of the 10 upper portion of the A aquifer EATS area monitoring wells. Samples collected from monitoring wells W7-10 and WU5-14 (Figures 3-23 and 3-27) showed a decrease in TCE concentrations (decreases of 21.4 µg/L and 43.7 µg/L, respectively) beginning in mid-2005. The reported TCE concentration for groundwater samples collected in 2008 from monitoring well W7-10 show a slight increase compared to previous years. However, an overall decreasing trend in TCE concentrations has been observed with groundwater samples collected from this well. The decreasing TCE concentration in samples collected from W7-10 and WU5-14 appears due to the addition of Hydrogen Release Compound[®] in the area during 2004. None of the data indicate increasing concentrations of TCE.

These trends are consistent with previous interpretations (TN&A 2007, 2008; TtEC 2006; TtFW 2004a, 2005a, 2005b; FWENC 2002, 2003a). The EATS TCE plume has remained stable and decreased in size since July 2003 when EATS was taken off-line.

All TCE analytical results for the lower portion of the A aquifer were below the 5 µg/L cleanup standard.

3.3.1.3 Cis-1,2-DCE Evaluation

The shape and location of the upper portion of the A aquifer cis-1,2-DCE plume areas have remained relatively stable compared to the 2007 plume (TN&A 2008). The cis-1,2-DCE plume has decreased in size and split relative to the 2002 description (TtFW 2004a). One portion of the cis-1,2-DCE plume is adjacent to the intersection of Marriage Road and Macon Road and extends between extraction wells EXW-4 and EXW-5 (Figure 3-31). Another portion of the plume extends downgradient from the northeastern corner of Hangar 3, in the area of extraction well EXW-1. There is also a small plume around extraction well EXW-2.

In 2008, the highest concentration of cis-1,2-DCE in the upper portion of the A aquifer was reported as 39 µg/L in a groundwater sample collected from monitoring well W7-10. The highest cis-1,2-DCE concentration reported in 2007 was 34 µg/L, which was also collected from well W7-10.

Cis-1,2-DCE concentrations in groundwater samples collected from EXW-1 and adjacent monitoring wells have both increased (between 1 µg/L and 5 µg/L) and decreased (between 0.8 µg/L and 7 µg/L) when compared to concentrations reported in 2007. Cis-1,2-DCE concentrations in groundwater samples collected from EXW-2 and adjacent monitoring wells have generally decreased between 0.1 µg/L and 5.1 µg/L when compared to concentrations reported in 2007. One monitoring well adjacent to EXW-2 had an increase of 1.3 µg/L in cis-1,2-DCE during the same period. Cis-1,2-DCE concentrations have both increased (between 0.5 µg/L and 1.5 µg/L) and decreased (between 0.5 µg/L to 6.1 µg/L) in samples collected from monitoring wells nearby EXW-4 and EXW-5 when compared to concentrations reported in 2007. Hydrogen Release Compound[®] was not introduced into this area.

Cis-1,2-DCE was detected in a groundwater sample collected from one of the four wells completed in the lower portion of the A aquifer. An estimated concentration of 0.28 µg/L was detected in monitoring well W6-2. This result is below the 6 µg/L cleanup standard.

3.3.1.4 Cis-1,2-DCE Trends

Historical data are included in Table 3-3. The historical time series concentration graphs (Figures 3-20 through 3-29) are considered representative of chemical concentrations in the upper portion of the A aquifer at IR Site 26.

Visual inspection of historical concentration graphs for 10 monitoring wells show a long-term trend of decreasing cis-1,2-DCE concentrations for samples collected from 5 out of 10 of the evaluated upper portion of the A aquifer IR Site 26 monitoring wells. Samples collected from 3

out of 10 of evaluated monitoring wells contained cis-1,2-DCE concentrations that were stable. Samples from 2 out of 10 of evaluated monitoring wells had increasing trends.

Groundwater samples collected from monitoring wells W7-10 (located near EXW-1) and WU5-14 (located near EXW-2) provided the only evaluated wells with increasing cis-1,2-DCE trends (Figures 3-23 and 3-27). This increasing trend began in mid-2005. Prior to this, cis-1,2-DCE concentrations in both monitoring wells were stable. The increase in cis-1,2-DCE concentrations correlates with the decrease in TCE concentration in samples from monitoring wells W7-10 and WU5-14 and are likely due to the dechlorination effects associated with the addition of Hydrogen Release Compound[®] in the area during 2004.

All cis-1,2-DCE analytical results for the lower portion of the A aquifer have been consistently below the 6 µg/L cleanup standard. Therefore, the groundwater cleanup standard for cis-1,2-DCE has not been exceeded for the lower portion of the A aquifer.

3.3.1.5 PCE Evaluation

The shape and location of the 2008 PCE plume has remained generally stable compared to the 2007 plume (TN&A 2008). The extent of PCE in the upper portion of the A aquifer at concentrations greater than the cleanup standards of 5 µg/L is limited to the northeast corner of Hangar 3 near extraction well EXW-1 (Figure 3-32). PCE concentrations in samples collected from EXW-1 and adjacent monitoring wells have generally decreased between 1.8 µg/L and 23 µg/L when compared to concentrations reported in 2007. One monitoring well adjacent to EXW-1 had an increase of 3.5 µg/L in PCE during the same period. The highest PCE concentration was detected in a sample from monitoring well W43-2 (57 µg/L). Well W43-2 was not sampled in 2007; however, concentrations have been historically decreasing.

PCE was not detected above the laboratory reporting limit (0.5 µg/L) in any 2008 groundwater samples collected from the four monitoring wells completed in the lower portion of the A aquifer.

3.3.1.6 PCE Trends

Historical data are included in Table 3-3. The historical time series concentration graphs (Figures 3-20 through 3-29) are considered representative of chemical concentrations in the upper portion of the A aquifer at IR Site 26.

Samples collected from 5 out of 10 of evaluated wells contained PCE concentrations that were generally the same as the initial concentrations with concentrations remaining at or below 1 µg/L. The graphs for samples collected from the remaining 5 out of 10 of evaluated wells had generally decreasing long-term trends. A decrease in PCE concentration in samples collected from W7-10 (Figure 3-23) was observed beginning in mid-2005. The decrease is likely due to

the dechlorination effects associated with the addition of Hydrogen Release Compound[®] in 2004. There are no increasing concentrations of PCE.

All PCE analytical results for the lower portion of the A aquifer have been consistently below the 5 µg/L cleanup standard. Therefore, the groundwater cleanup standard for PCE has not been exceeded for the lower portion of the A aquifer.

3.3.1.7 VC Evaluation

The shape and location of the 2008 VC plume have remained stable when compared to the 2007 plume (TN&A 2008). The extent of VC in the upper portion of the A aquifer at concentrations greater than the cleanup standard of 0.5 µg/L is shown on Figure 3-33. The VC plume is generally co-located with a slight southern offset from the cis-1,2-DCE plumes (Figure 3-31).

In 2008, the highest concentration of VC in the upper portion of the A aquifer was reported as 17 µg/L in a groundwater sample collected from monitoring well W7-7. The highest VC concentration reported in 2007 was 30 µg/L, which was also collected from well W7-7.

VC concentrations in groundwater samples collected from EXW-1 and adjacent monitoring wells have both increased (between 0.32 µg/L and 2.4 µg/L) and decreased (between 0.03 µg/L and 13 µg/L) when compared to concentrations reported in 2007. VC concentrations in groundwater samples collected from EXW-2 and adjacent monitoring wells have both increased (between 0.2 µg/L and 5.5 µg/L) and decreased (between 0.21 µg/L and 1.9 µg/L) when compared to concentrations reported in 2007. VC concentrations in groundwater samples collected from monitoring well nearby EXW-3, EXW-4, and EXW-5 both increased (between 1.2 µg/L and 2.8 µg/L) and decreased (between 0.28 µg/L and 3.7 µg/L) when compared to concentrations reported in 2007. Hydrogen Release Compound[®] was not introduced into this area.

VC was not detected above the laboratory reporting limit (0.5 µg/L) in any 2008 groundwater samples collected from the four monitoring wells completed in the lower portion of the A aquifer.

3.3.1.8 VC Trends

Historical data are included in Table 3-3. The historical time series concentration graphs (see Figures 3-20 through 3-29) are considered representative of chemical concentrations in the upper portion of the A aquifer at IR Site 26.

Visual inspection of historical concentration graphs of 10 wells show a long-term trend of stable VC concentrations for samples from 6 out of 10 of the evaluated upper portion of the A aquifer EATS area monitoring wells. Samples from 4 out of 10 of evaluated monitoring wells had

increasing trends. Groundwater samples from monitoring wells W4-14, W7-10, and WU5-14 (Figures 3-21, 3-23, and 3-27) showed an increase in VC concentrations beginning in mid-2005. With the increase in VC concentrations observed in mid-2005, the trend in samples from monitoring wells W4-14, W7-10, and WU5-14 has gone from being flat to increasing. Samples from these same wells exhibit a flat to decreasing trend in TCE and PCE concentrations. The decrease in TCE and PCE, with an increase in VC, appear to be a result of dechlorination effects associated with the addition of Hydrogen Release Compound[®] in the areas immediately upgradient of W4-14, W7-10, and WU5-24 during 2004.

The VC concentration in samples from monitoring well WSW-6 (Figure 3-24) showed a general increasing trend that does not appear related to the addition of Hydrogen Release Compound[®] in 2004. The TCE and PCE in samples collected from monitoring well WSW-6 are stable. If the rise in VC concentration resulted from increased TCE and/or PCE degradation caused by the Hydrogen Release Compound[®], then the TCE and PCE concentrations should be decreasing, not remaining stable. Well WSW-6 is located farther downgradient from the Hydrogen Release Compound[®] injection site than the wells that exhibit TCE and PCE degradation.

3.3.1.9 1,1-DCE Evaluation

The compound 1,1-DCE was detected above the laboratory reporting limit of 0.5 µg/L in 6 of the 47 groundwater samples collected from wells completed in the upper portion of the A aquifer during the 2008 annual sampling event. Monitoring well sample concentrations ranged from 0.53 µg/L (WU5-10) to 4.3 µg/L (W19-4). The 1,1-DCE cleanup standard of 6 µg/L was not exceeded in any of the samples collected from the upper portion of the A aquifer for the 2008 sampling event.

There were no detections of 1,1-DCE above the laboratory reporting limit of 0.5 µg/L in the four groundwater samples collected from wells completed in the lower portion of the A aquifer. All 1,1-DCE analytical results for monitoring wells completed in the lower portion of the A aquifer are below the 6 µg/L cleanup standard.

3.3.1.10 1,2-DCA Evaluation

The compound 1,2-DCA was detected above the laboratory reporting limit 0.5 µg/L in 2 of the 47 groundwater samples collected from wells completed in the upper portion of the A aquifer during the 2008 annual sampling event. Monitoring well sample concentrations were 0.51 µg/L (WU5-2) and 0.85 µg/L (WU5-20). These concentrations exceed the cleanup standard of 0.5 µg/L for 1,2-DCA.

There were no detections of 1,2-DCA at or above the laboratory reporting limit or cleanup standard of 0.5 µg/L in the four groundwater samples collected from wells completed in the

lower portion of the A aquifer. All 1,2-DCA analytical concentration results for the lower portion of the A aquifer are below the 0.5 µg/L cleanup standard.

3.3.1.11 Trans-1,2-DCE Evaluation

Trans-1,2-DCE was detected above the laboratory reporting limit of 0.5 µg/L in 14 of the 47 groundwater samples from monitoring wells completed in the upper portion of the A aquifer during the 2008 sampling event. The trans-1,2-DCE cleanup standard of 6 µg/L was exceeded in only one sample collected from monitoring well WU5-14 (13 µg/L). The remaining detections ranged from 0.62 µg/L (W4-15) to 3.9 µg/L (WU5-16).

Trans-1,2-DCE was not detected at or above the laboratory reporting limit of 0.5 µg/L in the four groundwater samples collected from wells completed in the lower portion of the A aquifer. All trans-1,2-DCE analytical results for the lower portion of the A aquifer are below the 6 µg/L concentration cleanup standard.

3.3.2 Northern Plume

Groundwater monitoring wells WU5-8, WU5-9, and WU5-4 were identified in the *EATS Long-Term Groundwater Monitoring Plan* (PRC Environmental Management, Inc. [PRC] 1997) for monitoring COCs in the northern plume. During 2008 sampling of three northern plume monitoring wells, cis-1,2-DCE, PCE, VC, 1,1-DCE, 1,2-DCA, and trans-1,2-DCE concentrations were all less than laboratory reporting limits. TCE was detected above the laboratory reporting limit in samples collected from monitoring wells WU5-4 (3.7 µg/L) (see Figure 3-25) and WU5-8 (1.4 µg/L). The TCE cleanup standard of 5 µg/L was not exceeded in any of the samples collected from the northern plume for the 2008 sampling event.

3.3.3 Historical Data Summary

Historical analytical results for EATS area wells are presented in Table 3-3. Available analytical results from 1992 to the present are included in the table. The table includes all monitoring wells currently sampled as part of the EATS area long-term monitoring program. Historical trend analysis is included in Section 3.3.1.

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4.0 OTHER 2008 ACTIVITIES

This section describes activities related to WATS and EATS that were completed during the 2008 reporting period.

4.1 FORMER BUILDING 88 INVESTIGATION

On March 7, 2008, the *Final Former Building 88 Investigation Report* was submitted (TtEC 2008b). This report describes an investigation that was conducted in 2005 to determine if a continuing PCE source to groundwater contamination was present in the former Building 88 area. A continuing source of PCE contamination to groundwater was identified in the Building 88 footprint and in a traffic island along a sewer alignment downstream from the building location.

4.2 WATS IR SITE 28 OPTIMIZATION EVALUATION

On November 21, 2008, the *Draft West-Side Aquifers Treatment System Site 28 Optimization Evaluation Report* was submitted for regulatory agency review (SES-TECH 2008b). The purpose of the document is to identify how to optimize WATS in terms of its effectiveness in achieving the existing RAOs and cleanup goals identified in the MEW ROD (EPA 1989) and the Federal Facilities Agreement for the IR Site 28 area of Moffett. The draft report will be revised based on comments from the EPA and the Water Board.

4.3 EATS EVALUATION

The *Final Site 26, East-Side Aquifer Treatment System Evaluation Report* (TtEC 2008a) was submitted in February 2008. This report includes recommendations for continued EATS system operation, modifications, and/or alternative long-term remedial strategies.

On August 20, 2008, the *Final Site 26 Technical Memorandum (Optimization Evaluation)* was submitted (TtEC 2008c). The primary purpose of this document is to evaluate remedial technologies that can potentially result in IR Site 26 groundwater attaining the cleanup standard in the OU 5 ROD (Navy 1996). Based on the cost analysis, and in consideration of all other information, it was concluded that two in situ treatment technologies are potentially suitable remedial technologies at the site:

- Phytoremediation
- Combined biotic/abiotic treatment using EHC®

The Navy is implementing a pilot test to address combined biotic/abiotic treatment.

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5.0 PROBLEMS ENCOUNTERED

There were no unexpected O&M difficulties, cost exceedances, or violation notices for WATS during the 2008 reporting period.

The QA/QC Evaluation of Analytical Data (Appendix D) has revealed issues with the field QA/QC program and the laboratory QA/QC program that should be addressed prior to conducting the next annual sampling event. Namely, the source of equipment decontamination water was found to have detectable levels of chlorobenzene, acetone, and chloroform, which may have contributed to the same constituents being detected in most of the equipment rinsate samples. Secondly, the analytical laboratory analyzed four samples after the technical holding time. Future QA/QC issues are correctable with additional diligence and sub-contractor management.

EATS remained off-line during 2008. There were no unexpected O&M difficulties, cost exceedances, or violation notices for EATS during the 2008 reporting period.

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6.0 TECHNICAL ASSESSMENT

This section provides the technical assessment developed from the 2008 analysis performed for WATS and EATS.

6.1 WEST-SIDE AQUIFERS TREATMENT SYSTEM

WATS is functioning as intended. However, it appears that the pumping rates for extraction wells EA1-1, EA1-3, EA1-4, EA1-5, and EA1-6 are decreasing over time. Extraction well pump replacement is completed routinely; therefore, it is likely that biofouling may be occurring. Redevelopment and pump replacement of these WATS extraction wells was conducted in the spring of 2009.

The volume of groundwater extracted since WATS start-up in 1998 is approximately 340,413,017 gallons. The volume of groundwater extracted during 2008 is approximately 36,110,149 gallons. The mass of VOCs removed since the WATS start-up is approximately 4,361.9 pounds. The mass of VOCs removed during 2008 is approximately 364.8 pounds. All 2008 WATS discharge water samples were below NPDES permit limits prior to discharge of the treated groundwater.

The historical time series plots graphically illustrate the trend of decreasing or stable VOC concentrations for groundwater samples collected from monitoring wells installed in the upper and lower portions of the A aquifer that are downgradient of the target capture zone. The potentiometric surface maps for the upper and lower portions of the A aquifer were prepared using the March and November 2008 water level data. Maps showing the distributions of TCE, cis-1,2-DCE, PCE, and VC in the upper and lower portions of the A aquifers were prepared. A comparison of 2007 and 2008 data indicates that contaminant plumes are relatively stable, but there have been some changes in the shape and/or extent of the TCE, cis-1,2-DCE, PCE, and VC plumes in the upper and lower portions of the A aquifer since 2007. These changes are generally due to the sampling of additional monitoring wells by the Navy and MEW companies in 2008.

Dissolved VOCs in the regional plume continue to migrate into IR Site 28 with groundwater underflow from upgradient source areas. The upgradient source is contributing contaminants at concentrations greater than cleanup standards.

6.2 EAST-SIDE AQUIFER TREATMENT SYSTEM

EATS was taken off-line in July 2003. EATS remained off-line throughout the 2008 reporting period. The mass of VOCs removed since start-up in 1999 is approximately 23.65 pounds. Recommendations for continued EATS system operation, modifications, and/or alternative long-term remedial strategies are summarized in the *Final Site 26, East-Side Aquifer Treatment*

System Evaluation Report (TtEC, 2008a) and the *Final Site 26 Technical Memorandum (Optimization Evaluation)* (TtEC 2008c). The Navy is implementing a pilot test to address these alternative long-term remedial strategies at IR Site 26.

7.0 CONCLUSIONS AND RECOMMENDATIONS

This section presents conclusions and recommendations developed from the 2008 analysis performed for WATS and EATS.

7.1 WEST-SIDE AQUIFERS TREATMENT SYSTEM

WATS continues to function as intended. Capture zone maps indicate complete capture of VOC contamination in the target zone for the upper and lower portions of the A aquifer. Analytical data collected from wells in November and December 2008 indicate that there have been some changes in the shape and/or extent of the TCE, cis-1,2-DCE, PCE, and VC plumes in the upper and lower portions of the A aquifer since 2007. These changes are generally due to the sampling of additional monitoring wells by the Navy and MEW companies in 2008. WATS recommendations are as follows:

- Continue to operate, maintain, and monitor WATS and monitoring wells west of the runways as scheduled (Section 9.0).
- Coordinate with NASA and the MEW companies to evaluate long-term alternatives to pump and treat technology for contamination west of the runways as discussed in the Draft West-Side Aquifers Treatment System Site 28 Optimization Evaluation Report (SES-TECH 2008b).

7.2 EAST-SIDE AQUIFER TREATMENT SYSTEM

EATS remained off-line during the 2008 reporting period. It is recommended to continue monitoring IR Site 26 wells as scheduled (Section 9.0) and implementing the pilot test. The results of the pilot test will be provided in a final report. This report will include an evaluation of the success of the pilot test, an evaluation of the efficacy of an optimized EATS, and an evaluation of monitored natural attenuation. Based on the results of these evaluations, a proposed path forward will be provided.

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8.0 FOLLOW-UP ACTIONS

The progress toward completing EPA five-year review recommendations for WATS and EATS is described in Appendix A.

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9.0 UPCOMING WORK IN 2009 AND PLANNED FUTURE ACTIVITIES

Monitoring and reporting activities planned for WATS and EATS in 2009 are listed in Table 9-1.

With respect to IR Site 28, O&M of WATS will continue in 2009. The base-wide water level gauging events will be conducted in March and November 2009 and coordinated with the MEW companies and NASA as part of continued regional plume monitoring efforts. WATS maintenance will also include well redevelopment and pump replacement in the spring of 2009. The 2009 annual groundwater sampling event will be held in November/December 2009. An application for renewal of the WATS Self-Monitoring NPDES Permit to operate and discharge treated groundwater was submitted to the Water Board prior to the January 21, 2009 deadline. A draft Optimization Evaluation of the WATS was submitted in November 2008. This report will likely be finalized in 2009.

Activities planned for IR Site 26 include the base-wide water level gauging events in March and November 2009 and the annual groundwater sampling program in November/December 2009. In addition, the Navy is conducting a pilot test to evaluate the effectiveness of combined biotic/abiotic treatment using EHC[®]. The pilot test should be complete in 2010.

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TABLES

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2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

TABLE 1-1
HYDROSTRATIGRAPHY

Unit	Unit Subdivision	Range of Approximate Depths (feet bgs)	
		Top	Bottom
A	Upper portion of A (or A) aquifer	0 to 13	15 to 35
	Lower portion of A (or B1) aquifer	15 to 45	45 to 77
A/B	A/B (A/B2) aquitard	45 to 65	60 to 85
B	B2 (B2) aquifer zone	60 to 80	95 to 135
	(B2/B3) aquitard	95 to 105	99 to 111
	B3 (B3) aquifer zone	99 to 130	115 to 160
B/C	B/C (B3/C) aquitard	115 to 140	155 to 180
C	Unknown/undefined	155 to 160	250
Deep	Unknown/undefined	Generally deeper than 250	

Notes:

The equivalent aquifer/aquitard designations for the MEW study area are in parenthesis.

Abbreviations and Acronyms:

bgs – below ground surface

EATS – East-Side Aquifer Treatment System

MEW – Middlefield-Ellis-Whisman

WATS – West-Side Aquifers Treatment System

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TABLE 1-2

WATS AND EATS MONITORING AND DELIVERABLE SUMMARY FOR 2008

Event	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
WATS NPDES Sampling	X	X	X	X	X	X	X	X	X	X	X	X
WATS NPDES Reporting	X			X			X			X		
EATS NPDES Sampling ^a	-	-	-	-	-	-	-	-	-	-	-	-
EATS NPDES Reporting	X			X			X			X		
Basewide Well Gauging			X								X	
Annual Groundwater Sampling											X	X
2008 Annual Groundwater Report for WATS and EATS						X						

Notes:

^a Denotes EATS was turned off on July 2, 2003, and its operational status placed on standby.

Abbreviations and Acronyms:

EATS - East-Side Aquifer Treatment System

NPDES - National Pollutant Discharge Elimination System

WATS - West-Side Aquifers Treatment System

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TABLE 2-1

WATS AVERAGE MONTHLY FLOW RATES 2008

TIME PERIOD		SYSTEM	EA1-1	EA1-2	EA1-3	EA1-4	EA1-5	EA1-6	EA2-1	EA2-2	EA2-3	H1 SUMP	EV5
January 2008 (12/29/07 to 1/25/08)	TIME OPERATING	99.3%	99.3%	99.3%	99.3%	99.3%	50.0%	99.3%	99.3%	97.5%	99.3%	100.0%	100%
	AVERAGE FLOW RATE (gpm, when in operation)	72.13	0.41	9.71	1.36	1.89	0.39	1.05	16.06	19.78	6.94	8.55	0.00
	AVERAGE FLOW RATE (gpm, averaged over period)	71.59	0.41	9.64	1.35	1.87	0.20	1.04	15.94	19.28	6.89	8.55	0.00
February 2008 (1/26/08 to 2/29/08)	TIME OPERATING	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	100%	100%
	AVERAGE FLOW RATE (gpm, when in operation)	76.97	0.24	9.15	0.07	1.21	4.00	1.28	15.99	19.98	7.99	11.80	0.11
	AVERAGE FLOW RATE (gpm, averaged over period)	76.79	0.24	9.13	0.07	1.21	3.99	1.27	15.95	19.93	7.97	11.80	0.11
March 2008 (3/1/08 to 3/28/08)	TIME OPERATING	99.4%	95.8%	99.4%	95.8%	95.8%	95.8%	95.8%	99.4%	99.4%	99.4%	100%	100%
	AVERAGE FLOW RATE (gpm, when in operation)	72.16	0.07	10.99	0.05	0.93	4.08	1.28	15.89	19.86	7.94	7.22	0.00
	AVERAGE FLOW RATE (gpm, averaged over period)	71.73	0.06	10.93	0.05	0.89	3.91	1.23	15.80	19.74	7.90	7.22	0.00
April 2008 (3/29/08 to 4/25/08)	TIME OPERATING	99.7%	99.7%	99.7%	95.8%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	100%	100%
	AVERAGE FLOW RATE (gpm, when in operation)	70.85	0.03	11.67	0.61	0.96	3.71	1.13	16.09	20.11	7.61	5.16	0.00
	AVERAGE FLOW RATE (gpm, averaged over period)	70.64	0.03	11.63	0.59	0.96	3.70	1.13	16.04	20.05	7.59	5.16	0.00
May 2008 (4/26/08 to 5/30/08)	TIME OPERATING	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	100%	100%
	AVERAGE FLOW RATE (gpm, when in operation)	69.98	0.09	11.90	2.00	0.69	3.39	0.97	10.62	19.99	7.15	4.82	0.00
	AVERAGE FLOW RATE (gpm, averaged over period)	69.74	0.08	11.86	2.00	0.69	3.38	0.97	10.58	19.92	7.13	4.82	0.00
June 2008 (5/31/08 to 6/28/08)	TIME OPERATING	97.5%	97.5%	97.5%	97.5%	97.5%	97.5%	97.5%	97.5%	97.5%	97.5%	100%	100%
	AVERAGE FLOW RATE (gpm, when in operation)	67.64	0.27	8.91	1.93	0.49	3.16	1.06	22.16	19.18	8.03	4.43	0.00
	AVERAGE FLOW RATE (gpm, averaged over period)	65.93	0.27	8.69	1.88	0.48	3.08	1.03	21.60	18.69	7.83	4.43	0.00
July 2008 (6/28/08 to 7/25/08)	TIME OPERATING	98.6%	98.6%	98.6%	98.6%	98.6%	98.6%	98.6%	98.6%	98.6%	98.6%	100.0%	100.0%
	AVERAGE FLOW RATE (gpm, when in operation)	65.99	0.06	11.23	1.88	0.43	2.84	0.97	14.98	18.72	7.03	2.88	0.00
	AVERAGE FLOW RATE (gpm, averaged over period)	65.06	0.06	11.07	1.85	0.42	2.80	0.95	14.77	18.45	6.93	2.88	0.00
August 2008 (7/26/08 to 8/29/08)	TIME OPERATING	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	100%	100%
	AVERAGE FLOW RATE (gpm, when in operation)	67.94	0.24	11.43	1.95	0.11	2.54	0.96	15.49	19.52	7.82	4.25	0.00
	AVERAGE FLOW RATE (gpm, averaged over period)	65.68	0.23	11.05	1.89	0.10	2.45	0.93	14.97	18.87	7.56	4.25	0.00
September 2008 (8/30/08 to 9/26/08)	TIME OPERATING	99.3%	99.3%	99.3%	99.3%	69.3%	96.1%	99.3%	99.3%	99.3%	99.3%	100%	100%
	AVERAGE FLOW RATE (gpm, when in operation)	68.71	0.45	11.93	2.00	0.74	1.90	0.99	16.12	19.90	7.95	4.39	0.00
	AVERAGE FLOW RATE (gpm, averaged over period)	68.20	0.44	11.84	1.98	0.51	1.82	0.98	16.00	19.75	7.89	4.39	0.00
October 2008 (9/27/08 to 10/31/08)	TIME OPERATING	99.4%	99.4%	99.4%	99.4%	99.4%	94.8%	99.4%	99.4%	99.4%	99.4%	100.0%	100%
	AVERAGE FLOW RATE (gpm, when in operation)	68.26	0.25	12.01	2.00	2.11	1.42	0.98	16.01	17.60	7.08	3.61	0.00
	AVERAGE FLOW RATE (gpm, averaged over period)	67.85	0.25	11.94	1.99	2.10	1.35	0.98	15.91	17.50	7.04	3.61	0.00
November 2008 (11/1/08 to 11/28/08)	TIME OPERATING	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	51.5%	100.0%	100%
	AVERAGE FLOW RATE (gpm, when in operation)	64.87	0.19	11.83	1.97	1.95	1.30	0.96	15.70	15.77	6.78	4.50	0.00
	AVERAGE FLOW RATE (gpm, averaged over period)	63.90	0.19	11.65	1.94	1.92	1.29	0.95	15.47	15.54	3.49	4.50	0.00
December 2008 (11/29/08 to 12/26/08)	TIME OPERATING	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%	100%	100%
	AVERAGE FLOW RATE (gpm, when in operation)	68.68	0.16	11.80	1.94	1.81	0.02	0.96	15.74	15.76	5.66	6.32	0.00
	AVERAGE FLOW RATE (gpm, averaged over period)	63.90	0.19	11.65	1.94	1.92	1.29	0.95	15.47	15.54	3.49	4.50	0.00

Notes:

Individual well flow rates may not add up to total system flow rate due to flow meter error.

Abbreviations and Acronyms:

- EATS - East-Side Aquifer Treatment System
- EV5 - Electrical Vault 5
- gpm - gallons per minute
- H1 SUMP - Hangar 1 Sump
- WATS - West-Side Aquifers Treatment System

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TABLE 2-2

WATS MONTHLY EXTRACTION TOTALS 2008

TIME PERIOD	TOTAL EXTRACTED (gallons)											
	SYSTEM	EA1-1	EA1-2	EA1-3	EA1-4	EA1-5	EA1-6	EA2-1	EA2-2	EA2-3	H1 SUMP	EV5
January 2008 (12/29/07 to 1/25/08)	2,886,622	16,532	388,716	54,404	75,456	7,866	42,081	642,568	777,516	277,764	344,781	0
February 2008 (1/26/08 to 2/29/08)	3,870,226	12,058	459,936	3,758	60,920	201,200	64,233	804,080	1,004,700	401,768	594,523	5,575
March 2008 (3/1/08 to 3/28/08)	2,892,107	2,541	440,496	2,104	35,809	157,510	49,519	636,864	796,060	318,422	291,307	0
April 2008 (3/29/08 to 4/25/08)	2,848,155	1,175	468,976	23,632	38,767	149,084	45,371	646,644	808,280	305,852	208,071	0
May 2008 (4/26/08 to 5/30/08)	3,514,644	4,283	597,548	100,634	34,843	170,292	48,945	533,404	1,003,900	359,184	243,118	0
June 2008 (5/31/08 to 6/28/08)	2,658,215	10,705	350,236	75,698	19,310	124,181	41,727	870,712	753,736	315,708	178,615	0
July 2008 (6/28/08 to 7/25/08)	2,623,189	2,561	446,536	74,734	16,972	113,000	38,434	595,468	744,088	279,526	115,976	0
August 2008 (7/26/08 to 8/29/08)	3,310,154	11,793	557,085	95,096	5,257	123,687	46,982	754,473	951,043	380,921	214,252	0
September 2008 (8/30/08 to 9/26/08)	2,749,654	17,887	477,255	79,918	20,592	73,583	39,672	645,111	796,203	318,003	177,057	0
October 2008 (9/27/08 to 10/31/08)	3,419,658	12,642	601,880	100,280	105,849	67,930	49,331	801,892	881,855	354,850	181,933	0
November 2008 (11/1/08 to 11/28/08)	2,576,487	7,594	469,880	78,310	77,257	51,822	38,322	623,728	626,495	140,804	181,547	0
December 2008 (11/29/08 to 12/26/08)	2,761,038	6,485	474,383	78,146	72,678	785	38,706	632,669	633,564	227,412	254,683	0
2008 Total	36,110,149	106,256	5,732,927	766,714	563,710	1,240,940	543,323	8,187,613	9,777,440	3,680,214	2,985,863	5,575
Since Startup^a	340,413,017	934,803	53,078,091	19,002,780	7,626,854	17,010,763	7,277,929	68,614,229	68,854,908	22,544,270	42,577,903	5,188,555

Notes:

^a System start-up was November 26, 1998. H1 SUMP and EV5 began operation in 1995.
Individual well flow rates may not add up to total system flow rate due to flow meter error.

Abbreviations and Acronyms:

EATS - East-Side Aquifer Treatment System
EV5 - Electrical Vault 5
H1 SUMP - Hangar 1 Sump
WATS - West-Side Aquifers Treatment System

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TABLE 2-3

2008 NAVY GROUNDWATER ELEVATIONS FOR SITE 28

Well Number	Aquifer/ Aquifer Zone	March (ft msl)	November (ft msl)
EA1-1	Upper A	12.99	12.59
EA1-2	Upper A	9.24	6.25
EA1-3	Upper A	7.85	5.59
EA1-4	Upper A	2.98	-2.47
EA1-5	Upper A	-8.85	2.15
EA1-6	Upper A	-1.31	-3.67
EA2-1	Lower A	-5.03	-6.84
EA2-2	Lower A	-6.85	-8.17
EA2-3	Lower A	-11.82	-6.16
ERM-1	Upper A	23.67	23.14
ERM-2	Upper A	23.29	22.48
ERM-3	Upper A	23.72	23.09
MCH-1UA	Upper A	21.38	20.94
MCH-2LA	Lower A	21.40	21.01
MCH-3UA	Upper A	22.12	21.40
MCH-4LA	Lower A	22.44	21.77
MCH-5UA	Upper A	17.43	16.69
MCH-6LA	Lower A	15.11	14.68
MCH-7UA	Upper A	14.32	13.28
MCH-8LA	Lower A	13.54	12.80
MCH-9UA	Upper A	8.88	8.53
MCH-10LA	Lower A	13.94	12.94
MCH-11UA	Upper A	12.58	11.50
PIC-1	Upper A	9.81	9.37
PIC-10	Upper A	11.93	11.60
PIC-11	Upper A	11.91	11.60
PIC-12	Upper A	12.04	11.76
PIC-13	Upper A	12.07	11.73
PIC-14	Upper A	12.11	11.82
PIC-15	Upper A	12.44	12.28
PIC-16	Lower A	11.46	10.30
PIC-17	Lower A	10.93	10.43
PIC-18	Lower A	10.72	10.33
PIC-19	Lower A	10.98	10.54
PIC-2	Upper A	10.44	9.91
PIC-20	Upper A	10.25	9.71
PIC-21	Upper A	10.39	9.96
PIC-22	Upper A	10.43	10.00
PIC-23	Upper A	10.45	9.92
PIC-24	Upper A	12.11	11.41
PIC-25	Upper A	11.78	11.41
PIC-26	Upper A	11.74	11.36
PIC-27	Upper A	11.71	11.52
PIC-28	Upper A	11.81	11.43
PIC-29	Upper A	11.79	11.41

TABLE 2-3

2008 NAVY GROUNDWATER ELEVATIONS FOR SITE 28

Well Number	Aquifer/ Aquifer Zone	March (ft msl)	November (ft msl)
PIC-3	Upper A	10.41	9.93
PIC-30	Upper A	11.75	11.38
PIC-31	Upper A	11.10	10.04
PIC-32	Upper A	10.64	10.55
PIC-4	Upper A	10.55	10.09
PIC-5	Upper A	13.08	10.12
PIC-6	Upper A	11.73	11.49
PIC-7	Upper A	11.71	11.29
PIC-8	Upper A	11.78	11.45
PIC-9	Upper A	11.79	11.39
PZA1-1A	Upper A	13.24	12.71
PZA1-1B	Upper A	13.34	12.92
PZA1-1C	Upper A	13.13	12.74
PZA1-1D	Upper A	13.37	12.85
PZA1-1E	Upper A	NR	12.69
PZA1-2A	Upper A	12.62	12.20
PZA1-2B	Upper A	12.89	12.43
PZA1-2C	Upper A	13.21	12.85
PZA1-2D	Upper A	12.55	12.12
PZA1-3A	Upper A	8.29	7.24
PZA1-3B	Upper A	8.39	7.51
PZA1-3C	Upper A	8.43	7.58
PZA1-3D	Upper A	8.29	7.29
PZA1-4B	Upper A	4.34	3.21
PZA1-4C	Upper A	4.63	3.67
PZA1-4D	Upper A	3.87	2.09
PZA1-5A	Upper A	3.99	3.98
PZA1-5B	Upper A	4.14	3.81
PZA1-5C	Upper A	4.93	4.37
PZA1-5D	Upper A	3.90	3.67
PZA1-6A	Upper A	7.94	7.42
PZA1-6B	Upper A	7.98	7.43
PZA1-6C	Upper A	8.09	7.51
PZA2-1A	Lower A	1.23	0.46
PZA2-1B	Lower A	4.00	3.41
PZA2-1C	Lower A	6.89	6.42
PZA2-1D	Lower A	8.30	7.86
PZA2-2A	Lower A	-0.56	-1.26
PZA2-2B	Lower A	3.74	3.04
PZA2-2C	Lower A	4.87	4.19
PZA2-2D	Lower A	1.98	1.23
PZA2-4E	Lower A	2.70	0.80
PZNX-2	Upper A	13.98	13.86
UST29-MW01	Upper A	4.41	2.99
UST29-MW02	Upper A	3.44	2.74

TABLE 2-3

2008 NAVY GROUNDWATER ELEVATIONS FOR SITE 28

Well Number	Aquifer/ Aquifer Zone	March (ft msl)	November (ft msl)
UST3-MW-01	Upper A	3.46	3.55
UST3-MW-02	Upper A	3.47	3.25
UST85-MW02	Upper A	13.73	13.28
UST85-MW03	Upper A	12.65	12.86
W12-20	Upper A	0.22	-1.15
W12-6	Upper A	0.22	-0.15
W14-1	Lower A	24.09	23.41
W14-10	Upper A	24.06	23.38
W14-11	Upper A	23.23	22.55
W14-12	Upper A	23.93	23.20
W14-13	Upper A	22.83	22.17
W14-2	Upper A	23.46	22.61
W14-3	Upper A	24.57	23.75
W14-4	Upper A	23.10	22.37
W14-5	Lower A	24.78	24.16
W14-6	Lower A	24.16	23.57
W29-1	Upper A	4.32	3.31
W29-2	Upper A	5.90	5.23
W29-3	Upper A	7.70	7.02
W29-4	Upper A	10.01	9.34
W29-5	Upper A	5.31	4.28
W29-7	Lower A	4.24	3.33
W29-8	Lower A	5.91	5.32
W56-1	Upper A	10.03	9.47
W56-2	Upper A	10.80	10.24
W58-1	Upper A	25.46	24.03
W60-1	Upper A	21.52	20.67
W60-2	Upper A	22.15	21.17
W8-1	Upper A	0.29	-0.55
W8-11	Lower A	0.28	-0.71
W8-2	Lower A	0.09	-0.83
W8-3 ^a	C	21.50	22.20
W8-4	Upper A	0.56	-0.61
W8-6	Upper A	0.14	-0.81
W8-8	Upper A	-0.57	-1.14
W88-1	B	14.02	13.35
W88-2	B	5.23	4.62
W88-3	B	7.65	7.09
W89-1	Upper A	22.97	22.36
W89-10	Upper A	11.02	10.44
W89-11	Lower A	23.87	23.13
W89-12	Lower A	23.93	23.40
W89-14	Lower A	19.55	20.35
W89-2	Upper A	22.73	22.23
W89-5	Upper A	18.82	18.30

TABLE 2-3

2008 NAVY GROUNDWATER ELEVATIONS FOR SITE 28

Well Number	Aquifer/ Aquifer Zone	March (ft msl)	November (ft msl)
W89-6	Upper A	19.00	18.59
W89-7	Upper A	17.95	17.38
W89-8	Upper A	13.94	13.23
W89-9	Upper A	11.68	11.21
W9-1	Upper A	8.68	8.08
W9-10	Upper A	5.05	4.31
W9-11	B2	4.61	3.68
W9-12	B2	14.49	14.14
W9-13	Lower A	11.60	11.17
W9-14	Lower A	13.37	12.93
W9-15	B2	12.08	11.60
W9-16	Upper A	16.54	16.14
W9-17	Lower A	14.56	14.21
W9-18	Upper A	13.21	13.01
W9-19	Upper A	15.38	15.02
W9-2	Upper A	10.75	10.42
W9-20	Lower A	10.72	10.27
W9-21	Lower A	12.24	11.67
W9-22	Lower A	5.91	5.21
W9-23	Upper A	8.98	8.58
W9-24	Upper A	4.29	3.36
W9-25	Lower A	8.54	7.96
W9-26	Upper A	4.49	4.09
W9-27	Lower A	3.99	3.51
W9-28	Lower A	7.37	6.85
W9-29	Upper A	13.24	12.87
W9-3 ^a	C	21.47	21.23
W9-30	Upper A	15.03	14.71
W9-31	Upper A	7.63	7.01
W9-33	Lower A	12.24	11.87
W9-34	Lower A	11.68	11.24
W9-35	Upper A	10.50	10.03
W9-36	Lower A	12.84	12.39
W9-37	Upper A	15.19	14.84
W9-39	B2	8.59	8.06
W9-4	B2	5.94	7.16
W9-40	B2	14.16	13.56
W9-42	Lower A	13.65	13.21
W9-43	Upper A	3.55	3.00
W9-44	Upper A	14.08	13.77
W9-45	Upper A	11.43	11.35
W9-47	Upper A	9.24	8.73
W9-5	B3	7.50	6.76
W9-7	Upper A	10.89	10.62
W9-8	Lower A	12.74	12.24

TABLE 2-3

2008 NAVY GROUNDWATER ELEVATIONS FOR SITE 28

Well Number	Aquifer/ Aquifer Zone	March (ft msl)	November (ft msl)
W9-9	Lower A	10.26	9.63
W9SC-1	Upper A	8.22	7.79
W9SC-11	Upper A	9.26	8.72
W9SC-12	Lower A	9.88	9.35
W9SC-13	Upper A	9.56	9.03
W9SC-14	Upper A	14.32	14.02
W9SC-15	Lower A	14.19	13.78
W9SC-16	Upper A	14.58	14.21
W9SC-17	Upper A	14.79	14.42
W9SC-18	Upper A	8.19	7.77
W9SC-2	Upper A	7.78	7.32
W9SC-20	Lower A	15.68	15.18
W9SC-21	Upper A	15.98	15.83
W9SC-3	Lower A	7.64	7.29
W9SC-4	Upper A	8.20	7.77
W9SC-5	Upper A	7.79	7.36
W9SC-7	Upper A	6.77	5.94
W9SC-8	Lower A	6.59	5.86
WIC-1	Upper A	11.70	11.35
WIC-10	Upper A	10.53	10.05
WIC-11	Upper A	10.50	10.13
WIC-12	Upper A	10.57	10.09
WIC-2	Lower A	10.86	10.45
WIC-3	Upper A	10.71	10.23
WIC-4	Lower A	10.65	10.21
WIC-5	Upper A	12.16	11.43
WIC-6	Upper A	11.69	11.49
WIC-7	Upper A	11.74	11.39
WIC-8	Upper A	11.66	11.29
WIC-9	Upper A	10.49	10.13
WNB-1	Upper A	-1.13	-1.51
WNB-10	Lower A	-1.14	-1.46
WNB-11	Lower A	-1.61	-1.93
WNB-12	Lower A	-1.20	-1.44
WNB-13	Lower A	-2.31	-2.70
WNB-14	Lower A	6.28	5.42
WNB-26	Upper A	-0.28	-0.41
WNB-7	Upper A	-1.00	-1.35
WNB-8	Upper A	-1.51	-1.89
WNX-1	Upper A	13.70	13.57
WNX-2	Upper A	13.61	13.40
WNX-3	Upper A	14.20	14.14
WNX-4	Upper A	14.14	13.99
WSI-1	Upper A	25.89	25.27
WSI-2	Upper A	23.79	23.34

TABLE 2-3

2008 NAVY GROUNDWATER ELEVATIONS FOR SITE 28

Well Number	Aquifer/ Aquifer Zone	March (ft msl)	November (ft msl)
WSI-3	Upper A	20.67	20.00
WSI-4	Upper A	0.01	-1.88
WT14-1	Upper A	19.43	18.94
WT41A-1	Upper A	16.54	16.20
WT87-1	Upper A	14.01	13.66
WU4-1	Upper A	22.61	22.55
WU4-10	Upper A	10.95	10.63
WU4-11	Lower A	11.27	10.91
WU4-12	Lower A	14.53	13.56
WU4-13	Lower A	11.86	11.20
WU4-14	Upper A	3.68	1.26
WU4-15	Lower A	4.42	3.46
WU4-16	Upper A	8.09	7.26
WU4-17	Upper A	8.32	7.75
WU4-18	Upper A	1.85	2.80
WU4-19	Lower A	3.59	2.48
WU4-2	Lower A	21.67	20.94
WU4-21	Upper A	4.76	4.09
WU4-24	Upper A	8.23	7.72
WU4-25	Upper A	10.88	10.67
WU4-3	Upper A	17.61	16.92
WU4-4	Lower A	15.99	15.46
WU4-5	Lower A	23.56	22.92
WU4-7	Lower A	16.83	16.15
WU4-8	Upper A	3.73	4.01
WU4-9	Lower A	4.08	3.75
WWR-1	Upper A	12.50	12.23
WWR-2	Upper A	15.76	15.28
WWR-3	Upper A	17.09	16.70

Notes:^a - artesian well**Abbreviations & Acronyms:**

EATS - East-Side Aquifer Treatment System

ft - feet

msl - mean sea level

WATS - West-Side Aquifers Treatment System

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

TABLE 2-4

WATS EXTRACTION WELL WATER LOSS CALCULATIONS (PREPARED WITH 2004 PUMPING TEST DATA)

Extraction Well	Pumping Rate (gpm)	Actual Drawdown (ft)	Theoretical Drawdown (ft)	Difference (ft)	Well Loss as Percent of Drawdown
EA1-2	17.1	5.23	4.21	1.02	20
EA1-3 ^a	3.3	2.61	1.29	1.32	51
EA1-4	2.2	1.71	0.86	0.85	50
EA1-5	2.3	3.18	0.99	2.19	69
EA1-6	1.9	7.64	2	5.64	74
EA2-1	17	8.79	7.66	1.13	13
EA2-2	22	10.95	9.84	1.11	10
EA2-3	17	18	7.45	10.55	59

Notes:

^a - Extraction well EA1-3 not calculated for well loss in 2008 due to a below average pumping rate.

Abbreviations and Acronyms:

EATS – East-Side Aquifer Treatment System

ft – feet

gpm – gallons per minute

WATS – West-Side Aquifers Treatment System

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TABLE 2-5

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 28

Location:	Units	ROD Cleanup Standard	14C33A	14D05A	14D12A	14D24A	14D26A1
Sample Number:			4-IR28-001	4-IR28-037	4-IR28-002	4-IR28-003	4-IR28-004
Sample Date:			11/24/2008	11/24/2008	11/24/2008	11/25/2008	11/25/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	1.0 U	14	8.1	2.6	2.9
1,1-DICHLOROETHENE	µg/L	6	0.50 UJ	29 J	5.2 J	1.2	1.1
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	1.3 J	0.35 J	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 U	10 U	2.0 U	2.0 U	2.0 U
2-HEXANONE	µg/L	NE	2.0 U	10 U	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	10 UJ	50 U	10 U	10 U	10 U
BENZENE	µg/L	NE	1.0 U	0.78 J	0.28 J	1.0 U	1.0 U
BROMODICHLOROMETHANE	µg/L	NE	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	10 U	2.0 U	2.0 UJ	2.0 UJ
CHLOROBENZENE	µg/L	NE	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
CHLOROFORM	µg/L	100	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
CHLOROMETHANE	µg/L	NE	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	0.22 J	1100	250	110	43
ETHYLBENZENE	µg/L	NE	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	2.0 U	4.4 J	0.94 J	2.0 UJ	2.0 UJ
m- and p-XYLENE	µg/L	NE	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
o-XYLENE	µg/L	NE	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	0.50 U	2.5 U	2.4	0.20 J	0.50 U
TOLUENE	µg/L	NE	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.50 U	5.4	2.6	3.3	2.5
TRICHLOROETHENE	µg/L	5	0.50 U	290	27	53	24
VINYL ACETATE	µg/L	NE	2.0 U	4.9 J	2.0 U	2.0 UJ	2.0 UJ
VINYL CHLORIDE	µg/L	0.5	0.37 J	39	12	0.98	0.94

Location:	Units	ROD Cleanup Standard	W9-20	W9-21	W9-22	W9-24	W9-26
Sample Number:			4-IR28-070	4-IR28-071	4-IR28-048	4-IR28-016	4-IR28-017
Sample Date:			11/21/2008	11/24/2008	11/21/2008	11/24/2008	11/25/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	1.4 J	1.9 J	2.3	9.1	14
1,1-DICHLOROETHENE	µg/L	6	3.2 J	4.0 J	0.16 J	0.50 UJ	3.2
1,2-DICHLOROETHANE	µg/L	0.5	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 UJ	0.50 J	2.0 U	2.0 U	2.0 U
2-HEXANONE	µg/L	NE	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	10 UJ	10 UJ	10 U	10 U	10 U
BENZENE	µg/L	NE	1.0 UJ	1.0 UJ	1.0 U	0.37 J	1.2
BROMODICHLOROMETHANE	µg/L	NE	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 UJ
CHLOROBENZENE	µg/L	NE	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	1.0 UJ	1.0 UJ	1.0 U	1.0 U	0.49 J
CHLOROFORM	µg/L	100	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
CHLOROMETHANE	µg/L	NE	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	120	270	33	1.1	450
ETHYLBENZENE	µg/L	NE	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	0.82 J	0.71 J	2.0 U	2.0 UJ	2.0 UJ
m- and p-XYLENE	µg/L	NE	1.0 UJ	1.0 UJ	1.0 U	1.0 U	0.26 J
o-XYLENE	µg/L	NE	1.0 UJ	1.0 UJ	1.0 U	1.0 U	0.14 J
TETRACHLOROETHENE	µg/L	5	6.8 J	0.53 J	0.50 U	0.50 U	0.50 U
TOLUENE	µg/L	NE	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	1.4 J	2.6 J	0.78	0.22 J	7.4
TRICHLOROETHENE	µg/L	5	94	1.5 J	1.1	0.50 U	1.3
VINYL ACETATE	µg/L	NE	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 UJ
VINYL CHLORIDE	µg/L	0.5	0.28 J	30 J	39	29	400

TABLE 2-5

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 28

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	14D28A	14D28A	14D31A2	14D36A	14D39A
			4-IR28-005	4-IR28-006	4-IR28-007	4-IR28-008	4-IR28-009
			11/24/2008	11/24/2008	11/21/2008	11/24/2008	11/21/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U				
1,1-DICHLOROETHANE	µg/L	NE	4.0	4.1	2.3	4.9	0.75 J
1,1-DICHLOROETHENE	µg/L	6	3.7 J	3.4 J	0.50 U	3.6 J	0.16 J
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	0.50 U	0.50 U	0.28 J	0.50 U
2-BUTANONE	µg/L	NE	2.0 U				
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 UJ
ACETONE	µg/L	NE	10 U	10 UJ	10 U	10 U	2.4 J
BENZENE	µg/L	NE	1.0 U				
BROMODICHLOROMETHANE	µg/L	NE	1.0 U				
CARBON DISULFIDE	µg/L	NE	2.0 U				
CHLOROBENZENE	µg/L	NE	1.0 U				
CHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	0.47 J
CHLOROFORM	µg/L	100	0.13 J	0.13 J	1.0 U	1.0 U	1.0 U
CHLOROMETHANE	µg/L	NE	1.0 U				
CIS-1,2-DICHLOROETHENE	µg/L	6	57	59	1.4	51	1.9
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	0.27 J
FREON 113	µg/L	NE	0.57 J	0.64 J	2.0 U	0.42 J	2.0 U
m- and p-XYLENE	µg/L	NE	1.0 U				
o-XYLENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	0.32 J
TETRACHLOROETHENE	µg/L	5	3.6	3.7	0.50 U	0.79	0.50 U
TOLUENE	µg/L	NE	1.0 U				
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.74	0.83	0.15 J	0.66	0.50 U
TRICHLOROETHENE	µg/L	5	18	19	0.47 J	12	0.37 J
VINYL ACETATE	µg/L	NE	0.43 J	2.0 U	1.1 J	2.0 U	2.0 U
VINYL CHLORIDE	µg/L	0.5	1.7	2.1	0.50 U	1.3	0.96

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	W9-31	W9-33	W9-34	W9-37	W9-40
			4-IR28-049	4-IR28-050	4-IR28-051	4-IR28-072	4-IR28-073
			11/24/2008	11/24/2008	11/21/2008	11/25/2008	11/25/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	5.0 U	5.0 U	1.0 U	0.71 J	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	8.3	16 J	4.0	9.8	1.0 U
1,1-DICHLOROETHENE	µg/L	6	4.6 J	37 J	0.97 J	3.7	0.50 U
1,2-DICHLOROETHANE	µg/L	0.5	2.5 U	2.5 U	0.50 U	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	10 U	10 U	2.0 U	2.0 U	2.0 U
2-HEXANONE	µg/L	NE	10 U	10 U	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	50 U	50 U	10 UJ	10 U	10 U
BENZENE	µg/L	NE	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
BROMODICHLOROMETHANE	µg/L	NE	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	10 U	10 U	2.0 U	0.43 J	2.0 U
CHLOROBENZENE	µg/L	NE	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	5.0 U	5.0 U	1.0 U	0.91 J	0.46 J
CHLOROFORM	µg/L	100	5.0 U	5.0 U	1.0 U	0.16 J	1.0 U
CHLOROMETHANE	µg/L	NE	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	1900	590	57	310	0.50 U
ETHYLBENZENE	µg/L	NE	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	10 UJ	29 J	2.0 U	12	2.0 U
m- and p-XYLENE	µg/L	NE	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
o-XYLENE	µg/L	NE	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	2.5 U	2.5 U	0.50 U	0.13 J	0.50 U
TOLUENE	µg/L	NE	5.0 U	5.0 U	1.0 U	1.0 U	0.36 J
TRANS-1,2-DICHLOROETHENE	µg/L	6	5.5	2.5 U	0.17 J	3.3	0.50 U
TRICHLOROETHENE	µg/L	5	2.5 U	1700	2.3	22	0.50 U
VINYL ACETATE	µg/L	NE	10 U	10 U	2.0 U	2.0 U	2.0 U
VINYL CHLORIDE	µg/L	0.5	140	2.5 U	2.6	330	0.50 U

TABLE 2-5

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 28

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	165A	45B2	80B1	EA1-1	EA1-2
			4-IR28-059	4-IR28-060	4-IR28-021	4-IR28-061	4-IR28-022
			11/24/2008	11/24/2008	11/25/2008	11/21/2008	11/24/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.7	1.0 U	0.41 J	1.3 J	2.3
1,1-DICHLOROETHANE	µg/L	NE	3.7	1.0 U	12	6.1	5.2
1,1-DICHLOROETHENE	µg/L	6	4.2	0.50 UJ	26 J	20 J	7.2 J
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	0.50 U	1.0 U	2.5 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 U	2.0 U	1.5 J	10 UJ	2.0 U
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	4.0 U	10 UJ	2.0 U
ACETONE	µg/L	NE	10 U	6.1 J	20 UJ	50 U	10 U
BENZENE	µg/L	NE	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U
BROMODICHLOROMETHANE	µg/L	NE	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	4.0 U	10 U	2.0 U
CHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U
CHLOROETHANE	µg/L	NE	1.0 U	1.0 U	2.0 U	5.0 UJ	1.0 U
CHLOROFORM	µg/L	100	0.37 J	1.0 U	2.0 U	5.0 U	0.21 J
CHLOROMETHANE	µg/L	NE	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	130	0.50 U	320	200	120
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U
FREON 113	µg/L	NE	5.5	2.0 UJ	19	34	2.0 J
m- and p-XYLENE	µg/L	NE	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U
o-XYLENE	µg/L	NE	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	0.63	0.50 U	2.9	1300	0.59
TOLUENE	µg/L	NE	1.0 U	0.32 J	2.0 U	5.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	3.5	0.50 U	1.5	1.3 J	1.6
TRICHLOROETHENE	µg/L	5	300	0.50 U	1000	1300	240
VINYL ACETATE	µg/L	NE	2.0 U	2.0 U	4.0 U	10 UJ	2.0 U
VINYL CHLORIDE	µg/L	0.5	0.50 U	0.50 U	5.0	2.5 U	1.1

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	W9-42	W9-44	W9-45	W9-7	W9-8
			4-IR28-074	4-IR28-075	4-IR28-076	4-IR28-052	4-IR28-077
			11/25/2008	11/25/2008	11/24/2008	11/24/2008	11/25/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	0.21 J	1.8 J	1.5 J	1.2 J	5.0 U
1,1-DICHLOROETHANE	µg/L	NE	5.7	11	8.9 J	9.4	16
1,1-DICHLOROETHENE	µg/L	6	0.90	13 J	18 J	11 J	36 J
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	2.5 U	0.50 UJ	1.0 U	2.5 U
2-BUTANONE	µg/L	NE	0.47 J	3.6 J	2.0 UJ	4.0 U	10 U
2-HEXANONE	µg/L	NE	2.0 U	10 U	2.0 UJ	4.0 U	10 U
ACETONE	µg/L	NE	10 U	50 UJ	10 UJ	20 U	50 UJ
BENZENE	µg/L	NE	1.0 U	5.0 U	1.0 UJ	2.0 U	5.0 U
BROMODICHLOROMETHANE	µg/L	NE	1.0 U	5.0 U	1.0 UJ	2.0 U	5.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	10 U	2.0 UJ	4.0 U	10 U
CHLOROBENZENE	µg/L	NE	1.0 U	5.0 U	1.0 UJ	2.0 U	5.0 U
CHLOROETHANE	µg/L	NE	1.0 U	5.0 U	1.0 UJ	2.0 U	5.0 U
CHLOROFORM	µg/L	100	1.0 U	5.0 U	0.21 J	2.0 U	5.0 U
CHLOROMETHANE	µg/L	NE	1.0 U	5.0 U	1.0 UJ	2.0 U	5.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	150	360	230	1100	1900
ETHYLBENZENE	µg/L	NE	1.0 U	5.0 U	1.0 UJ	2.0 U	5.0 U
FREON 113	µg/L	NE	0.82 J	8.0 J	8.2 J	8.5 J	1.5 J
m- and p-XYLENE	µg/L	NE	1.0 U	5.0 U	1.0 UJ	2.0 U	5.0 U
o-XYLENE	µg/L	NE	1.0 U	5.0 U	1.0 UJ	2.0 U	5.0 U
TETRACHLOROETHENE	µg/L	5	3.1	2.6	11 J	1.0 U	2.5 U
TOLUENE	µg/L	NE	0.36 J	5.0 U	1.0 UJ	2.0 U	5.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	2.2	2.9	1.6 J	4.8	14
TRICHLOROETHENE	µg/L	5	3.5	690	430	64	2.9
VINYL ACETATE	µg/L	NE	2.0 U	10 U	2.0 UJ	4.0 U	10 U
VINYL CHLORIDE	µg/L	0.5	100	2.5 U	0.74 J	100	220

TABLE 2-5

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 28

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	EA1-3	EA1-4	EA1-5	EA1-5	EA1-6
			4-IR28-038	4-IR28-010	4-IR28-023	4-IR28-024	4-IR28-039
			11/21/2008	11/21/2008	11/21/2008	11/21/2008	11/21/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	2.0 U	2.0 U	1.0 U	1.0 U	0.28 J
1,1-DICHLOROETHANE	µg/L	NE	13	13	4.1	4.2	4.4
1,1-DICHLOROETHENE	µg/L	6	17 J	15 J	2.3 J	2.3 J	8.0 J
1,2-DICHLOROETHANE	µg/L	0.5	1.0 U	0.57 J	0.50 U	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	4.0 UJ	4.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
2-HEXANONE	µg/L	NE	4.0 UJ	4.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
ACETONE	µg/L	NE	20 U	20 U	10 U	10 U	10 U
BENZENE	µg/L	NE	0.41 J	0.52 J	0.27 J	0.26 J	9.0
BROMODICHLOROMETHANE	µg/L	NE	2.0 U	2.0 U	1.0 U	1.0 U	2.9
CARBON DISULFIDE	µg/L	NE	4.0 U	4.0 U	2.0 U	2.0 U	2.0 U
CHLOROBENZENE	µg/L	NE	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	2.0 UJ	2.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
CHLOROFORM	µg/L	100	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
CHLOROMETHANE	µg/L	NE	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	420	490	120	120	260
ETHYLBENZENE	µg/L	NE	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	11	4.6	2.0 U	2.0 U	5.6
m- and p-XYLENE	µg/L	NE	2.0 U	2.0 U	1.0 U	1.0 U	0.33 J
o-XYLENE	µg/L	NE	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	3.0	4.5	0.16 J	0.13 J	0.50 U
TOLUENE	µg/L	NE	2.0 U	2.0 U	1.0 U	1.0 U	0.31 J
TRANS-1,2-DICHLOROETHENE	µg/L	6	1.9	2.2	7.0	7.0	2.0
TRICHLOROETHENE	µg/L	5	580	88	12	12	200
VINYL ACETATE	µg/L	NE	4.0 UJ	4.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
VINYL CHLORIDE	µg/L	0.5	64	30	35	37	48

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	W9-9	W9SC-1	W9SC-13	W9SC-14	W9SC-15
			4-IR28-053	4-IR28-054	4-IR28-055	4-IR28-078	4-IR28-079
			11/21/2008	11/24/2008	11/21/2008	11/25/2008	11/25/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	0.68 J	1.3 J	1.0 U	5.0 U	5.0 U
1,1-DICHLOROETHANE	µg/L	NE	8.6 J	12	0.18 J	5.9	13
1,1-DICHLOROETHENE	µg/L	6	1.9 J	12 J	0.50 UJ	7.4 J	39 J
1,2-DICHLOROETHANE	µg/L	0.5	0.50 UJ	1.0 U	0.50 U	2.5 U	2.5 U
2-BUTANONE	µg/L	NE	2.0 UJ	4.0 U	2.0 U	10 U	10 U
2-HEXANONE	µg/L	NE	2.0 UJ	4.0 U	2.0 U	10 U	10 U
ACETONE	µg/L	NE	10 UJ	20 U	2.9 J	50 UJ	50 UJ
BENZENE	µg/L	NE	0.27 J	2.0 U	1.8	5.0 U	5.0 U
BROMODICHLOROMETHANE	µg/L	NE	1.0 UJ	2.0 U	1.0 U	5.0 U	5.0 U
CARBON DISULFIDE	µg/L	NE	2.0 UJ	4.0 U	2.0 U	10 U	10 U
CHLOROBENZENE	µg/L	NE	1.0 UJ	2.0 U	1.0 U	5.0 U	5.0 U
CHLOROETHANE	µg/L	NE	1.0 UJ	2.0 U	1.0	5.0 U	5.0 U
CHLOROFORM	µg/L	100	1.0 UJ	1.2 J	1.0 U	5.0 U	5.0 U
CHLOROMETHANE	µg/L	NE	1.0 UJ	2.0 U	1.0 U	5.0 U	5.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	80 J	510	2.4	610 J	310
ETHYLBENZENE	µg/L	NE	0.22 J	2.0 U	1.0 U	5.0 U	5.0 U
FREON 113	µg/L	NE	7.2 J	3.4 J	2.0 U	10 U	39
m- and p-XYLENE	µg/L	NE	0.29 J	2.0 U	1.0 U	5.0 U	5.0 U
o-XYLENE	µg/L	NE	0.11 J	2.0 U	1.0 U	5.0 U	5.0 U
TETRACHLOROETHENE	µg/L	5	0.50 U	3.0	0.50 U	2.6	120
TOLUENE	µg/L	NE	1.0 UJ	2.0 U	1.0 U	5.0 U	5.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	2.9 J	2.5	0.41 J	2.3 J	1.2 J
TRICHLOROETHENE	µg/L	5	19 J	830	0.50 U	380 J	2100
VINYL ACETATE	µg/L	NE	2.0 UJ	4.0 U	2.0 U	10 U	10 U
VINYL CHLORIDE	µg/L	0.5	500 J	1.0 U	1.7	34	2.5 U

TABLE 2-5

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 28

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	EA2-1	EA2-2	EA2-3	UST85-MW02	W29-1
			4-IR28-040	4-IR28-025	4-IR28-026	4-IR28-062	4-IR28-011
			11/21/2008	11/21/2008	11/21/2008	11/25/2008	11/24/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	11	13	7.8	8.8	1.1
1,1-DICHLOROETHENE	µg/L	6	37 J	26 J	9.0 J	14	0.50 UJ
1,2-DICHLOROETHANE	µg/L	0.5	2.5 U	2.5 U	1.0 U	2.5 U	0.50 U
2-BUTANONE	µg/L	NE	10 UJ	10 UJ	4.0 UJ	10 U	2.0 U
2-HEXANONE	µg/L	NE	10 UJ	10 UJ	4.0 UJ	10 U	2.0 U
ACETONE	µg/L	NE	50 U	50 U	20 U	50 U	10 UJ
BENZENE	µg/L	NE	5.0 U	5.0 U	0.34 J	5.0 U	1.0 U
BROMODICHLOROMETHANE	µg/L	NE	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	10 U	10 U	4.0 U	10 U	2.0 U
CHLOROBENZENE	µg/L	NE	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U
CHLOROETHANE	µg/L	NE	5.0 UJ	5.0 UJ	2.0 UJ	5.0 U	1.0 U
CHLOROFORM	µg/L	100	5.0 U	5.0 U	2.0 U	5.0	1.0 U
CHLOROMETHANE	µg/L	NE	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	540	560	260	920	1.1
ETHYLBENZENE	µg/L	NE	5.0 U	5.0 U	2.0 U	5.0 U	0.15 J
FREON 113	µg/L	NE	50	22	6.2	10 U	2.0 U
m- and p-XYLENE	µg/L	NE	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U
o-XYLENE	µg/L	NE	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	49	7.6	13	0.79 J	0.16 J
TOLUENE	µg/L	NE	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	2.5	2.2 J	3.3	2.0 J	0.50 U
TRICHLOROETHENE	µg/L	5	2100	870	110	250	0.55
VINYL ACETATE	µg/L	NE	10 UJ	10 UJ	4.0 UJ	10 U	2.0 U
VINYL CHLORIDE	µg/L	0.5	7.4	66	89	2.5 U	0.77

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	W9SC-3	W9SC-7	WIC-1	WNB-14	WNX-2
			4-IR28-056	4-IR28-057	4-IR28-080	4-IR28-018	4-IR28-081
			11/24/2008	11/24/2008	11/21/2008	11/21/2008	11/24/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	5.0 UJ	1.0 U	1.7 J	1.0 U	5.0 U
1,1-DICHLOROETHANE	µg/L	NE	15 J	4.1	12 J	0.68 J	42
1,1-DICHLOROETHENE	µg/L	6	31 J	0.50 UJ	11 J	0.50 U	26 J
1,2-DICHLOROETHANE	µg/L	0.5	2.5 UJ	0.50 U	2.5 UJ	0.50 U	2.5 U
2-BUTANONE	µg/L	NE	10 UJ	2.0 U	10 UJ	2.0 U	10 U
2-HEXANONE	µg/L	NE	10 UJ	2.0 U	10 UJ	2.0 UJ	10 U
ACETONE	µg/L	NE	50 UJ	44	50 UJ	10 UJ	50 U
BENZENE	µg/L	NE	5.0 UJ	74	5.0 UJ	1.0 U	0.78 J
BROMODICHLOROMETHANE	µg/L	NE	5.0 UJ	1.0 U	5.0 UJ	1.0 U	5.0 U
CARBON DISULFIDE	µg/L	NE	10 UJ	2.0 U	10 UJ	2.0 U	10 U
CHLOROBENZENE	µg/L	NE	5.0 UJ	1.0 U	5.0 UJ	1.0 U	5.0 U
CHLOROETHANE	µg/L	NE	5.0 UJ	4.4	5.0 UJ	1.0 U	5.0 U
CHLOROFORM	µg/L	100	5.0 UJ	1.0 U	5.0 UJ	1.0 U	5.0 U
CHLOROMETHANE	µg/L	NE	5.0 UJ	1.0 U	5.0 UJ	1.0 U	5.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	2400	0.39 J	350 J	3.8 J	990
ETHYLBENZENE	µg/L	NE	5.0 UJ	180	5.0 UJ	1.0 U	5.0 U
FREON 113	µg/L	NE	13 J	2.0 UJ	11 J	2.0 U	10 UJ
m- and p-XYLENE	µg/L	NE	5.0 UJ	7.3	5.0 UJ	1.0 U	5.0 U
o-XYLENE	µg/L	NE	5.0 UJ	1.3	5.0 UJ	1.0 U	5.0 U
TETRACHLOROETHENE	µg/L	5	12 J	0.10 J	6.0 J	0.50 U	2.5 U
TOLUENE	µg/L	NE	5.0 UJ	1.9	5.0 UJ	1.0 U	5.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	10 J	0.50 U	2.2 J	0.13 J	13
TRICHLOROETHENE	µg/L	5	660	0.50 U	180	0.15 J	0.89 J
VINYL ACETATE	µg/L	NE	10 UJ	2.0 U	10 UJ	2.0 U	10 U
VINYL CHLORIDE	µg/L	0.5	38 J	0.50 U	1.7 J	3.5 J	48

TABLE 2-5

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 28

Location:	Units	ROD Cleanup Standard	W29-2	W29-3	W29-3	W29-4	W29-5
Sample Number:			4-IR28-041	4-IR28-042	4-IR28-043	4-IR28-044	4-IR28-012
Sample Date:			11/21/2008	11/24/2008	11/24/2008	11/21/2008	11/24/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	5.0 UJ	5.0 U	1.0 U	2.0 U
1,1-DICHLOROETHANE	µg/L	NE	3.6	16 J	17	8.3	11
1,1-DICHLOROETHENE	µg/L	6	0.50 UJ	22 J	27 J	12 J	5.8 J
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	2.5 UJ	2.5 U	0.50 U	1.0 U
2-BUTANONE	µg/L	NE	2.0 U	10 UJ	10 U	2.0 UJ	4.0 U
2-HEXANONE	µg/L	NE	2.0 U	10 UJ	10 U	2.0 UJ	4.0 U
ACETONE	µg/L	NE	10 UJ	50 UJ	50 U	10 U	6.0 J
BENZENE	µg/L	NE	3.1	5.0 UJ	5.0 U	1.0 U	0.90 J
BROMODICHLOROMETHANE	µg/L	NE	1.0 U	5.0 UJ	5.0 U	1.0 U	2.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	10 UJ	10 U	2.0 U	4.0 U
CHLOROBENZENE	µg/L	NE	1.0 U	5.0 UJ	5.0 U	1.0 U	2.0 U
CHLOROETHANE	µg/L	NE	2.7	5.0 UJ	5.0 U	1.0 UJ	2.0 U
CHLOROFORM	µg/L	100	1.0 U	5.0 UJ	5.0 U	1.2	2.0 U
CHLOROMETHANE	µg/L	NE	1.0 U	5.0 UJ	5.0 U	1.0 U	2.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	0.39 J	1200	1300	280	730
ETHYLBENZENE	µg/L	NE	1.0 U	5.0 UJ	5.0 U	1.0 U	2.0 U
FREON 113	µg/L	NE	2.0 U	13 J	11 J	4.1	4.0 UJ
m- and p-XYLENE	µg/L	NE	1.0 U	5.0 UJ	5.0 U	1.0 U	2.0 U
o-XYLENE	µg/L	NE	1.0 U	5.0 UJ	5.0 U	1.0 U	2.0 U
TETRACHLOROETHENE	µg/L	5	0.50 U	1.4 J	2.0 J	0.50 U	1.0 U
TOLUENE	µg/L	NE	1.0 U	5.0 UJ	5.0 U	1.0 U	2.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.50 U	6.7 J	4.7	1.2	2.3
TRICHLOROETHENE	µg/L	5	0.50 U	470	670	210	1.7
VINYL ACETATE	µg/L	NE	2.0 U	1.3 J	10 U	2.0 UJ	4.0 U
VINYL CHLORIDE	µg/L	0.5	0.50 U	54 J	40	0.50 U	240

Location:	Units	ROD Cleanup Standard	WNX-3	WNX-3	WU4-10	WU4-11	WU4-14
Sample Number:			4-IR28-082	4-IR28-083	4-IR28-027	4-IR28-028	4-IR28-019
Sample Date:			11/24/2008	11/24/2008	11/24/2008	11/24/2008	11/25/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0	1.0	1.4	0.65 J	5.0 U
1,1-DICHLOROETHANE	µg/L	NE	6.1	5.9	6.2	1.3	20
1,1-DICHLOROETHENE	µg/L	6	8.1	8.1	8.9 J	0.74 J	31 J
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	0.50 U	0.28 J	0.50 U	2.5 U
2-BUTANONE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	10 U
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	10 U
ACETONE	µg/L	NE	10 U	10 U	10 U	10 U	50 UJ
BENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.1 J
BROMODICHLOROMETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	10 U
CHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
CHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
CHLOROFORM	µg/L	100	0.15 J	0.13 J	0.14 J	1.0 U	5.0 U
CHLOROMETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	310	310	130	3.0	560
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
FREON 113	µg/L	NE	1.8 J	1.9 J	1.8 J	0.87 J	17
m- and p-XYLENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
o-XYLENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
TETRACHLOROETHENE	µg/L	5	0.20 J	0.20 J	0.39 J	0.50 U	0.78 J
TOLUENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	3.6	3.4	0.68	0.50 U	2.5
TRICHLOROETHENE	µg/L	5	190	190	100	11	600
VINYL ACETATE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	10 U
VINYL CHLORIDE	µg/L	0.5	0.61	0.66	0.59	0.50 U	53

TABLE 2-5

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 28

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	W29-7	W56-2	W88-1	W9-10	W9-10
			4-IR28-013	4-IR28-045	4-IR28-063	4-IR28-014	4-IR28-015
			11/24/2008	11/21/2008	11/24/2008	11/21/2008	11/21/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,1-DICHLOROETHANE	µg/L	NE	8.4	29	0.35 J	17	18
1,1-DICHLOROETHENE	µg/L	6	5.4 J	0.19 J	24 J	13	13
1,2-DICHLOROETHANE	µg/L	0.5	0.60	6.6	0.50 U	2.5 U	2.5 U
2-BUTANONE	µg/L	NE	2.0 U	2.0 UJ	2.0 U	10 U	10 U
2-HEXANONE	µg/L	NE	2.0 U	2.0 UJ	2.0 U	10 UJ	10 UJ
ACETONE	µg/L	NE	10 UJ	10 U	22 J	50 U	50 U
BENZENE	µg/L	NE	0.29 J	0.50 J	0.30 J	5.0 U	5.0 U
BROMODICHLOROMETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	2.0 U	10 U	10 U
CHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	0.22 J	5.0 U	5.0 U
CHLOROETHANE	µg/L	NE	1.0 U	1.0 UJ	1.0 U	5.0 U	5.0 U
CHLOROFORM	µg/L	100	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
CHLOROMETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	280	17	3200	1100	1000
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
FREON 113	µg/L	NE	0.51 J	0.81 J	2.0 UJ	6.6 J	6.5 J
m- and p-XYLENE	µg/L	NE	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
o-XYLENE	µg/L	NE	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
TETRACHLOROETHENE	µg/L	5	0.50 U	0.50 U	560	0.74 J	2.5 U
TOLUENE	µg/L	NE	1.0 U	1.0 U	0.39 J	5.0 U	5.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	1.6	2.0	17	6.1	6.2
TRICHLOROETHENE	µg/L	5	1.9	1.3	530	4.4	3.9
VINYL ACETATE	µg/L	NE	2.0 U	2.0 UJ	2.0 U	1.9 J	1.9 J
VINYL CHLORIDE	µg/L	0.5	130	300	4.4	130	160

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	WU4-15	WU4-17	WU4-21	WU4-24	WU4-25
			4-IR28-020	4-IR28-058	4-IR28-029	4-IR28-030	4-IR28-031
			11/21/2008	11/24/2008	11/24/2008	11/24/2008	11/24/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	4.6	2.9	1.6	3.0	7.1
1,1-DICHLOROETHENE	µg/L	6	4.2	0.50 UJ	0.66 J	0.22 J	2.7 J
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-HEXANONE	µg/L	NE	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	2.8 J	2.8 J	10 U	10 U	10 U
BENZENE	µg/L	NE	1.0 U	6.5	1.0 U	1.0 U	1.0 U
BROMODICHLOROMETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
CHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	1.0 U	0.43 J	1.0 U	1.0 U	1.0 U
CHLOROFORM	µg/L	100	0.16 J	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROMETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	77	0.59	17	3.6	28
ETHYLBENZENE	µg/L	NE	1.0 U	0.26 J	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	0.52 J	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
m- and p-XYLENE	µg/L	NE	1.0 U	0.52 J	1.0 U	1.0 U	1.0 U
o-XYLENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	1.4	0.50 U	0.50 U	0.50 U	0.50 U
TOLUENE	µg/L	NE	0.28 J	0.27 J	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.63	0.50 U	0.52	0.13 J	0.16 J
TRICHLOROETHENE	µg/L	5	13	0.50 U	8.0	2.9	0.90
VINYL ACETATE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
VINYL CHLORIDE	µg/L	0.5	1.4	8.3	0.53	0.50 U	0.28 J

TABLE 2-5

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 28

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	W9-12	W9-14	W9-15	W9-18	W9-19
			4-IR28-064	4-IR28-065	4-IR28-066	4-IR28-067	4-IR28-068
			11/25/2008	11/25/2008	11/21/2008	11/25/2008	11/24/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	25 U	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	1.0 U	1.9	1.0 U	19 J	13
1,1-DICHLOROETHENE	µg/L	6	0.50 UJ	0.97	0.50 U	45 J	0.76 J
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	0.50 U	0.50 U	12 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 U	2.0 U	2.0 U	18 J	2.0 U
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	2.0 UJ	50 U	2.0 U
ACETONE	µg/L	NE	10 UJ	2.1 J	4.0 J	250 UJ	10 UJ
BENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	25 U	1.0 U
BROMODICHLOROMETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	25 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	2.0 U	50 U	2.0 U
CHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	25 U	1.0 U
CHLOROETHANE	µg/L	NE	1.0 U	0.34 J	1.0 U	25 U	1.0 U
CHLOROFORM	µg/L	100	1.0 U	1.0 U	1.0 U	25 U	1.0 U
CHLOROMETHANE	µg/L	NE	1.0 U	0.27 J	1.0 U	25 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	0.16 J	28	0.50 U	15000	8.8
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	25 U	1.0 U
FREON 113	µg/L	NE	2.0 U	0.55 J	2.0 U	50 U	2.0 UJ
m- and p-XYLENE	µg/L	NE	1.0 U	1.0 U	1.0 U	25 U	1.0 U
o-XYLENE	µg/L	NE	1.0 U	1.0 U	1.0 U	25 U	1.0 U
TETRACHLOROETHENE	µg/L	5	0.50 U	0.50 U	0.50 U	12 U	0.50 U
TOLUENE	µg/L	NE	1.0 U	1.0 U	1.0 U	25 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.50 U	1.2	0.50 U	17	1.0
TRICHLOROETHENE	µg/L	5	0.42 J	34	0.50 U	14	0.23 J
VINYL ACETATE	µg/L	NE	2.0 U	2.0 U	2.0 U	50 U	2.0 U
VINYL CHLORIDE	µg/L	0.5	0.50 U	2.3	0.50 U	1100	2.2

Location: Sample Number: Sample Date:	Units	ROD Cleanup Standard	WU4-3	WU4-4	WU4-8	WU4-9	WWR-1
			4-IR28-084	4-IR28-085	4-IR28-032	4-IR28-033	4-IR28-034
			11/24/2008	11/24/2008	11/21/2008	11/21/2008	11/24/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	0.41 J	10 U	1.0 U	1.0 U	2.2
1,1-DICHLOROETHANE	µg/L	NE	4.4	7.7 J	3.7	0.64 J	6.0
1,1-DICHLOROETHENE	µg/L	6	7.0 J	31 J	0.50 UJ	0.50 U	8.7 J
1,2-DICHLOROETHANE	µg/L	0.5	1.0 U	5.0 U	0.50 U	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	4.0 U	20 U	2.0 U	2.0 U	2.0 U
2-HEXANONE	µg/L	NE	4.0 U	20 U	0.20 J	2.0 U	2.0 U
ACETONE	µg/L	NE	20 UJ	100 UJ	10 UJ	10 U	10 U
BENZENE	µg/L	NE	2.0 U	10 U	0.38 J	1.0 U	1.0 U
BROMODICHLOROMETHANE	µg/L	NE	2.0 U	10 U	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	4.0 U	20 U	2.0 U	2.0 U	2.0 U
CHLOROBENZENE	µg/L	NE	2.0 U	10 U	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	2.0 U	10 U	1.0 U	1.0 U	1.0 U
CHLOROFORM	µg/L	100	2.0 U	10 U	1.0 U	1.0 U	0.19 J
CHLOROMETHANE	µg/L	NE	2.0 U	10 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	130	130	0.23 J	10	140
ETHYLBENZENE	µg/L	NE	2.0 U	10 U	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	10 J	64 J	2.0 U	2.0 U	2.0 J
m- and p-XYLENE	µg/L	NE	2.0 U	10 U	1.0 U	1.0 U	1.0 U
o-XYLENE	µg/L	NE	2.0 U	10 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	0.53 J	1.1 J	0.50 U	0.50 U	0.32 J
TOLUENE	µg/L	NE	2.0 U	10 U	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.61 J	1.5 J	0.50 U	1.1	1.4
TRICHLOROETHENE	µg/L	5	530	3900	0.50 U	0.58	180
VINYL ACETATE	µg/L	NE	4.0 U	20 U	2.0 U	2.0 U	2.0 U
VINYL CHLORIDE	µg/L	0.5	1.0 U	5.0 U	2.0	3.7	0.81

TABLE 2-5

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 28

Location:	Units	ROD Cleanup Standard	W9-2	W9-2	W9-20
Sample Number:			4-IR28-046	4-IR28-047	4-IR28-069
Sample Date:			11/25/2008	11/25/2008	11/21/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	10 U	10 U	1.0 UJ
1,1-DICHLOROETHANE	µg/L	NE	24	24	1.4 J
1,1-DICHLOROETHENE	µg/L	6	41 J	43 J	3.4 J
1,2-DICHLOROETHANE	µg/L	0.5	5.0 U	5.0 U	0.50 UJ
2-BUTANONE	µg/L	NE	20 U	20 U	2.0 UJ
2-HEXANONE	µg/L	NE	20 U	20 U	2.0 UJ
ACETONE	µg/L	NE	100 UJ	100 UJ	10 UJ
BENZENE	µg/L	NE	10 U	10 U	1.0 UJ
BROMODICHLOROMETHANE	µg/L	NE	10 U	10 U	1.0 UJ
CARBON DISULFIDE	µg/L	NE	20 U	20 U	2.0 UJ
CHLOROBENZENE	µg/L	NE	10 U	10 U	1.0 UJ
CHLOROETHANE	µg/L	NE	10 U	10 U	1.0 UJ
CHLOROFORM	µg/L	100	10 U	10 U	1.0 UJ
CHLOROMETHANE	µg/L	NE	10 U	10 U	1.0 UJ
CIS-1,2-DICHLOROETHENE	µg/L	6	990	1100	120
ETHYLBENZENE	µg/L	NE	10 U	10 U	1.0 UJ
FREON 113	µg/L	NE	21	23	0.83 J
m- and p-XYLENE	µg/L	NE	10 U	10 U	1.0 UJ
o-XYLENE	µg/L	NE	10 U	10 U	1.0 UJ
TETRACHLOROETHENE	µg/L	5	1.6 J	2.3 J	6.5 J
TOLUENE	µg/L	NE	10 U	10 U	1.0 UJ
TRANS-1,2-DICHLOROETHENE	µg/L	6	5.1	5.2	1.3 J
TRICHLOROETHENE	µg/L	5	1800	2000	78
VINYL ACETATE	µg/L	NE	20 U	20 U	2.0 UJ
VINYL CHLORIDE	µg/L	0.5	5.0 U	5.0 U	0.31 J

Location:	Units	ROD Cleanup Standard	WWR-1	WWR-2	WWR-3
Sample Number:			4-IR28-035	4-IR28-036	4-IR28-086
Sample Date:			11/24/2008	11/24/2008	11/24/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	2.2	3.0	3.9
1,1-DICHLOROETHANE	µg/L	NE	6.3	3.4	6.9
1,1-DICHLOROETHENE	µg/L	6	8.3 J	4.4 J	8.4
1,2-DICHLOROETHANE	µg/L	0.5	0.22 J	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 U	2.0 U	2.0 U
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	10 U	10 U	10 U
BENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U
BROMODICHLOROMETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	2.0 U
CHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U
CHLOROFORM	µg/L	100	0.18 J	0.24 J	0.17 J
CHLOROMETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	140	75	110
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	2.0 J	1.6 J	3.1
m- and p-XYLENE	µg/L	NE	1.0 U	1.0 U	1.0 U
o-XYLENE	µg/L	NE	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	0.32 J	0.42 J	0.50 U
TOLUENE	µg/L	NE	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	1.4	2.9	1.5
TRICHLOROETHENE	µg/L	5	170	220	34
VINYL ACETATE	µg/L	NE	2.0 U	2.0 U	2.0 U
VINYL CHLORIDE	µg/L	0.5	0.50 U	0.78	0.50 U

TABLE 2-5

**ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
WEST OF THE RUNWAYS, NAVY 2008 ANNUAL SAMPLING EVENT****Notes:**

Analytes not listed were not detected in any of the 2008 well samples above the laboratory reporting limits.
Bold values indicate concentrations greater than the Cleanup Standard for the COCs listed in the MEW ROD (EPA 1996).
Complete laboratory analytical data, including data validation, are provided on CD in Appendix C. NASA and MEW analytical results are not included.

Abbreviations and Acronyms:

µg/L - micrograms per liter
CD - compact disc
COC - chemical of concern
EATS - East-Side Aquifer Treatment System
EPA - U.S. Environmental Protection Agency
J - estimated result
MEW - Middlefield-Ellis-Whisman
NASA - National Aeronautics and Space Administration
NE - not established
ROD - Record of Decision
U - analyte not detected at or above laboratory reporting limit (value indicates the reporting limit)
UJ - analyte detected with an estimated laboratory reporting limit
VOC - volatile organic compound
WATS - West-Side Aquifers Treatment System

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
14C33A	Upper A	3/12/1993	47	NA	1 U	NA
14C33A	Upper A	11/22/1993	14	NA	12	75
14C33A	Upper A	5/23/1994	NA	NA	NA	32
14C33A	Upper A	11/23/1994	3	NA	2.5 U	24
14C33A	Upper A	3/31/1995	3.7	NA	0.5 U	39
14C33A	Upper A	7/12/1995	3.2	NA	0.5 U	31
14C33A	Upper A	9/28/1995	3.1	NA	0.5 U	26
14C33A	Upper A	12/13/1995	2.8	NA	0.5 U	27
14C33A	Upper A	9/18/1996	2.6	150	2.5 U	22
14C33A	Upper A	3/17/1997	2.4	170	0.5 U	19
14C33A	Upper A	6/1/1997	1.8	0.5 U	0.5 U	0.5 U
14C33A	Upper A	12/12/1997	1.6	170	0.5 U	25
14C33A	Upper A	6/10/1998	1.6	160	0.5 U	34
14C33A	Upper A	3/25/1999	4	82	2.5 U	12
14C33A	Upper A	6/10/1999	0.8	83	0.5 U	87
14C33A	Upper A	6/24/1999	5 U	104	5 U	47
14C33A	Upper A	1/18/2000	5 U	105	5 U	60
14C33A	Upper A	6/15/2000	0.5 U	94	0.5 U	57
14C33A	Upper A	8/24/2000	16 B	72	1 U	44
14C33A	Upper A	11/30/2000	0.55 J	44	2 U	28
14C33A	Upper A	12/6/2001	0.5 U	65	0.5 U	46
14C33A	Upper A	12/7/2001	0.5 J	31	2 U	40
14C33A	Upper A	11/7/2002	2 U	4	2 U	13
14C33A	Upper A	12/17/2002	0.5 U	1.1	0.5 U	0.98
14C33A	Upper A	6/25/2003	0.5 U	6.5	0.5 U	13
14C33A	Upper A	12/8/2003	2 U	0.7 J	2 U	3
14C33A	Upper A	12/2/2004	2 U	0.2 J	2 U	0.4 J
14C33A	Upper A	12/7/2005	2 U	0.3 J	2 U	0.6
14C33A	Upper A	9/27/2006	0.5 U	0.67	0.5 U	0.5 U
14C33A	Upper A	11/17/2006	2 U	0.3 J	2 U	0.6
14C33A	Upper A	11/20/2007	2 U	0.8 J	2 U	0.4 J
14C33A	Upper A	11/24/2008	0.50 U	0.22 J	0.50 U	0.37 J
14D05A	Upper A	3/26/1992	340	140	10 U	10 U
14D05A	Upper A	10/27/1992	360	180	40 U	40 U
14D05A	Upper A	3/12/1993	580	NA	1 U	NA
14D05A	Upper A	11/22/1993	320	NA	12	12
14D05A	Upper A	6/2/1994	630	NA	NA	NA
14D05A	Upper A	11/29/1994	290	NA	NA	20
14D05A	Upper A	9/27/1995	320	NA	0.5 U	17
14D05A	Upper A	3/14/1996	500	870	12 U	25 U
14D05A	Upper A	5/3/1996	730	970	12 U	25 U
14D05A	Upper A	6/26/1996	550	780	2.5 U	8
14D05A	Upper A	9/18/1996	510	1100	25 U	50 U

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
14D05A	Upper A	3/18/1997	420	1200	2.5 U	11
14D05A	Upper A	5/26/1997	880	1500	83 U	83 U
14D05A	Upper A	6/1/1997	540	0.5 U	0.5 U	0.5 U
14D05A	Upper A	7/30/1997	630 J	1200 J	6 UJ	9 J
14D05A	Upper A	12/17/1997	900	1700	2.5 U	7.1
14D05A	Upper A	6/9/1998	480	1400	13 U	13 U
14D05A	Upper A	3/24/1999	230	1230	5 U	63
14D05A	Upper A	6/10/1999	91	610	5 U	93
14D05A	Upper A	6/24/1999	250	1180	20 U	41
14D05A	Upper A	1/20/2000	220	1120	50 U	50
14D05A	Upper A	6/16/2000	370	1600	5 U	31
14D05A	Upper A	8/23/2000	660	2200	1 U	2.7
14D05A	Upper A	11/28/2000	560	1500	50 U	13 J
14D05A	Upper A	10/30/2001	190	1400	5 U	53
14D05A	Upper A	12/5/2001	15	430	2.5 U	58
14D05A	Upper A	12/7/2001	180	1200	2 U	38 J
14D05A	Upper A	12/7/2001	190	1100	2 U	20
14D05A	Upper A	11/7/2002	610	1900	2 U	6
14D05A	Upper A	11/7/2002	430	1900	2 UJ	7 J
14D05A	Upper A	12/20/2002	470	1500	0.5 U	29
14D05A	Upper A	12/10/2003	400	1700	2 U	8
14D05A	Upper A	12/17/2003	71	1500	12 U	56
14D05A	Upper A	11/30/2004	340 J	1400	10 U	35
14D05A	Upper A	12/7/2005	250	1500	2 U	63
14D05A	Upper A	9/27/2006	85	1200	0.5 U	200
14D05A	Upper A	11/17/2006	440 J	1500 J	2 U	4 J
14D05A	Upper A	11/16/2007	340	1100	2 U	16
14D05A	Upper A	11/16/2007	370	1200	2 U	15
14D05A	Upper A	11/24/2008	290	1100	2.5 U	39
14D12A	Upper A	3/26/1992	25	230	0.5 U	0.5 U
14D12A	Upper A	6/3/1992	45	0.6	1.1	10 U
14D12A	Upper A	8/31/1992	120	380	11	10 U
14D12A	Upper A	3/12/1993	150	NA	15	NA
14D12A	Upper A	11/22/1993	690	NA	33	25
14D12A	Upper A	5/27/1994	190	NA	13	20
14D12A	Upper A	11/29/1994	450	NA	21	22
14D12A	Upper A	12/1/1994	350	380	18	28
14D12A	Upper A	7/6/1995	430	NA	22	3
14D12A	Upper A	9/26/1995	160	NA	12	21
14D12A	Upper A	3/14/1996	370	420	21	20 U
14D12A	Upper A	9/18/1996	300	460	12	25 U
14D12A	Upper A	3/19/1997	310	640	13	7.2
14D12A	Upper A	5/27/1997	770	560	22 J	12 J

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
14D12A	Upper A	6/1/1997	400	0.5 U	0.5 U	0.5 U
14D12A	Upper A	7/30/1997	710 J	480 J	17 J	51 J
14D12A	Upper A	12/16/1997	780	740	19	16
14D12A	Upper A	6/10/1998	550	830	19	25
14D12A	Upper A	3/24/1999	1100	1050	19	55
14D12A	Upper A	6/10/1999	1200	390	27	74
14D12A	Upper A	6/24/1999	870	927	20	29
14D12A	Upper A	1/21/2000	830	900	50 U	54
14D12A	Upper A	6/16/2000	630	930	15	38
14D12A	Upper A	8/23/2000	500	820	8.2	34
14D12A	Upper A	11/28/2000	440	770	9.5 J	33
14D12A	Upper A	12/5/2001	250	740	7.2	9.9
14D12A	Upper A	12/7/2001	250	620	6	24
14D12A	Upper A	11/7/2002	270	800	8	25
14D12A	Upper A	12/17/2002	43	150	3.8	7.6
14D12A	Upper A	9/24/2003	240	1100	5.8	51
14D12A	Upper A	12/8/2003	200	780	6	37 J
14D12A	Upper A	11/30/2004	110	590	5	38
14D12A	Upper A	12/7/2005	70	520	5	25
14D12A	Upper A	11/17/2006	67 J	460 J	4 J	26
14D12A	Upper A	11/17/2006	70 J	470 J	5 J	23
14D12A	Upper A	11/20/2007	46	340	3	16
14D12A	Upper A	11/24/2008	27	250	2.4	12
14D24A	Upper A	11/25/2008	53	110	0.20 J	0.98
14D26A	Upper A	11/25/2008	24	43	0.50 U	0.94
14D28A	Upper A	1/12/1995	9.4 U	47 U	50 U	50 U
14D28A	Upper A	12/14/1995	12	NA	2.5	1.2
14D28A	Upper A	3/20/1997	30	110	3.8	0.5 U
14D28A	Upper A	6/1/1997	33	0.5 U	0.5 U	0.5 U
14D28A	Upper A	12/15/1997	30	130	3.2	1.2
14D28A	Upper A	6/9/1998	36	110	3.6	1.1
14D28A	Upper A	12/10/1998	35	130	3.2	1.5
14D28A	Upper A	6/9/1999	32	95	2.5	2.9
14D28A	Upper A	6/7/2001	19	74	3.4	2
14D28A	Upper A	8/30/2001	19	86	3	1.7
14D28A	Upper A	12/7/2001	17	67	3	3
14D28A	Upper A	9/10/2002	16	82	3.2	0.99
14D28A	Upper A	11/7/2002	17	65	4	2
14D28A	Upper A	6/24/2003	25	54	3.1	1.3
14D28A	Upper A	12/8/2003	17	62	3	2 J
14D28A	Upper A	12/2/2004	20 J	71 J	4 J	2 J
14D28A	Upper A	12/2/2004	21	66	4	2
14D28A	Upper A	12/7/2005	18	61	4	1

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
14D28A	Upper A	9/27/2006	20	53	3.7	0.89
14D28A	Upper A	11/17/2006	19	60 J	3	1
14D28A	Upper A	11/16/2007	18	50	3	1
14D28A	Upper A	11/24/2008	18	57	3.6	1.7
14D28A	Upper A	11/24/2008	19	59	3.7	2.1
14D31A2	Lower A	12/18/1997	1.1	1.3	0.5 U	0.67
14D31A2	Lower A	6/2/1998	1.1	1.1	0.5 U	0.5
14D31A2	Lower A	3/10/1999	1.1	1.6	0.5 U	0.5 U
14D31A2	Lower A	12/13/1999	0.5	0.5	0.5 U	0.5 U
14D31A2	Lower A	6/14/2000	1	1.8	0.5 U	0.5 U
14D31A2	Lower A	8/27/2001	1.7	2.9	0.5 U	0.5 U
14D31A2	Lower A	12/4/2001	1.8	2.8	0.5 U	0.5 U
14D31A2	Lower A	12/7/2001	0.3 J	0.7 J	2 U	2 U
14D31A2	Lower A	9/10/2002	1.9	2.5	0.5 U	0.5 U
14D31A2	Lower A	11/6/2002	2 U	0.8 J	2 U	0.5 U
14D31A2	Lower A	6/24/2003	1.4	0.82	0.5 U	0.5 U
14D31A2	Lower A	12/9/2003	2 U	1 J	2 U	0.5 UJ
14D31A2	Lower A	11/30/2004	2 U	1 J	2 U	0.5 U
14D31A2	Lower A	12/7/2005	0.3 J	1 J	2 U	0.5 U
14D31A2	Lower A	11/17/2006	0.3 J	1 J	2 U	0.5 U
14D31A2	Lower A	11/16/2007	2 U	0.2 J	2 U	0.5 U
14D31A2	Lower A	11/21/2008	0.47 J	1.4	0.50 U	0.50 U
14D36A	Upper A	11/24/2008	12	51	0.79	1.3
14D39A	Upper A	11/21/2008	0.37 J	1.9	0.50 U	0.96
165A	Upper A	12/8/2001	420	89	1 J	2 U
165A	Upper A	11/8/2002	490	99	1 J	0.5 U
165A	Upper A	12/11/2003	490 J	81	0.8 J	0.5 U
165A	Upper A	12/1/2004	390	78 J	0.6 J	0.3 J
165A	Upper A	12/9/2005	440	120	0.9 J	0.3 J
165A	Upper A	11/20/2006	480	130	0.7 J	0.3 J
165A	Upper A	11/19/2007	320	100	0.7 J	0.7
165A	Upper A	11/24/2008	300	130	0.63	0.50 U
45B2	B2	11/18/1992	1 U	1 U	1 U	1 U
45B2	B2	11/5/2002	2 U	2 U	2 U	0.5 U
45B2	B2	12/9/2003	2 U	2 U	2 U	0.5 UJ
45B2	B2	11/30/2004	2 U	2 U	2 U	0.5 U
45B2	B2	12/8/2005	2 U	2 U	2 U	0.5 U
45B2	B2	11/20/2006	2 U	2 UJ	2 U	0.5 U
45B2	B2	11/19/2007	2 U	2 U	2 U	0.5 U
45B2	B2	11/24/2008	0.50 U	0.50 U	0.50 U	0.50 U
46B1	Lower A	10/1/1992	1 U	1 U	1 U	1 U
46B1	Lower A	12/28/1992	2700	290	100 U	100 U
46B1	Lower A	7/22/1998	950	64	0.5 U	0.5 U

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
46B1	Lower A	1/12/1999	1900	360	6.3 U	6.3 U
46B1	Lower A	7/8/1999	2800	170	8.3 U	8.3 U
46B1	Lower A	12/23/1999	1600	97	6.3 U	6.3 U
46B1	Lower A	7/13/2000	1600	120	6.3 U	6.3 U
46B1	Lower A	12/15/2000	1900	280	8.3 U	8.3 U
46B1	Lower A	11/30/2001	1200	190	5 U	4.2 U
46B1	Lower A	12/12/2002	2000	490	5 U	5 U
46B1	Lower A	12/4/2003	1500	250	5 U	5 U
46B1	Lower A	12/2/2004	1700	210	13 U	13 U
46B1	Lower A	12/7/2005	910	180	6.3 U	6.3 U
46B1	Lower A	12/8/2005	1200	210	2 U	0.5 U
46B1	Lower A	12/6/2006	1300	220	2.5 U	2.5 U
46B1	Lower A	12/4/2007	940	230	7.1 U	7.1 U
46B1	Lower A	12/5/2008	840	170	7.1 U	7.1 U
47B1	Lower A	9/30/1992	28	20	1 U	1 U
47B1	Lower A	7/21/1998	4.2	17	0.5 U	0.5 U
47B1	Lower A	1/6/1999	13 U	13 U	13 U	13 U
47B1	Lower A	12/17/1999	1.2	4.7	0.5 U	0.5 U
47B1	Lower A	12/6/2000	1.6	4.7	0.5 U	0.5 U
47B1	Lower A	11/28/2001	2.6	6.2	0.5 U	0.5 U
47B1	Lower A	12/11/2002	3	7.3	0.5 U	0.5 U
47B1	Lower A	12/3/2003	1.6	2.5	0.5 U	0.5 U
47B1	Lower A	12/11/2003	2 J	2	2 U	0.5 U
47B1	Lower A	11/30/2004	1 J	2 J	2 U	0.5 U
47B1	Lower A	12/1/2004	2	8.4	0.5 U	0.5 U
47B1	Lower A	12/6/2005	1.6	7.1	0.5 U	0.5 U
47B1	Lower A	12/9/2005	2 J	8	2 U	0.2 J
47B1	Lower A	11/20/2006	2 J	7 J	2 U	0.5 U
47B1	Lower A	12/7/2006	1.9	11	0.5 U	0.5 U
47B1	Lower A	11/19/2007	1 J	9	2 U	0.2 J
47B1	Lower A	12/5/2008	4.4	11	0.5 U	0.5 U
65A	Upper A	9/9/1992	4400	450	100 U	100 U
65A	Upper A	7/9/1998	1600	170	5 U	5 U
65A	Upper A	7/10/1998	1800	190	5 U	5 U
65A	Upper A	1/19/1999	1800	140	6.3 U	6.3 U
65A	Upper A	7/8/1999	1300	140	4.2 U	4.2 U
65A	Upper A	12/29/1999	420	50	1.3 U	1.3 U
65A	Upper A	7/7/2000	820	93	3.6 U	3.6 U
65A	Upper A	12/15/2000	690	110	3.1 U	3.1 U
65A	Upper A	11/28/2001	590	99	2 U	2 U
65A	Upper A	12/17/2002	730	110	2 U	2 U
65A	Upper A	12/3/2003	530	67	2 U	2 U
65A	Upper A	12/7/2004	580	150	0.5 U	4

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
65A	Upper A	12/7/2005	560	110	3.1 U	3.1 U
65A	Upper A	12/8/2005	650	120	0.6 J	0.3 J
65A	Upper A	12/8/2006	570	140	4.2 U	4.2 U
65A	Upper A	12/3/2007	580	160	3.6 U	3.6 U
65A	Upper A	12/4/2008	510	160	1.3 U	1.3 U
79B1	Lower A	9/29/1992	1 U	1 U	1 U	1 U
79B1	Lower A	7/17/1998	2.3	1.6	0.5 U	0.5 U
79B1	Lower A	1/8/1999	0.5	0.5 U	0.5 U	0.5 U
79B1	Lower A	12/18/1999	1.9	0.7	0.5 U	0.5 U
79B1	Lower A	12/11/2000	0.6	0.6	0.5 U	0.5 U
79B1	Lower A	11/27/2001	1	1.3	0.5 U	0.5 U
79B1	Lower A	12/6/2001	0.5 J	0.8 J	2 U	2 U
79B1	Lower A	12/6/2001	0.6 J	0.8 J	2 U	2 U
79B1	Lower A	12/11/2002	0.8	0.7	0.5 U	0.5 U
79B1	Lower A	12/3/2003	2.2	7.2	0.5 U	0.5 U
79B1	Lower A	12/9/2003	0.7 J	2 J	2 U	0.5 UJ
79B1	Lower A	12/1/2004	0.5 J	0.7 J	2 U	0.5 U
79B1	Lower A	12/2/2004	0.7	1.5	0.5 U	0.5 U
79B1	Lower A	12/7/2005	0.8	0.5 U	0.5 U	0.5 U
79B1	Lower A	12/8/2005	0.6 J	1 J	2 U	0.5 U
79B1	Lower A	11/21/2006	0.6 J	0.5 J	2 U	0.5 U
79B1	Lower A	12/7/2006	1.4	0.6	0.5 U	0.5 U
79B1	Lower A	11/19/2007	0.5 J	0.5 J	2 U	0.5 U
79B1	Lower A	12/1/2008	0.5 U	0.5 U	0.5 U	0.5 U
80B1	Lower A	9/30/1992	4200	100 U	100 U	100 U
80B1	Lower A	5/30/1997	2700	120 J	200 U	200 U
80B1	Lower A	8/5/1997	2600 D	120	15 J	17 U
80B1	Lower A	3/24/1999	2090	99	10 U	20 U
80B1	Lower A	6/23/1999	1130	87	20 U	10 U
80B1	Lower A	1/19/2000	1020	95	25 U	13 U
80B1	Lower A	8/22/2000	1000	930	20	180
80B1	Lower A	11/27/2000	900	550	6.5 J	88
80B1	Lower A	1/25/2002	1200	700	24	140
80B1	Lower A	11/8/2002	1400	440	12 J	55
80B1	Lower A	12/10/2003	520	160	3	0.5 U
80B1	Lower A	12/1/2004	1100	410	10	22
80B1	Lower A	12/6/2005	920	310	5	5
80B1	Lower A	11/20/2006	480 J	170 J	2 J	0.5
80B1	Lower A	11/19/2007	280	88	0.9 J	0.5
80B1	Lower A	11/19/2007	270	85	0.9 J	0.5 J
80B1	Lower A	11/25/2008	1000	320	2.9	5.0
81A	Upper A	11/5/1992	680	530	50 U	50 U
81A	Upper A	7/9/1998	510	610	2 U	2 U

TABLE 2-6

**HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC
DETECTED IN GROUNDWATER FOR SITE 28**

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
81A	Upper A	1/19/1999	400	810	0.5 U	3
81A	Upper A	12/23/1999	260	950	3.6 U	4.9
81A	Upper A	12/4/2000	110	1100	3.2	3.1 U
81A	Upper A	11/28/2001	97	1200	3.6 U	3.6 U
81A	Upper A	12/17/2002	140	1200	2.5 U	2.5 U
81A	Upper A	12/4/2003	89	1400	7.1 U	7.1 U
81A	Upper A	4/6/2004	110	1700	0.5 U	3
81A	Upper A	4/27/2004	130	1900	0.5 U	3
81A	Upper A	5/11/2004	91	1600	0.5 U	5
81A	Upper A	6/14/2004	98	2000	0.5 U	7
81A	Upper A	7/13/2004	110	1700	0.5 U	5
81A	Upper A	7/13/2004	110	1700	0.5 U	6
81A	Upper A	8/16/2004	130	2000	0.5 U	3
81A	Upper A	11/15/2004	98	1700	1 U	3
81A	Upper A	12/2/2004	97	1800	10 U	13 U
81A	Upper A	12/7/2005	73	1700	13 U	13 U
81A	Upper A	12/8/2005	69	1900	2 U	2
81A	Upper A	12/6/2006	86	1800	17 U	17 U
81A	Upper A	12/4/2007	76	1900	17 U	17 U
81A	Upper A	12/5/2008	42	1500	10 U	10 U
87B1	Lower A	10/6/1992	45	36	1 U	1 U
87B1	Lower A	7/20/1998	38	1.1	0.5 U	0.5 U
87B1	Lower A	8/13/1998	36	1.1	0.5 U	0.5 U
87B1	Lower A	1/6/1999	43	1.1	0.5 U	0.5 U
87B1	Lower A	12/22/1999	51	1.1	0.5 U	0.5 U
87B1	Lower A	12/11/2000	63	1.2	0.5 U	0.5 U
87B1	Lower A	11/29/2001	57	1	0.5 U	0.5 U
87B1	Lower A	12/12/2002	70	1.2	0.5 U	0.5 U
87B1	Lower A	12/4/2003	71	1.5	0.5 U	0.5 U
87B1	Lower A	12/7/2004	74	1	0.5 U	0.5 U
87B1	Lower A	8/10/2005	84	1.1 J	5 U	0.5 U
87B1	Lower A	12/9/2005	86	1.2 J	5 U	0.5 U
87B1	Lower A	12/12/2005	58	1.5	0.5 U	0.5 U
87B1	Lower A	12/8/2006	76	1.3	0.5 U	0.5 U
87B1	Lower A	12/4/2007	62	1.2	0.5 U	0.5 U
87B1	Lower A	12/9/2008	66	0.8	0.5 U	0.5 U
EA1-1	Upper A	3/24/1999	672	1970	100	10 U
EA1-1	Upper A	6/23/1999	170	2690	50 U	25 U
EA1-1	Upper A	1/19/2000	460	1700	130	13 U
EA1-1	Upper A	8/21/2000	360	870	130	5 U
EA1-1	Upper A	11/30/2000	510	1100	210	25 U
EA1-1	Upper A	3/29/2001	609	1070	180 J	25 U
EA1-1	Upper A	7/18/2001	780	870	550	0.79

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
EA1-1	Upper A	12/5/2001	490 D	710 D	500 D	0.8 J
EA1-1	Upper A	11/8/2002	510	650	760	0.5 U
EA1-1	Upper A	12/10/2003	380	500	330	0.4 J
EA1-1	Upper A	4/6/2004	1300	610	560	0.8
EA1-1	Upper A	4/26/2004	450	500	30	0.7
EA1-1	Upper A	4/26/2004	460	460	26	0.6
EA1-1	Upper A	5/11/2004	350	310	5	0.6
EA1-1	Upper A	6/14/2004	450	320	7	1
EA1-1	Upper A	7/12/2004	540	270	43	0.9
EA1-1	Upper A	8/16/2004	610	360	83	1
EA1-1	Upper A	11/15/2004	630	380	220	1
EA1-1	Upper A	12/2/2004	490	440	59	1
EA1-1	Upper A	12/8/2005	320	750	90	0.9
EA1-1	Upper A	11/21/2006	1700	600 J	1300	0.5
EA1-1	Upper A	11/21/2006	830	290 J	580	0.4 J
EA1-1	Upper A	11/19/2007	690	510	740	1
EA1-1	Upper A	11/21/2008	1300	200	1300	2.5 U
EA1-2	Upper A	3/24/1999	740	168	5 U	10 U
EA1-2	Upper A	6/23/1999	725	160	10 U	5 U
EA1-2	Upper A	1/19/2000	727	140	25 U	13 U
EA1-2	Upper A	8/22/2000	270	130	0.78 J	0.36 J
EA1-2	Upper A	11/27/2000	650	130 J	20 U	10 U
EA1-2	Upper A	3/29/2001	399	100	100 U	10 U
EA1-2	Upper A	7/18/2001	570	110	5 U	1.2
EA1-2	Upper A	12/7/2001	340	71	0.8 J	0.7 J
EA1-2	Upper A	11/8/2002	480	120	1 J	3
EA1-2	Upper A	12/10/2003	420	120	0.8 J	2
EA1-2	Upper A	12/2/2004	290	110	0.8 J	2
EA1-2	Upper A	12/2/2004	310	110	0.8 J	2
EA1-2	Upper A	12/8/2005	310	110	0.7 J	1
EA1-2	Upper A	11/21/2006	330	110	0.9 J	0.9 J
EA1-2	Upper A	11/16/2007	250	100	0.6J	1
EA1-2	Upper A	11/24/2008	240	120	0.59	1.1
EA1-3	Upper A	3/24/1999	2930	506	10 U	20 U
EA1-3	Upper A	6/23/1999	1800	410	50 U	25 U
EA1-3	Upper A	1/19/2000	2020	530	100 U	50 U
EA1-3	Upper A	8/23/2000	3300	360	36	12
EA1-3	Upper A	11/27/2000	1400	540	17 J	14 J
EA1-3	Upper A	3/29/2001	1970	617	16 J	25 U
EA1-3	Upper A	7/18/2001	1500	590	24	37
EA1-3	Upper A	12/6/2001	1100	420	8	20
EA1-3	Upper A	11/8/2002	1500	490	8	22
EA1-3	Upper A	12/10/2003	1200	530	8	25

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
EA1-3	Upper A	11/29/2004	890	470	5	51
EA1-3	Upper A	12/6/2005	960	580	4	37
EA1-3	Upper A	11/20/2006	1100 J	700 J	4	91 J
EA1-3	Upper A	11/16/2007	560	370	3	77
EA1-3	Upper A	11/21/2008	580	420	3.0	64
EA1-4	Upper A	3/24/1999	246	1100	5 U	62
EA1-4	Upper A	6/23/1999	33 J	1720	50 U	25 U
EA1-4	Upper A	1/19/2000	65	1050	12 J	13 U
EA1-4	Upper A	8/23/2000	190	810	13	18
EA1-4	Upper A	11/28/2000	100	800	11 J	30
EA1-4	Upper A	3/29/2001	127 J	873	250 U	17 J
EA1-4	Upper A	7/18/2001	84	1100	11	26
EA1-4	Upper A	1/25/2002	88	760	7	16
EA1-4	Upper A	11/7/2002	160	790	10	24
EA1-4	Upper A	12/10/2003	110	1000	8	20
EA1-4	Upper A	12/1/2004	100	750	7	24
EA1-4	Upper A	12/7/2005	95	660	7	27
EA1-4	Upper A	11/17/2006	170	680	7	29
EA1-4	Upper A	11/20/2007	120	570	5	32
EA1-4	Upper A	11/21/2008	88	490	4.5	30
EA1-5	Upper A	3/24/1999	37	665	5 U	244
EA1-5	Upper A	6/23/1999	80	452	10 U	220
EA1-5	Upper A	1/19/2000	87	470	25 U	200
EA1-5	Upper A	8/23/2000	130	730	13	34
EA1-5	Upper A	11/27/2000	56	340	10 U	170
EA1-5	Upper A	3/29/2001	60	321	50 U	97.6
EA1-5	Upper A	7/18/2001	56	310	5 U	240
EA1-5	Upper A	12/7/2001	54	260	0.5 J	130
EA1-5	Upper A	11/8/2002	60	240	0.4 J	96
EA1-5	Upper A	12/10/2003	32	210	0.4 J	68
EA1-5	Upper A	11/30/2004	22	200	0.2 J	72
EA1-5	Upper A	12/6/2005	15	210	2 U	61
EA1-5	Upper A	11/17/2006	19	190 J	2 U	46
EA1-5	Upper A	11/20/2007	13	150	0.1 J	38
EA1-5	Upper A	11/21/2008	12	120	0.16 J	35
EA1-5	Upper A	11/21/2008	12	120	0.13 J	37
EA1-6	Upper A	3/24/1999	1020	1350	5 U	65
EA1-6	Upper A	6/23/1999	41	1910	20 U	140
EA1-6	Upper A	1/19/2000	785	716	10 U	176
EA1-6	Upper A	8/23/2000	180	580	5 U	88
EA1-6	Upper A	11/28/2000	330	430	5 U	130
EA1-6	Upper A	3/29/2001	339	463	100 U	113
EA1-6	Upper A	7/18/2001	360	540	5 U	98

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
EA1-6	Upper A	12/5/2001	100 J	660 D	2 U	100 J
EA1-6	Upper A	11/7/2002	300	400	2 U	150
EA1-6	Upper A	12/10/2003	220	360	2 U	160
EA1-6	Upper A	4/6/2004	210	350	0.5 U	85
EA1-6	Upper A	4/27/2004	0.5 U	59	0.5 U	140
EA1-6	Upper A	5/10/2004	0.5 U	11	0.5 U	81
EA1-6	Upper A	6/15/2004	0.5 U	9	0.5 U	22
EA1-6	Upper A	7/13/2004	1	18	0.5 U	28
EA1-6	Upper A	8/17/2004	0.5 U	8	0.5 U	24
EA1-6	Upper A	8/17/2004	0.5 U	9	0.5 U	25
EA1-6	Upper A	11/16/2004	0.5 U	16	0.5 U	27
EA1-6	Upper A	11/30/2004	200	320	2 U	45
EA1-6	Upper A	12/7/2005	2 U	23	2 U	47
EA1-6	Upper A	11/17/2006	250	300	2 U	59
EA1-6	Upper A	11/16/2007	210	250	2 U	40
EA1-6	Upper A	11/16/2007	190 J	240	2 U	38
EA1-6	Upper A	11/21/2008	200	260	0.50 U	48
EA2-1	Lower A	3/24/1999	6240	190	50 U	100 U
EA2-1	Lower A	6/23/1999	6810	210	100	50 U
EA2-1	Lower A	8/23/2000	4100 J	370 J	65 J	0.72 J
EA2-1	Lower A	11/27/2000	4100	160	57 J	63 U
EA2-1	Lower A	3/29/2001	3670	390 J	69 J	50 U
EA2-1	Lower A	12/7/2001	3000	360	54	2 J
EA2-1	Lower A	11/8/2002	2800	470	49	3 J
EA2-1	Lower A	12/11/2003	3100 J	300	47	0.8
EA2-1	Lower A	12/11/2003	3200 J	270	44	0.8
EA2-1	Lower A	12/1/2004	2600	420	48	3
EA2-1	Lower A	12/8/2005	2400	500	47	3
EA2-1	Lower A	11/20/2006	2700	520	62 J	4 J
EA2-1	Lower A	11/19/2007	1900	460	43	6
EA2-1	Lower A	11/21/2008	2100	540	49	7.4
EA2-2	Lower A	3/24/1999	1990	180	25 U	50 U
EA2-2	Lower A	6/23/1999	322	345	5 J	102
EA2-2	Lower A	1/19/2000	2000	420	100 U	50 U
EA2-2	Lower A	8/23/2000	1900	470	28	65
EA2-2	Lower A	11/27/2000	1700	420	25 J	73
EA2-2	Lower A	3/29/2001	1980	570	29 J	69
EA2-2	Lower A	7/18/2001	2000	270	26	31
EA2-2	Lower A	1/25/2002	1500	520	18	72 J
EA2-2	Lower A	11/8/2002	1700	490	18	71
EA2-2	Lower A	12/10/2003	1400	540	23	92 J
EA2-2	Lower A	12/1/2004	1300	560	21	58
EA2-2	Lower A	12/6/2005	1200	570	17	51

TABLE 2-6

**HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC
DETECTED IN GROUNDWATER FOR SITE 28**

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
EA2-2	Lower A	11/20/2006	1300 J	710 J	16	80 J
EA2-2	Lower A	11/20/2007	1100	650	10	55
EA2-2	Lower A	11/21/2008	870	560	7.6	66
EA2-3	Lower A	11/30/2004	59	2	2 U	0.5 U
EA2-3	Lower A	12/6/2005	180	310	29	76
EA2-3	Lower A	11/21/2006	130	260	19	36 J
EA2-3	Lower A	11/20/2007	110	290	13	58
EA2-3	Lower A	11/21/2008	110	260	13	89
UST85-MW02	Upper A	2/23/2000	1100 D	360 D	7 U	3 U
UST85-MW02	Upper A	5/23/2000	660 E	250 D	4 U	2 U
UST85-MW02	Upper A	8/21/2000	520	310	1 J	2.5 U
UST85-MW02	Upper A	11/29/2000	630	350	25 U	13 U
UST85-MW02	Upper A	2/16/2001	850 D	NA	1.2	1.1
UST85-MW02	Upper A	12/5/2001	860 D	510 D	0.4 J	0.9 J
UST85-MW02	Upper A	11/5/2002	680	260	2 J	0.3 J
UST85-MW02	Upper A	12/10/2003	520	190	3	0.2 J
UST85-MW02	Upper A	4/6/2004	530	170	2	0.4 J
UST85-MW02	Upper A	4/26/2004	580	190	2	0.4 J
UST85-MW02	Upper A	5/11/2004	490	210	1	0.5 U
UST85-MW02	Upper A	6/14/2004	600	210	2	0.6
UST85-MW02	Upper A	6/14/2004	590	210	2	0.5
UST85-MW02	Upper A	7/12/2004	740	220	2	0.5
UST85-MW02	Upper A	8/16/2004	650	220	2	0.4 J
UST85-MW02	Upper A	11/15/2004	520	210	1	0.2 J
UST85-MW02	Upper A	11/15/2004	570	190	2	0.3 J
UST85-MW02	Upper A	12/2/2004	480	170	1 J	0.3 J
UST85-MW02	Upper A	12/8/2005	560	230	2 J	0.3 J
UST85-MW02	Upper A	11/21/2006	530	230 J	1 J	0.4 J
UST85-MW02	Upper A	11/20/2007	230	64	0.7 J	0.5 U
UST85-MW02	Upper A	11/25/2008	250	920	0.79 J	2.5 U
W29-1	Upper A	2/19/1992	25 U	NA	25 U	170
W29-1	Upper A	6/4/1992	21	NA	2	270
W29-1	Upper A	9/11/1992	50 U	NA	50 U	300
W29-1	Upper A	11/2/1992	130	470	50 U	100 U
W29-1	Upper A	6/4/1993	13	NA	0.9 J	110
W29-1	Upper A	6/5/1997	9 J	8 J	2 U	210 J
W29-1	Upper A	3/25/1999	0.9	1.5	0.5 U	2
W29-1	Upper A	6/24/1999	1 U	0.4 J	1 U	0.6
W29-1	Upper A	1/19/2000	0.4 J	21	5 U	75
W29-1	Upper A	8/23/2000	1.7	2.1 UJ	0.21 J	1.4
W29-1	Upper A	11/28/2000	5.2	23	0.39 J	1.2
W29-1	Upper A	1/25/2002	0.3 J	2 J	0.5 J	0.5 J
W29-1	Upper A	11/5/2002	2 U	2 U	2 U	0.5 U

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W29-1	Upper A	6/25/2003	0.76	8.3	0.5 U	1.4
W29-1	Upper A	12/9/2003	0.7 J	0.9 J	2 U	3 J
W29-1	Upper A	12/18/2003	0.63	1.3	0.5 U	0.5 U
W29-1	Upper A	12/1/2004	0.6 J	0.8 J	2 U	1
W29-1	Upper A	12/8/2005	2 U	2 U	2 U	0.2 J
W29-1	Upper A	11/17/2006	0.8 J	0.6 J	0.3 J	0.5
W29-1	Upper A	11/17/2006	0.7 J	0.6 J	0.2 J	0.5
W29-1	Upper A	11/20/2007	0.4 J	0.5 J	0.3 J	0.5 U
W29-1	Upper A	11/24/2008	0.55	1.1	0.16 J	0.77
W29-2	Upper A	2/18/1992	12 U	NA	12 U	6.2 U
W29-2	Upper A	2/21/1992	7.6	NA	NA	NA
W29-2	Upper A	5/21/1992	38	NA	NA	NA
W29-2	Upper A	5/22/1992	88 J-K	NA	5 U	54
W29-2	Upper A	9/14/1992	47	28	10 U	44
W29-2	Upper A	6/1/1993	2 U	NA	2 U	2 U
W29-2	Upper A	6/2/1993	40	NA	NA	NA
W29-2	Upper A	9/15/1993	2	NA	5 U	5 U
W29-2	Upper A	9/23/1993	29	NA	NA	NA
W29-2	Upper A	3/1/1994	55	NA	4 U	11
W29-2	Upper A	8/26/1994	3 U	NA	3 U	24
W29-2	Upper A	3/6/1995	430	NA	3 U	3 U
W29-2	Upper A	12/10/2003	2 U	0.8 J	2 U	0.5 U
W29-2	Upper A	12/1/2004	2 U	0.6 J	2 U	2
W29-2	Upper A	12/6/2005	2 U	2 U	2 U	0.5 U
W29-2	Upper A	11/20/2006	2 U	2 UJ	2 U	0.5 U
W29-2	Upper A	11/19/2007	2 U	2 U	2 U	0.2 J
W29-2	Upper A	11/21/2008	0.50 U	0.39 J	0.50 U	0.50 U
W29-3	Upper A	3/2/1992	900	NA	25 U	12 U
W29-3	Upper A	5/29/1992	1600	NA	18	100 U
W29-3	Upper A	9/15/1992	680	NA	50 U	50 U
W29-3	Upper A	11/24/1992	6.4	4.1	1 U	1 U
W29-3	Upper A	6/3/1993	66	NA	2	2 U
W29-3	Upper A	9/15/1993	25 D	NA	0.6 J	2 U
W29-3	Upper A	2/24/1994	83 D	NA	1	0.8
W29-3	Upper A	8/24/1994	350	NA	4 U	8 UJ-H
W29-3	Upper A	5/27/1997	1600	1800	19 J	77 U
W29-3	Upper A	7/29/1997	1600 J	1500 J	16 J	8 UJ
W29-3	Upper A	3/25/1999	1940	480	30	50 U
W29-3	Upper A	6/23/1999	2850	684	20	10 U
W29-3	Upper A	1/19/2000	2360	490	30	13 U
W29-3	Upper A	11/28/2000	690	1100	7.3	2.5 U
W29-3	Upper A	10/29/2001	1700	1400	11	5 U
W29-3	Upper A	12/6/2001	2300	480	14	3

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W29-3	Upper A	11/11/2002	1600	350	10 J	7
W29-3	Upper A	12/10/2003	1900	520	10	4
W29-3	Upper A	11/30/2004	1200	690	5 J	5
W29-3	Upper A	4/28/2005	1400 J	900 J	6.5	4
W29-3	Upper A	4/28/2005	1500 J	860 J	6.3	3.6
W29-3	Upper A	12/6/2005	1900	580	6	3
W29-3	Upper A	11/20/2006	1400	1200 J	5 J	6 J
W29-3	Upper A	11/19/2007	1100	830	3	5
W29-3	Upper A	11/24/2008	470	1200	1.4 J	54 J
W29-3	Upper A	11/24/2008	670	1300	2.0 J	40
W29-4	Upper A	2/14/1992	84	NA	5 U	2.5 U
W29-4	Upper A	6/4/1992	160	NA	5 U	10 U
W29-4	Upper A	9/14/1992	240	280	20 U	20 U
W29-4	Upper A	6/2/1993	230	NA	2 U	2 U
W29-4	Upper A	3/2/1995	490	NA	33 U	33 U
W29-4	Upper A	5/27/1997	49	730	28 U	28 U
W29-4	Upper A	7/29/1997	33 J	650 J	2 UJ	2 UJ
W29-4	Upper A	3/25/1999	32	929	5 U	10 U
W29-4	Upper A	6/23/1999	130	1200	20 U	10 U
W29-4	Upper A	1/19/2000	100	790	25 U	13 U
W29-4	Upper A	8/23/2000	27	1200	0.17 J	7.4
W29-4	Upper A	11/28/2000	140	840	25 U	13 U
W29-4	Upper A	10/29/2001	860	610	5 U	5 U
W29-4	Upper A	12/6/2001	410	270	2 U	2 U
W29-4	Upper A	11/7/2002	670	630	0.3 J	2 J
W29-4	Upper A	12/10/2003	450	300	2 U	0.8 J
W29-4	Upper A	11/30/2004	820	630	4 U	1 J
W29-4	Upper A	4/28/2005	360 J	340 J	0.5 U	1.7
W29-4	Upper A	12/6/2005	610	600	2 U	0.7
W29-4	Upper A	11/21/2006	1100	930 J	2 U	0.9 J
W29-4	Upper A	11/19/2007	230	270	2 U	0.6
W29-4	Upper A	11/21/2008	210	280	0.50 U	0.50 U
W29-5	Upper A	3/4/1992	45	NA	3.2	2.5 U
W29-5	Upper A	6/4/1992	28	NA	5 U	10 U
W29-5	Upper A	9/16/1992	100 U	NA	100 U	100 U
W29-5	Upper A	11/25/1992	100 U	1500	100 U	100 U
W29-5	Upper A	6/2/1993	44	NA	2 U	2 U
W29-5	Upper A	3/13/1995	100 U	NA	100 U	100 UJ-K
W29-5	Upper A	5/27/1997	29 J	1100	50 U	50 U
W29-5	Upper A	7/30/1997	17 J	800 J	4 UJ	16 J
W29-5	Upper A	3/24/1999	5 U	1670	5 U	10 U
W29-5	Upper A	6/23/1999	16	2190	5 U	7.5
W29-5	Upper A	1/20/2000	22 J	2010	50 U	25 U

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W29-5	Upper A	8/23/2000	7.6	990	1 U	4
W29-5	Upper A	11/27/2000	10 J	1600	1 U	3.7 J
W29-5	Upper A	10/30/2001	10	2000	5 U	5 U
W29-5	Upper A	12/7/2001	6	1500	2 U	4
W29-5	Upper A	11/5/2002	5	1500	2 U	5
W29-5	Upper A	6/26/2003	6	2400	0.5 U	20
W29-5	Upper A	12/9/2003	4	1400	2 U	9 J
W29-5	Upper A	12/18/2003	50 U	1200	50 U	50 U
W29-5	Upper A	11/30/2004	4 J	1300	4 U	5
W29-5	Upper A	12/7/2005	3	1200	2 U	7
W29-5	Upper A	11/17/2006	3	1300	2 U	33
W29-5	Upper A	11/19/2007	2	870	2 U	240
W29-5	Upper A	11/24/2008	1.7	730	1.0 U	240
W29-7	Lower A	2/19/1992	3300	NA	120 U	62 U
W29-7	Lower A	6/4/1992	200 D	NA	5 U	10 U
W29-7	Lower A	9/11/1992	37	NA	50 U	6
W29-7	Lower A	11/25/1992	4400	610	100 U	100 U
W29-7	Lower A	6/4/1993	3400	NA	1	2 U
W29-7	Lower A	9/23/1993	3400	NA	250 U	250 U
W29-7	Lower A	2/28/1994	2600	NA	200 U	200 U
W29-7	Lower A	3/6/1995	2700	NA	200 U	200 U
W29-7	Lower A	5/19/1997	860	2400	91 U	46 J
W29-7	Lower A	7/31/1997	1900 D	1700 D	7 U	26 J
W29-7	Lower A	3/25/1999	1280	1770	10 U	30
W29-7	Lower A	6/24/1999	50 U	2010	50 U	50
W29-7	Lower A	1/19/2000	1170	1540	50 U	25 U
W29-7	Lower A	8/23/2000	270	2600	1 U	130
W29-7	Lower A	11/28/2000	320	2900	100 U	110
W29-7	Lower A	1/25/2002	810	2400	0.4 J	220
W29-7	Lower A	11/8/2002	2100 J	1500 J	3	240 J
W29-7	Lower A	12/10/2003	0.9 J	390	2 U	140
W29-7	Lower A	12/1/2004	330 J	2300	10 U	290
W29-7	Lower A	12/7/2005	7	660	2 U	210
W29-7	Lower A	11/17/2006	5	430 J	2 U	440
W29-7	Lower A	11/20/2007	3	340	2 U	170
W29-7	Lower A	11/24/2008	1.9	280	0.50 U	130
W56-2	Upper A	3/3/1992	1600	NA	23	12 U
W56-2	Upper A	6/10/1992	1800	NA	25 U	50 U
W56-2	Upper A	9/11/1992	1400	NA	100 U	100 U
W56-2	Upper A	11/24/1992	2800	66	10 U	10 U
W56-2	Upper A	6/7/1993	1500	NA	2 U	2 U
W56-2	Upper A	9/15/1993	2000	NA	170 U	170 U
W56-2	Upper A	2/23/1994	1100 D	NA	2 U	3

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W56-2	Upper A	8/24/1994	2000	NA	33 UJ-H	33 UJ-H
W56-2	Upper A	5/3/1996	1800	260	50 U	100 U
W56-2	Upper A	6/26/1996	2400	470	10 U	20 U
W56-2	Upper A	5/27/1997	2000	48 J	100 U	100 U
W56-2	Upper A	8/5/1997	440 D	880 D	4 U	4 U
W56-2	Upper A	3/26/1999	7.5	21	0.5 U	0.6 J
W56-2	Upper A	6/24/1999	15 J	750	20 U	20
W56-2	Upper A	1/20/2000	28	67	1 U	68.6
W56-2	Upper A	8/22/2000	13	290	5 U	82
W56-2	Upper A	11/29/2000	0.42 J	8	0.35 J	1.4
W56-2	Upper A	10/29/2001	180	260	0.5 U	46
W56-2	Upper A	12/6/2001	0.8 J	1 J	2 U	2 J
W56-2	Upper A	11/6/2002	6	39	2 U	53
W56-2	Upper A	12/9/2003	15	140	2 U	63
W56-2	Upper A	12/9/2003	17 J	110	2 U	35
W56-2	Upper A	11/30/2004	2 J	47	2 UJ	130
W56-2	Upper A	12/6/2005	32	300	2 U	270
W56-2	Upper A	11/21/2006	0.2 J	3 J	2 U	31
W56-2	Upper A	11/16/2007	0.6 J	0.7 J	2 U	10
W56-2	Upper A	11/21/2008	1.3	17	0.50 U	300
W60-2	Upper A	6/15/1992	700 D	NA	10 U	10 U
W60-2	Upper A	8/25/1992	520 D	100 U	2 U	2 U
W60-2	Upper A	11/17/1992	510	NA	33 U	33 U
W60-2	Upper A	5/17/1993	410	NA	4 U	4 U
W60-2	Upper A	9/21/1993	500	NA	50 U	50 U
W60-2	Upper A	2/22/1994	500	NA	33 U	33 U
W60-2	Upper A	8/23/1994	520	NA	100 U	100 U
W60-2	Upper A	7/9/1998	270	23	1.3 U	1.3 U
W60-2	Upper A	1/15/1999	290	21	1 U	1 U
W60-2	Upper A	12/29/1999	230	18	0.8 U	0.8 U
W60-2	Upper A	12/15/2000	220	19	0.8 U	0.8 U
W60-2	Upper A	12/10/2001	200	17	0.5 U	0.5 U
W60-2	Upper A	12/16/2002	230	16	0.7 U	0.7 U
W60-2	Upper A	2/5/2004	150	13	0.5 U	0.5 U
W60-2	Upper A	1/10/2005	170	14	0.5 U	0.5 U
W60-2	Upper A	12/7/2005	140	14	2 U	0.5 U
W60-2	Upper A	12/8/2008	120	13	0.5 U	0.5 U
W88-1	Upper A	11/24/2008	530	3200	560	4.4
W89-1	Upper A	6/5/1992	2000	NA	4	10 U
W89-1	Upper A	8/26/1992	1400	NA	3	0.8 J-G
W89-1	Upper A	11/2/1992	1800	200 U	200 U	200 U
W89-1	Upper A	9/16/1993	1000	NA	100 U	100 U
W89-1	Upper A	2/22/1994	890	NA	50 U	50 U

TABLE 2-6

**HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC
DETECTED IN GROUNDWATER FOR SITE 28**

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W89-1	Upper A	8/23/1994	610	NA	50 U	50 U
W89-1	Upper A	2/28/1995	520	NA	7 U	7 U
W89-1	Upper A	7/9/1998	460	58	2 U	2 U
W89-1	Upper A	1/18/1999	350	28	1.3 U	1.3 U
W89-1	Upper A	12/29/1999	420	30	1.3 U	1.3 U
W89-1	Upper A	12/15/2000	34	2.9	0.5 U	0.5 U
W89-1	Upper A	12/7/2001	2	0.5 U	0.5 U	0.5 U
W89-1	Upper A	12/13/2002	25	2.8	0.5 U	0.5 U
W89-1	Upper A	2/6/2004	61	5.1	0.5 U	0.5 U
W89-1	Upper A	1/11/2005	75	6.2	0.5 U	0.5 U
W89-1	Upper A	12/6/2005	89	7	2 U	0.5 U
W89-1	Upper A	12/3/2008	94	4.8	0.5 U	0.5 U
W89-6	Upper A	2/21/1992	11	NA	1 U	0.5 U
W89-6	Upper A	6/2/1992	8	NA	5 U	10 U
W89-6	Upper A	9/1/1992	10 J-G	NA	17 U	17 U
W89-6	Upper A	10/21/1992	19	260	10 U	10 U
W89-6	Upper A	9/17/1993	3	NA	10 U	10 U
W89-6	Upper A	2/23/1994	2	NA	2 U	9
W89-6	Upper A	8/23/1994	2 J	NA	2 U	3
W89-6	Upper A	8/9/2005	7.6	330	5 U	110
W89-6	Upper A	12/9/2005	5 U	90 J	5 U	330
W89-7	Upper A	9/1/1992	2 U	NA	2 U	2 U
W89-7	Upper A	10/21/1992	1 U	1 U	1 U	1 U
W89-7	Upper A	9/13/1995	2 U	2 U	2 U	0.5 U
W89-7	Upper A	6/30/1998	0.5 U	0.5 U	0.5 U	0.5 U
W89-7	Upper A	1/5/1999	0.5 U	0.5 U	0.5 U	0.5 U
W89-7	Upper A	12/27/1999	0.5 U	0.5 U	0.5 U	0.5 U
W89-7	Upper A	12/11/2000	0.5 U	0.5 U	0.5 U	0.5 U
W89-7	Upper A	12/7/2001	0.5 U	0.5 U	0.5 U	0.5 U
W89-7	Upper A	12/13/2002	0.5 U	0.5 U	0.5 U	0.5 U
W89-7	Upper A	2/5/2004	0.5 U	0.5 U	0.5 U	0.5 U
W89-7	Upper A	1/13/2005	0.5 U	0.5 U	0.5 U	0.5 U
W89-7	Upper A	8/9/2005	5 U	5 U	5 U	0.5 U
W89-7	Upper A	12/9/2005	5 U	5 U	5 U	0.5 U
W89-7	Upper A	12/5/2008	0.5 U	0.5 U	0.5 U	0.5 U
W89-7	Upper A	12/5/2008	0.5 U	0.5 U	0.5 U	0.5 U
W9-10	Upper A	9/4/1992	840	NA	78	13
W9-10	Upper A	10/22/1992	1500	1300	50 U	50 U
W9-10	Upper A	5/28/1993	870	NA	87	17
W9-10	Upper A	9/15/1993	910	NA	97 D	22
W9-10	Upper A	2/25/1994	710 D	NA	82 D	53 D
W9-10	Upper A	8/22/1994	840 D	NA	83	46
W9-10	Upper A	12/1/1994	1000	1500	100	120

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9-10	Upper A	3/7/1995	930 D	NA	98 J	36
W9-10	Upper A	11/3/1995	770 D	NA	77 D	110 J-K
W9-10	Upper A	6/3/1997	58 J	2100	100 U	400
W9-10	Upper A	8/7/1997	200	2000 D	12	360 D
W9-10	Upper A	3/24/1999	417	1940	27	284
W9-10	Upper A	6/24/1999	130	1280	50 U	240
W9-10	Upper A	1/20/2000	200	1940	50 U	380
W9-10	Upper A	8/23/2000	5.4	130	0.7 J	400
W9-10	Upper A	11/28/2000	30	1900	4.3 J	160
W9-10	Upper A	12/7/2001	25	1400	4	290
W9-10	Upper A	11/7/2002	23 J	1400	4 J	350
W9-10	Upper A	11/7/2002	26 J	1500	4 J	350
W9-10	Upper A	6/26/2003	310	2800	36	52
W9-10	Upper A	12/10/2003	62	1400	10	190
W9-10	Upper A	12/10/2003	68	1300	11	190
W9-10	Upper A	12/18/2003	250	1400	25 U	25 U
W9-10	Upper A	12/1/2004	4 J	1100	0.8 J	110
W9-10	Upper A	12/7/2005	7	1100	1 J	100
W9-10	Upper A	11/17/2006	12	1200	1 J	140
W9-10	Upper A	11/20/2007	7	1100	0.9 J	100
W9-10	Upper A	11/21/2008	4.4	1100	0.74 J	130
W9-10	Upper A	11/21/2008	3.9	1000	2.5 U	160
W9-12	B2	9/8/1992	2 U	NA	2 U	2 U
W9-12	B2	10/30/1992	1 U	1 U	1 U	1 U
W9-12	B2	5/21/1993	2 U	NA	2 U	2 U
W9-12	B2	11/14/1995	0.5 U	NA	0.5 U	0.5 U
W9-12	B2	11/24/1997	2 U	NA	2 U	0.5 U
W9-12	B2	12/8/2001	1 J	2 U	2 U	2 U
W9-12	B2	12/9/2003	2 U	2 U	2 U	0.5 UJ
W9-12	B2	12/2/2004	0.6 J	0.4 J	2 U	0.5 U
W9-12	B2	4/27/2005	2.8	0.47 J	0.5 U	0.5 U
W9-12	B2	12/9/2005	1 J	0.4 J	2 U	0.5 U
W9-12	B2	11/21/2006	1 J	0.4 J	2 U	0.5 U
W9-12	B2	11/20/2007	2 J	0.3 J	2 U	0.5 U
W9-12	B2	11/20/2007	2 J	0.2 J	2 U	0.5 U
W9-12	B2	11/25/2008	0.42 J	0.16 J	0.50 U	0.50 U
W9-14	Lower A	9/1/1992	7300 D	NA	14 J-G	50 U
W9-14	Lower A	10/29/1992	21000	2000 U	2000 U	2000 U
W9-14	Lower A	5/25/1993	22000	NA	34	5 U
W9-14	Lower A	9/29/1993	18000	NA	1700 U	1700 U
W9-14	Lower A	12/9/1993	18000	NA	1700 U	1700 U
W9-14	Lower A	2/22/1994	18000	NA	1700 U	1700 U
W9-14	Lower A	8/23/1994	21000	NA	1200 U	1200 U

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9-14	Lower A	6/4/1997	12000	270 J	710 U	710 U
W9-14	Lower A	8/6/1997	10000 D	340	49 U	49 U
W9-14	Lower A	4/1/1998	10000 D	NA	18	10 U
W9-14	Lower A	3/25/1999	4770	160	50 U	100 U
W9-14	Lower A	6/24/1999	479	31	10 U	5 U
W9-14	Lower A	1/20/2000	7260	300	250 U	130 U
W9-14	Lower A	8/23/2000	5700	88	0.74 J	0.35 J
W9-14	Lower A	11/28/2000	280	19	10 U	5 U
W9-14	Lower A	12/7/2001	2600	130	3	2 U
W9-14	Lower A	11/8/2002	240	190	0.3 J	0.5 UJ
W9-14	Lower A	12/9/2003	5800	870	3	70 J
W9-14	Lower A	12/2/2004	0.3 J	9	2 U	8 J
W9-14	Lower A	12/9/2005	0.2 J	2 J	2 U	2
W9-14	Lower A	11/21/2006	0.3 J	0.3 J	2 U	0.9
W9-14	Lower A	11/20/2007	0.2 J	0.3 J	2 U	2
W9-14	Lower A	11/25/2008	34	28	0.50 U	2.3
W9-15	B2	9/1/1992	2 U	NA	2 U	2 U
W9-15	B2	10/27/1992	1 U	1 U	1 U	1 U
W9-15	B2	5/19/1993	2 U	NA	2 U	2 U
W9-15	B2	11/20/1995	0.5 U	NA	0.5 U	0.5 U
W9-15	B2	11/24/1997	2 U	NA	2 U	0.5 U
W9-15	B2	11/8/2002	2 U	2 U	2 U	0.5 U
W9-15	B2	12/9/2003	2 U	2 U	2 U	0.5 U
W9-15	B2	12/1/2004	2 UJ	2 UJ	2 UJ	0.5 UJ
W9-15	B2	4/28/2005	0.52	0.28 J	0.5 U	0.5 U
W9-15	B2	12/6/2005	2 U	2 U	2 U	0.5 U
W9-15	B2	11/20/2006	0.6 J	2 U	2 U	0.5 U
W9-15	B2	11/19/2007	0.7 J	2 U	2 U	0.5 U
W9-15	B2	11/21/2008	0.50 U	0.50 U	0.50 U	0.50 U
W9-18	Upper A	9/23/1992	6400 D	NA	180	50 U
W9-18	Upper A	10/30/1992	12000	3300	1000 U	1000 U
W9-18	Upper A	5/25/1993	4900 D	NA	110 J-E	4 J
W9-18	Upper A	9/21/1993	5000 D	NA	190 D	9
W9-18	Upper A	2/24/1994	9800 D	NA	340 D	4 J
W9-18	Upper A	8/24/1994	10000 J-H	NA	270 J-H	170 UJ-H
W9-18	Upper A	3/2/1995	13000 D	NA	65	8 U
W9-18	Upper A	5/23/1997	1000 U	19000	1000 U	1000 U
W9-18	Upper A	8/4/1997	51 J	16000 D	28 J	530 J
W9-18	Upper A	3/25/1999	100 U	7580	100 U	130 J
W9-18	Upper A	6/24/1999	200 U	16300	200 U	450
W9-18	Upper A	1/20/2000	200 U	13200	200 U	210
W9-18	Upper A	8/21/2000	3.3	13000	0.47 J	370
W9-18	Upper A	11/29/2000	500 U	18000	500 U	410

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9-18	Upper A	10/30/2001	100 U	22000	100 U	410
W9-18	Upper A	12/7/2001	7 J	13000	0.7 J	180 J
W9-18	Upper A	11/5/2002	1000 U	18000	1000 U	6700
W9-18	Upper A	12/10/2003	8	5300	1 J	230
W9-18	Upper A	4/6/2004	5	14000	0.9	370
W9-18	Upper A	4/27/2004	4	16000	0.8	450
W9-18	Upper A	5/11/2004	6	16000	2 J	570
W9-18	Upper A	6/14/2004	7	16000	1	870
W9-18	Upper A	6/14/2004	8	17000	1	900
W9-18	Upper A	7/13/2004	11	17000	2	1100
W9-18	Upper A	8/17/2004	8	21000	1	1400
W9-18	Upper A	11/16/2004	15	21000	2 J	1200
W9-18	Upper A	12/2/2004	7 J	20000	20 U	1400 J
W9-18	Upper A	12/8/2005	5	14000	1 J	410
W9-18	Upper A	11/21/2006	8 J	20000 J	2 J	800 J
W9-18	Upper A	11/21/2006	8 J	18000 J	2 J	1000 J
W9-18	Upper A	11/19/2007	4J	10000	2 J	320
W9-18	Upper A	11/25/2008	14	15000	12 U	1100
W9-19	Upper A	8/31/1992	660	NA	10 U	0.8
W9-19	Upper A	10/29/1992	430	67	50 U	50 U
W9-19	Upper A	5/19/1993	680 D	NA	2	1 J
W9-19	Upper A	6/5/1997	27	180	10 U	9 J
W9-19	Upper A	3/26/1999	7.9	72.3	0.5 U	12
W9-19	Upper A	6/24/1999	2.6	32	1 U	10.5
W9-19	Upper A	1/20/2000	2.5	31	1 U	34.5
W9-19	Upper A	8/22/2000	5	38	1 U	11
W9-19	Upper A	11/29/2000	5.4	22	1 U	5.8
W9-19	Upper A	12/4/2001	7	280	2 U	20
W9-19	Upper A	1/29/2002	100	510	0.5 U	19
W9-19	Upper A	11/6/2002	0.6 J	85	2 U	150
W9-19	Upper A	6/26/2003	91	580	0.5 U	21
W9-19	Upper A	12/9/2003	120	480	0.3 J	89 J
W9-19	Upper A	12/18/2003	25 U	250	25 U	25 U
W9-19	Upper A	12/1/2004	2	380	2 U	110
W9-19	Upper A	12/9/2005	3	10	2 U	10
W9-19	Upper A	11/20/2006	0.4 J	10	2 U	4 J
W9-19	Upper A	11/20/2007	0.2 J	5	2 U	1
W9-19	Upper A	11/24/2008	0.23 J	8.8	0.50 U	2.2
W9-2	Upper A	9/1/1992	4500 D	NA	10 U	2 J-G
W9-2	Upper A	10/28/1992	4700	500 U	500 U	500 U
W9-2	Upper A	5/19/1993	4400 D	NA	5 J	10 U
W9-2	Upper A	9/29/1993	3800	NA	250 U	250 U
W9-2	Upper A	5/27/1997	5700	380	330 U	330 U

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9-2	Upper A	7/29/1997	5500 J	310 J	29 UJ	29 UJ
W9-2	Upper A	3/26/1999	4700	230	50 U	100 U
W9-2	Upper A	6/24/1999	4040	210	100 U	50 U
W9-2	Upper A	1/21/2000	4040	390	100 U	50 U
W9-2	Upper A	8/22/2000	4500 J	340 J	2.4 J	1.3 J
W9-2	Upper A	11/29/2000	4800	330	200 U	100 U
W9-2	Upper A	10/29/2001	5700	370	25 U	25 U
W9-2	Upper A	12/6/2001	4600 D	800 D	2	2 U
W9-2	Upper A	11/8/2002	3500	1100	3	3
W9-2	Upper A	11/8/2002	3600	1100	2	2
W9-2	Upper A	12/11/2003	2500 J	1200 J	2 J	1
W9-2	Upper A	12/11/2003	2600 J	1300 J	1 J	1
W9-2	Upper A	12/11/2003	2900 J	1400 J	2 J	2
W9-2	Upper A	4/7/2004	2700	1200	2	3
W9-2	Upper A	4/28/2004	2900	1400	3 J	3 J
W9-2	Upper A	5/10/2004	2800	1300	2	3
W9-2	Upper A	6/14/2004	2700	1300	2	5
W9-2	Upper A	7/13/2004	2800	1300	2	5
W9-2	Upper A	7/13/2004	2800	1300	2	5
W9-2	Upper A	8/17/2004	2500	1300	1	2
W9-2	Upper A	11/16/2004	2700 J	1600	2	2
W9-2	Upper A	11/30/2004	2600	1500	2 J	2 J
W9-2	Upper A	12/6/2005	2300	1500	1 J	2
W9-2	Upper A	11/20/2006	2200	2000 J	1 J	2
W9-2	Upper A	11/19/2007	2600	1700	2 J	2
W9-2	Upper A	11/25/2008	1800	990	1.6 J	5.0 U
W9-2	Upper A	11/25/2008	2000	1100	2.3 J	5.0 U
W9-20	Lower A	9/1/1992	10000 D	NA	360	50 U
W9-20	Lower A	10/28/1992	14000	2000 U	2000 U	2000 U
W9-20	Lower A	5/19/1993	9900 D	NA	420	50 U
W9-20	Lower A	2/23/1994	13000 B	NA	200 J	1000 U
W9-20	Lower A	8/24/1994	18000	NA	220 J	1000 U
W9-20	Lower A	3/3/1995	13000	NA	1000 U	1000 U
W9-20	Lower A	6/14/1996	630	104	22	1 U
W9-20	Lower A	9/19/1996	130	180	12	0.5 U
W9-20	Lower A	1/19/1997	7900	250 J	500 U	120 U
W9-20	Lower A	5/4/1997	8700	230 J	250 U	80 U
W9-20	Lower A	6/3/1997	11000	260 J	710 U	710 U
W9-20	Lower A	8/7/1997	8600 J	240 J	130 J	49 UJ
W9-20	Lower A	10/24/1997	9700 D	270 D	250 D	0.5 U
W9-20	Lower A	4/3/1998	7600 D	NA	120	10 U
W9-20	Lower A	3/25/1999	3330	1530	150	100 U
W9-20	Lower A	6/24/1999	4720	250	200	50 U

TABLE 2-6

**HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC
DETECTED IN GROUNDWATER FOR SITE 28**

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9-20	Lower A	1/20/2000	327	77	20	5 U
W9-20	Lower A	8/24/2000	5000	260	190 J	0.57
W9-20	Lower A	11/29/2000	25	4.5	1.1	0.5 U
W9-20	Lower A	12/7/2001	2800	230	130	2 U
W9-20	Lower A	11/8/2002	3800	370	310	0.5 U
W9-20	Lower A	12/10/2003	3500	430	450	0.8 J
W9-20	Lower A	12/1/2004	3500	370 J	410 J	1 J
W9-20	Lower A	12/1/2004	3800	370 J	480 J	2 U
W9-20	Lower A	4/28/2005	3100 J	540 J	530 J	2
W9-20	Lower A	12/6/2005	3300	710	550	0.8
W9-20	Lower A	11/20/2006	140	110	13 J	0.3 J
W9-20	Lower A	11/19/2007	34	31	3	0.5 U
W9-20	Lower A	11/21/2008	78	120	6.5 J	0.31 J
W9-20	Lower A	11/21/2008	94	120	6.8 J	0.28 J
W9-21	Lower A	9/9/1992	3100	230	180 J-G	250 U
W9-21	Lower A	5/19/1993	3800 D	NA	230	20 U
W9-21	Lower A	6/3/1997	1000	2500	45 J	110 U
W9-21	Lower A	8/6/1997	1400 D	1700 D	68	38
W9-21	Lower A	3/25/1999	968	780	54	50
W9-21	Lower A	6/23/1999	51	459	10 U	23
W9-21	Lower A	1/20/2000	100	919	25 U	64
W9-21	Lower A	8/23/2000	25 J	1700 J	1.8 J	260 J
W9-21	Lower A	11/28/2000	44	610	25 U	42
W9-21	Lower A	12/7/2001	1100	720 J	50 J	140 J
W9-21	Lower A	12/7/2001	1100	900	52 J	130
W9-21	Lower A	11/6/2002	22	1600	1 J	310
W9-21	Lower A	12/9/2003	1100	840	58	190 J
W9-21	Lower A	12/1/2004	3	400 J	0.4 J	38
W9-21	Lower A	12/8/2005	3	460	0.7 J	50
W9-21	Lower A	11/20/2006	2	180 J	1 J	31 J
W9-21	Lower A	11/20/2007	1 J	210	0.8 J	12
W9-21	Lower A	11/24/2008	1.5 J	270	0.53 J	30 J
W9-22	Lower A	9/8/1992	3300	NA	200 U	200 U
W9-22	Lower A	10/30/1992	3500	1000 U	1000 U	1000 U
W9-22	Lower A	6/4/1993	3200	NA	21	0.6 J
W9-22	Lower A	6/5/1997	2500	150	170 U	140 U
W9-22	Lower A	8/6/1997	2300 D	150	7 J	10 U
W9-22	Lower A	3/25/1999	1950	170	25 U	50 U
W9-22	Lower A	6/23/1999	2200	150	20 U	10 U
W9-22	Lower A	1/19/2000	1900	200	100 U	50 U
W9-22	Lower A	8/22/2000	1.5	17	1 U	68
W9-22	Lower A	11/29/2000	19	1600 J	5 U	290 J
W9-22	Lower A	12/10/2003	1900	290	4	8

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9-22	Lower A	12/10/2003	1900	300	5	8
W9-22	Lower A	11/30/2004	2400	310 J	3 J	3
W9-22	Lower A	12/6/2005	110	130	0.3 J	250
W9-22	Lower A	11/20/2006	0.3 J	110 J	2 U	130
W9-22	Lower A	11/19/2007	2U	4	2U	63
W9-22	Lower A	11/21/2008	1.1	33	0.50 U	39
W9-24	Upper A	9/21/1992	50 U	870	50 U	93 J-K
W9-24	Upper A	6/2/1993	2	NA	2 U	72 D
W9-24	Upper A	6/3/1997	20 U	500	20 U	110
W9-24	Upper A	7/31/1997	54	480 D	2 J	93 J
W9-24	Upper A	3/24/1999	2.5 U	133	2.5 U	144
W9-24	Upper A	6/24/1999	5 U	182	5 U	157
W9-24	Upper A	1/20/2000	5 U	290	5 U	113
W9-24	Upper A	8/23/2000	1 U	130	1 U	150
W9-24	Upper A	11/29/2000	2.1 J	240 J	5 U	96
W9-24	Upper A	12/7/2001	2 U	160	2 U	110
W9-24	Upper A	11/5/2002	0.2 J	190	2 U	93
W9-24	Upper A	6/26/2003	1.8	380	0.5 U	81
W9-24	Upper A	12/9/2003	2 U	130	2 U	160 J
W9-24	Upper A	12/18/2003	25 U	170	25 U	25 U
W9-24	Upper A	11/30/2004	2 U	120	2 U	95
W9-24	Upper A	12/7/2005	2 U	51	2 U	110
W9-24	Upper A	11/17/2006	2 U	2 U	2 U	10
W9-24	Upper A	11/20/2007	2 U	0.7 J	2 U	19
W9-24	Upper A	11/24/2008	0.50 U	1.1	0.50 U	29
W9-26	Upper A	9/23/1992	99	1100	67 U	23 J-G
W9-26	Upper A	6/2/1993	34	NA	21	62
W9-26	Upper A	10/29/2001	6.4	1900	5 U	67
W9-26	Upper A	12/10/2003	5	1200	2 U	170
W9-26	Upper A	11/30/2004	3 J	930	4 U	150
W9-26	Upper A	12/7/2005	2	970	2 U	100
W9-26	Upper A	11/17/2006	3 J	960 J	2 U	220
W9-26	Upper A	11/20/2007	2 J	520	2 U	440
W9-26	Upper A	11/25/2008	1.3	450	0.50 U	400
W9-3	B2	11/20/2007	0.3 J	2 U	2 U	0.5 U
W9-31	Upper A	9/10/1992	1900	1700	100 U	100 U
W9-31	Upper A	5/27/1993	2600 D	NA	26	2
W9-31	Upper A	2/28/1995	1600 D	NA	18 J	50 UJ-K
W9-31	Upper A	12/11/2003	12	7400 J	0.7 J	5 U
W9-31	Upper A	12/1/2004	3 J	5300	10 U	420
W9-31	Upper A	12/6/2005	0.7 J	3200	0.4 J	390
W9-31	Upper A	11/21/2006	0.5 J	3100 J	0.3 J	280
W9-31	Upper A	11/19/2007	0.4 J	2200	0.2 J	180

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9-31	Upper A	11/24/2008	2.5 U	1900	2.5 U	140
W9-33	Lower A	9/11/1992	4800	NA	400 U	400 U
W9-33	Lower A	11/23/1992	4900	400 U	400 U	400 U
W9-33	Lower A	5/26/1993	4500 D	NA	2	6 U
W9-33	Lower A	6/4/1997	4800	270	250 U	250 U
W9-33	Lower A	8/7/1997	4300 D	290 D	16 UD	16 UD
W9-33	Lower A	4/6/1998	6100 D	NA	10 U	10 U
W9-33	Lower A	3/26/1999	3420	350	50 U	100 U
W9-33	Lower A	6/24/1999	50 U	1170	50 U	25 U
W9-33	Lower A	1/21/2000	200	1510	50 U	25 U
W9-33	Lower A	8/23/2000	3100	360	0.84 J	1.5 J
W9-33	Lower A	11/28/2000	46	690	20 U	10 U
W9-33	Lower A	12/3/2001	3500	350	0.9 J	1 J
W9-33	Lower A	12/3/2001	3300 J	350 J	0.9 J	1 J
W9-33	Lower A	11/6/2002	2300	270	0.5 J	0.8
W9-33	Lower A	6/26/2003	120	9.4	0.5 U	0.5 U
W9-33	Lower A	12/10/2003	170	31	2 U	0.5 UJ
W9-33	Lower A	12/18/2003	150	28	25 U	25 U
W9-33	Lower A	12/1/2004	2600	460	10 U	1 J
W9-33	Lower A	12/8/2005	2900	580	0.8 J	2
W9-33	Lower A	11/20/2006	8	67	2 U	11 J
W9-33	Lower A	11/19/2007	570	550	0.2 J	32
W9-33	Lower A	11/19/2007	680	500	0.3 J	24
W9-33	Lower A	11/24/2008	1700	590	2.5 U	2.5 U
W9-34	Lower A	9/8/1992	1800	NA	200 U	200 U
W9-34	Lower A	10/30/1992	2200	1000 U	1000 U	1000 U
W9-34	Lower A	5/27/1993	2300	NA	2 U	0.7
W9-34	Lower A	6/4/1997	2300	54 J	110 U	110 U
W9-34	Lower A	8/6/1997	2200 D	62	11 U	11 U
W9-34	Lower A	3/26/1999	1660	78	25 U	50 U
W9-34	Lower A	6/24/1999	65	282	5 U	2.5 U
W9-34	Lower A	1/21/2000	1730	190	50 U	25 U
W9-34	Lower A	8/22/2000	64 J	750 J	2.5 UJ	5.9 J
W9-34	Lower A	11/29/2000	6.3	55 UJ	2 U	1 U
W9-34	Lower A	12/3/2001	2100	320	0.5 J	3 J
W9-34	Lower A	11/7/2002	1300	590	0.4 J	10
W9-34	Lower A	6/26/2003	3.4	19	0.5 U	7
W9-34	Lower A	12/10/2003	140	870	2 U	20 J
W9-34	Lower A	12/18/2003	92	34	25 U	25 U
W9-34	Lower A	11/30/2004	21	77 J	2 U	0.8
W9-34	Lower A	12/6/2005	830	510	0.3 J	15
W9-34	Lower A	11/20/2006	360	840 J	2 U	26
W9-34	Lower A	11/20/2006	370	860 J	2 UJ	28 J

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9-34	Lower A	11/19/2007	540	660	0.2 J	31
W9-34	Lower A	11/21/2008	2.3	57	0.50 U	2.6
W9-37	Upper A	9/11/1992	3100	NA	200 U	200 U
W9-37	Upper A	11/23/1992	2600	1000 U	1000 U	1000 U
W9-37	Upper A	5/21/1993	3400 J-S	NA	25 UJ-S	25 UJ-S
W9-37	Upper A	9/12/1995	2900 DE	450 D	10 U	2 U
W9-37	Upper A	6/4/1997	3400	350	200 U	200 U
W9-37	Upper A	8/6/1997	3300 D	340	16 U	16 U
W9-37	Upper A	3/25/1999	2680	570	50 U	100 U
W9-37	Upper A	6/24/1999	309	324	10 U	5 U
W9-37	Upper A	1/20/2000	2220	510	50 U	25 U
W9-37	Upper A	8/23/2000	170	1800	1 U	7.4
W9-37	Upper A	11/29/2000	210	2000	100 U	25 J
W9-37	Upper A	12/5/2001	490 D	1400 D	0.4 J	70 J
W9-37	Upper A	11/8/2002	260	1800	2 U	360
W9-37	Upper A	12/9/2003	3	1200	2 U	460 J
W9-37	Upper A	12/2/2004	190	1300	10 U	360
W9-37	Upper A	12/9/2005	6	620	0.2 J	720
W9-37	Upper A	11/20/2006	0.1 J	14	2 U	16 J
W9-37	Upper A	11/20/2007	3	30	0.2 J	51
W9-37	Upper A	11/25/2008	22	310	0.13 J	330
W9-39	Upper A	11/16/2007	2 U	2 U	2 U	0.5 U
W9-40	B2	8/31/1992	2 U	1 U	2 U	2 U
W9-40	B2	5/25/1993	2 U	NA	2 U	2 U
W9-40	B2	11/20/1995	0.5 U	NA	0.5 U	0.5 U
W9-40	B2	11/24/1997	2 U	NA	2 U	0.5
W9-40	B2	4/21/1998	1 U	1 U	1 U	0.5 U
W9-40	B2	11/8/2002	2 U	2 U	2 U	0.5 U
W9-40	B2	11/8/2002	2 U	2 U	2 U	0.5 U
W9-40	B2	12/8/2003	2 U	2 U	2 U	0.5 U
W9-40	B2	12/1/2004	2 U	2 U	2 U	0.5 U
W9-40	B2	12/9/2005	2 U	2 U	2 U	0.5 U
W9-40	B2	11/20/2006	0.8 J	0.2 J	2 U	14 J
W9-40	B2	11/20/2007	0.8 J	0.3 J	2 U	17
W9-40	B2	11/25/2008	0.50 U	0.50 U	0.50 U	0.50 U
W9-42	Lower A	9/9/1992	780	710	62 U	62 U
W9-42	Lower A	5/18/1993	900	NA	14	7 U
W9-42	Lower A	9/20/1993	960	NA	18 J	50 U
W9-42	Lower A	2/22/1994	990 D	NA	26	2 U
W9-42	Lower A	8/23/1994	820	NA	18	5 U
W9-42	Lower A	2/28/1995	920 D	NA	12	2 U
W9-42	Lower A	12/7/2001	52 J	450	0.5 J	15
W9-42	Lower A	11/6/2002	100	380	0.5 J	150

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9-42	Lower A	12/10/2003	93	350	0.5 J	180
W9-42	Lower A	12/2/2004	3	270	0.8 J	220
W9-42	Lower A	12/8/2005	14	170	0.5 J	180
W9-42	Lower A	11/21/2006	37	160	1 J	210 J
W9-42	Lower A	11/16/2007	4	50	6	25
W9-42	Lower A	11/25/2008	3.5	150	3.1	100
W9-44	Upper A	2/28/1992	4600	NA	100 U	50 U
W9-44	Upper A	6/2/1992	4600	NA	15	10 U
W9-44	Upper A	8/31/1992	3400	NA	50 U	50 U
W9-44	Upper A	10/28/1992	5200	1000 U	1000 U	1000 U
W9-44	Upper A	5/21/1993	2800	NA	10	50 U
W9-44	Upper A	3/2/1995	3600	NA	250 U	250 U
W9-44	Upper A	6/3/1997	3700	460	170 U	170 U
W9-44	Upper A	8/5/1997	3200 D	390	6 J	18 U
W9-44	Upper A	3/26/1999	2480	240	50 U	100 U
W9-44	Upper A	6/24/1999	2150	210	50 U	25 U
W9-44	Upper A	1/20/2000	2260	170	50 U	25 U
W9-44	Upper A	8/22/2000	110 J	19 J	0.37 J	0.15 J
W9-44	Upper A	11/29/2000	1500	110	4.4 J	5 U
W9-44	Upper A	12/3/2001	1300	110 J	4	6 J
W9-44	Upper A	11/7/2002	1300	220	3	2
W9-44	Upper A	6/26/2003	1700	300	2.4	0.5 U
W9-44	Upper A	12/10/2003	770	140	3	1 J
W9-44	Upper A	12/18/2003	120	14	2.5 U	2.5 U
W9-44	Upper A	12/1/2004	860	170	3 J	1 J
W9-44	Upper A	12/1/2004	850	160	2 J	0.9 J
W9-44	Upper A	12/6/2005	940	210	3	1
W9-44	Upper A	11/20/2006	670	180 J	3	0.8 J
W9-44	Upper A	11/20/2007	890	300	3	0.9
W9-44	Upper A	11/25/2008	690	360	2.6	2.5 U
W9-45	Upper A	2/28/1992	980	NA	25 U	12 U
W9-45	Upper A	6/2/1992	910 D	NA	6	10 U
W9-45	Upper A	9/9/1992	1200	490	40 J-G	100 U
W9-45	Upper A	5/19/1993	960 D	NA	24	5 U
W9-45	Upper A	9/23/1993	790 D	NA	2	2 U
W9-45	Upper A	2/28/1994	700	NA	50 U	50 U
W9-45	Upper A	9/16/1994	650	NA	50 U	50 U
W9-45	Upper A	2/28/1995	790	NA	31	10 U
W9-45	Upper A	6/3/1997	500	220	29 U	29 U
W9-45	Upper A	8/5/1997	490 D	190 DJ	1 J	3 U
W9-45	Upper A	3/25/1999	443	152	5 U	10 U
W9-45	Upper A	6/23/1999	423	180	10 U	5 U
W9-45	Upper A	1/20/2000	511	190	10 U	5 U

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9-45	Upper A	8/23/2000	280	140	0.69 J	0.49 J
W9-45	Upper A	11/28/2000	550	190	1.2 J	2.5 U
W9-45	Upper A	12/7/2001	460	180	0.7 J	0.5 J
W9-45	Upper A	12/7/2001	470	180	0.8 J	0.5 J
W9-45	Upper A	11/6/2002	390	140	0.6 J	0.5
W9-45	Upper A	12/10/2003	440	190	1 J	0.5 U
W9-45	Upper A	12/1/2004	400	170 J	0.5 J	0.7
W9-45	Upper A	12/8/2005	580	380	1 J	0.8
W9-45	Upper A	11/20/2006	540	300	6	0.8
W9-45	Upper A	11/20/2007	360	230	6	0.3 J
W9-45	Upper A	11/24/2008	430	230	11 J	0.74 J
W9-46	Upper A	2/28/1992	2400	NA	50 U	25 U
W9-46	Upper A	6/15/1992	1800	NA	50 U	100 U
W9-46	Upper A	9/11/1992	1700	NA	120 U	120 U
W9-46	Upper A	11/23/1992	1900	300	200 U	200 U
W9-46	Upper A	5/24/1993	1400	NA	4	10 U
W9-46	Upper A	12/9/1993	1400	NA	100 U	100 U
W9-46	Upper A	4/7/2004	440	250	89	0.5
W9-46	Upper A	4/7/2004	470	260	95	0.5
W9-46	Upper A	4/27/2004	470	400	110	1
W9-46	Upper A	5/11/2004	480	620	130	2
W9-46	Upper A	6/14/2004	560	630	180	3
W9-46	Upper A	7/12/2004	640	740	280	3 U
W9-46	Upper A	8/17/2004	570	950	170	5
W9-46	Upper A	8/17/2004	570	910	180	5
W9-46	Upper A	11/15/2004	470	410	230	0.9
W9-46	Upper A	4/27/2005	490 J	280 J	150 J	0.94
W9-46	Upper A	12/9/2005	610	830	350	4
W9-5	B2	11/20/2007	2U	0.1 J	2U	0.5U
W9-7	Upper A	8/28/1992	2300	NA	170 U	170 U
W9-7	Upper A	10/28/1992	2300	500 U	500 U	500 U
W9-7	Upper A	5/28/1993	2200	NA	0.6 J	1 J
W9-7	Upper A	12/10/2003	110	1200	2 U	5 J
W9-7	Upper A	11/30/2004	2 J	1200	4 U	7 J
W9-7	Upper A	12/6/2005	75	970	2 U	24
W9-7	Upper A	11/20/2006	8 J	1000 J	2 U	160 J
W9-7	Upper A	11/19/2007	640	660	0.2 J	10
W9-7	Upper A	11/24/2008	64	1100	1.0 U	100
W9-8	Lower A	8/31/1992	2200 D	NA	50 U	50 U
W9-8	Lower A	10/28/1992	3600	290	500 U	500 U
W9-8	Lower A	5/21/1993	2700 D	NA	50 U	50 U
W9-8	Lower A	3/1/1995	3000	NA	110 U	250 U
W9-8	Lower A	6/3/1997	1600	3500	170 U	170 U

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9-8	Lower A	8/6/1997	360	3900 D	15 U	15 U
W9-8	Lower A	3/26/1999	879	2020	5 U	10 U
W9-8	Lower A	6/24/1999	50 U	1430	50 U	25 U
W9-8	Lower A	1/20/2000	1700	1550	50 U	25 U
W9-8	Lower A	8/22/2000	74 J	3200	1 U	1.7
W9-8	Lower A	11/29/2000	87 J	2200	100 U	50 U
W9-8	Lower A	12/4/2001	1800	1900	0.6 J	5
W9-8	Lower A	11/8/2002	2300	1600	1 J	9
W9-8	Lower A	12/10/2003	15	2800	2 U	230 J
W9-8	Lower A	12/1/2004	690	2400	10 U	69
W9-8	Lower A	12/9/2005	4	3100	2 U	150
W9-8	Lower A	11/20/2006	3	1800 J	2 U	150 J
W9-8	Lower A	11/20/2007	3	1800	2 U	160
W9-8	Lower A	11/25/2008	2.9	1900	2.5 U	220
W9-9	Lower A	9/9/1992	1700	100 U	170 U	170 U
W9-9	Lower A	5/28/1993	1700 D	NA	2 U	0.8
W9-9	Lower A	6/4/1997	170	1600	80 U	71 J
W9-9	Lower A	8/7/1997	250 D	1500 D	6 U	100
W9-9	Lower A	3/26/1999	929	140	5 U	20
W9-9	Lower A	6/24/1999	120	1310	20 U	30
W9-9	Lower A	1/21/2000	1 U	23	1 U	4.5
W9-9	Lower A	8/22/2000	7.2	320	1 U	110
W9-9	Lower A	11/29/2000	16	880	10 U	170
W9-9	Lower A	12/6/2001	280	100	2 U	40 J
W9-9	Lower A	11/8/2002	330	490	2 U	360
W9-9	Lower A	12/9/2003	32	31	2 U	74 J
W9-9	Lower A	12/9/2003	38	38	2 U	75 J
W9-9	Lower A	11/30/2004	66 J	200	2 U	500
W9-9	Lower A	12/6/2005	51	140	2 U	510
W9-9	Lower A	11/21/2006	0.1 J	0.3 J	2 UJ	5 J
W9-9	Lower A	11/16/2007	34	140	2 U	250
W9-9	Lower A	11/21/2008	19 J	80 J	0.50 U	500 J
W9SC-1	Upper A	3/25/1999	1650	240	25 U	50 U
W9SC-1	Upper A	6/23/1999	2620	370	50 U	25 U
W9SC-1	Upper A	1/20/2000	1390	220	50 U	25 U
W9SC-1	Upper A	8/24/2000	2100	320	7.7	1
W9SC-1	Upper A	11/27/2000	2200	350	100 U	50 U
W9SC-1	Upper A	12/8/2001	1600	260	6	0.6 J
W9SC-1	Upper A	11/8/2002	1800	280	6	0.5 U
W9SC-1	Upper A	12/11/2003	1500 J	320	5	0.4 J
W9SC-1	Upper A	12/1/2004	1300	340	3 J	0.5 J
W9SC-1	Upper A	12/8/2005	1100	450	4	0.4 J
W9SC-1	Upper A	11/21/2006	980	410	3 J	0.6 J

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9SC-1	Upper A	11/19/2007	930	490	4	0.5 J
W9SC-1	Upper A	11/24/2008	830	510	3.0	1.0 U
W9SC-13	Upper A	5/27/1997	13 J	820	33 U	22 J
W9SC-13	Upper A	7/29/1997	3 J	NA	3 UJ	21 J
W9SC-13	Upper A	3/26/1999	6	603	5 U	94
W9SC-13	Upper A	6/24/1999	20 U	685	20 U	84
W9SC-13	Upper A	1/21/2000	10	354	10 U	196
W9SC-13	Upper A	8/22/2000	15	560	1 U	260
W9SC-13	Upper A	11/29/2000	61	1000	25 U	120
W9SC-13	Upper A	12/5/2001	0.5 J	410 D	2 U	67 D
W9SC-13	Upper A	11/6/2002	2 U	370	2 U	39 J
W9SC-13	Upper A	12/9/2003	2 U	470	2 U	39 J
W9SC-13	Upper A	4/7/2004	0.5 U	560	0.5 U	56
W9SC-13	Upper A	4/28/2004	0.5 U	530	0.5 U	4
W9SC-13	Upper A	5/10/2004	0.5 U	420	0.5 U	42
W9SC-13	Upper A	6/15/2004	0.5 U	550	0.5 U	39
W9SC-13	Upper A	7/13/2004	0.5 U	630	0.5 U	38
W9SC-13	Upper A	8/17/2004	0.5 U	790	0.5 U	110
W9SC-13	Upper A	11/15/2004	0.5 U	190	0.5 U	52
W9SC-13	Upper A	11/30/2004	0.3 J	570	2 U	34
W9SC-13	Upper A	12/7/2005	2 U	140	2 U	18
W9SC-13	Upper A	11/21/2006	2 U	450 J	2 U	58
W9SC-13	Upper A	11/19/2007	2 U	290	2 U	32 J
W9SC-13	Upper A	11/21/2008	0.50 U	2.4	0.50 U	1.7
W9SC-14	Upper A	6/5/1997	860	670	59 U	50 J
W9SC-14	Upper A	8/4/1997	980 D	420 D	5 J	81 J
W9SC-14	Upper A	3/25/1999	220	1570	50 U	100 U
W9SC-14	Upper A	6/24/1999	1820	3340	39 J	160
W9SC-14	Upper A	1/19/2000	860	1080	50 U	25 U
W9SC-14	Upper A	8/21/2000	250	2600	20 U	22
W9SC-14	Upper A	11/30/2000	440	1500	50 U	44
W9SC-14	Upper A	10/30/2001	920	850	5 U	33
W9SC-14	Upper A	12/4/2001	650	490	4	65
W9SC-14	Upper A	11/7/2002	810	430	5	77
W9SC-14	Upper A	12/10/2003	520	440	4	72 J
W9SC-14	Upper A	12/10/2003	550	450	4	75 J
W9SC-14	Upper A	12/2/2004	650	370	5 J	67 J
W9SC-14	Upper A	12/9/2005	450	410	8	0.2 J
W9SC-14	Upper A	11/21/2006	730	400	4 J	100 J
W9SC-14	Upper A	11/22/2006	630	380 J	5	67
W9SC-14	Upper A	11/16/2007	340	530	5	0.3J
W9SC-14	Upper A	11/25/2008	380 J	610 J	2.6	34
W9SC-15	Lower A	12/10/2003	2900	380	200	0.7 J

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W9SC-15	Lower A	12/2/2004	2800	270	180	1 J
W9SC-15	Lower A	4/27/2005	2700 D	330 D	170 J	2.1
W9SC-15	Lower A	12/9/2005	3000	340	220	0.7
W9SC-15	Lower A	11/21/2006	3700	310 J	210 J	0.4 J
W9SC-15	Lower A	11/16/2007	1800	280	140	0.4 J
W9SC-15	Lower A	11/16/2007	1700	250	120	0.4 J
W9SC-15	Lower A	11/25/2008	2100	310	120	2.5 U
W9SC-3	Lower A	12/8/2001	4800	590	69	2 U
W9SC-3	Lower A	11/11/2002	4700	1500	60	12 U
W9SC-3	Lower A	12/11/2003	6100 J	610 J	71	1
W9SC-3	Lower A	12/1/2004	6000	830	82	3
W9SC-3	Lower A	12/1/2004	5500	780	75	2 J
W9SC-3	Lower A	4/27/2005	4500 J	1000 J	67	3.3
W9SC-3	Lower A	12/6/2005	3000	2400	53	7
W9SC-3	Lower A	11/21/2006	4600 J	1700 J	66 J	9 J
W9SC-3	Lower A	11/19/2007	1600	2000	35	2
W9SC-3	Lower A	11/24/2008	660	2400	12 J	38 J
W9SC-7	Upper A	5/26/1997	67 U	300	67 U	400
W9SC-7	Upper A	7/29/1997	41 J	310 J	2 UJ	280 J
W9SC-7	Upper A	3/25/1999	8	38	5 U	433
W9SC-7	Upper A	6/23/1999	30	140	10 U	636
W9SC-7	Upper A	1/19/2000	25 U	120	25 U	347
W9SC-7	Upper A	8/22/2000	0.79 J	0.84 J	1 U	8.1 J
W9SC-7	Upper A	11/28/2000	4.3 J	13 U	13 U	8.5
W9SC-7	Upper A	12/8/2001	10 U	10 U	10 U	10 U
W9SC-7	Upper A	11/5/2002	2 U	0.3 J	2 U	0.4 J
W9SC-7	Upper A	12/9/2003	2 U	1 J	2 U	0.5 UJ
W9SC-7	Upper A	11/30/2004	4 U	1 J	4 U	0.4 J
W9SC-7	Upper A	12/6/2005	2 UJ	0.4 J	2 UJ	0.5 UJ
W9SC-7	Upper A	11/20/2006	2 UJ	16 J	2 UJ	0.5 UJ
W9SC-7	Upper A	11/19/2007	2 U	0.4 J	2 U	0.6 J
W9SC-7	Upper A	11/24/2008	0.50 U	0.39 J	0.10 J	0.50 U
WIC-1	Upper A	10/21/1995	1100 D	NA	30	2
WIC-1	Upper A	2/19/1996	2400 D	NA	23	5 UJ-K
WIC-1	Upper A	6/13/1996	1680 S	250 S	5.9	2 U
WIC-1	Upper A	9/17/1996	1600	260	15 J	5 U
WIC-1	Upper A	1/13/1997	1900	230	200 U	50 U
WIC-1	Upper A	5/5/1997	2900	280	26 J	16 U
WIC-1	Upper A	5/23/1997	3000	350	200 U	200 U
WIC-1	Upper A	10/21/1997	2800 D	310 D	32	0.5 U
WIC-1	Upper A	10/29/1998	3600 D	230 D	36	1
WIC-1	Upper A	3/25/1999	1310	170	25 U	50 U
WIC-1	Upper A	6/23/1999	1310	210	28 J	25 U

TABLE 2-6

**HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC
DETECTED IN GROUNDWATER FOR SITE 28**

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WIC-1	Upper A	11/16/1999	5800 D	300	240	15 U
WIC-1	Upper A	11/22/1999	1700 D	240	18	5 U
WIC-1	Upper A	1/20/2000	1390	250	50 U	25 U
WIC-1	Upper A	8/24/2000	1400	220	20	0.97
WIC-1	Upper A	11/28/2000	1400	260	19 J	25 U
WIC-1	Upper A	12/7/2001	1100	250	11	0.6 J
WIC-1	Upper A	11/8/2002	1400	260	14 J	1 J
WIC-1	Upper A	12/10/2003	1600	240	15	0.6 J
WIC-1	Upper A	12/1/2004	1200	220	10 J	1
WIC-1	Upper A	4/28/2005	1200 J	250 J	12	5.5
WIC-1	Upper A	12/6/2005	1200	320	11	12
WIC-1	Upper A	11/20/2006	1100 J	280 J	11	35 J
WIC-1	Upper A	11/19/2007	890	310	5	13
WIC-1	Upper A	11/21/2008	780	350 J	6.0 J	1.7 J
WNB-14	Lower A	3/10/1992	4	NA	5 U	10 U
WNB-14	Lower A	4/16/1992	7 J	NA	10 U	10 U
WNB-14	Lower A	9/23/1992	16	6.4	5	0.4 J-G
WNB-14	Lower A	11/23/1992	2 U	NA	2 U	2 U
WNB-14	Lower A	6/8/1993	17	NA	3	2 U
WNB-14	Lower A	12/1/1994	22	8	5 U	5 U
WNB-14	Lower A	3/14/1995	21	NA	3	0.3 J
WNB-14	Lower A	7/7/1998	42	20	2.8	1.6
WNB-14	Lower A	1/14/1999	9.5	4.8	0.6	2.6
WNB-14	Lower A	12/20/1999	44	22	3.2	1.6
WNB-14	Lower A	12/14/2000	43	23	2.4	1.7
WNB-14	Lower A	12/12/2001	47	32	2.1	2.6
WNB-14	Lower A	12/13/2002	2.1	1.1	0.5 U	0.8
WNB-14	Lower A	12/9/2003	13	40	0.5 J	16 J
WNB-14	Lower A	11/30/2004	7	33	0.2 J	24
WNB-14	Lower A	12/7/2005	10	32	0.3 J	17
WNB-14	Lower A	11/17/2006	0.3 J	0.9 J	2 U	0.8 J
WNB-14	Lower A	11/16/2007	2 U	0.9 J	2 U	1
WNB-14	Lower A	11/21/2008	0.15 J	3.8 J	0.50 U	3.5 J
WNX-1	Upper A	11/19/2007	360	720	0.2 J	0.5
WNX-2	Upper A	3/10/1994	33 U	NA	33 U	33 U
WNX-2	Upper A	11/16/1994	4 U	NA	25 U	43
WNX-2	Upper A	10/23/1995	6	NA	0.5 U	46 D
WNX-2	Upper A	10/30/2001	2.5	910	2.5 U	82
WNX-2	Upper A	12/6/2001	3	1100	2 U	32 J
WNX-2	Upper A	12/6/2001	3	1100 D	2 U	18 J
WNX-2	Upper A	11/5/2002	2 J	550	2 U	100
WNX-2	Upper A	12/9/2003	2 J	780	2 U	28 J
WNX-2	Upper A	11/30/2004	0.9 J	140	2 U	53

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WNX-2	Upper A	12/9/2005	0.6 J	89	0.1 J	24
WNX-2	Upper A	11/20/2006	3	690	2 U	36
WNX-2	Upper A	11/16/2007	1 J	950	2 U	95
WNX-2	Upper A	11/24/2008	0.89 J	990	2.5 U	48
WNX-3	Upper A	3/10/1994	1100	NA	100 U	100 U
WNX-3	Upper A	11/16/1994	1300 D	NA	33 U	33 U
WNX-3	Upper A	10/23/1995	780 D	NA	0.6	0.9
WNX-3	Upper A	5/21/1997	690	140	37 U	37 U
WNX-3	Upper A	8/4/1997	670 J	130 J	4 UJ	4 UJ
WNX-3	Upper A	3/25/1999	711	142	5 U	10 U
WNX-3	Upper A	6/24/1999	680	190	10 U	5 U
WNX-3	Upper A	1/18/2000	27	3.5	0.6 J	0.5 U
WNX-3	Upper A	1/19/2000	672	190	10 U	5 U
WNX-3	Upper A	8/23/2000	450	190	0.33 J	0.38 J
WNX-3	Upper A	11/29/2000	490	260	25 U	13 U
WNX-3	Upper A	10/30/2001	410	460	2.5 U	2.5 U
WNX-3	Upper A	12/6/2001	280	200	0.2 J	2 U
WNX-3	Upper A	11/7/2002	330	250	0.3 J	0.6
WNX-3	Upper A	11/7/2002	320	200	0.3 J	0.7
WNX-3	Upper A	12/10/2003	300	270	0.2 J	0.6
WNX-3	Upper A	12/10/2003	310	270	0.3 J	0.6
WNX-3	Upper A	11/30/2004	270	300	0.2 J	0.6
WNX-3	Upper A	11/30/2004	270	300	2 U	0.6
WNX-3	Upper A	12/6/2005	280	430	0.2 J	0.5
WNX-3	Upper A	11/20/2006	260	370	0.2 J	0.4 J
WNX-3	Upper A	11/19/2007	190	320	0.2 J	0.6
WNX-3	Upper A	11/24/2008	190	310	0.20 J	0.61
WNX-3	Upper A	11/24/2008	190	310	0.20 J	0.66
WU4-1	Upper A	6/17/1992	2300	NA	170 U	170 U
WU4-1	Upper A	9/2/1992	2500	NA	200 U	200 U
WU4-1	Upper A	11/3/1992	3800	440	400 U	400 U
WU4-1	Upper A	11/16/1992	3600	NA	200 U	200 U
WU4-1	Upper A	5/25/1993	3000 D	NA	3	2
WU4-1	Upper A	9/21/1993	2200	NA	4	3
WU4-1	Upper A	2/24/1994	2000 D	NA	3	2
WU4-1	Upper A	2/27/1995	2500 D	NA	4	2 J-K
WU4-1	Upper A	7/9/1998	3000	400	10 U	10 U
WU4-1	Upper A	1/19/1999	3400	380	3.6	10
WU4-1	Upper A	7/8/1999	2700	410	8.3 U	8.3 U
WU4-1	Upper A	12/29/1999	2400	380	8.3 U	8.3 U
WU4-1	Upper A	7/10/2000	1800	490	6.3 U	11
WU4-1	Upper A	12/15/2000	2200	560	6.3 U	11
WU4-1	Upper A	12/10/2001	1800	680	6.3 U	16

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU4-1	Upper A	12/17/2002	1700	660	5 U	7.9
WU4-1	Upper A	2/4/2004	1600	950	6.3 U	8.5
WU4-1	Upper A	1/11/2005	1600	1000	10 U	11
WU4-1	Upper A	12/8/2005	1400	1100	1 J	9
WU4-1	Upper A	12/2/2008	790	550	5.0 U	5.0 U
WU4-10	Upper A	6/18/1992	170 J-M	NA	10 U	10 U
WU4-10	Upper A	9/3/1992	210	NA	17 U	17 U
WU4-10	Upper A	11/4/1992	150	120	20 U	20 U
WU4-10	Upper A	11/18/1992	140 D	NA	0.8 J	0.5 J
WU4-10	Upper A	5/26/1993	260 D	NA	1 J	0.6 J
WU4-10	Upper A	5/23/1997	300	140	15 U	15 U
WU4-10	Upper A	3/24/1999	224	103	2.5 U	5 U
WU4-10	Upper A	6/24/1999	128	99	0.6 J	0.5 U
WU4-10	Upper A	1/19/2000	270	110	25 U	13 U
WU4-10	Upper A	8/22/2000	220	96	1.1	0.36 J
WU4-10	Upper A	11/27/2000	220	92	10 U	5 U
WU4-10	Upper A	12/6/2001	180	79	0.8 J	0.4 J
WU4-10	Upper A	11/8/2002	220	79	0.7 J	0.4 J
WU4-10	Upper A	12/10/2003	160	79	0.7 J	0.5 U
WU4-10	Upper A	12/2/2004	140	85	0.5 J	0.6
WU4-10	Upper A	12/7/2005	160	110	0.6 J	0.7
WU4-10	Upper A	11/21/2006	160	130	0.7 J	0.7 J
WU4-10	Upper A	11/16/2007	120	120	0.5 J	0.6
WU4-10	Upper A	11/24/2008	100	130	0.39 J	0.59
WU4-11	Lower A	6/18/1992	68 D	NA	2 U	2 U
WU4-11	Lower A	9/3/1992	68	5.6	5 U	2 U
WU4-11	Lower A	11/18/1992	120	NA	10 U	10 U
WU4-11	Lower A	5/26/1993	150 D	NA	2 U	2 U
WU4-11	Lower A	9/27/1993	46	NA	4 U	4 U
WU4-11	Lower A	3/2/1994	35	NA	2 U	2 U
WU4-11	Lower A	3/10/1995	38	NA	2 U	2 UJ-K
WU4-11	Lower A	5/30/1997	34	0.9 J	2 U	2 UJ
WU4-11	Lower A	3/25/1999	15	0.7	0.5 U	1 U
WU4-11	Lower A	6/24/1999	11	0.9 J	1 U	0.5 U
WU4-11	Lower A	1/19/2000	15	0.6 J	1 U	0.5 U
WU4-11	Lower A	11/27/2000	18	1.8	1 U	0.5 U
WU4-11	Lower A	12/6/2001	19	4	2 U	2 U
WU4-11	Lower A	11/7/2002	11	0.5 J	2 U	0.5 U
WU4-11	Lower A	12/9/2003	11	0.9 J	2 U	0.5 UJ
WU4-11	Lower A	12/2/2004	11	1 J	2 U	0.5 U
WU4-11	Lower A	12/7/2005	11	1 J	2 U	0.5 U
WU4-11	Lower A	11/21/2006	13	2 J	2 U	0.5 U
WU4-11	Lower A	11/16/2007	12	2	2 U	0.5 U

TABLE 2-6

**HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC
DETECTED IN GROUNDWATER FOR SITE 28**

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU4-11	Lower A	11/24/2008	11	3.0	0.50 U	0.50 U
WU4-14	Upper A	6/17/1992	210	NA	50 U	13
WU4-14	Upper A	9/9/1992	510	100 U	60 J-G	33
WU4-14	Upper A	11/20/1992	410	NA	39	15
WU4-14	Upper A	5/28/1993	400 D	NA	46 J-E	25
WU4-14	Upper A	9/22/1993	470	NA	38	100 U
WU4-14	Upper A	3/2/1994	430	NA	45	120 U
WU4-14	Upper A	3/10/1995	200 D	NA	35	22
WU4-14	Upper A	5/26/1997	130	1600	77 U	77 U
WU4-14	Upper A	7/31/1997	100	1400 D	8	65 J
WU4-14	Upper A	3/25/1999	13.1	62.6	1.4	51
WU4-14	Upper A	6/24/1999	12	470	2	69.5
WU4-14	Upper A	1/19/2000	10	226	10 U	5 U
WU4-14	Upper A	8/23/2000	150	440	1.7 J	39 J
WU4-14	Upper A	11/28/2000	190	400	4.1 J	18
WU4-14	Upper A	1/25/2002	32	41	2	2 J
WU4-14	Upper A	11/6/2002	1300	610	1 J	21
WU4-14	Upper A	6/26/2003	51	76	1.6	3.3
WU4-14	Upper A	12/10/2003	750	370	0.9 J	2
WU4-14	Upper A	12/18/2003	1100	440	25 U	25 U
WU4-14	Upper A	12/1/2004	1900	680	10 U	36
WU4-14	Upper A	12/1/2004	1900	660	10 U	35
WU4-14	Upper A	12/7/2005	1000	410	0.7 J	11
WU4-14	Upper A	11/17/2006	1500	570 J	0.8 J	41
WU4-14	Upper A	11/17/2006	1300 J	580 J	0.7 J	44
WU4-14	Upper A	11/20/2007	1100	620	0.4 J	38
WU4-14	Upper A	11/25/2008	600	560	0.78 J	53
WU4-15	Lower A	6/17/1992	100	NA	10 U	10 U
WU4-15	Lower A	9/4/1992	16	NA	0.9 J-G	0.4 J-G
WU4-15	Lower A	10/22/1992	1 U	1 U	1 U	1 U
WU4-15	Lower A	11/19/1992	2	NA	2 U	2 U
WU4-15	Lower A	5/28/1993	6	NA	6	2 U
WU4-15	Lower A	9/27/1993	0.8 J	NA	0.5	2 U
WU4-15	Lower A	3/2/1994	2	NA	1 J	2 U
WU4-15	Lower A	3/10/1995	2 U	NA	2 U	2 UJ-K
WU4-15	Lower A	5/30/1997	5	17	3	0.4 J
WU4-15	Lower A	3/24/1999	2.4	13.4	1.1	1 U
WU4-15	Lower A	6/24/1999	5.7	11	2	0.5 U
WU4-15	Lower A	1/20/2000	2.2	7.6	0.6 J	0.5 U
WU4-15	Lower A	8/23/2000	5.2	14	1.1	6.1
WU4-15	Lower A	11/28/2000	12	26	3.3	0.74
WU4-15	Lower A	12/7/2001	4	12	1 J	0.4 J
WU4-15	Lower A	11/6/2002	2 J	6	0.4 J	0.5 U

TABLE 2-6

**HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC
DETECTED IN GROUNDWATER FOR SITE 28**

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU4-15	Lower A	12/9/2003	6	26	2	0.7 J
WU4-15	Lower A	12/1/2004	9	40	3	0.9
WU4-15	Lower A	12/7/2005	8	59	2 J	0.8
WU4-15	Lower A	11/17/2006	10	45 J	2 J	0.8
WU4-15	Lower A	11/20/2007	14	61	3	1
WU4-15	Lower A	11/20/2007	14	57	3	1
WU4-15	Lower A	11/21/2008	13	77	1.4	1.4
WU4-17	Upper A	6/16/1992	20 U	NA	20 U	20 U
WU4-17	Upper A	9/2/1992	23	NA	50 U	50 U
WU4-17	Upper A	10/22/1992	1 U	10	1 U	1 U
WU4-17	Upper A	11/20/1992	6 U	NA	6 U	6 U
WU4-17	Upper A	5/27/1993	43 D	NA	2 UJ-S	2 UJ-S
WU4-17	Upper A	3/13/1995	2 U	NA	2 U	2 U
WU4-17	Upper A	5/3/1996	1.2 U	98	1.2 U	6.4
WU4-17	Upper A	6/26/1996	2.8	29	0.5 U	3.1
WU4-17	Upper A	6/5/1997	36	44	31 U	31 U
WU4-17	Upper A	8/5/1997	14	25	0.4 J	14 J
WU4-17	Upper A	3/26/1999	3	11	2.5 U	5 U
WU4-17	Upper A	6/24/1999	5 U	77	5 U	13
WU4-17	Upper A	1/21/2000	5 U	67	5 U	9.5
WU4-17	Upper A	8/23/2000	6.7	49	1 U	8.8
WU4-17	Upper A	11/28/2000	0.7 J	4 U	4 U	2 U
WU4-17	Upper A	12/7/2001	2 J	9	2 U	3
WU4-17	Upper A	11/6/2002	2 U	1 J	2 U	2 J
WU4-17	Upper A	12/9/2003	2 U	0.6 J	2 U	3 J
WU4-17	Upper A	4/7/2004	0.5 U	0.3 J	0.5 U	1
WU4-17	Upper A	4/28/2004	0.5 U	0.5 U	0.5 U	0.5 J
WU4-17	Upper A	5/10/2004	0.5 U	0.7	0.5 U	3
WU4-17	Upper A	6/15/2004	0.5 U	0.8 J	0.5 U	4 J
WU4-17	Upper A	7/13/2004	0.5 U	2	0.5 U	0.9
WU4-17	Upper A	8/17/2004	0.5 U	0.5 U	0.5 U	2
WU4-17	Upper A	11/16/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU4-17	Upper A	11/30/2004	2 U	2 U	2 U	3 J
WU4-17	Upper A	12/7/2005	2 U	2 U	2 U	0.6 J
WU4-17	Upper A	12/18/2006	2 U	0.1 J	2 U	2
WU4-17	Upper A	11/16/2007	2 U	0.3 J	2 U	9 J
WU4-17	Upper A	11/24/2008	0.50 U	0.59	0.50 U	8.3
WU4-19	Lower A	6/16/1992	8	NA	2 U	2 U
WU4-19	Lower A	9/9/1992	2	12	2 U	0.3 J-G
WU4-19	Lower A	11/20/1992	8	NA	2 U	2 U
WU4-19	Lower A	5/24/1993	38	NA	2 U	2 U
WU4-19	Lower A	9/27/1993	12	NA	2 U	2 U
WU4-19	Lower A	3/3/1994	12	NA	2 U	2 U

TABLE 2-6

**HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC
DETECTED IN GROUNDWATER FOR SITE 28**

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU4-19	Lower A	12/1/1994	50 U	50 U	50 U	50 U
WU4-19	Lower A	3/13/1995	64	NA	5 U	5 U
WU4-19	Lower A	9/1/1995	85	24	4 U	1 U
WU4-19	Lower A	7/20/1998	59	9.3	0.5 U	0.5 U
WU4-19	Lower A	1/6/1999	200	18	0.7 U	0.7 U
WU4-19	Lower A	12/22/1999	180	16	0.7 U	0.7 U
WU4-19	Lower A	12/14/2000	130	12	0.7 U	0.7 U
WU4-19	Lower A	12/13/2001	130	12	0.5 U	0.5 U
WU4-19	Lower A	12/18/2002	190	12	0.5 U	0.5 U
WU4-19	Lower A	2/4/2004	190	10	0.7 U	0.7 U
WU4-19	Lower A	1/12/2005	150	9.6	1 U	1 U
WU4-19	Lower A	12/6/2005	190	9	2 U	0.4 J
WU4-19	Lower A	12/3/2008	45	3.7	0.5 U	0.5 U
WU4-2	Lower A	6/17/1992	57000	NA	1000 U	1000 U
WU4-2	Lower A	9/2/1992	67000	NA	5000 U	5000 U
WU4-2	Lower A	11/3/1992	50000	5000 U	5000 U	5000 U
WU4-2	Lower A	11/17/1992	45000	NA	3300 U	3300 U
WU4-2	Lower A	5/25/1993	49000	NA	18	10 U
WU4-2	Lower A	9/23/1993	48000	NA	20	8 U
WU4-2	Lower A	2/24/1994	38000	NA	17	33 UJ-S
WU4-2	Lower A	2/27/1995	34000 D	NA	15 U	33 U
WU4-2	Lower A	7/24/1998	15000	440	50 U	50 U
WU4-2	Lower A	1/22/1999	20000	560	83 U	83 U
WU4-2	Lower A	7/8/1999	14000	400	42 U	42 U
WU4-2	Lower A	12/29/1999	21000	470	31 U	31 U
WU4-2	Lower A	7/13/2000	10000	600	25 U	25 U
WU4-2	Lower A	12/18/2000	21000	620	63 U	63 U
WU4-2	Lower A	12/10/2001	16000	490	83 U	83 U
WU4-2	Lower A	12/18/2002	11000	350	36 U	36 U
WU4-2	Lower A	2/6/2004	8000	690	31 U	31 U
WU4-2	Lower A	1/12/2005	6500	320	42 U	42 U
WU4-2	Lower A	12/8/2005	7100	990	4	18
WU4-2	Lower A	12/2/2008	4600	1100	31 U	31 U
WU4-2	Lower A	12/2/2008	4400	1000	31 U	31 U
WU4-21	Upper A	6/19/1992	1 J	NA	2 U	0.6 J
WU4-21	Upper A	9/4/1992	3	NA	2 U	0.8 J-G
WU4-21	Upper A	11/3/1992	5 U	31	5 U	5 U
WU4-21	Upper A	12/16/1992	3 U	NA	3 U	3 U
WU4-21	Upper A	6/3/1993	6	NA	2 U	2 U
WU4-21	Upper A	3/2/1994	1 J	NA	2 U	2 U
WU4-21	Upper A	3/14/1995	1 J	NA	2 U	0.4 J
WU4-21	Upper A	5/23/1997	2 UJ	6	1 U	1 U
WU4-21	Upper A	3/24/1999	3.8	4.2	0.5 U	1 U

TABLE 2-6

**HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC
DETECTED IN GROUNDWATER FOR SITE 28**

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU4-21	Upper A	6/24/1999	1 U	4.2	1 U	0.5 U
WU4-21	Upper A	1/18/2000	1 U	3.9	1 U	0.5 U
WU4-21	Upper A	8/23/2000	0.27 J	5.3	1 U	0.24 J
WU4-21	Upper A	11/27/2000	0.3 J	5.7	1 U	0.26 J
WU4-21	Upper A	12/6/2001	2 U	2	2 U	2 U
WU4-21	Upper A	11/6/2002	0.7 J	11	2 U	0.3 J
WU4-21	Upper A	11/6/2002	0.7 J	11	2 U	0.3 J
WU4-21	Upper A	12/9/2003	2 J	18 J	2 UJ	0.5 J
WU4-21	Upper A	12/1/2004	2 J	18	2 U	0.5
WU4-21	Upper A	12/7/2005	3	22	2 U	0.4 J
WU4-21	Upper A	11/17/2006	4	19	2 U	0.4 J
WU4-21	Upper A	11/16/2007	4	18	2 U	0.5 J
WU4-21	Upper A	11/24/2008	8.0	17	0.50 U	0.53
WU4-24	Upper A	6/19/1992	1	NA	2 U	2 U
WU4-24	Upper A	9/4/1992	6	NA	2 U	2 U
WU4-24	Upper A	11/4/1992	1 U	4.6	1 U	1 U
WU4-24	Upper A	11/19/1992	3	NA	2 U	2 U
WU4-24	Upper A	6/3/1993	1	NA	2 U	2 U
WU4-24	Upper A	9/22/1993	2 U	NA	2 U	2 U
WU4-24	Upper A	3/1/1994	4 B	NA	2 U	2 U
WU4-24	Upper A	3/9/1995	2 U	NA	2 U	2 UJ-K
WU4-24	Upper A	12/9/2003	2	5	2 U	0.5 UJ
WU4-24	Upper A	12/9/2003	2 J	4	2 U	0.5 UJ
WU4-24	Upper A	12/1/2004	4	5	2 U	0.5 U
WU4-24	Upper A	12/7/2005	4	7	2 U	0.5 U
WU4-24	Upper A	11/17/2006	3	4	2 U	0.5 U
WU4-24	Upper A	11/16/2007	2 J	3	2 U	0.5 U
WU4-24	Upper A	11/24/2008	2.9	3.6	0.50 U	0.50 U
WU4-25	Upper A	6/19/1992	72 D	NA	2 U	0.4
WU4-25	Upper A	9/8/1992	56	NA	4 U	0.7
WU4-25	Upper A	11/4/1992	45	44	5 U	5 U
WU4-25	Upper A	11/19/1992	100	NA	6 U	6 U
WU4-25	Upper A	6/3/1993	100	NA	2 U	0.8 J
WU4-25	Upper A	9/22/1993	110	NA	8 U	8 U
WU4-25	Upper A	3/1/1994	68	NA	6 U	6 U
WU4-25	Upper A	3/9/1995	69	NA	2 U	2 U
WU4-25	Upper A	5/23/1997	23	46	2 U	2 U
WU4-25	Upper A	3/25/1999	34.7	67	0.5 U	1 U
WU4-25	Upper A	6/24/1999	2.6	19	1 U	0.5 U
WU4-25	Upper A	1/19/2000	147	113	5 U	2.5 U
WU4-25	Upper A	8/24/2000	0.48 J	11	1 U	0.27 J
WU4-25	Upper A	11/29/2000	11	20	1 U	0.5 U
WU4-25	Upper A	12/6/2001	18	27	2 U	0.3 J

TABLE 2-6

**HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC
DETECTED IN GROUNDWATER FOR SITE 28**

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU4-25	Upper A	11/7/2002	2 J	14	2 U	0.5
WU4-25	Upper A	12/9/2003	8	19	2 U	0.5 UJ
WU4-25	Upper A	12/1/2004	1 J	18	2 U	0.3 J
WU4-25	Upper A	12/7/2005	1 J	24	2 U	0.5 U
WU4-25	Upper A	11/17/2006	0.3 J	21	2 U	0.6
WU4-25	Upper A	11/16/2007	2	20	2 U	0.3 J
WU4-25	Upper A	11/24/2008	0.90	28	0.50 U	0.28 J
WU4-3	Upper A	6/9/1992	4700	NA	400 U	400 U
WU4-3	Upper A	9/2/1992	6700	NA	620 U	620 U
WU4-3	Upper A	10/26/1992	5500	1000 U	1000 U	1000 U
WU4-3	Upper A	11/17/1992	5000	NA	310 U	310 U
WU4-3	Upper A	5/24/1993	4900 D	NA	7 J	20 U
WU4-3	Upper A	9/21/1993	5700 D	NA	8	7
WU4-3	Upper A	2/25/1994	3300	NA	3	5 J-S
WU4-3	Upper A	3/1/1995	5500 D	NA	50 U	50 U
WU4-3	Upper A	7/10/1998	3800	290	10 U	10 U
WU4-3	Upper A	1/19/1999	3500	200	3.7	0.8
WU4-3	Upper A	3/22/1999	4.3	3.6	0.5 U	1 U
WU4-3	Upper A	7/8/1999	3000	240	10 U	10 U
WU4-3	Upper A	12/27/1999	3400	210	13 U	13 U
WU4-3	Upper A	7/20/2000	5200	440	17 U	17 U
WU4-3	Upper A	12/15/2000	2700	200	10 U	10 U
WU4-3	Upper A	12/7/2001	2100	180	2	1 J
WU4-3	Upper A	12/12/2001	2500	200	7.1 U	7.1 U
WU4-3	Upper A	12/17/2002	2100	160	7.1 U	7.1 U
WU4-3	Upper A	12/11/2003	2900 J	210	3	2
WU4-3	Upper A	12/2/2004	2200	320	2 J	2 J
WU4-3	Upper A	12/2/2004	2100	320	2 J	2 J
WU4-3	Upper A	12/8/2005	390	46	0.3 J	0.5 U
WU4-3	Upper A	11/20/2006	3000 J	270 J	4 J	5 UJ
WU4-3	Upper A	11/19/2007	880	100	1 J	0.3 J
WU4-3	Upper A	11/24/2008	530	130	0.53 J	1.0 U
WU4-4	Lower A	6/9/1992	17000	NA	200 U	200 U
WU4-4	Lower A	9/2/1992	13000	NA	1000 U	1000 U
WU4-4	Lower A	10/26/1992	31000	5000 U	5000 U	5000 U
WU4-4	Lower A	11/17/1992	23000	NA	2000 U	2000 U
WU4-4	Lower A	5/24/1993	27000	NA	20 U	20 U
WU4-4	Lower A	9/24/1993	32000 J-S	NA	5	1
WU4-4	Lower A	2/24/1994	21000	NA	20 U	20 U
WU4-4	Lower A	3/1/1995	36000	NA	200 U	200 U
WU4-4	Lower A	7/24/1998	13000	170	50 U	50 U
WU4-4	Lower A	1/22/1999	12000	170	50 U	50 U
WU4-4	Lower A	7/8/1999	8600	140	25 U	25 U

TABLE 2-6

**HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC
DETECTED IN GROUNDWATER FOR SITE 28**

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU4-4	Lower A	12/29/1999	7900	130	25 U	25 U
WU4-4	Lower A	7/13/2000	7000	150	25 U	25 U
WU4-4	Lower A	12/18/2000	6500	130	25 U	25 U
WU4-4	Lower A	12/10/2001	6300	120	31 U	31 U
WU4-4	Lower A	12/17/2002	6800	130	25 U	25 U
WU4-4	Lower A	12/11/2003	7700 J	130	2	0.9
WU4-4	Lower A	12/2/2004	8100	150	2 J	2 U
WU4-4	Lower A	12/8/2005	6300	140	2 J	0.6
WU4-4	Lower A	11/20/2006	5800 J	130 J	2 J	5 UJ
WU4-4	Lower A	11/19/2007	3100	75	1 J	0.2 J
WU4-4	Lower A	11/24/2008	3900	130	1.1 J	5.0 U
WU4-5	Lower A	6/9/1992	14000	NA	200 U	200 U
WU4-5	Lower A	9/2/1992	8400	NA	500 U	500 U
WU4-5	Lower A	10/26/1992	13000	2000 U	2000 U	2000 U
WU4-5	Lower A	11/17/1992	14000	NA	1000 U	1000 U
WU4-5	Lower A	5/26/1993	9700	NA	28	10 U
WU4-5	Lower A	9/24/1993	10000	NA	40	4
WU4-5	Lower A	2/25/1994	10000	NA	21	10 UJ-S
WU4-5	Lower A	2/27/1995	11000	NA	35	10 U
WU4-5	Lower A	7/23/1998	7300	100	31 U	31 U
WU4-5	Lower A	1/18/1999	7500	90	25 U	25 U
WU4-5	Lower A	7/15/1999	8200	100	25 U	25 U
WU4-5	Lower A	12/27/1999	5300	82	17 U	17 U
WU4-5	Lower A	7/20/2000	5600	100	25 U	25 U
WU4-5	Lower A	12/15/2000	4600	91	20 U	20 U
WU4-5	Lower A	12/13/2001	3400	65	13 U	13 U
WU4-5	Lower A	12/18/2002	3100	64	10 U	10 U
WU4-5	Lower A	2/6/2004	3100	77	13 U	13 U
WU4-5	Lower A	1/11/2005	2900	73	13 U	13 U
WU4-5	Lower A	12/6/2005	3600	97	5	0.4 J
WU4-5	Lower A	12/2/2008	2300	82	20 U	20 U
WU4-6	Lower A	6/9/1992	18000 J-M	NA	400 U	400 U
WU4-6	Lower A	9/3/1992	13000	NA	200 U	200 U
WU4-6	Lower A	10/26/1992	15000	2000 U	2000 U	2000 U
WU4-6	Lower A	11/18/1992	17000	NA	1000 U	1000 U
WU4-6	Lower A	5/25/1993	13000	NA	25 U	25 U
WU4-6	Lower A	7/23/1998	6100	44	31 U	31 U
WU4-6	Lower A	1/18/1999	7300	90	31 U	31 U
WU4-6	Lower A	7/15/1999	8000	110	25 U	25 U
WU4-6	Lower A	12/27/1999	7000	99	25 U	25 U
WU4-6	Lower A	7/20/2000	7400	120	25 U	25 U
WU4-6	Lower A	12/18/2000	7500	130	25 U	25 U
WU4-6	Lower A	12/13/2001	5300	86	17 U	17 U

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU4-6	Lower A	12/18/2002	6400	99	20 U	20 U
WU4-6	Lower A	2/6/2004	5300	120	20 U	20 U
WU4-6	Lower A	1/11/2005	3100	74	17 U	17 U
WU4-6	Lower A	12/8/2005	3500	86	1 J	0.5 U
WU4-6	Lower A	12/4/2008	4700	130	13 U	13 U
WU4-8	Upper A	6/16/1992	21	NA	20 U	12 J
WU4-8	Upper A	9/3/1992	7 U-B	NA	17 U	21
WU4-8	Upper A	11/3/1992	50 U	330	50 U	50 U
WU4-8	Upper A	11/18/1992	33 U	NA	33 U	30 J
WU4-8	Upper A	5/27/1993	5	NA	0.7 J	12
WU4-8	Upper A	3/9/1995	5	NA	2 U	20
WU4-8	Upper A	5/26/1997	3 J	100	5 U	7
WU4-8	Upper A	3/24/1999	5.5	207	2.5 U	38
WU4-8	Upper A	6/23/1999	3 J	157	5 U	27
WU4-8	Upper A	1/19/2000	6 J	328	10 U	60
WU4-8	Upper A	11/27/2000	2.7 J	270	10 U	88
WU4-8	Upper A	12/7/2001	220	140	0.3 J	8
WU4-8	Upper A	11/8/2002	2	220	0.2 J	68
WU4-8	Upper A	12/9/2003	2 J	190	2 U	59 J
WU4-8	Upper A	11/30/2004	2 J	120	2 U	66
WU4-8	Upper A	12/6/2005	0.7 J	17	2 U	32
WU4-8	Upper A	11/17/2006	0.2 J	1 J	2 U	12
WU4-8	Upper A	11/17/2006	0.2 J	1 J	2 U	12 J
WU4-8	Upper A	11/16/2007	2 U	0.2 J	2 U	4
WU4-8	Upper A	11/21/2008	0.50 U	0.23 J	0.50 U	2.0
WU4-9	Lower A	6/16/1992	32	NA	50 U	74
WU4-9	Lower A	9/3/1992	39	NA	4 U	160
WU4-9	Lower A	11/3/1992	100 U	770	100 U	100 U
WU4-9	Lower A	11/18/1992	30 J	NA	71 U	88
WU4-9	Lower A	5/27/1993	110 D	NA	2 U	130
WU4-9	Lower A	9/27/1993	32 J	NA	50 U	170
WU4-9	Lower A	2/25/1994	76	NA	50 U	100
WU4-9	Lower A	3/13/1995	40 U	NA	50 U	170
WU4-9	Lower A	6/4/1997	26 J	610	28 U	190
WU4-9	Lower A	7/30/1997	180 J	340 J	5 J	85 J
WU4-9	Lower A	3/24/1999	2.4	45.9	0.5 U	27
WU4-9	Lower A	6/24/1999	1	49	1 U	26.5
WU4-9	Lower A	1/19/2000	1	21	1 U	0.5 U
WU4-9	Lower A	8/22/2000	4.3	14	1 U	3.9
WU4-9	Lower A	11/27/2000	1 U	3.6	1 U	2
WU4-9	Lower A	12/7/2001	0.7 J	7	2 U	15
WU4-9	Lower A	12/7/2001	0.6 J	8	2 U	16
WU4-9	Lower A	11/8/2002	0.3 J	3	2 U	9

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU4-9	Lower A	11/8/2002	0.3 J	3	2 U	9
WU4-9	Lower A	12/8/2003	0.3 J	5	2 U	7
WU4-9	Lower A	11/30/2004	0.8 J	6	2 U	2
WU4-9	Lower A	12/6/2005	0.6 J	11	2 U	3
WU4-9	Lower A	11/17/2006	0.8 J	12	2 U	3
WU4-9	Lower A	11/16/2007	0.8 J	12	2 U	26
WU4-9	Lower A	11/16/2007	0.9 J	12	2 U	26
WU4-9	Lower A	11/21/2008	0.58	10	0.50 U	3.7
WWR-1	Upper A	10/24/1995	630 D	NA	0.6	0.4 J
WWR-1	Upper A	2/21/1996	550 D	NA	0.8 J	1 U
WWR-1	Upper A	8/19/1996	590 D	NA	0.8 J	1 U
WWR-1	Upper A	11/20/1996	360 D	NA	1 U	1 U
WWR-1	Upper A	5/21/1997	580	130	30 U	30 U
WWR-1	Upper A	8/5/1997	460 D	100 D	0.8 J	3 U
WWR-1	Upper A	3/25/1999	373	103	5 U	10 U
WWR-1	Upper A	6/24/1999	398	160	10 U	5 U
WWR-1	Upper A	1/19/2000	420	130	25 U	13 U
WWR-1	Upper A	8/22/2000	560	120	0.87 J	1.1
WWR-1	Upper A	11/27/2000	610	130	20 U	10 U
WWR-1	Upper A	12/7/2001	350	99 J	0.4 J	2 U
WWR-1	Upper A	11/7/2002	350	120	0.5 J	2
WWR-1	Upper A	12/10/2003	250	100	0.4 J	1
WWR-1	Upper A	12/2/2004	220	110	0.3 J	2
WWR-1	Upper A	12/8/2005	220	130	0.2 J	0.9
WWR-1	Upper A	11/21/2006	230	120	0.4 J	0.8 J
WWR-1	Upper A	11/16/2007	200	150	0.3 J	0.8
WWR-1	Upper A	11/24/2008	180	140	0.32 J	0.81
WWR-1	Upper A	11/24/2008	170	140	0.32 J	0.50 U
WWR-2	Upper A	10/24/1995	750 D	NA	1	0.8
WWR-2	Upper A	2/21/1996	950 DJ-H	NA	10 UJ-H	10 UJ-H
WWR-2	Upper A	8/19/1996	870 D	NA	1 J	1 U
WWR-2	Upper A	11/20/1996	760 D	NA	2	0.6 J
WWR-2	Upper A	5/23/1997	22 J	4 J	1 UJ	1 UJ
WWR-2	Upper A	3/25/1999	756	102	5 U	10 U
WWR-2	Upper A	6/24/1999	718	120	20 U	5 U
WWR-2	Upper A	1/19/2000	691	95	25 U	13 U
WWR-2	Upper A	8/23/2000	570	97	0.84 J	0.62
WWR-2	Upper A	11/27/2000	480	77	20 U	10 U
WWR-2	Upper A	11/5/2002	360	71	0.5 J	1
WWR-2	Upper A	12/10/2003	380	71	0.6 J	0.8
WWR-2	Upper A	11/30/2004	270	72	0.4 J	2
WWR-2	Upper A	12/7/2005	300	71	0.5 J	1
WWR-2	Upper A	11/20/2006	290	61	0.4 J	0.5 J

TABLE 2-6

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 28

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WWR-2	Upper A	11/16/2007	220	62	0.3 J	0.4 J
WWR-2	Upper A	11/24/2008	220	75	0.42 J	0.78
WWR-3	Upper A	10/24/1995	25	NA	0.5 U	0.5 U
WWR-3	Upper A	2/21/1996	37 J-H	NA	10 UJ-H	10 UJ-H
WWR-3	Upper A	8/19/1996	37 D	NA	2 U	0.5 U
WWR-3	Upper A	11/19/1996	41 D	NA	0.5 U	0.5 U
WWR-3	Upper A	12/10/2003	11	27	2 U	0.5 U
WWR-3	Upper A	11/30/2004	32	92 J	2 U	0.2 J
WWR-3	Upper A	12/7/2005	33	110	2 U	0.5 U
WWR-3	Upper A	11/20/2006	31 J	120	2 UJ	0.2 J
WWR-3	Upper A	11/19/2007	32	100	2 U	0.2 J
WWR-3	Upper A	11/24/2008	34	110	0.50 U	0.50 U

Abbreviations and Acronyms:

µg/L - micrograms per liter

B - analyte found in the associated blank

cis-1,2-DCE - cis-1,2-dichloroethene

D - dilution run; initial run outside of linear range

E - compound exceeded calibration range for GC/MS

EATS - East-Side Aquifer Treatment System

G - qualified due to background problems

GC/MS - gas chromatograph/mass spectrometer

H - qualified due to holding time violation

J - estimated result

K - qualified due to negative blank value problems

NA - not analyzed

PCE - tetrachloroethene

S - estimated due to surrogate outliers

TCE - trichloroethene

U - analyte not detected at or above laboratory reporting limit (value indicates the reporting limit)

VC - vinyl chloride

WATS - West-Side Aquifers Treatment System

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TABLE 3-1

2008 NAVY GROUNDWATER ELEVATIONS FOR SITE 26

Well Number	Aquifer/ Aquifer Zone	March (ft msl)	November (ft msl)
EXW-1	Upper A	0.95	0.70
EXW-2	Upper A	-1.02	-1.38
EXW-3	Upper A	-1.67	-1.95
EXW-4	Upper A	-1.40	-1.66
EXW-5	Upper A	-2.61	-2.84
FP5-1	Upper A	1.38	0.79
FP5-2	Upper A	5.33	4.66
FP5-3	Upper A	3.93	3.28
FP5-5	Upper A	1.71	0.95
FP5-7	Upper A	3.37	2.68
FP5-8	Upper A	2.62	2.00
FP5-9	Upper A	1.10	0.59
UST115-MW01	Upper A	0.49	-0.50
UST115-MW02	Upper A	0.27	-0.64
W19-1	Upper A	0.62	0.35
W19-2	Lower A	0.99	0.74
W19-3	Lower A	0.35	0.02
W19-4	Upper A	0.22	-0.01
W2-12	Upper A	-5.39	-5.28
W2-13	Upper A	-5.91	-5.80
W2-16	Upper A	-5.97	-5.69
W2-3	Upper A	-4.81	-4.86
W26-1	Upper A	-3.82	-4.05
W3-1	Upper A	-3.07	-3.08
W3-11	Upper A	-2.95	-3.00
W3-13	Lower A	-3.89	-4.71
W3-14	B2	NR	-2.39
W3-15	B2	NR	-2.34
W3-16 ^a	C	49.69	47.04
W3-19	Upper A	-3.54	-3.74
W3-20	Upper A	-3.77	-3.73
W3-21	Upper A	-3.58	-3.49
W3-22	Lower A	-1.87	-1.80
W3-24	Upper A	-4.32	-4.20
W3-3	Upper A	-4.95	-4.96
W3-6	Upper A	-3.29	-4.34
W3-7	B2	-4.47	-2.51
W3-8	Upper A	-4.58	-4.34
W3-9	B2	-2.28	-2.46
W4-1	Upper A	-1.76	-2.09
W4-11	Upper A	-0.70	-0.97
W4-12	Upper A	-1.87	-2.22
W4-13	B2	-0.64	-0.80
W4-14	Upper A	-0.56	-1.08
W4-15	Upper A	-2.31	-2.38

TABLE 3-1

2008 NAVY GROUNDWATER ELEVATIONS FOR SITE 26

Well Number	Aquifer/ Aquifer Zone	March (ft msl)	November (ft msl)
W4-16	Upper A	-1.13	-1.48
W4-17	Upper A	-1.73	-2.19
W4-2	Upper A	-1.99	-2.29
W4-3	Upper A	-1.35	-1.68
W43-1	Upper A	0.58	0.33
W43-2	Upper A	0.64	0.42
W43-3	Upper A	0.49	0.21
W4-4	Upper A	-0.96	-1.22
W4-5	Upper A	-1.20	-1.60
W4-6	Lower A	-1.08	-1.47
W4-7 ^a	C	53.86	48.91
W4-9	B3	0.11	-0.83
W5-1	Upper A	2.47	1.78
W5-10	Upper A	3.52	3.46
W5-11	Upper A	3.14	2.54
W5-12	Upper A	2.43	1.79
W5-13	Upper A	3.92	4.21
W5-14	Upper A	1.03	0.56
W5-15	Upper A	3.09	1.17
W5-16	Upper A	5.94	5.38
W5-17	Upper A	5.95	5.37
W5-18	Upper A	6.36	5.95
W5-19	Upper A	6.11	5.60
W5-20	Upper A	1.33	0.71
W5-23	Upper A	-0.07	-4.07
W5-25	Lower A	-0.46	-0.96
W5-26	B2	3.22	2.63
W5-3	Upper A	1.22	0.37
W5-34	Upper A	NR	-0.16
W5-35	Upper A	1.26	0.63
W5-4	Lower A	0.36	-1.23
W5-6	Upper A	2.58	1.02
W5-7	Lower A	4.74	4.10
W5-8	Lower A	3.95	3.29
W6-1	Upper A	2.93	2.48
W6-10	Upper A	2.32	1.87
W6-2	Lower A	0.35	-0.17
W6-3	Upper A	0.26	-0.10
W6-4	Upper A	-0.35	-0.65
W6-5	Upper A	0.08	-0.36
W6-6	Upper A	-0.28	-0.57
W6-8	Lower A	1.42	0.95
W6-9	Upper A	1.64	0.64
W7-10	Upper A	0.86	0.61
W7-11	Upper A	2.49	2.37

TABLE 3-1

2008 NAVY GROUNDWATER ELEVATIONS FOR SITE 26

Well Number	Aquifer/ Aquifer Zone	March (ft msl)	November (ft msl)
W7-12	Upper A	2.55	2.42
W7-13	Upper A	4.43	4.12
W7-17	Lower A	-0.04	-0.30
W7-19	Upper A	1.32	1.01
W7-3	Upper A	1.50	1.21
W7-4	B2	2.15	1.84
W7-6	Upper A	0.59	0.33
W7-7	Upper A	0.75	0.53
W7-8	Lower A	0.78	0.55
W7-9	Lower A	0.60	0.37
WFH-01	Upper A	-3.32	-3.56
WFH-02	Upper A	-3.31	-3.83
WFH-03	Upper A	-2.48	-3.48
WFH-04	Upper A	-2.41	-2.96
WFH-05	Upper A	-2.26	-2.98
WFH-06	Upper A	0.69	0.66
WGC2-1	Upper A	-2.53	-2.74
WGC2-10	Upper A	-3.59	-3.57
WGC2-11	Upper A	-3.22	-3.70
WGC2-12	Upper A	-2.84	-2.83
WGC2-13	Upper A	-2.47	-2.58
WGC2-4	Upper A	-2.26	-2.75
WGC2-5	Upper A	-2.91	-2.90
WGC2-6	Upper A	-2.74	-2.74
WGC2-8	Upper A	-3.73	-3.87
WGC2-9	Upper A	-3.07	-3.88
WNB-17	Upper A	-4.42	-4.40
WNB-18	Upper A	-3.81	-3.93
WNB-19	Upper A	-3.55	-3.45
WNB-4	Upper A	-2.72	-2.97
WSW-1	Upper A	-5.26	-5.22
WSW-2	Upper A	-4.22	-4.40
WSW-3	Upper A	-4.58	-4.71
WSW-4	Upper A	-1.31	-1.57
WSW-5	Upper A	-1.13	-1.41
WSW-6	Upper A	-1.48	-1.74
WT17-1	Upper A	-0.51	-2.23
WT17-2	Upper A	-1.74	-2.23
WT17-3	Upper A	-1.71	-2.16
WT2-1	Upper A	2.64	2.52
WU5-1	Upper A	-1.54	-1.92
WU5-10	Upper A	-0.28	-0.65
WU5-11	Lower A	-1.68	-1.91
WU5-12	Lower A	-1.23	-1.56
WU5-13	Lower A	-2.54	-2.85

TABLE 3-1

2008 NAVY GROUNDWATER ELEVATIONS FOR SITE 26

Well Number	Aquifer/ Aquifer Zone	March (ft msl)	November (ft msl)
WU5-14	Upper A	-1.08	-1.40
WU5-15	Upper A	-0.92	-1.39
WU5-16	Upper A	-1.08	-1.47
WU5-17	Upper A	-0.93	-1.31
WU5-18	Upper A	-2.66	-2.94
WU5-19	Upper A	-2.64	-2.92
WU5-2	Upper A	-1.71	-1.94
WU5-20	Upper A	-2.61	-2.87
WU5-21	Upper A	-2.57	-2.79
WU5-22	Upper A	-1.67	-1.89
WU5-23	Upper A	-1.79	-2.12
WU5-24	Upper A	0.70	0.42
WU5-25	Upper A	-2.97	-3.19
WU5-3	Upper A	NR	-4.19
WU5-4	Upper A	-3.97	-4.10
WU5-5	Upper A	-1.26	-2.90
WU5-6	Upper A	-4.30	-4.30
WU5-7	Upper A	-3.40	-4.34
WU5-8	Upper A	-4.86	-6.81
WU5-9	Upper A	-5.28	-5.22

Notes:

^a - artesian well

Abbreviations and Acronyms:

EATS - East-Side Aquifer Treatment System

ft - feet

msl - mean sea level

NR - not recorded

WATS - West-Side Aquifers Treatment System

TABLE 3-2

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 26

Sample Number:	Units	ROD Cleanup Standard	4-IR26-027	4-IR26-028	4-IR26-029	4-IR26-030	4-IR26-031
Location:			EXW-1	EXW-1	EXW-2	EXW-3	EXW-4
Sample Date:			12/3/2008	12/3/2008	12/3/2008	12/3/2008	12/2/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	0.36 J
1,1-DICHLOROETHANE	µg/L	NE	0.36 J	0.40 J	0.20 J	0.52 J	1.2
1,1-DICHLOROETHENE	µg/L	6	0.36 J	0.29 J	1.9	0.24 J	3.5
1,2-DICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	0.31 J	1.0 U
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	0.50 U	0.50 U	0.50 U	0.35 J
2-BUTANONE	µg/L	NE	2.0 U				
2-HEXANONE	µg/L	NE	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 U
ACETONE	µg/L	NE	10 U				
BENZENE	µg/L	NE	1.0 U				
CARBON DISULFIDE	µg/L	NE	2.0 U				
CARBON TETRACHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	0.63 J
CHLOROBENZENE	µg/L	NE	1.0 U				
CHLOROETHANE	µg/L	NE	1.0 U				
CIS-1,2-DICHLOROETHENE	µg/L	6	17	18	5.7	3.7	4.5
ETHYLBENZENE	µg/L	NE	1.0 U				
FREON 113	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	0.29 J
METHYLENE CHLORIDE	µg/L	NE	1.0 U				
TETRACHLOROETHENE	µg/L	5	30	29	0.50 U	3.3	0.50 U
TOLUENE	µg/L	NE	1.0 U				
TRANS-1,2-DICHLOROETHENE	µg/L	6	1.5	1.3	0.23 J	0.20 J	0.22 J
TRICHLOROETHENE	µg/L	5	18	17	2.3	7.8	2.6
VINYL CHLORIDE	µg/L	0.5	3.1	3.0	3.9	2.0	0.28 J

Sample Number:	Units	ROD Cleanup Standard	4-IR26-043	4-IR26-013	4-IR26-044	4-IR26-045	4-IR26-046
Location:			W7-7	WSW-3	WSW-5	WSW-6	WT2-1
Sample Date:			12/4/2008	12/2/2008	12/2/2008	12/3/2008	12/4/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U				
1,1-DICHLOROETHANE	µg/L	NE	0.50 J	1.0 U	0.51 J	0.44 J	1.0 U
1,1-DICHLOROETHENE	µg/L	6	0.50 U	0.50 U	0.50 U	0.16 J	0.50 U
1,2-DICHLOROETHANE	µg/L	NE	1.5	1.0 U	2.4	1.4	1.0 U
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U				
2-BUTANONE	µg/L	NE	2.0 U	2.0 U	0.44 J	0.36 J	2.0 U
2-HEXANONE	µg/L	NE	2.0 U				
ACETONE	µg/L	NE	10 U				
BENZENE	µg/L	NE	1.0 U				
CARBON DISULFIDE	µg/L	NE	2.0 U				
CARBON TETRACHLORIDE	µg/L	NE	1.0 U				
CHLOROBENZENE	µg/L	NE	1.0 U				
CHLOROETHANE	µg/L	NE	1.0 U				
CIS-1,2-DICHLOROETHENE	µg/L	6	5.0	0.50 U	1.0	2.9	0.14 J
ETHYLBENZENE	µg/L	NE	1.0 U				
FREON 113	µg/L	NE	2.0 U				
METHYLENE CHLORIDE	µg/L	NE	1.0 U				
TETRACHLOROETHENE	µg/L	5	0.16 J	0.50 U	0.50 U	1.9	1.0
TOLUENE	µg/L	NE	1.0 U				
TRANS-1,2-DICHLOROETHENE	µg/L	6	1.3	0.50 U	0.27 J	0.19 J	0.50 U
TRICHLOROETHENE	µg/L	5	0.47 J	1.2	0.50 U	3.8	2.1
VINYL CHLORIDE	µg/L	0.5	17	0.50 U	14	2.3	0.50 U

TABLE 3-2

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 26

Sample Number:	Units	ROD Cleanup Standard	4-IR26-001	4-IR26-002	4-IR26-032	4-IR26-033	4-IR26-003
Location:			EXW-5	EXW-5	W19-1	W19-4	W2-3
Sample Date:			12/3/2008	12/3/2008	12/4/2008	12/4/2008	12/2/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U				
1,1-DICHLOROETHANE	µg/L	NE	0.17 J	0.11 J	2.5	1.2	0.10 J
1,1-DICHLOROETHENE	µg/L	6	0.50 U	0.50 U	1.2	4.3	0.50 U
1,2-DICHLOROBENZENE	µg/L	NE	1.0 U				
1,2-DICHLOROETHANE	µg/L	0.5	0.34 J	0.34 J	0.50 U	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 U				
2-HEXANONE	µg/L	NE	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	10 U	10 U	10 U	10 U	2.2 J
BENZENE	µg/L	NE	1.0 U				
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	0.18 J	2.0 U	2.0 U
CARBON TETRACHLORIDE	µg/L	NE	1.0 U				
CHLOROBENZENE	µg/L	NE	1.0 U				
CHLOROETHANE	µg/L	NE	1.0 U				
CIS-1,2-DICHLOROETHENE	µg/L	6	5.7	5.3	5.1	1.0	0.50 U
ETHYLBENZENE	µg/L	NE	1.0 U				
FREON 113	µg/L	NE	2.0 U				
METHYLENE CHLORIDE	µg/L	NE	1.0 U				
TETRACHLOROETHENE	µg/L	5	1.8	1.5	0.50 U	0.50 U	0.50 U
TOLUENE	µg/L	NE	1.0 U				
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.15 J	0.18 J	0.21 J	0.50 U	0.50 U
TRICHLOROETHENE	µg/L	5	2.3	2.1	0.96	1.9	2.1
VINYL CHLORIDE	µg/L	0.5	0.28 J	0.27 J	2.4	0.33 J	0.50 U

Sample Number:	Units	ROD Cleanup Standard	4-IR26-014	4-IR26-047	4-IR26-048	4-IR26-049	4-IR26-050
Location:			WU5-1	WU5-10	WU5-10	WU5-11	WU5-12
Sample Date:			12/1/2008	12/1/2008	12/1/2008	12/3/2008	12/2/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U				
1,1-DICHLOROETHANE	µg/L	NE	0.16 J	0.45 J	0.43 J	1.0 U	1.0 U
1,1-DICHLOROETHENE	µg/L	6	0.50 U	0.43 J	0.53	0.50 U	0.50 U
1,2-DICHLOROBENZENE	µg/L	NE	1.0 U				
1,2-DICHLOROETHANE	µg/L	0.5	0.28 J	0.50 U	0.50 U	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	0.42 J	2.0 U	2.0 U	2.0 U	0.43 J
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U
ACETONE	µg/L	NE	10 U				
BENZENE	µg/L	NE	1.0 U				
CARBON DISULFIDE	µg/L	NE	2.0 U	0.27 J	2.0 U	2.0 U	2.0 U
CARBON TETRACHLORIDE	µg/L	NE	1.0 U	0.19 J	0.21 J	1.0 U	1.0 U
CHLOROBENZENE	µg/L	NE	1.0 U				
CHLOROETHANE	µg/L	NE	1.0 U				
CIS-1,2-DICHLOROETHENE	µg/L	6	14	1.2	1.1	0.50 U	0.50 U
ETHYLBENZENE	µg/L	NE	1.0 U				
FREON 113	µg/L	NE	2.0 U				
METHYLENE CHLORIDE	µg/L	NE	1.0 U				
TETRACHLOROETHENE	µg/L	5	2.0	0.50 U	0.50 U	0.50 U	0.50 U
TOLUENE	µg/L	NE	1.0 U				
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.42 J	0.50 U	0.50 U	0.50 U	0.50 U
TRICHLOROETHENE	µg/L	5	2.6	13	13	0.16 J	0.50 U
VINYL CHLORIDE	µg/L	0.5	0.63	0.50 U	0.50 U	0.50 U	0.50 U

TABLE 3-2

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 26

Sample Number: Location: Sample Date:	Units	ROD Cleanup Standard	4-IR26-004	4-IR26-005	4-IR26-006	4-IR26-007	4-IR26-008
			W26-1	W3-11	W3-20	W3-21	W3-8
			12/1/2008	12/3/2008	12/2/2008	12/2/2008	12/3/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U				
1,1-DICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.1	1.3	1.0 U
1,1-DICHLOROETHENE	µg/L	6	0.50 U	0.50 U	0.50 U	0.16 J	0.50 U
1,2-DICHLOROBENZENE	µg/L	NE	1.0 U				
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	0.50 U	0.28 J	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	0.36 J
2-HEXANONE	µg/L	NE	2.0 U				
ACETONE	µg/L	NE	10 U				
BENZENE	µg/L	NE	1.0 U				
CARBON DISULFIDE	µg/L	NE	2.0 U				
CARBON TETRACHLORIDE	µg/L	NE	1.0 U				
CHLOROBENZENE	µg/L	NE	1.0 U				
CHLOROETHANE	µg/L	NE	1.0 U				
CIS-1,2-DICHLOROETHENE	µg/L	6	0.50 U	0.50 U	2.1	1.4	0.50 U
ETHYLBENZENE	µg/L	NE	1.0 U				
FREON 113	µg/L	NE	2.0 U				
METHYLENE CHLORIDE	µg/L	NE	1.0 U				
TETRACHLOROETHENE	µg/L	5	0.50 U	0.50 U	0.17 J	0.11 J	0.50 U
TOLUENE	µg/L	NE	1.0 U				
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.50 U	0.50 U	0.15 J	0.50 U	0.50 U
TRICHLOROETHENE	µg/L	5	0.50 U	0.50 U	1.8	2.0	0.50 U
VINYL CHLORIDE	µg/L	0.5	0.50 U				

Sample Number: Location: Sample Date:	Units	ROD Cleanup Standard	4-IR26-015	4-IR26-051	4-IR26-052	4-IR26-053	4-IR26-054
			WU5-13	WU5-14	WU5-15	WU5-16	WU5-17
			12/2/2008	12/3/2008	12/2/2008	12/3/2008	12/2/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U				
1,1-DICHLOROETHANE	µg/L	NE	1.0 U	0.24 J	0.12 J	0.17 J	0.13 J
1,1-DICHLOROETHENE	µg/L	6	0.50 U	0.50 U	0.50 U	0.16 J	0.50 U
1,2-DICHLOROBENZENE	µg/L	NE	1.0 U				
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U				
2-BUTANONE	µg/L	NE	0.59 J	0.42 J	2.0 U	2.0 UJ	0.45 J
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U
ACETONE	µg/L	NE	4.3 J	10 U	10 U	10 U	10 U
BENZENE	µg/L	NE	1.0 U				
CARBON DISULFIDE	µg/L	NE	2.0 U				
CARBON TETRACHLORIDE	µg/L	NE	1.0 U				
CHLOROBENZENE	µg/L	NE	1.0 U				
CHLOROETHANE	µg/L	NE	1.0 U				
CIS-1,2-DICHLOROETHENE	µg/L	6	0.50 U	7.3	0.72	3.9	0.34 J
ETHYLBENZENE	µg/L	NE	1.0 U				
FREON 113	µg/L	NE	2.0 U				
METHYLENE CHLORIDE	µg/L	NE	1.0 U				
TETRACHLOROETHENE	µg/L	5	0.50 U	0.50 U	3.0	1.4	1.2
TOLUENE	µg/L	NE	1.0 U				
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.50 U	13	0.46 J	3.9	0.50 U
TRICHLOROETHENE	µg/L	5	0.50 U	5.3	15	11	6.3
VINYL CHLORIDE	µg/L	0.5	0.50 U	7.5	0.50 U	1.0	0.50 U

TABLE 3-2

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 26

Sample Number:	Units	ROD Cleanup Standard	4-IR26-009	4-IR26-034	4-IR26-035	4-IR26-010	4-IR26-011
Location:			W4-1	W4-11	W4-14	W4-15	W4-2
Sample Date:			12/2/2008	12/2/2008	12/1/2008	12/2/2008	12/2/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	0.94 J	0.21 J	0.62 J	0.55 J	0.34 J
1,1-DICHLOROETHENE	µg/L	6	1.1	0.50 U	0.14 J	0.50 U	0.50 U
1,2-DICHLOROETHANE	µg/L	NE	0.14 J	1.0 U	12	0.16 J	1.0 U
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 U	2.0 U	0.61 J	2.0 U	2.0 U
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	10 U	10 U	10 U	10 U	10 U
BENZENE	µg/L	NE	1.0 U	1.0 U	4.4	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
CARBON TETRACHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	180	0.19 J	1.0 U
CHLOROETHANE	µg/L	NE	1.0 U	1.0 U	0.48 J	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	2.6	9.9	5.4	2.2	1.9
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	0.46 J	1.0 U	1.0 U
FREON 113	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
METHYLENE CHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	0.23 J	1.0	0.13 J	2.3	0.83
TOLUENE	µg/L	NE	1.0 U	1.0 U	1.1	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.18 J	2.9	0.25 J	0.62	0.91
TRICHLOROETHENE	µg/L	5	5.0	9.3	0.83	4.1	17
VINYL CHLORIDE	µg/L	0.5	0.72	1.1	5.8	0.50 U	0.29 J

Sample Number:	Units	ROD Cleanup Standard	4-IR26-016	4-IR26-017	4-IR26-018	4-IR26-019	4-IR26-020
Location:			WU5-18	WU5-19	WU5-2	WU5-20	WU5-21
Sample Date:			12/4/2008	12/3/2008	12/1/2008	12/3/2008	12/3/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	0.15 J	0.16 J	0.37 J	0.21 J	0.14 J
1,1-DICHLOROETHENE	µg/L	6	0.50 U	0.50 U	0.21 J	0.50 U	0.50 U
1,2-DICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	0.31 J	0.51	0.85	0.25 J
2-BUTANONE	µg/L	NE	2.0 U	2.0 U	0.44 J	2.0 U	2.0 U
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	10 U	2.3 J	10 U	10 U	10 U
BENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
CARBON TETRACHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	4.9	7.5	31	9.9	1.5
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
METHYLENE CHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	1.0	1.8	0.95	0.33 J	0.27 J
TOLUENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.35 J	0.21 J	0.63	0.14 J	0.50 U
TRICHLOROETHENE	µg/L	5	2.1	2.2	2.0	0.80	0.37 J
VINYL CHLORIDE	µg/L	0.5	0.50 U	0.50 U	2.2	0.64	0.50 U

TABLE 3-2

ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 26

Sample Number:	Units	ROD Cleanup Standard	4-IR26-012	4-IR26-036	4-IR26-037	4-IR26-038	4-IR26-039
Location:			W4-2	W4-3	W43-2	W43-3	W4-4
Sample Date:			12/2/2008	12/1/2008	12/4/2008	12/4/2008	12/2/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	0.31 J	0.27 J	0.33 J	0.34 J	0.36 J
1,1-DICHLOROETHENE	µg/L	6	0.50 U	0.20 J	0.37 J	0.27 J	0.50 U
1,2-DICHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	10 U	10 U	10 U	10 U	10 U
BENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
CARBON TETRACHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROBENZENE	µg/L	NE	1.0 U	0.19 J	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	1.6	1.0	10	3.2	1.5
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
METHYLENE CHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	0.81	0.12 J	57	5.2	0.48 J
TOLUENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.72	0.50 U	1.6	0.40 J	0.24 J
TRICHLOROETHENE	µg/L	5	16	2.2	22	3.6	0.80
VINYL CHLORIDE	µg/L	0.5	0.27 J	0.50 U	0.32 J	0.64	10

Sample Number:	Units	ROD Cleanup Standard	4-IR26-021	4-IR26-055	4-IR26-056	4-IR26-022	4-IR26-023
Location:			WU5-23	WU5-24	WU5-24	WU5-25	WU5-4
Sample Date:			12/2/2008	12/4/2008	12/4/2008	12/2/2008	12/3/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	0.10 J	0.34 J	0.27 J	1.0 U	0.18 J
1,1-DICHLOROETHENE	µg/L	6	0.50 U	0.18 J	0.37 J	0.50 U	0.50 U
1,2-DICHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROETHANE	µg/L	0.5	0.24 J	0.50 U	0.50 U	0.25 J	0.50 U
2-BUTANONE	µg/L	NE	0.50 J	2.0 U	2.0 U	0.36 J	2.0 U
2-HEXANONE	µg/L	NE	0.17 J	2.0 U	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	4.7 J	10 U	10 U	10 U	2.4 J
BENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
CARBON TETRACHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	1.9	12	12	2.7	0.50 U
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
METHYLENE CHLORIDE	µg/L	NE	1.0 U	0.36 J	1.0 UJ	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	0.69	18 J	29 J	0.40 J	0.50 U
TOLUENE	µg/L	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.50 U	1.8	1.9	0.50 U	0.50 U
TRICHLOROETHENE	µg/L	5	0.91	16	19	0.86	3.7
VINYL CHLORIDE	µg/L	0.5	0.50 U	0.77	0.97	0.50 U	0.50 U

TABLE 3-2

**ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 26**

Sample Number:	Units	ROD Cleanup Standard	4-IR26-040	4-IR26-041	4-IR26-042
Location:			W5-23	W6-2	W7-10
Sample Date:			12/4/2008	12/1/2008	12/4/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	1.0 U	0.55 J	0.48 J
1,1-DICHLOROETHENE	µg/L	6	0.50 U	0.23 J	0.30 J
1,2-DICHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U
1,2-DICHLOROETHANE	µg/L	0.5	0.50 U	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 U	0.39 J	2.0 U
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	10 U	10 U	10 U
BENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	2.0 U
CARBON TETRACHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U
CHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	0.50 U	0.28 J	39
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	2.0 U	2.0 U	2.0 U
METHYLENE CHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	0.50 U	0.50 U	7.5
TOLUENE	µg/L	NE	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.50 U	0.50 U	1.8
TRICHLOROETHENE	µg/L	5	0.50 U	1.9	6.6
VINYL CHLORIDE	µg/L	0.5	0.50 U	0.50 U	7.2

Sample Number:	Units	ROD Cleanup Standard	4-IR26-024	4-IR26-025	4-IR26-026
Location:			WU5-6	WU5-8	WU5-9
Sample Date:			12/3/2008	12/2/2008	12/2/2008
1,1,1-TRICHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHANE	µg/L	NE	0.80 J	1.0 U	1.0 U
1,1-DICHLOROETHENE	µg/L	6	0.50 U	0.50 U	0.50 U
1,2-DICHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U
1,2-DICHLOROETHANE	µg/L	0.5	0.34 J	0.50 U	0.50 U
2-BUTANONE	µg/L	NE	2.0 U	0.37 J	2.0 U
2-HEXANONE	µg/L	NE	2.0 U	2.0 U	2.0 U
ACETONE	µg/L	NE	10 U	10 U	10 U
BENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	µg/L	NE	2.0 U	2.0 U	2.0 U
CARBON TETRACHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U
CHLOROBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U
CHLOROETHANE	µg/L	NE	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	µg/L	6	0.29 J	0.11 J	0.11 J
ETHYLBENZENE	µg/L	NE	1.0 U	1.0 U	1.0 U
FREON 113	µg/L	NE	2.0 U	2.0 U	2.0 U
METHYLENE CHLORIDE	µg/L	NE	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	µg/L	5	0.50 U	0.50 U	0.50 U
TOLUENE	µg/L	NE	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	µg/L	6	0.50 U	0.50 U	0.50 U
TRICHLOROETHENE	µg/L	5	0.50 U	1.4	0.50 U
VINYL CHLORIDE	µg/L	0.5	0.50 U	0.50 U	0.50 U

TABLE 3-2

**ANALYTICAL RESULTS FOR VOCs DETECTED IN GROUNDWATER
NAVY 2008 ANNUAL SAMPLING EVENT FOR SITE 26**

Sample Number:	Units	ROD Cleanup Standard	
Location:			
Sample Date:			
1,1,1-TRICHLOROETHANE	µg/L	NE	<p>Notes: Analytes not listed were not detected in any of the 2008 well samples above the laboratory reporting limits. Bold values indicate concentrations greater than the Cleanup Standard for the COCs listed in the MEW ROD (EPA 1996). Complete laboratory analytical data, including data validation are provided on CD in Appendix C. NASA and MEW analytical results are not included.</p> <p>Abbreviations and Acronyms: µg/L - micrograms per liter CD - compact disc COC - chemical of concern EATS - East-Side Aquifer Treatment System EPA - U.S. Environmental Protection Agency J - estimated result MEW - Middlefield-Ellis-Whisman NASA - National Aeronautics and Space Administration NE - not established ROD - Record of Decision U - analyte not detected at or above laboratory reporting limit (value indicates the reporting limit) UJ - analyte detected with an estimated laboratory reporting limit VOC - volatile organic compound WATS - West-Side Aquifers Treatment System</p>
1,1-DICHLOROETHANE	µg/L	NE	
1,1-DICHLOROETHENE	µg/L	6	
1,2-DICHLOROBENZENE	µg/L	NE	
1,2-DICHLOROETHANE	µg/L	0.5	
2-BUTANONE	µg/L	NE	
2-HEXANONE	µg/L	NE	
ACETONE	µg/L	NE	
BENZENE	µg/L	NE	
CARBON DISULFIDE	µg/L	NE	
CARBON TETRACHLORIDE	µg/L	NE	
CHLOROBENZENE	µg/L	NE	
CHLOROETHANE	µg/L	NE	
CIS-1,2-DICHLOROETHENE	µg/L	6	
ETHYLBENZENE	µg/L	NE	
FREON 113	µg/L	NE	
METHYLENE CHLORIDE	µg/L	NE	
TETRACHLOROETHENE	µg/L	5	
TOLUENE	µg/L	NE	
TRANS-1,2-DICHLOROETHENE	µg/L	6	
TRICHLOROETHENE	µg/L	5	
VINYL CHLORIDE	µg/L	0.5	

Sample Number:	Units	ROD Cleanup Standard	
Location:			
Sample Date:			
1,1,1-TRICHLOROETHANE	µg/L	NE	<p>U - analyte not detected at or above laboratory reporting limit (value indicates the reporting limit) UJ - analyte detected with an estimated laboratory reporting limit VOC - volatile organic compound WATS - West-Side Aquifers Treatment System</p>
1,1-DICHLOROETHANE	µg/L	NE	
1,1-DICHLOROETHENE	µg/L	6	
1,2-DICHLOROBENZENE	µg/L	NE	
1,2-DICHLOROETHANE	µg/L	0.5	
2-BUTANONE	µg/L	NE	
2-HEXANONE	µg/L	NE	
ACETONE	µg/L	NE	
BENZENE	µg/L	NE	
CARBON DISULFIDE	µg/L	NE	
CARBON TETRACHLORIDE	µg/L	NE	
CHLOROBENZENE	µg/L	NE	
CHLOROETHANE	µg/L	NE	
CIS-1,2-DICHLOROETHENE	µg/L	6	
ETHYLBENZENE	µg/L	NE	
FREON 113	µg/L	NE	
METHYLENE CHLORIDE	µg/L	NE	
TETRACHLOROETHENE	µg/L	5	
TOLUENE	µg/L	NE	
TRANS-1,2-DICHLOROETHENE	µg/L	6	
TRICHLOROETHENE	µg/L	5	
VINYL CHLORIDE	µg/L	0.5	

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TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
EXW-1	Upper A	11/19/1998	35	9	88 D	0.6
EXW-1	Upper A	3/22/1999	50.5	16.6	69.1	2.6
EXW-1	Upper A	6/21/1999	25	9.5	52	1.3
EXW-1	Upper A	1/17/2000	29	12	68	2.6
EXW-1	Upper A	8/23/2000	25	11	44	1.3
EXW-1	Upper A	11/28/2000	26	13	53	1.8
EXW-1	Upper A	12/5/2001	26	11	56 D	2 U
EXW-1	Upper A	11/7/2002	26	11	54	0.8
EXW-1	Upper A	9/22/2003	27	9	57	0.4 J
EXW-1	Upper A	12/10/2003	10	3	27	0.5 U
EXW-1	Upper A	3/3/2004	27	7	59	0.5 U
EXW-1	Upper A	3/3/2004	28	8	60	0.5 U
EXW-1	Upper A	6/15/2004	30	7	60	0.5 U
EXW-1	Upper A	9/14/2004	31	8	66	0.3 J
EXW-1	Upper A	12/7/2004	23	6	52	0.5 U
EXW-1	Upper A	12/7/2004	21	6	48	0.5 U
EXW-1	Upper A	2/9/2005	27	7	57	0.5 U
EXW-1	Upper A	3/15/2005	27	7	60	0.5 U
EXW-1	Upper A	4/19/2005	29	7	57	0.5 U
EXW-1	Upper A	4/19/2005	29	7	54	0.5 U
EXW-1	Upper A	5/25/2005	27	7	60	0.5 U
EXW-1	Upper A	7/19/2005	29	13	62	0.5 U
EXW-1	Upper A	8/23/2005	28	19	61	0.4 J
EXW-1	Upper A	9/19/2005	28	28	51	0.3 J
EXW-1	Upper A	9/19/2005	27	29	52	0.4 J
EXW-1	Upper A	12/14/2005	18	37	32	0.8
EXW-1	Upper A	6/20/2006	25	24	46	0.4 J
EXW-1	Upper A	9/19/2006	18	22	26	2
EXW-1	Upper A	12/4/2006	17	18	26	3
EXW-1	Upper A	12/5/2007	19	25	33	7
EXW-1	Upper A	12/3/2008	18	17	30	3.1
EXW-1	Upper A	12/3/2008	17	18	29	3.0
EXW-2	Upper A	11/19/1998	32	2	6	0.5 U
EXW-2	Upper A	3/22/1999	53.2	1.9	5.2	1 U
EXW-2	Upper A	6/21/1999	27	1	4.6	0.5 U
EXW-2	Upper A	1/17/2000	31	1	5.3	0.5 U
EXW-2	Upper A	8/23/2000	27	1.6	4.5	0.5 U
EXW-2	Upper A	11/28/2000	29	1.4	4.7	0.5 U
EXW-2	Upper A	12/4/2001	26	1 J	4	2 U
EXW-2	Upper A	11/6/2002	33 J	1 J	5	0.5 U
EXW-2	Upper A	9/23/2003	26	1	4	0.5 U
EXW-2	Upper A	9/23/2003	26	1	4	0.5 U
EXW-2	Upper A	12/9/2003	21	1	4	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
EXW-2	Upper A	3/3/2004	21	1	4	0.5 U
EXW-2	Upper A	6/16/2004	25	1	4	0.5 U
EXW-2	Upper A	9/15/2004	29	1	5	0.5 U
EXW-2	Upper A	12/9/2004	24	1	4	0.5 U
EXW-2	Upper A	2/8/2005	23	1	4	0.5 U
EXW-2	Upper A	3/23/2005	25	1	5	0.5 U
EXW-2	Upper A	4/18/2005	24	1	5	0.5 U
EXW-2	Upper A	5/26/2005	18	4	3	0.5 U
EXW-2	Upper A	7/19/2005	10	20	0.6	0.5 U
EXW-2	Upper A	8/22/2005	4	20	0.2 J	0.5 U
EXW-2	Upper A	9/19/2005	2	21	0.1 J	0.5 U
EXW-2	Upper A	9/19/2005	2	22	0.5 U	0.5 U
EXW-2	Upper A	12/13/2005	1	16	0.5 U	0.5 U
EXW-2	Upper A	6/20/2006	0.3 J	9	0.5 U	0.2 J
EXW-2	Upper A	9/20/2006	2	7	0.5	0.4
EXW-2	Upper A	12/4/2006	2	7	0.5 U	0.4 J
EXW-2	Upper A	12/5/2007	3	6	0.2 J	3
EXW-2	Upper A	12/5/2007	3	7	0.2 J	3
EXW-2	Upper A	12/3/2008	2.3	5.7	0.50 U	3.9
EXW-3	Upper A	11/19/1998	8	7	7	4
EXW-3	Upper A	3/22/1999	12	8.1	6.5	4.9
EXW-3	Upper A	6/21/1999	6.9	7.7	5.5	1
EXW-3	Upper A	1/17/2000	8.8	7.1	7.3	1.9
EXW-3	Upper A	8/22/2000	9.5 J	7.7 J	8.2 J	1.7 J
EXW-3	Upper A	11/28/2000	7.6	6.1	5.4	1.9
EXW-3	Upper A	12/5/2001	7	5	3	2 U
EXW-3	Upper A	11/5/2002	8	5	5	2
EXW-3	Upper A	9/23/2003	8	4	4	2
EXW-3	Upper A	12/11/2003	9	4	5	2
EXW-3	Upper A	3/2/2004	8	3	4	1
EXW-3	Upper A	6/16/2004	8	3	5	2
EXW-3	Upper A	9/15/2004	9	4	5	2
EXW-3	Upper A	12/8/2004	9	3	4	2
EXW-3	Upper A	12/13/2005	8	3	4	0.9
EXW-3	Upper A	12/6/2006	9	3	5	0.9
EXW-3	Upper A	12/4/2007	9	3	5	1
EXW-3	Upper A	12/3/2008	7.8	3.7	3.3	2.0
EXW-4	Upper A	11/19/1998	2	9	0.5 U	0.5
EXW-4	Upper A	3/22/1999	3.6	34.5	0.5 U	5.5
EXW-4	Upper A	6/21/1999	2.5	25	1 U	4.4
EXW-4	Upper A	1/17/2000	3.3	28	0.8 J	4.5
EXW-4	Upper A	8/22/2000	3.9 J	24 J	1.2 J	3.5 J
EXW-4	Upper A	11/28/2000	4	21	1.1	2.5

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
EXW-4	Upper A	12/5/2001	3	16	1 J	2 U
EXW-4	Upper A	11/7/2002	4	13	1 J	2
EXW-4	Upper A	9/23/2003	4	5	0.2 J	0.4 J
EXW-4	Upper A	12/9/2003	3	6	0.2 J	0.4 J
EXW-4	Upper A	3/3/2004	4	6	0.4 J	0.5 J
EXW-4	Upper A	6/16/2004	4	5	0.5 U	0.4 J
EXW-4	Upper A	9/16/2004	4	5	0.2 J	0.4 J
EXW-4	Upper A	12/8/2004	4	5	0.5 U	0.5 J
EXW-4	Upper A	12/13/2005	3	5	0.5 U	0.3 J
EXW-4	Upper A	12/6/2006	3	4	0.5 U	0.4 J
EXW-4	Upper A	12/5/2007	3	3	0.5 U	0.3 J
EXW-4	Upper A	12/2/2008	2.6	4.5	0.50 U	0.28 J
EXW-5	Upper A	11/19/1998	5	49 D	4	3
EXW-5	Upper A	3/22/1999	3.9	38.9	2.1	2.1
EXW-5	Upper A	6/21/1999	2.8	22	2.3	1.5
EXW-5	Upper A	1/17/2000	3	25	2.3	0.5
EXW-5	Upper A	8/23/2000	3	19	2.2	1.2
EXW-5	Upper A	11/27/2000	3	19	2.1	1.1
EXW-5	Upper A	12/3/2001	2	12	2 J	0.9 J
EXW-5	Upper A	12/3/2001	3	11	2 J	0.8 J
EXW-5	Upper A	11/7/2002	3	11	2 J	0.7
EXW-5	Upper A	9/24/2003	3	8	2	0.5 U
EXW-5	Upper A	12/11/2003	3	8	3	0.3 J
EXW-5	Upper A	12/11/2003	3	8	3	0.3 J
EXW-5	Upper A	3/4/2004	3	7	3	0.5 U
EXW-5	Upper A	6/16/2004	3	7	2	0.2 J
EXW-5	Upper A	9/15/2004	3	9	3	0.3 J
EXW-5	Upper A	12/9/2004	3	8	3	0.4 J
EXW-5	Upper A	12/14/2005	3	7	3	0.3 J
EXW-5	Upper A	12/5/2006	3	6	2	0.5 J
EXW-5	Upper A	12/4/2007	3	7	2	0.2 J
EXW-5	Upper A	12/3/2008	2.3	5.7	1.8	0.28 J
EXW-5	Upper A	12/3/2008	2.1	5.3	1.5	0.27 J
W19-1	Upper A	10/7/1993	10 J	NA	30	2 U
W19-1	Upper A	9/12/1994	22	NA	69	0.3 U
W19-1	Upper A	12/5/1994	20	NA	56	2 U
W19-1	Upper A	9/22/2003	9	8	24	0.5 U
W19-1	Upper A	9/22/2003	8	7	22	0.5 U
W19-1	Upper A	12/11/2003	10	9	30	0.5 U
W19-1	Upper A	3/2/2004	8	5	20	0.2 J
W19-1	Upper A	6/15/2004	4	6	9	0.5 UJ
W19-1	Upper A	6/15/2004	4	6	9	0.5 UJ
W19-1	Upper A	9/14/2004	4	6	9	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W19-1	Upper A	12/7/2004	4	5	9	0.5 U
W19-1	Upper A	2/9/2005	4	5	9	0.5 U
W19-1	Upper A	3/15/2005	0.5 U	0.2 J	0.3 J	0.5 U
W19-1	Upper A	4/20/2005	0.2 J	10	0.3 J	0.5 U
W19-1	Upper A	5/25/2005	0.2 J	5	0.4 J	0.5 U
W19-1	Upper A	7/18/2005	0.7	14	0.2 J	0.5 U
W19-1	Upper A	8/24/2005	0.9	14	0.4 J	0.5 U
W19-1	Upper A	9/21/2005	2	10	0.4 J	0.5 U
W19-1	Upper A	12/14/2005	2	10	0.5 U	0.5 U
W19-1	Upper A	6/20/2006	2	11	0.2 J	4
W19-1	Upper A	9/19/2006	0.3	1	0.2	0.5
W19-1	Upper A	12/4/2006	3	11	1	1
W19-1	Upper A	12/5/2007	0.2 J	0.5 J	0.5 U	0.5 U
W19-1	Upper A	12/4/2008	0.96	5.1	0.50 U	2.4
W19-4	Upper A	10/7/1993	2 UJ	NA	2 U	2 U
W19-4	Upper A	9/12/1994	3	NA	0.6 U	2 U
W19-4	Upper A	12/7/1994	3	NA	0.6 U	2 U
W19-4	Upper A	5/30/2003	2	1	0.5	0.5 U
W19-4	Upper A	9/22/2003	3	1	0.6	0.5 U
W19-4	Upper A	12/10/2003	3	1	0.6	0.5 U
W19-4	Upper A	3/2/2004	2	1	0.6	0.5 U
W19-4	Upper A	6/15/2004	3	1	0.7	0.5 U
W19-4	Upper A	9/14/2004	3	1	0.7	0.5 U
W19-4	Upper A	12/6/2004	3	1	0.6	0.5 U
W19-4	Upper A	12/14/2005	2	1	0.6	0.5 U
W19-4	Upper A	12/4/2006	0.3 J	0.2 J	0.5 U	0.5 U
W19-4	Upper A	12/5/2007	0.2 J	0.1 J	0.5 U	0.5 U
W19-4	Upper A	12/4/2008	1.9	1.0	0.50 U	0.33 J
W2-3	Upper A	12/3/1992	4	NA	2 U	2 U
W2-3	Upper A	12/9/1993	5	NA	2 U	2 U
W2-3	Upper A	5/25/1994	4	NA	2 U	2 U
W2-3	Upper A	9/6/1994	4	NA	2 U	2 U
W2-3	Upper A	11/14/1994	5	NA	2 U	2 U
W2-3	Upper A	8/28/1995	3	2 U	2 U	0.5 U
W2-3	Upper A	5/27/2003	3	0.5 U	0.5 U	0.5 U
W2-3	Upper A	9/18/2003	3	0.5 U	0.5 U	0.5 U
W2-3	Upper A	12/8/2003	3	0.5 U	0.5 U	0.5 U
W2-3	Upper A	3/2/2004	3	0.5 U	0.5 U	0.5 U
W2-3	Upper A	6/15/2004	3	0.5 U	0.5 U	0.5 U
W2-3	Upper A	9/14/2004	3	0.5 U	0.5 U	0.5 U
W2-3	Upper A	12/7/2004	3	0.5 U	0.5 U	0.5 U
W2-3	Upper A	12/15/2005	3	0.1 J	0.5 U	0.5 U
W2-3	Upper A	12/15/2005	3	0.1 J	0.5 U	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W2-3	Upper A	12/5/2006	3	0.5 U	0.5 U	0.5 J
W2-3	Upper A	12/4/2007	3	0.1 J	0.5 U	0.5 U
W2-3	Upper A	12/2/2008	2.1	0.50 U	0.50 U	0.50 U
W26-1	Upper A	5/30/2003	0.5 U	0.5 U	0.5 U	0.5 U
W26-1	Upper A	9/17/2003	0.5 U	0.5 U	0.5 U	0.5 U
W26-1	Upper A	12/9/2003	0.5 U	0.5 U	0.5 U	0.5 U
W26-1	Upper A	3/1/2004	0.5 U	0.5 U	0.5 U	0.5 U
W26-1	Upper A	6/14/2004	0.5 U	0.5 U	0.5 U	0.5 U
W26-1	Upper A	6/14/2004	0.5 U	0.5 U	0.5 U	0.5 U
W26-1	Upper A	9/13/2004	0.5 U	0.5 U	0.5 U	0.5 U
W26-1	Upper A	12/7/2004	0.5 U	0.5 U	0.5 U	0.5 U
W26-1	Upper A	12/14/2005	0.5 U	0.5 U	0.5 U	0.5 U
W26-1	Upper A	12/5/2006	0.5 U	0.5 U	0.5 U	0.5 J
W26-1	Upper A	12/4/2007	0.5 U	0.5 U	0.5 U	0.5 U
W26-1	Upper A	12/1/2008	0.50 U	0.50 U	0.50 U	0.50 U
W3-11	Upper A	10/4/1993	2 U	NA	2 U	2 U
W3-11	Upper A	8/30/1994	2 U	NA	2 U	2 U
W3-11	Upper A	12/1/1994	2 U	NA	2 U	2 U
W3-11	Upper A	5/28/2003	0.5 U	0.5 U	0.5 U	0.5 U
W3-11	Upper A	9/16/2003	0.5 U	0.5 U	0.5 U	0.5 U
W3-11	Upper A	12/9/2003	0.5 U	0.5 U	0.5 U	0.5 U
W3-11	Upper A	3/2/2004	0.5 U	0.5 U	0.5 U	0.5 U
W3-11	Upper A	6/14/2004	0.5 U	0.5 U	0.5 U	0.5 U
W3-11	Upper A	9/14/2004	0.5 U	0.5 U	0.5 U	0.5 U
W3-11	Upper A	12/6/2004	0.5 U	0.5 U	0.5 U	0.5 U
W3-11	Upper A	12/14/2005	0.5 U	0.5 U	0.5 U	0.5 U
W3-11	Upper A	12/6/2006	0.5 U	0.5 U	0.5 U	0.5 U
W3-11	Upper A	12/4/2007	0.5 U	0.5 U	0.5 U	0.5 U
W3-11	Upper A	12/4/2007	0.5 U	0.5 U	0.5 U	0.5 U
W3-11	Upper A	12/3/2008	0.50 U	0.50 U	0.50 U	0.50 U
W3-20	Upper A	1/7/1992	3 U	NA	NA	NA
W3-20	Upper A	4/2/1992	2 U	NA	NA	NA
W3-20	Upper A	10/6/1993	3	NA	2 U	0.8
W3-20	Upper A	5/26/1994	2	NA	2 U	2 U
W3-20	Upper A	8/30/1994	3	NA	2 U	0.8 J
W3-20	Upper A	11/18/1994	4	NA	2 U	2 J
W3-20	Upper A	3/6/1995	4	NA	2 U	0.7 U
W3-20	Upper A	5/28/2003	3	4	0.3 J	0.5 U
W3-20	Upper A	9/17/2003	3	4	0.3 J	0.5 U
W3-20	Upper A	12/9/2003	3	4	0.4 J	0.5 U
W3-20	Upper A	3/3/2004	3	3	0.3 J	0.5 U
W3-20	Upper A	6/15/2004	3	3	0.3 J	0.5 UJ
W3-20	Upper A	9/14/2004	3	3	0.3 J	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W3-20	Upper A	12/7/2004	3	3	0.3 J	0.5 U
W3-20	Upper A	12/13/2005	3	3	0.3 J	0.5 U
W3-20	Upper A	12/13/2005	3	3	0.3 J	0.5 U
W3-20	Upper A	12/5/2006	3	3	0.2 J	0.5 U
W3-20	Upper A	12/4/2007	3	3	0.3 J	0.5 U
W3-20	Upper A	12/2/2008	1.8	2.1	0.17 J	0.50 U
W3-21	Upper A	10/6/1993	1 J	NA	2 U	2 U
W3-21	Upper A	8/31/1994	0.6 U	NA	0.3 J	2 UJ-K
W3-21	Upper A	12/6/1994	0.7 U	NA	2 U	2 U
W3-21	Upper A	5/29/2003	2	1	0.5 U	0.5 U
W3-21	Upper A	9/16/2003	2	1	0.5 U	0.5 U
W3-21	Upper A	12/10/2003	2	1	0.5 U	0.5 U
W3-21	Upper A	3/3/2004	2	1	0.3 J	0.5 U
W3-21	Upper A	6/15/2004	2	1	0.5 U	0.5 UJ
W3-21	Upper A	9/14/2004	2	1	0.5 U	0.5 U
W3-21	Upper A	9/14/2004	2	1	0.5 U	0.2 J
W3-21	Upper A	12/7/2004	2	1	0.5 U	0.5 U
W3-21	Upper A	12/13/2005	2	1	0.5 U	0.5 U
W3-21	Upper A	12/6/2006	2	1	0.5 U	0.5 U
W3-21	Upper A	12/4/2007	3	2	0.5 U	0.2 J
W3-21	Upper A	12/2/2008	2.0	1.4	0.11 J	0.50 U
W3-8	Upper A	10/1/1993	2 U	NA	2 U	2 U
W3-8	Upper A	8/31/1994	2 U	NA	2 U	2 UJ-K
W3-8	Upper A	12/2/1994	2 U	NA	2 U	2 UJ-K
W3-8	Upper A	5/28/2003	0.5 U	0.5 U	0.5 U	0.5 U
W3-8	Upper A	9/17/2003	0.5 U	0.5 U	0.5 U	0.5 U
W3-8	Upper A	12/10/2003	0.5 U	0.5 U	0.5 U	0.5 U
W3-8	Upper A	3/2/2004	0.5 U	0.5 U	0.5 U	0.5 U
W3-8	Upper A	6/14/2004	0.5 U	0.5 U	0.5 U	0.5 U
W3-8	Upper A	9/13/2004	0.5 U	0.5 U	0.5 U	0.5 U
W3-8	Upper A	9/13/2004	0.5 U	0.5 U	0.5 U	0.5 U
W3-8	Upper A	12/6/2004	0.5 U	0.5 U	0.5 U	0.5 U
W3-8	Upper A	12/14/2005	0.5 U	0.5 U	0.5 U	0.5 U
W3-8	Upper A	12/6/2006	0.2 J	0.1 J	0.5 U	0.5 U
W3-8	Upper A	12/4/2007	0.5 U	0.5 U	0.5 U	0.5 U
W3-8	Upper A	12/3/2008	0.50 U	0.50 U	0.50 U	0.50 U
W4-1	Upper A	12/7/1992	17	NA	2 U	3
W4-1	Upper A	9/13/1994	17	NA	0.6 J	3
W4-1	Upper A	11/15/1994	17	NA	2 U	3
W4-1	Upper A	3/16/1995	12	NA	2 U	1 J
W4-1	Upper A	5/29/1997	14	7	0.6 J	1
W4-1	Upper A	3/23/1999	7.5	7.7	0.5 U	0.8 J
W4-1	Upper A	6/22/1999	8.2	8.6	0.7 J	1.3

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W4-1	Upper A	1/18/2000	8.3	7.1	1 U	4.6
W4-1	Upper A	8/24/2000	7.9	4.5 UJ	0.23 J	4.1
W4-1	Upper A	11/28/2000	9.1	5	0.32 J	4.4
W4-1	Upper A	12/5/2001	8	4	0.4 J	6
W4-1	Upper A	11/5/2002	7	3	0.2 J	3
W4-1	Upper A	9/16/2003	7	3	0.2 J	2
W4-1	Upper A	12/10/2003	7	3	0.2 J	1
W4-1	Upper A	3/4/2004	7	3	0.3 J	0.8
W4-1	Upper A	6/16/2004	7	4	0.2 J	1
W4-1	Upper A	9/15/2004	8	4	0.2 J	1
W4-1	Upper A	12/9/2004	8	4	0.2 J	1
W4-1	Upper A	12/13/2005	7	5	0.3 J	0.6
W4-1	Upper A	12/13/2005	7	5	0.3 J	0.6
W4-1	Upper A	12/5/2006	7	4	0.3 J	1 J
W4-1	Upper A	12/4/2007	8	4	0.3 J	1
W4-1	Upper A	12/2/2008	5.0	2.6	0.23 J	0.72
W4-11	Upper A	4/6/1992	53	NA	4 U	NA
W4-11	Upper A	12/8/1992	62	NA	6	3 U
W4-11	Upper A	9/13/1994	57	NA	6	2 U
W4-11	Upper A	11/15/1994	63	NA	6	5 U
W4-11	Upper A	6/4/1997	41	16	3	2 U
W4-11	Upper A	3/23/1999	22	17.7	2.5	1 U
W4-11	Upper A	6/22/1999	28	7.7	3.5	0.5 U
W4-11	Upper A	1/18/2000	4.9	38	1 U	0.5 U
W4-11	Upper A	8/22/2000	17	1.3	1 U	0.5 U
W4-11	Upper A	8/24/2000	19	11	2.1	0.5 U
W4-11	Upper A	11/30/2000	19	14	1.9	0.5 U
W4-11	Upper A	12/6/2001	17	15	2 J	2 U
W4-11	Upper A	11/5/2002	20	13	2	0.5 U
W4-11	Upper A	9/16/2003	23	9	2	0.5 U
W4-11	Upper A	12/11/2003	21	14	2	0.5 U
W4-11	Upper A	3/2/2004	21	11	2	0.2 J
W4-11	Upper A	6/15/2004	22	7	2	0.5 UJ
W4-11	Upper A	9/14/2004	26	7	3	0.5 U
W4-11	Upper A	9/14/2004	25	6	3	0.5 U
W4-11	Upper A	12/7/2004	22	10	3	0.5 U
W4-11	Upper A	2/8/2005	21	10	2	0.5 U
W4-11	Upper A	3/23/2005	22	9	2	0.5 U
W4-11	Upper A	4/19/2005	22	9	3	0.1 J
W4-11	Upper A	5/26/2005	20	10	2	0.5 U
W4-11	Upper A	7/19/2005	24	7	3	0.5 U
W4-11	Upper A	8/23/2005	25	9	3	0.5 U
W4-11	Upper A	9/20/2005	25	9	3	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W4-11	Upper A	12/13/2005	19	15	2	1
W4-11	Upper A	6/19/2006	16	13	2	2
W4-11	Upper A	9/19/2006	16	11	2	2
W4-11	Upper A	12/5/2006	12	12	1	2 J
W4-11	Upper A	12/4/2007	12	15	1	3
W4-11	Upper A	12/2/2008	9.3	9.9	1.0	1.1
W4-14	Upper A	1/3/1992	6 U	NA	NA	NA
W4-14	Upper A	3/31/1992	5 U	NA	NA	NA
W4-14	Upper A	12/14/1992	8	NA	2 U	0.7
W4-14	Upper A	9/23/1994	6	NA	2 U	1 U
W4-14	Upper A	12/2/1994	7	NA	2 U	1 UJ-K
W4-14	Upper A	6/4/1997	26	5	2 U	1 J
W4-14	Upper A	3/22/1999	2.4	9	0.5 U	3.1
W4-14	Upper A	6/21/1999	1	5.7	1 U	2.7
W4-14	Upper A	1/17/2000	2 J	15	5 U	2.5 U
W4-14	Upper A	8/22/2000	1.7	10	0.2 J	2.4
W4-14	Upper A	11/28/2000	1.9	8.9	1.7	1.8
W4-14	Upper A	12/5/2001	1 J	6	2 U	2 U
W4-14	Upper A	11/6/2002	2 J	5	2 U	0.8
W4-14	Upper A	5/30/2003	2	4	0.5 U	0.5 U
W4-14	Upper A	9/16/2003	2	3	0.5 U	0.4 J
W4-14	Upper A	12/9/2003	2	4	0.3 J	0.5 J
W4-14	Upper A	3/3/2004	2	3	0.3 J	0.4 J
W4-14	Upper A	6/14/2004	2	3	0.5 U	0.4 J
W4-14	Upper A	9/15/2004	2	2	0.5 U	0.4 J
W4-14	Upper A	12/8/2004	2	2	0.5 U	0.3 J
W4-14	Upper A	12/8/2004	2	2	0.5 U	0.4 J
W4-14	Upper A	12/12/2005	2 J	3 J	5 U	5 U
W4-14	Upper A	12/6/2006	2 J	4 J	0.5 J	1 J
W4-14	Upper A	12/3/2007	1 J	5 J	0.5 UJ	3 J
W4-14	Upper A	12/1/2008	0.83	5.4	0.13 J	5.8
W4-15	Upper A	1/6/1992	12	NA	NA	NA
W4-15	Upper A	4/6/1992	12	NA	7 U	NA
W4-15	Upper A	12/8/1992	13	NA	10	2 U
W4-15	Upper A	12/13/1993	13	NA	9	2 J
W4-15	Upper A	5/27/1994	12	NA	8	1 J
W4-15	Upper A	9/13/1994	16	NA	10	1 J
W4-15	Upper A	11/15/1994	16	NA	11	2 J
W4-15	Upper A	3/7/1995	15	NA	13	1 J
W4-15	Upper A	6/4/1997	19	16	8	0.9 J
W4-15	Upper A	3/23/1999	8.8	6.9	4.2	3.8
W4-15	Upper A	6/22/1999	6.5	9.4	2.7	5.1
W4-15	Upper A	1/18/2000	7.3	7.3	3.9	2.8

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W4-15	Upper A	8/22/2000	9.1	7.9	4.2	2.9
W4-15	Upper A	11/30/2000	8	6.7	3.5	0.33 J
W4-15	Upper A	12/4/2001	8	6	5	2 U
W4-15	Upper A	11/5/2002	8	6	5	0.4 J
W4-15	Upper A	9/16/2003	8	5	4	0.8
W4-15	Upper A	12/9/2003	7	5	4	0.2 J
W4-15	Upper A	3/2/2004	9	4	4	0.5 J
W4-15	Upper A	6/15/2004	8	4	4	0.9 J
W4-15	Upper A	9/14/2004	8	4	5	0.5
W4-15	Upper A	12/7/2004	7	4	4	0.5 U
W4-15	Upper A	12/13/2005	7	3	3	0.5 U
W4-15	Upper A	12/5/2006	7	3	3	0.3 J
W4-15	Upper A	12/4/2007	6	3	3	0.2 J
W4-15	Upper A	12/2/2008	4.1	2.2	2.3	0.50 U
W4-2	Upper A	1/27/1992	42	NA	NA	NA
W4-2	Upper A	4/27/1992	42	NA	NA	NA
W4-2	Upper A	12/8/1992	44	NA	3 U	3 U
W4-2	Upper A	12/13/1993	44	NA	3 U	3 U
W4-2	Upper A	5/27/1994	33	NA	3 U	3 U
W4-2	Upper A	9/13/1994	49	NA	3 R	3 R
W4-2	Upper A	11/15/1994	54	NA	3 U	3 U
W4-2	Upper A	5/29/1997	40	3	2 J	2 UJ
W4-2	Upper A	3/23/1999	35.1	2.9	0.9	1 U
W4-2	Upper A	6/22/1999	32	2.5	1 J	0.5 U
W4-2	Upper A	1/18/2000	25	3.3	0.5 J	0.5 U
W4-2	Upper A	8/24/2000	35	3.4	0.97 J	0.24 J
W4-2	Upper A	11/30/2000	30	3.1	0.95 J	0.5 U
W4-2	Upper A	12/4/2001	30	4	1 J	2 U
W4-2	Upper A	11/5/2002	29	3	0.9 J	0.3 J
W4-2	Upper A	11/5/2002	32	3	1 J	0.3 J
W4-2	Upper A	9/16/2003	28	3	0.8	0.6
W4-2	Upper A	12/9/2003	24	3	0.9	0.7
W4-2	Upper A	3/2/2004	27	3	1	0.4 J
W4-2	Upper A	6/15/2004	24	2	0.8	0.7 J
W4-2	Upper A	9/14/2004	29	2	1	0.5 J
W4-2	Upper A	12/7/2004	28	3	1	0.7
W4-2	Upper A	2/8/2005	23	3	0.8	0.4 J
W4-2	Upper A	3/22/2005	24	3	0.8	0.5
W4-2	Upper A	3/22/2005	25	3	0.9	0.5
W4-2	Upper A	4/19/2005	25	3	0.9	0.8
W4-2	Upper A	5/26/2005	23	3	0.9	1
W4-2	Upper A	7/19/2005	22	3	0.8	0.8
W4-2	Upper A	8/23/2005	23	2	0.8	0.8

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W4-2	Upper A	9/20/2005	24	2	0.8	0.4 J
W4-2	Upper A	12/13/2005	24	2	0.9	0.7
W4-2	Upper A	6/19/2006	24	2	1	1
W4-2	Upper A	9/19/2006	20	2	0.8	1
W4-2	Upper A	12/5/2006	19	2	0.8	0.8
W4-2	Upper A	12/4/2007	22	2	0.8	0.5 J
W4-2	Upper A	12/2/2008	17	1.9	0.83	0.29 J
W4-2	Upper A	12/2/2008	16	1.6	0.81	0.27 J
W4-3	Upper A	1/22/1992	11	NA	NA	NA
W4-3	Upper A	4/27/1992	9 U	NA	NA	NA
W4-3	Upper A	12/4/1992	10	NA	2 U	1
W4-3	Upper A	8/31/1994	10	NA	0.4 U	0.8 U
W4-3	Upper A	11/15/1994	11	NA	2 U	2 U
W4-3	Upper A	5/29/1997	7	8	0.4 J	2
W4-3	Upper A	3/22/1999	4.3	3.6	0.5 U	1 U
W4-3	Upper A	6/21/1999	3.3	2.5	1 U	0.4 J
W4-3	Upper A	1/17/2000	4.1	2.6	1 U	0.5 U
W4-3	Upper A	8/22/2000	4.7 J	2.9 J	1 UJ	0.88 J
W4-3	Upper A	11/28/2000	4.4	2.3	0.27 J	0.51
W4-3	Upper A	12/5/2001	4	2 J	2 U	2 U
W4-3	Upper A	12/5/2001	4	2 J	2 U	2 U
W4-3	Upper A	11/5/2002	4	2 J	2 U	0.6
W4-3	Upper A	5/29/2003	3	1	0.5 U	0.5 U
W4-3	Upper A	9/17/2003	4	1	0.5 U	0.2 J
W4-3	Upper A	12/8/2003	3	1	0.5 U	0.5 U
W4-3	Upper A	3/3/2004	3	1	0.3 J	0.5 U
W4-3	Upper A	6/16/2004	3	1	0.5 U	0.2 J
W4-3	Upper A	9/15/2004	4	1	0.5 U	0.2 J
W4-3	Upper A	12/8/2004	3	1	0.5 U	0.2 J
W4-3	Upper A	12/12/2005	3	1	0.5 U	0.5 U
W4-3	Upper A	12/5/2006	3	1	0.1 J	0.5 U
W4-3	Upper A	12/5/2007	3	1	0.1 J	0.2 J
W4-3	Upper A	12/1/2008	2.2	1.0	0.12 J	0.50 U
W43-2	Upper A	2/13/1992	35	NA	98	1.2 U
W43-2	Upper A	6/2/1992	40	NA	130	10 U
W43-2	Upper A	12/16/1992	46	NA	120	8 U
W43-2	Upper A	11/28/1994	51 D	NA	140 D	2 J
W43-2	Upper A	2/9/2005	25	7	71	0.5 U
W43-2	Upper A	3/15/2005	27	7	64	0.5 U
W43-2	Upper A	3/15/2005	27	7	67	0.5 U
W43-2	Upper A	4/19/2005	27	7	53	0.2 J
W43-2	Upper A	5/25/2005	27	7	69	0.5 U
W43-2	Upper A	7/20/2005	28	8	82	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W43-2	Upper A	8/24/2005	27	9	72	0.4 J
W43-2	Upper A	9/20/2005	29	10	74	0.3 J
W43-2	Upper A	12/15/2005	33	12	82	0.5 U
W43-2	Upper A	6/19/2006	27	7	59	0.3 J
W43-2	Upper A	9/19/2006	28	9	77	0.5
W43-2	Upper A	12/4/2008	22	10	57	0.32 J
W43-3	Upper A	2/9/1994	1 J	NA	0.7 J	2 U
W43-3	Upper A	5/24/1994	1 J	NA	0.6 J	2 U
W43-3	Upper A	9/2/1994	2 J	NA	1 J	0.7 J
W43-3	Upper A	11/28/1994	2 J	NA	2 J	1 J
W43-3	Upper A	6/12/1995	5	NA	0.9 J	0.4 J
W43-3	Upper A	5/28/1997	15	8	7	0.5 J
W43-3	Upper A	3/22/1999	4.5	6.2	6.6	1 U
W43-3	Upper A	6/22/1999	3	3.8	4	0.5 U
W43-3	Upper A	1/18/2000	2	3.6	2.1	0.5 U
W43-3	Upper A	8/23/2000	2	3.1	2	0.31 J
W43-3	Upper A	11/28/2000	2.4	3.7	2.3	0.35 J
W43-3	Upper A	12/4/2001	2	3	2 J	2 U
W43-3	Upper A	11/7/2002	3	3	2	0.5 J
W43-3	Upper A	5/30/2003	2	2	2	0.5 U
W43-3	Upper A	9/22/2003	2	3	2	0.3 J
W43-3	Upper A	12/10/2003	3	4	4	0.7
W43-3	Upper A	3/3/2004	10	10	16	1
W43-3	Upper A	6/15/2004	8	6	11	0.5
W43-3	Upper A	9/14/2004	5	4	8	0.8
W43-3	Upper A	12/6/2004	5	5	7	1
W43-3	Upper A	2/9/2005	11	8	18	2
W43-3	Upper A	3/14/2005	14	12	33	4
W43-3	Upper A	4/19/2005	16	18	37	6
W43-3	Upper A	5/25/2005	14	14	31	5
W43-3	Upper A	7/19/2005	11	7	22	0.7
W43-3	Upper A	8/23/2005	8	5	15	0.8
W43-3	Upper A	9/20/2005	7	4	11	0.6
W43-3	Upper A	12/14/2005	5	4	9	0.8
W43-3	Upper A	6/20/2006	8	26	18	6
W43-3	Upper A	9/19/2006	5	5	9	0.8
W43-3	Upper A	12/4/2006	4	4	6	0.7
W43-3	Upper A	12/5/2007	5	4	7	0.8
W43-3	Upper A	12/4/2008	3.6	3.2	5.2	0.64
W4-4	Upper A	1/22/1992	25	NA	3 U	NA
W4-4	Upper A	4/24/1992	22	NA	2 U	NA
W4-4	Upper A	12/11/1992	26	NA	2	1
W4-4	Upper A	8/31/1994	18	NA	2 U	9

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W4-4	Upper A	11/15/1994	19	NA	2 J	9
W4-4	Upper A	9/18/2003	2	3	0.2 J	10
W4-4	Upper A	12/10/2003	1	2	0.3 J	10
W4-4	Upper A	3/1/2004	2	3	0.6	6
W4-4	Upper A	6/16/2004	2	3	0.4 J	10
W4-4	Upper A	9/15/2004	2	2	0.4 J	13
W4-4	Upper A	9/15/2004	2	2	0.4 J	13
W4-4	Upper A	12/9/2004	2	2	0.5 J	15
W4-4	Upper A	12/12/2005	3	2	0.9	12
W4-4	Upper A	12/6/2006	3	2	0.9	9
W4-4	Upper A	12/3/2007	1	2	0.8	13
W4-4	Upper A	12/2/2008	0.80	1.5	0.48 J	10
W5-23	Upper A	12/8/1992	2 U	NA	2 U	2 U
W5-23	Upper A	12/6/2001	2 U	2 U	2 U	2 U
W5-23	Upper A	11/6/2002	2 U	2 U	2 U	0.5 U
W5-23	Upper A	12/11/2003	0.5 U	0.5 U	0.5 U	0.5 U
W5-23	Upper A	12/6/2004	0.5 U	0.5 U	0.5 U	0.5 U
W5-23	Upper A	12/15/2005	0.5 U	0.5 U	0.5 U	0.5 U
W5-23	Upper A	12/5/2006	0.5 U	0.5 U	0.5 U	0.5 U
W5-23	Upper A	12/4/2007	0.5 U	0.5 U	0.5 U	0.5 U
W5-23	Upper A	12/4/2007	0.5 U	0.5 U	0.5 U	0.5 U
W5-23	Upper A	12/4/2008	0.50 U	0.50 U	0.50 U	0.50 U
W6-2	Lower A	12/11/1992	1 J	NA	2 U	2 U
W6-2	Lower A	12/4/2001	1 J	0.3 J	2 U	2 U
W6-2	Lower A	11/6/2002	2	0.4 J	2 U	0.5 U
W6-2	Lower A	11/6/2002	2	0.4 J	2 U	0.5 U
W6-2	Lower A	5/29/2003	2	0.2 J	0.5 U	0.5 U
W6-2	Lower A	9/15/2003	2	0.3 J	0.5 U	0.5 U
W6-2	Lower A	12/10/2003	2	0.3 J	0.5 U	0.5 U
W6-2	Lower A	3/4/2004	2	0.3 J	0.5 U	0.5 U
W6-2	Lower A	6/16/2004	2	0.3 J	0.5 U	0.5 U
W6-2	Lower A	9/15/2004	3	0.3 J	0.5 U	0.5 U
W6-2	Lower A	12/9/2004	2	0.3 J	0.5 U	0.5 U
W6-2	Lower A	12/12/2005	2	0.3 J	0.5 U	0.5 U
W6-2	Lower A	12/6/2006	0.2 J	0.5 U	0.5 U	0.5 U
W6-2	Lower A	12/3/2007	0.2 J	0.5 U	0.5 U	0.5 U
W6-2	Lower A	12/1/2008	1.9	0.28 J	0.50 U	0.50 U
W7-10	Upper A	6/9/1993	31	NA	95	2 U
W7-10	Upper A	11/16/1994	39	NA	130	10 U
W7-10	Upper A	5/28/1997	33	13	66	3 U
W7-10	Upper A	3/22/1999	16.9	6.9	33.4	1 U
W7-10	Upper A	6/22/1999	26	11	75	0.5 U
W7-10	Upper A	1/17/2000	22	10	63	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W7-10	Upper A	8/23/2000	16	7.7	26	0.28 J
W7-10	Upper A	11/28/2000	19	8.2	44	0.5 U
W7-10	Upper A	12/5/2001	17	8	45 D	2 U
W7-10	Upper A	11/8/2002	20	10	44	0.5 U
W7-10	Upper A	9/22/2003	27	9	73	0.5 U
W7-10	Upper A	12/11/2003	28	12	77	0.5 U
W7-10	Upper A	3/2/2004	29	9	72	0.3 J
W7-10	Upper A	6/15/2004	28	8	72	0.2 J
W7-10	Upper A	9/14/2004	29	10	86	0.5 U
W7-10	Upper A	12/7/2004	25	9	69	0.5 U
W7-10	Upper A	2/9/2005	25	8	78	0.5 U
W7-10	Upper A	2/9/2005	24	8	76	0.5 U
W7-10	Upper A	3/15/2005	26	7	75	0.2 J
W7-10	Upper A	4/20/2005	28	8	59	0.5 U
W7-10	Upper A	4/20/2005	28	8	62	0.5 U
W7-10	Upper A	5/25/2005	26	13	68	0.5 U
W7-10	Upper A	7/20/2005	14	84	37	0.5 U
W7-10	Upper A	8/24/2005	6	56	14	8
W7-10	Upper A	8/24/2005	8	56	19	7
W7-10	Upper A	9/21/2005	8	57	16	5
W7-10	Upper A	12/14/2005	10	75	14	5
W7-10	Upper A	6/19/2006	15	29	31	7
W7-10	Upper A	9/19/2006	6	17	2	8
W7-10	Upper A	12/4/2006	1	16	0.5 U	16
W7-10	Upper A	12/5/2007	6	34	4	20
W7-10	Upper A	12/4/2008	6.6	39	7.5	7.2
W7-7	Upper A	6/9/1993	7	NA	3	50 D
W7-7	Upper A	12/10/1993	7	NA	4 J	46
W7-7	Upper A	5/24/1994	4 U	NA	2 J	39
W7-7	Upper A	11/16/1994	7	NA	5	56
W7-7	Upper A	6/5/1995	3 J	NA	2 J	43
W7-7	Upper A	5/28/1997	12	19	0.3 J	27
W7-7	Upper A	3/22/1999	0.8 U	18.8	0.5 U	27
W7-7	Upper A	6/22/1999	3.5	30	2	18.2
W7-7	Upper A	1/17/2000	2.3	30	2	24.2
W7-7	Upper A	8/23/2000	1.5	30	0.19 J	16
W7-7	Upper A	11/28/2000	0.88 J	27	1 U	24
W7-7	Upper A	9/22/2003	0.6	24	0.5 U	28
W7-7	Upper A	12/11/2003	0.5	14	0.4 J	35
W7-7	Upper A	3/2/2004	0.4 J	2	0.5 U	38
W7-7	Upper A	6/15/2004	0.6	13	0.5 U	31
W7-7	Upper A	9/14/2004	1	26	0.5 U	29
W7-7	Upper A	12/7/2004	0.5	16	0.5 U	47

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
W7-7	Upper A	2/9/2005	0.3 J	2	0.5 U	40
W7-7	Upper A	3/15/2005	0.3 J	2	0.5 U	36
W7-7	Upper A	4/20/2005	0.5 U	4	0.5 U	39
W7-7	Upper A	5/24/2005	0.5 U	7	0.5 U	35
W7-7	Upper A	7/20/2005	0.5 U	16	0.5 U	38
W7-7	Upper A	8/24/2005	0.1 J	17	0.1 J	33
W7-7	Upper A	9/21/2005	0.5 U	19	0.5 U	28
W7-7	Upper A	12/14/2005	0.5 U	20	0.5 U	31
W7-7	Upper A	6/20/2006	0.3 J	7	0.5 U	33
W7-7	Upper A	9/19/2006	0.7	11	0.5	24
W7-7	Upper A	12/4/2006	0.6	11	0.5 U	30
W7-7	Upper A	12/5/2007	0.4 J	7	0.5 U	30
W7-7	Upper A	12/4/2008	0.47 J	5.0	0.16 J	17
WSW-3	Upper A	10/12/1994	3	NA	2 U	2 U
WSW-3	Upper A	11/8/1994	3 J	NA	10 U	10 U
WSW-3	Upper A	3/16/1995	3	NA	2 U	2 U
WSW-3	Upper A	5/30/1995	3	NA	2 U	2 U
WSW-3	Upper A	8/28/1995	2	2 U	2 U	0.5 U
WSW-3	Upper A	11/15/1995	3	NA	0.5 U	0.5 U
WSW-3	Upper A	5/28/2003	2	0.5 U	0.5 U	0.5 U
WSW-3	Upper A	9/18/2003	2	0.5 U	0.5 U	0.5 U
WSW-3	Upper A	12/8/2003	2	0.5 U	0.5 U	0.5 U
WSW-3	Upper A	3/2/2004	3	0.5 U	0.5 U	0.5 U
WSW-3	Upper A	6/15/2004	2	0.5 U	0.5 U	0.5 UJ
WSW-3	Upper A	9/14/2004	2	0.5 U	0.5 U	0.5 U
WSW-3	Upper A	12/7/2004	3	0.5 U	0.5 U	0.5 U
WSW-3	Upper A	12/15/2005	3	0.5 U	0.5 U	0.5 U
WSW-3	Upper A	12/5/2006	2	0.5 U	0.5 U	0.5 J
WSW-3	Upper A	12/4/2007	0.3 J	0.5 U	0.5 U	0.5 U
WSW-3	Upper A	12/4/2007	0.3 J	0.5 U	0.5 U	0.5 U
WSW-3	Upper A	12/2/2008	1.2	0.50 U	0.50 U	0.50 U
WSW-5	Upper A	11/10/1994	15	NA	10 U	10 U
WSW-5	Upper A	3/16/1995	11	NA	1 J	3 U
WSW-5	Upper A	6/1/1995	12	NA	2 J	6
WSW-5	Upper A	8/30/1995	9	28	1 J	4
WSW-5	Upper A	11/15/1995	7 J-H	NA	0.6 J-H	0.5 UJ-H
WSW-5	Upper A	5/29/1997	4	17	0.7 J	4 J
WSW-5	Upper A	3/22/1999	9.1	12	0.5 U	1 U
WSW-5	Upper A	6/21/1999	7.1	9	1 U	1.9
WSW-5	Upper A	1/17/2000	4.2	9.9	1 U	0.5 U
WSW-5	Upper A	8/22/2000	3.9	11	1 U	2.2
WSW-5	Upper A	11/27/2000	2.8 J	12 J	1 UJ	3.6 J
WSW-5	Upper A	12/5/2001	4	11	2 U	4

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WSW-5	Upper A	11/5/2002	2 J	9	2 U	4
WSW-5	Upper A	9/16/2003	0.2 J	5	0.5 U	9
WSW-5	Upper A	12/10/2003	0.3 J	3	0.5 U	11
WSW-5	Upper A	3/1/2004	0.5	2	0.5 U	12
WSW-5	Upper A	6/17/2004	0.2 J	4	0.5 U	11
WSW-5	Upper A	9/15/2004	0.5 U	4	0.5 U	14
WSW-5	Upper A	12/9/2004	0.5 U	3	0.5 U	16
WSW-5	Upper A	12/12/2005	0.5 U	2	0.5 U	12
WSW-5	Upper A	12/6/2006	0.5 U	1	0.5 U	13
WSW-5	Upper A	12/3/2007	0.5 U	2	0.5 U	12
WSW-5	Upper A	12/2/2008	0.50 U	1.0	0.50 U	14
WSW-6	Upper A	11/10/1994	18	NA	7 J	10 U
WSW-6	Upper A	3/16/1995	16	NA	8	1 J
WSW-6	Upper A	5/31/1995	15	NA	6	1 J
WSW-6	Upper A	8/30/1995	14	37	7	1
WSW-6	Upper A	11/15/1995	13 J-S	NA	7 J-S	0.5 J-SK
WSW-6	Upper A	5/29/1997	11	14	5	0.7 J
WSW-6	Upper A	3/23/1999	8.3	9.5	2.9	2
WSW-6	Upper A	6/22/1999	8.4	9.2	3.1	1.4
WSW-6	Upper A	1/18/2000	6.7	5.8	2	0.5 U
WSW-6	Upper A	8/22/2000	8.7	5.2	2.6	0.56
WSW-6	Upper A	11/27/2000	7.6	5.4	1.9	0.61
WSW-6	Upper A	12/5/2001	5	4	1 J	2 U
WSW-6	Upper A	11/7/2002	6	4	2 J	2
WSW-6	Upper A	5/29/2003	5	6	1	2
WSW-6	Upper A	9/19/2003	6	5	1	3
WSW-6	Upper A	12/10/2003	6	5	2	5
WSW-6	Upper A	3/3/2004	6	5	2	6
WSW-6	Upper A	6/16/2004	6	4	2	5
WSW-6	Upper A	9/14/2004	6	4	2	6
WSW-6	Upper A	12/9/2004	6	4	2	8
WSW-6	Upper A	12/13/2005	7	4	3	3
WSW-6	Upper A	12/6/2006	8	4	3	5
WSW-6	Upper A	12/5/2007	7	4	3	6
WSW-6	Upper A	12/3/2008	3.8	2.9	1.9	2.3
WT2-1	Upper A	2/13/1992	4.6	NA	3.4	0.5 U
WT2-1	Upper A	6/3/1992	2 J	NA	3 J	10 U
WT2-1	Upper A	9/17/1992	10	1 U	5	0.2 J-G
WT2-1	Upper A	12/10/1992	9	NA	5	2 U
WT2-1	Upper A	12/11/1993	7	NA	6	2 U
WT2-1	Upper A	5/25/1994	5	NA	3	2 U
WT2-1	Upper A	9/23/1994	8	NA	6	2 U
WT2-1	Upper A	11/28/1994	7	NA	5	3 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WT2-1	Upper A	6/12/1995	5	NA	2	2 U
WT2-1	Upper A	11/28/2000	3.8	0.49 J	1.8	0.5 U
WT2-1	Upper A	12/5/2001	3	0.3 J	2 J	2 U
WT2-1	Upper A	11/7/2002	4	0.6 J	2	0.5 U
WT2-1	Upper A	12/10/2003	3	0.3 J	2	0.5 U
WT2-1	Upper A	12/8/2004	3	0.3 J	2	0.5 U
WT2-1	Upper A	12/13/2005	3	0.2 J	1	0.5 U
WT2-1	Upper A	12/4/2006	3	0.3 J	1	0.5 U
WT2-1	Upper A	12/5/2007	3	0.2 J	1	0.5 U
WT2-1	Upper A	12/4/2008	2.1	0.14 J	1.0	0.50 U
WU5-1	Upper A	8/1/1994	6	NA	1 J	10
WU5-1	Upper A	9/19/1994	7	NA	1 U	10
WU5-1	Upper A	11/30/1994	6	NA	1 UJ-B	6
WU5-1	Upper A	3/16/1995	7	NA	5	15
WU5-1	Upper A	6/1/1995	6	NA	3 U-B	19
WU5-1	Upper A	5/29/1997	8	75	2 J	12 J
WU5-1	Upper A	3/23/1999	4.5	63.3	3.8	3.1
WU5-1	Upper A	6/21/1999	4.6	71	3.3	6.2
WU5-1	Upper A	1/17/2000	4.4	44	1	0.5 U
WU5-1	Upper A	8/22/2000	5.1	34	1.7	1.3
WU5-1	Upper A	11/28/2000	4.5	32	2.7	2
WU5-1	Upper A	12/5/2001	4	24	3	2 U
WU5-1	Upper A	11/5/2002	4	19	3	0.9
WU5-1	Upper A	5/29/2003	3	9	2	0.5 U
WU5-1	Upper A	9/18/2003	3	13	2	1
WU5-1	Upper A	12/9/2003	3	19	2	2
WU5-1	Upper A	12/9/2003	3	19	3	2
WU5-1	Upper A	3/1/2004	4	20	4	2
WU5-1	Upper A	6/17/2004	3	26	2	3
WU5-1	Upper A	9/14/2004	4	26	3	2
WU5-1	Upper A	12/8/2004	3	24	2	2
WU5-1	Upper A	12/12/2005	4	28	3	2
WU5-1	Upper A	12/5/2006	4	23	3	2
WU5-1	Upper A	12/4/2007	4	18	3	1
WU5-1	Upper A	12/1/2008	2.6	14	2.0	0.63
WU5-10	Upper A	11/20/1998	17	0.7	0.5 U	0.5 U
WU5-10	Upper A	3/22/1999	23.2	0.8 U	0.5 U	1 U
WU5-10	Upper A	6/21/1999	16	0.7 J	1 U	0.5 U
WU5-10	Upper A	1/17/2000	20	0.9 J	1 U	0.5 U
WU5-10	Upper A	8/22/2000	20	1.1	1 U	0.5 U
WU5-10	Upper A	11/27/2000	18	0.99 J	1 U	0.5 U
WU5-10	Upper A	12/5/2001	20	0.9 J	2 U	2 U
WU5-10	Upper A	11/6/2002	19	1 J	2 U	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU5-10	Upper A	9/17/2003	19	1	0.5 U	0.5 U
WU5-10	Upper A	12/9/2003	16	1	0.5 U	0.5 U
WU5-10	Upper A	3/4/2004	19	1	0.5 U	0.5 U
WU5-10	Upper A	6/14/2004	18	1	0.5 U	0.5 U
WU5-10	Upper A	9/15/2004	19	1	0.5 U	0.5 U
WU5-10	Upper A	12/9/2004	19	1	0.5 U	0.5 U
WU5-10	Upper A	2/8/2005	17	1	0.5 U	0.5 U
WU5-10	Upper A	3/23/2005	19	0.9	0.5 U	0.5 U
WU5-10	Upper A	4/18/2005	19	0.9	0.5 U	0.5 U
WU5-10	Upper A	5/26/2005	17	1	0.5 U	0.5 U
WU5-10	Upper A	7/20/2005	17	1	0.5 U	0.5 U
WU5-10	Upper A	8/22/2005	17	0.8	0.5 U	0.5 U
WU5-10	Upper A	9/19/2005	17	0.9	0.5 U	0.5 U
WU5-10	Upper A	12/14/2005	17	1	0.5 U	0.5 U
WU5-10	Upper A	6/20/2006	17	0.8	0.5 U	0.1 J
WU5-10	Upper A	9/20/2006	18	1	0.5	0.5
WU5-10	Upper A	12/6/2006	18	0.9	0.5 U	0.5 U
WU5-10	Upper A	12/3/2007	19	1	0.5 U	0.5 U
WU5-10	Upper A	12/1/2008	13	1.2	0.50 U	0.50 U
WU5-10	Upper A	12/1/2008	13	1.1	0.50 U	0.50 U
WU5-11	Lower A	11/20/1998	0.5 U	0.5 U	0.5 U	0.5 U
WU5-11	Lower A	3/23/1999	6.9	3.8	5.4	1
WU5-11	Lower A	6/22/1999	4.5	2.7	3.3	0.6
WU5-11	Lower A	1/17/2000	7.5	3.9	5.6	0.5
WU5-11	Lower A	8/22/2000	0.38 J	1 UJ	1 UJ	0.5 UJ
WU5-11	Lower A	11/30/2000	0.22 J	1.8	0.22 J	0.5 U
WU5-11	Lower A	12/5/2001	1 J	0.6 J	0.8 J	2 U
WU5-11	Lower A	11/7/2002	2 U	0.5 J	2 U	0.5 U
WU5-11	Lower A	9/19/2003	0.5 U	0.5 U	0.5 U	0.5 U
WU5-11	Lower A	12/8/2003	2	1	1	0.8
WU5-11	Lower A	3/2/2004	5	2	4	2
WU5-11	Lower A	6/16/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-11	Lower A	9/15/2004	0.2 J	0.5 U	0.5 U	0.5 U
WU5-11	Lower A	12/8/2004	2	0.8	1	0.8
WU5-11	Lower A	12/13/2005	0.5	0.2 J	0.3 J	0.5 U
WU5-11	Lower A	12/13/2005	0.6	0.2 J	0.3 J	0.5 U
WU5-11	Lower A	12/6/2006	0.3 J	0.5 U	0.5 U	0.5 U
WU5-11	Lower A	12/4/2007	0.5 U	0.5 U	0.5 U	0.5 U
WU5-11	Lower A	12/3/2008	0.16 J	0.50 U	0.50 U	0.50 U
WU5-12	Lower A	11/20/1998	0.6	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	3/22/1999	0.8 U	1.6	0.5 U	1 U
WU5-12	Lower A	6/21/1999	1 U	1	1 U	0.5 U
WU5-12	Lower A	1/17/2000	1 U	0.6 J	1 U	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU5-12	Lower A	8/22/2000	1 U	1 U	1 U	0.5 U
WU5-12	Lower A	11/28/2000	1 U	0.25 J	1 U	0.5 U
WU5-12	Lower A	12/5/2001	2 U	0.3 J	2 U	2 U
WU5-12	Lower A	11/5/2002	2 U	2 U	2 U	0.5 U
WU5-12	Lower A	9/17/2003	0.5 U	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	12/8/2003	0.5 U	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	12/8/2003	0.5 U	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	3/3/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	3/3/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	6/16/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	9/13/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	12/8/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	12/12/2005	0.5 U	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	12/6/2006	0.5 U	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	12/5/2007	0.5 U	0.5 U	0.5 U	0.5 U
WU5-12	Lower A	12/2/2008	0.50 U	0.50 U	0.50 U	0.50 U
WU5-13	Lower A	11/18/1998	0.5 U	0.7	0.5 U	0.5 U
WU5-13	Lower A	3/22/1999	0.5 U	0.5 U	0.5 U	1 U
WU5-13	Lower A	6/21/1999	1 U	1 U	1 U	0.5 U
WU5-13	Lower A	1/18/2000	1 U	0.5 J	1 U	0.5 U
WU5-13	Lower A	8/23/2000	1 U	1 U	1 U	0.5 U
WU5-13	Lower A	11/27/2000	1 U	1 U	1 U	0.5 U
WU5-13	Lower A	12/3/2001	2 U	2 U	2 U	2 U
WU5-13	Lower A	11/5/2002	2 U	2 U	2 U	0.5 U
WU5-13	Lower A	9/24/2003	0.5 U	0.5 U	0.5 U	0.5 U
WU5-13	Lower A	12/11/2003	0.5 U	0.5 U	0.5 U	0.5 U
WU5-13	Lower A	3/3/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-13	Lower A	6/16/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-13	Lower A	9/15/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-13	Lower A	12/8/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-13	Lower A	12/14/2005	0.5 U	0.5 U	0.5 U	0.5 U
WU5-13	Lower A	12/5/2006	0.5 U	0.5 U	0.5 U	0.5 U
WU5-13	Lower A	12/4/2007	0.5 U	0.5 U	0.5 U	0.5 U
WU5-13	Lower A	12/2/2008	0.50 U	0.50 U	0.50 U	0.50 U
WU5-14	Upper A	11/20/1998	34	0.7	0.5 U	0.5 U
WU5-14	Upper A	3/23/1999	54.3	1	0.4 J	1 U
WU5-14	Upper A	6/22/1999	53	1 J	0.5 J	0.5 U
WU5-14	Upper A	1/17/2000	51	3	0.6 J	1.9
WU5-14	Upper A	8/24/2000	36	1.3 UJ	0.56 J	0.5 U
WU5-14	Upper A	11/29/2000	44	0.8 J	1	0.5 U
WU5-14	Upper A	12/4/2001	46	0.7 J	0.4 J	2 U
WU5-14	Upper A	11/7/2002	51	0.9 J	0.5 J	0.5 U
WU5-14	Upper A	9/18/2003	48	0.6	0.2 J	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU5-14	Upper A	12/10/2003	43	0.8	0.3 J	0.5 U
WU5-14	Upper A	12/10/2003	42	0.8	0.3 J	0.5 U
WU5-14	Upper A	3/3/2004	47	0.8	0.5	0.5 U
WU5-14	Upper A	6/17/2004	51	0.8	0.4 J	0.5 U
WU5-14	Upper A	9/16/2004	58	0.8	0.5 J	0.5 U
WU5-14	Upper A	12/8/2004	38	0.9	0.3 J	0.5 U
WU5-14	Upper A	12/8/2004	47	0.8	0.3 J	0.5 U
WU5-14	Upper A	2/8/2005	49	0.9	0.5 J	0.5 U
WU5-14	Upper A	3/23/2005	52	0.8	0.5 J	0.5 U
WU5-14	Upper A	4/18/2005	51	0.8	0.5	0.5 U
WU5-14	Upper A	5/26/2005	55	0.9	0.5 J	0.5 U
WU5-14	Upper A	5/26/2005	60	0.8	0.5 J	0.5 U
WU5-14	Upper A	7/19/2005	42	1	0.3 J	0.5 U
WU5-14	Upper A	7/19/2005	41	1	0.3 J	0.5 U
WU5-14	Upper A	8/23/2005	33	9	0.2 J	0.5
WU5-14	Upper A	9/20/2005	40	4	0.3 J	0.5 U
WU5-14	Upper A	12/13/2005	19	16	0.5 U	4
WU5-14	Upper A	6/19/2006	4	2	0.5 U	0.1 J
WU5-14	Upper A	9/20/2006	13	13	0.5	8
WU5-14	Upper A	12/6/2006	29	11	0.2 J	5
WU5-14	Upper A	12/5/2007	6	6	0.5 U	2
WU5-14	Upper A	12/2/2008	5.3	7.3	0.50 U	7.5
WU5-15	Upper A	11/20/1998	30	0.8	4	0.5 U
WU5-15	Upper A	3/23/1999	22.5	1.1	3.2	1 U
WU5-15	Upper A	6/22/1999	21	0.8 J	3.1	0.5 U
WU5-15	Upper A	1/17/2000	21	0.9 J	4.4	0.5 U
WU5-15	Upper A	8/23/2000	14	0.77 J	2.9	0.5 U
WU5-15	Upper A	11/29/2000	17	1	3.7	0.5 U
WU5-15	Upper A	9/18/2003	19	0.9	3	0.5 U
WU5-15	Upper A	12/10/2003	18	0.7	3	0.5 U
WU5-15	Upper A	3/3/2004	7	0.4 J	1	0.5 U
WU5-15	Upper A	6/16/2004	19	0.8	3	0.5 U
WU5-15	Upper A	9/16/2004	22	0.8	4	0.5 U
WU5-15	Upper A	12/8/2004	18	0.8	3	0.5 U
WU5-15	Upper A	2/8/2005	12	0.7	2	0.5 U
WU5-15	Upper A	3/23/2005	4	0.2 J	0.9	0.5 U
WU5-15	Upper A	4/18/2005	14	0.7	3	0.5 U
WU5-15	Upper A	5/26/2005	17	0.8	3	0.5 U
WU5-15	Upper A	7/19/2005	19	0.8	3	0.5 U
WU5-15	Upper A	8/23/2005	18	0.7	3	0.5 U
WU5-15	Upper A	8/23/2005	20	0.7	4	0.5 U
WU5-15	Upper A	9/20/2005	21	0.8	4	0.5 U
WU5-15	Upper A	12/13/2005	17	0.8	3	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU5-15	Upper A	6/19/2006	16	0.6	3	0.5 U
WU5-15	Upper A	9/20/2006	21	0.9	3	0.5
WU5-15	Upper A	12/4/2006	26	0.9	4	0.5 U
WU5-15	Upper A	12/5/2007	21	1	4	0.5 U
WU5-15	Upper A	12/2/2008	15	0.72	3.0	0.50 U
WU5-16	Upper A	11/20/1998	18	1	5	0.5 U
WU5-16	Upper A	3/26/1999	0.5 U	0.7	3.8	1 U
WU5-16	Upper A	6/22/1999	18	0.7 J	3.4	0.5 U
WU5-16	Upper A	1/17/2000	28	0.9 J	4.2	0.5 U
WU5-16	Upper A	8/22/2000	26	0.95 J	3.8	0.5 U
WU5-16	Upper A	11/29/2000	25	0.9 J	3.7	0.5 U
WU5-16	Upper A	12/4/2001	21	0.8 J	3	2 U
WU5-16	Upper A	11/5/2002	26	0.9 J	4	0.5 U
WU5-16	Upper A	9/18/2003	29	0.9	4	0.5 U
WU5-16	Upper A	12/9/2003	24	1	4	0.5 U
WU5-16	Upper A	3/3/2004	24	1	4	0.5 U
WU5-16	Upper A	6/17/2004	27	1	3	0.5 U
WU5-16	Upper A	9/15/2004	32	1	4	0.5 U
WU5-16	Upper A	12/8/2004	28	1	4	0.5 U
WU5-16	Upper A	12/13/2005	22	3	3	0.5 U
WU5-16	Upper A	12/6/2006	8	7	0.6	3
WU5-16	Upper A	12/5/2007	15	6	1	0.9
WU5-16	Upper A	12/5/2007	15	6	1	0.8
WU5-16	Upper A	12/3/2008	11	3.9	1.4	1.0
WU5-17	Upper A	11/20/1998	17	1	2	0.5 U
WU5-17	Upper A	3/23/1999	9.6	0.7	1.3	1 U
WU5-17	Upper A	6/22/1999	23	1	3.5	0.5 U
WU5-17	Upper A	1/17/2000	17	1	2.4	0.5 U
WU5-17	Upper A	8/22/2000	20	1.2	3.1	0.5 U
WU5-17	Upper A	11/27/2000	11	0.51 J	1.8	0.5 U
WU5-17	Upper A	12/4/2001	12	0.6 J	2	2 U
WU5-17	Upper A	11/5/2002	18	0.7 J	3	0.5 U
WU5-17	Upper A	9/18/2003	17	0.7	2	0.5 U
WU5-17	Upper A	12/8/2003	13	0.6	2	0.5 U
WU5-17	Upper A	12/8/2003	13	0.6	2	0.5 U
WU5-17	Upper A	3/3/2004	10	0.4 J	2	0.5 U
WU5-17	Upper A	6/15/2004	1	0.4 J	0.5 U	0.5 UJ
WU5-17	Upper A	9/15/2004	19	0.8	3	0.5 U
WU5-17	Upper A	12/7/2004	14	0.7	2	0.5 U
WU5-17	Upper A	12/13/2005	9	0.6	2	0.5 U
WU5-17	Upper A	12/6/2006	11	0.8	1	0.5 U
WU5-17	Upper A	12/5/2007	9	0.4 J	1	0.5 U
WU5-17	Upper A	12/2/2008	6.3	0.34 J	1.2	0.50 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU5-18	Upper A	11/18/1998	3	28	1	0.8
WU5-18	Upper A	3/22/1999	3.6	20.8	1.4	1 U
WU5-18	Upper A	6/21/1999	3.9	27	1	1.5
WU5-18	Upper A	1/18/2000	3.4	21	0.7 J	0.5 U
WU5-18	Upper A	8/23/2000	3.8 J	18 J	0.59 J	0.75 J
WU5-18	Upper A	11/27/2000	3.6	12	1	0.22 J
WU5-18	Upper A	11/6/2002	5	16	0.8 J	0.5
WU5-18	Upper A	5/29/2003	4	13	0.6	0.5 U
WU5-18	Upper A	9/24/2003	4	16	0.8	0.4 J
WU5-18	Upper A	12/11/2003	4	13	0.9	0.2 J
WU5-18	Upper A	3/4/2004	3	10	1	0.3 J
WU5-18	Upper A	6/17/2004	3	12	0.9	0.3 J
WU5-18	Upper A	9/15/2004	4	14	1	0.4 J
WU5-18	Upper A	12/9/2004	4	11	1	0.3 J
WU5-18	Upper A	12/14/2005	3	9	1	0.2 J
WU5-18	Upper A	12/5/2006	3	10	1	0.5 J
WU5-18	Upper A	12/3/2007	3	11	0.9	0.2 J
WU5-18	Upper A	12/4/2008	2.1	4.9	1.0	0.50 U
WU5-19	Upper A	11/18/1998	4	39	2	0.9
WU5-19	Upper A	3/22/1999	3.1	22.7	1.7	1 U
WU5-19	Upper A	6/21/1999	3.3	28	1	3.3
WU5-19	Upper A	1/18/2000	2.1	12	0.6 J	0.5 U
WU5-19	Upper A	8/23/2000	4.6	13	1.6	0.18 J
WU5-19	Upper A	11/27/2000	3.9	14	1.7	0.21 J
WU5-19	Upper A	12/4/2001	4	12	1 J	2 U
WU5-19	Upper A	11/7/2002	4	11	1 J	0.5 U
WU5-19	Upper A	9/19/2003	3	8	2	0.3 J
WU5-19	Upper A	12/11/2003	3	11	2	0.5 J
WU5-19	Upper A	3/4/2004	3	10	2	0.4 J
WU5-19	Upper A	6/16/2004	3	9	2	0.2 J
WU5-19	Upper A	9/15/2004	4	11	3	0.4 J
WU5-19	Upper A	12/9/2004	3	10	2	0.5 J
WU5-19	Upper A	12/14/2005	3	9	3	0.4 J
WU5-19	Upper A	12/5/2006	3	7	3	0.5 U
WU5-19	Upper A	12/3/2007	3	8	2	0.3 J
WU5-19	Upper A	12/3/2008	2.2	7.5	1.8	0.50 U
WU5-2	Upper A	8/1/1994	0.7 J	NA	2 U	14
WU5-2	Upper A	9/19/1994	0.9 U	NA	3 U	16
WU5-2	Upper A	12/1/1994	4 U	NA	4 U	13
WU5-2	Upper A	3/16/1995	4 U	NA	4 U	15
WU5-2	Upper A	6/1/1995	2 J	NA	3 U	24
WU5-2	Upper A	5/29/1997	3	62	1 J	13 J
WU5-2	Upper A	3/23/1999	2.6	54	0.5	2.8

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU5-2	Upper A	6/21/1999	1	50	1 U	7.2
WU5-2	Upper A	1/17/2000	3.3	74	0.8 J	6.2
WU5-2	Upper A	8/22/2000	3.8	80	0.99 J	11
WU5-2	Upper A	11/28/2000	2	61 J	0.49 J	11
WU5-2	Upper A	9/18/2003	2	51	0.3 J	7
WU5-2	Upper A	12/9/2003	2	63	0.5 J	7
WU5-2	Upper A	3/1/2004	3	66	0.8	6
WU5-2	Upper A	6/17/2004	2	51	0.5 J	5
WU5-2	Upper A	9/14/2004	2	53	0.5 J	5
WU5-2	Upper A	12/8/2004	2	53	0.4 J	6
WU5-2	Upper A	12/8/2004	2	52	0.4 J	6
WU5-2	Upper A	12/12/2005	4	31	2	2
WU5-2	Upper A	12/5/2006	2	44	0.8	5 J
WU5-2	Upper A	12/4/2007	4	33	3	1
WU5-2	Upper A	12/1/2008	2.0	31	0.95	2.2
WU5-20	Upper A	11/18/1998	2	40	2	6
WU5-20	Upper A	3/22/1999	1.4	3.8	1.3	1 U
WU5-20	Upper A	6/21/1999	1	5.2	1	0.5 U
WU5-20	Upper A	1/18/2000	1	4	0.8 J	0.5 U
WU5-20	Upper A	8/23/2000	0.85 J	2.1	0.62 J	0.5 U
WU5-20	Upper A	11/27/2000	1.2	4	0.91 J	0.5 U
WU5-20	Upper A	12/4/2001	0.9 J	2 J	0.6 J	2 U
WU5-20	Upper A	11/7/2002	1 J	1 J	0.5 J	0.5 U
WU5-20	Upper A	9/19/2003	0.5 J	6	0.5 U	0.5
WU5-20	Upper A	12/10/2003	0.8	7	0.4 J	0.5
WU5-20	Upper A	3/4/2004	1	6	0.6	0.4 J
WU5-20	Upper A	6/16/2004	0.9	9	0.4 J	0.8
WU5-20	Upper A	6/16/2004	0.9	9	0.5	0.7
WU5-20	Upper A	9/15/2004	1	8	0.6	0.7
WU5-20	Upper A	12/9/2004	1	9	0.6	0.7
WU5-20	Upper A	12/14/2005	1	8	1	0.3 J
WU5-20	Upper A	12/5/2006	1	11	0.4 J	0.9 J
WU5-20	Upper A	12/4/2007	0.8	16	0.5 U	1
WU5-20	Upper A	12/3/2008	0.80	9.9	0.33 J	0.64
WU5-21	Upper A	11/18/1998	1	9	0.6	0.8
WU5-21	Upper A	3/22/1999	0.8	3.6	0.4 J	1 U
WU5-21	Upper A	6/21/1999	1	2.8	0.6 J	0.5 U
WU5-21	Upper A	1/18/2000	0.6 J	2.6	1 U	0.5 U
WU5-21	Upper A	8/23/2000	0.55 J	1.6	0.33 J	0.5 U
WU5-21	Upper A	11/27/2000	0.63 J	2.6	0.4 J	0.5 U
WU5-21	Upper A	12/4/2001	0.6 J	1 J	0.3 J	2 U
WU5-21	Upper A	11/6/2002	0.6 J	0.9 J	0.3 J	0.5 U
WU5-21	Upper A	9/19/2003	0.4 J	1	0.3 J	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU5-21	Upper A	12/10/2003	0.5	1	0.2 J	0.5 U
WU5-21	Upper A	3/4/2004	0.6	1	0.4 J	0.5 U
WU5-21	Upper A	6/16/2004	0.3 J	2	0.5 U	0.3 J
WU5-21	Upper A	6/16/2004	0.3 J	2	0.5 U	0.4 J
WU5-21	Upper A	9/15/2004	0.5	2	0.3 J	0.5 U
WU5-21	Upper A	12/8/2004	0.5	2	0.3 J	0.5 U
WU5-21	Upper A	12/14/2005	0.6	1	0.4 J	0.5 U
WU5-21	Upper A	12/5/2006	0.1 J	4	0.5 U	0.8 J
WU5-21	Upper A	12/4/2007	0.6	1	0.4 J	0.5 U
WU5-21	Upper A	12/3/2008	0.37 J	1.5	0.27 J	0.50 U
WU5-23	Upper A	11/20/1998	3	12	3	2
WU5-23	Upper A	3/23/1999	2.3	8.3	2.5	1 U
WU5-23	Upper A	6/21/1999	2.5	9.3	2.5	0.5 U
WU5-23	Upper A	1/18/2000	2.8	12	2.8	0.5 U
WU5-23	Upper A	8/24/2000	18	6.4	3	0.16 J
WU5-23	Upper A	11/28/2000	2.7 J	6.4 J	2.8 J	0.23 J
WU5-23	Upper A	12/4/2001	2	4	2 J	2 U
WU5-23	Upper A	11/7/2002	2	3	2 J	0.5 U
WU5-23	Upper A	5/30/2003	1	1	0.9	0.5 U
WU5-23	Upper A	9/24/2003	2	2	1	0.5 U
WU5-23	Upper A	12/10/2003	2	2	1	0.5 U
WU5-23	Upper A	3/3/2004	1	2	1	0.5 U
WU5-23	Upper A	6/15/2004	1	2	1	0.5 U
WU5-23	Upper A	6/15/2004	1	2	1	0.5 UJ
WU5-23	Upper A	9/16/2004	2	3	2	0.5 U
WU5-23	Upper A	12/8/2004	1	3	1	0.5 U
WU5-23	Upper A	12/14/2005	2	3	2	0.5 U
WU5-23	Upper A	12/5/2006	1	2	1	0.2 J
WU5-23	Upper A	12/4/2007	1	2	1	0.2 J
WU5-23	Upper A	12/2/2008	0.91	1.9	0.69	0.50 U
WU5-24	Upper A	11/20/1998	38	8 UJ	62 D	0.5 U
WU5-24	Upper A	6/21/1999	29	7.6	43	0.5 U
WU5-24	Upper A	1/17/2000	31	10	59	0.5 U
WU5-24	Upper A	8/23/2000	22	6.2	33	0.5 U
WU5-24	Upper A	11/28/2000	30	9	49	0.5 U
WU5-24	Upper A	12/5/2001	31	9	43 D	2 U
WU5-24	Upper A	11/8/2002	30	10	40	0.5 U
WU5-24	Upper A	9/19/2003	31	7	45	0.5 U
WU5-24	Upper A	12/11/2003	30	7	45	0.5 U
WU5-24	Upper A	3/2/2004	33	8	44	0.5 U
WU5-24	Upper A	6/16/2004	31	7	40	0.5 U
WU5-24	Upper A	9/14/2004	33	8	48	0.5 U
WU5-24	Upper A	12/8/2004	33	7	44	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU5-24	Upper A	2/9/2005	31	7	41	0.5 U
WU5-24	Upper A	2/9/2005	33	8	42	0.5 U
WU5-24	Upper A	3/15/2005	29	7	39	0.5 U
WU5-24	Upper A	4/19/2005	32	8	49	0.3 J
WU5-24	Upper A	5/25/2005	28	6	32	0.5 U
WU5-24	Upper A	5/25/2005	29	6	33	0.5 U
WU5-24	Upper A	7/20/2005	31	10	46	0.5 U
WU5-24	Upper A	7/20/2005	33	10	40	0.5 U
WU5-24	Upper A	8/23/2005	26	10	39	0.5 U
WU5-24	Upper A	9/20/2005	28	14	36	0.5 U
WU5-24	Upper A	12/14/2005	29	14	25	0.5 U
WU5-24	Upper A	6/20/2006	29	8	38	0.2 J
WU5-24	Upper A	9/19/2006	29	13	28	0.5
WU5-24	Upper A	12/4/2006	28	16	23	0.8
WU5-24	Upper A	12/5/2007	26	19	52	1
WU5-24	Upper A	12/4/2008	16	12	18 J	0.77
WU5-24	Upper A	12/4/2008	19	12	29 J	0.97
WU5-25	Upper A	11/18/1998	3	38	0.9	1
WU5-25	Upper A	3/22/1999	2.2	24.7	0.8	0.8 J
WU5-25	Upper A	6/22/1999	2.6	39	0.7 J	1.4
WU5-25	Upper A	1/18/2000	2.3	24	1	0.5 U
WU5-25	Upper A	8/23/2000	2.3	20	0.96 J	0.69
WU5-25	Upper A	11/27/2000	2.5	19	1.1	0.3 J
WU5-25	Upper A	12/4/2001	2	17	0.9 J	2 U
WU5-25	Upper A	11/6/2002	2	15	0.8 J	0.3 J
WU5-25	Upper A	9/24/2003	2	7	0.7	0.5 U
WU5-25	Upper A	12/10/2003	2	7	0.6	0.5 U
WU5-25	Upper A	3/3/2004	2	10	0.7	0.3 J
WU5-25	Upper A	6/16/2004	1	5	0.6	0.5 UJ
WU5-25	Upper A	9/16/2004	2	4	0.8	0.5 U
WU5-25	Upper A	9/16/2004	1	4	0.8	0.5 U
WU5-25	Upper A	12/7/2004	1	5	0.8	0.5 U
WU5-25	Upper A	12/12/2005	1	5	0.6	0.5 U
WU5-25	Upper A	12/5/2006	1	4	0.5	0.5 U
WU5-25	Upper A	12/3/2007	1	5	0.5 J	0.5 U
WU5-25	Upper A	12/2/2008	0.86	2.7	0.40 J	0.50 U
WU5-4	Upper A	8/2/1994	31	NA	2 U	2 U
WU5-4	Upper A	9/19/1994	38	NA	2 U	2 U
WU5-4	Upper A	12/1/1994	32	NA	2 U	2 UJ-K
WU5-4	Upper A	3/7/1995	8	NA	2 U	2 U
WU5-4	Upper A	5/30/1995	15	NA	2 U	2 U
WU5-4	Upper A	11/17/1998	11	0.5 U	0.5 U	0.5 U
WU5-4	Upper A	3/23/1999	0.5 U	0.5 U	0.5 U	1 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU5-4	Upper A	6/22/1999	14	1 U	1 U	0.5 U
WU5-4	Upper A	1/18/2000	1 U	1 U	1 U	0.5 U
WU5-4	Upper A	8/24/2000	16 J	1 U	1 U	0.5 U
WU5-4	Upper A	11/28/2000	3	1 U	1 U	0.5 U
WU5-4	Upper A	12/5/2001	15	2 U	2 U	2 U
WU5-4	Upper A	11/5/2002	14	2 U	2 U	0.5 U
WU5-4	Upper A	12/6/2004	11	0.5 U	0.5 U	0.5 U
WU5-4	Upper A	12/15/2005	7	0.5 U	0.5 U	0.5 U
WU5-4	Upper A	12/15/2005	8	0.5 U	0.5 U	0.5 U
WU5-4	Upper A	12/5/2006	6	0.5 U	0.5 U	0.5 U
WU5-4	Upper A	12/4/2007	5	0.5 U	0.5 U	0.5 U
WU5-4	Upper A	12/3/2008	3.7	0.50 U	0.50 U	0.50 U
WU5-6	Upper A	8/4/1994	2 U	NA	0.6 J	2 U
WU5-6	Upper A	9/19/1994	1 U	NA	2 U	2 U
WU5-6	Upper A	12/1/1994	2 U	NA	2 U	2 UJ-K
WU5-6	Upper A	3/17/1995	2 U	NA	2 U	2 U
WU5-6	Upper A	5/31/1995	2 U	NA	2 U	2 U
WU5-6	Upper A	5/28/2003	0.5 U	0.5 U	0.5 U	0.5 U
WU5-6	Upper A	9/17/2003	0.5 U	0.5 U	0.5 U	0.5 U
WU5-6	Upper A	12/9/2003	0.5 U	0.5 U	0.5 U	0.5 U
WU5-6	Upper A	3/2/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-6	Upper A	6/14/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-6	Upper A	9/14/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-6	Upper A	12/6/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-6	Upper A	12/15/2005	0.5 U	0.1 J	0.5 U	0.5 U
WU5-6	Upper A	12/5/2006	0.5 U	0.2 J	0.5 U	0.5 U
WU5-6	Upper A	12/3/2007	0.5 U	0.2 J	0.5 U	0.5 U
WU5-6	Upper A	12/3/2008	0.50 U	0.29 J	0.50 U	0.50 U
WU5-8	Upper A	10/11/1994	2 J-H	NA	2 UJ-H	2 UJ-H
WU5-8	Upper A	11/11/1994	3 J	NA	10 U	10 U
WU5-8	Upper A	3/7/1995	5	NA	2 U	2 U
WU5-8	Upper A	5/30/1995	6	NA	2 U	2 U
WU5-8	Upper A	8/30/1995	4	2 U	2 U	0.5 U
WU5-8	Upper A	11/14/1995	3	NA	0.5 U	0.5 U
WU5-8	Upper A	11/17/1998	2	0.5 U	0.5 U	0.5 U
WU5-8	Upper A	3/23/1999	0.5 U	0.5 U	0.5 U	1 U
WU5-8	Upper A	6/22/1999	3.4	1 U	1 U	0.5 U
WU5-8	Upper A	1/18/2000	1 U	1 U	1 U	0.5 U
WU5-8	Upper A	8/24/2000	9	0.5 J	1 U	0.5 U
WU5-8	Upper A	11/28/2000	1.6	1 U	1 U	0.5 U
WU5-8	Upper A	12/6/2001	2 J	2 U	2 U	2 U
WU5-8	Upper A	11/7/2002	2 J	0.3 J	2 U	0.5 U
WU5-8	Upper A	12/6/2004	1	0.5 U	0.5 U	0.5 U

TABLE 3-3

HISTORICAL ANALYTICAL RESULTS SUMMARY FOR TCE, CIS-1,2-DCE, PCE, AND VC DETECTED IN GROUNDWATER FOR SITE 26

Well	Water Bearing Unit	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	VC (µg/L)
WU5-8	Upper A	12/15/2005	2	0.1 J	0.5 U	0.5 U
WU5-8	Upper A	12/5/2006	4	0.3 J	0.5 U	0.5 U
WU5-8	Upper A	12/4/2007	0.5 U	0.5 U	0.5 U	0.5 U
WU5-8	Upper A	12/2/2008	1.4	0.11 J	0.50 U	0.50 U
WU5-9	Upper A	10/11/1994	2 U	NA	2 U	2 U
WU5-9	Upper A	11/9/1994	10 U	NA	10 U	10 U
WU5-9	Upper A	3/7/1995	0.8 U	NA	2 U	2 U
WU5-9	Upper A	5/31/1995	0.3 J	NA	2 U	2 U
WU5-9	Upper A	8/30/1995	2 U	2 U	2 U	0.5 U
WU5-9	Upper A	11/14/1995	0.5 UJ-S	NA	0.5 UJ-S	0.5 UJ-S
WU5-9	Upper A	11/18/1998	0.5 U	0.5 U	0.5 U	0.5 U
WU5-9	Upper A	3/23/1999	0.5 U	0.5 U	0.5 U	1 U
WU5-9	Upper A	6/22/1999	1 U	1 U	1 U	0.5 U
WU5-9	Upper A	1/18/2000	1 U	1 U	1 U	0.5 U
WU5-9	Upper A	8/24/2000	0.8 J	1 U	1 U	0.5 U
WU5-9	Upper A	11/28/2000	1 U	1 U	1 U	0.5 U
WU5-9	Upper A	12/6/2001	2 U	2 U	2 U	2 U
WU5-9	Upper A	11/5/2002	2 U	2 U	2 U	0.5 U
WU5-9	Upper A	12/6/2004	0.5 U	0.5 U	0.5 U	0.5 U
WU5-9	Upper A	12/15/2005	0.5 U	0.5 U	0.5 U	0.5 U
WU5-9	Upper A	12/5/2006	0.6	0.3 J	0.5 U	0.5 U
WU5-9	Upper A	12/4/2007	0.5 U	0.5 U	0.5 U	0.5 U
WU5-9	Upper A	12/2/2008	0.50 U	0.11 J	0.50 U	0.50 U

Abbreviations and Acronyms:

- µg/L - micrograms per liter
- B - analyte found in the associated blank
- cis-1,2-DCE - cis-1,2-dichloroethene
- D - dilution run; initial run outside of linear range
- EATS - East-Side Aquifer Treatment System
- G - qualified due to background problems
- H - qualified due to holding time violation
- J - estimated result
- K - qualified due to negative blank value problems
- NA - not analyzed
- PCE - tetrachloroethene
- S - estimated due to surrogate outliers
- TCE - trichloroethene
- U - analyte not detected at or above laboratory reporting limit (value indicates the reporting limit)
- UJ- analyte detected with an estimated laboratory reporting limit
- VC - vinyl chloride
- WATS - West-Side Aquifers Treatment System

TABLE 9-1

WATS AND EATS MONITORING AND REPORTING SCHEDULE FOR 2009

Event	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
WATS NPDES Sampling	X	X	X	X	X	X	X	X	X	X	X	X
WATS NPDES Reporting	X			X			X			X		
EATS NPDES Sampling ^a	-	-	-	-	-	-	-	-	-	-	-	-
EATS NPDES Reporting	X			X			X			X		
Basewide Well Gauging			X								X	
Annual Groundwater Sampling for WATS and EATS											X	X
Annual Groundwater Report for WATS and EATS						X						

Notes:

^a EATS was turned off on July 2, 2003, and its operational status placed on standby.

Abbreviations and Acronyms:

EATS - East-Side Aquifer Treatment System

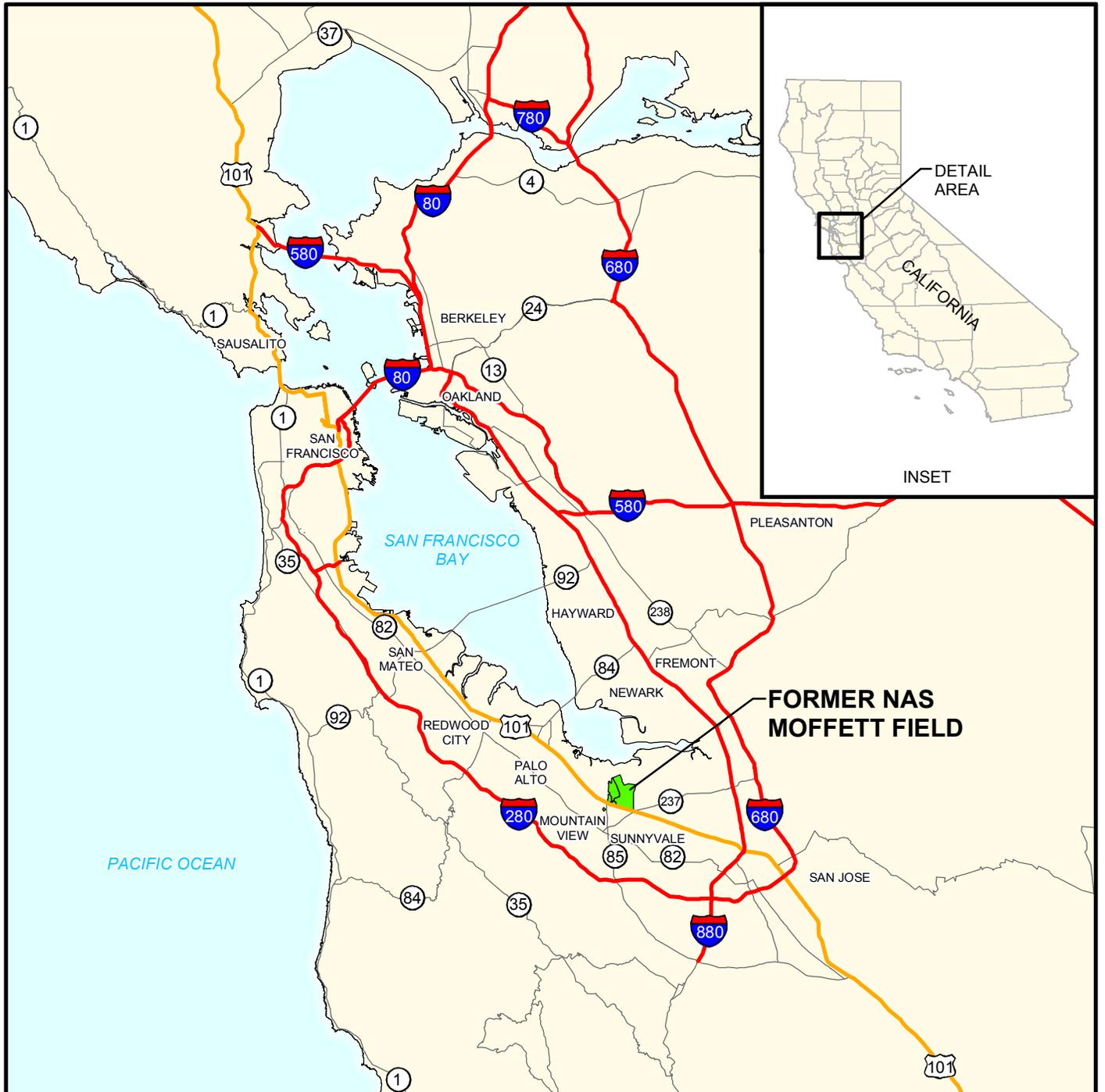
NPDES - National Pollutant Discharge Elimination System

WATS - West-Side Aquifers Treatment System

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FIGURES

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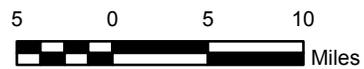


LEGEND

-  STATE HIGHWAY
-  US HIGHWAY
-  INTERSTATE HIGHWAY
-  FORMER NAS MOFFETT FIELD
-  WATER

NOTES:

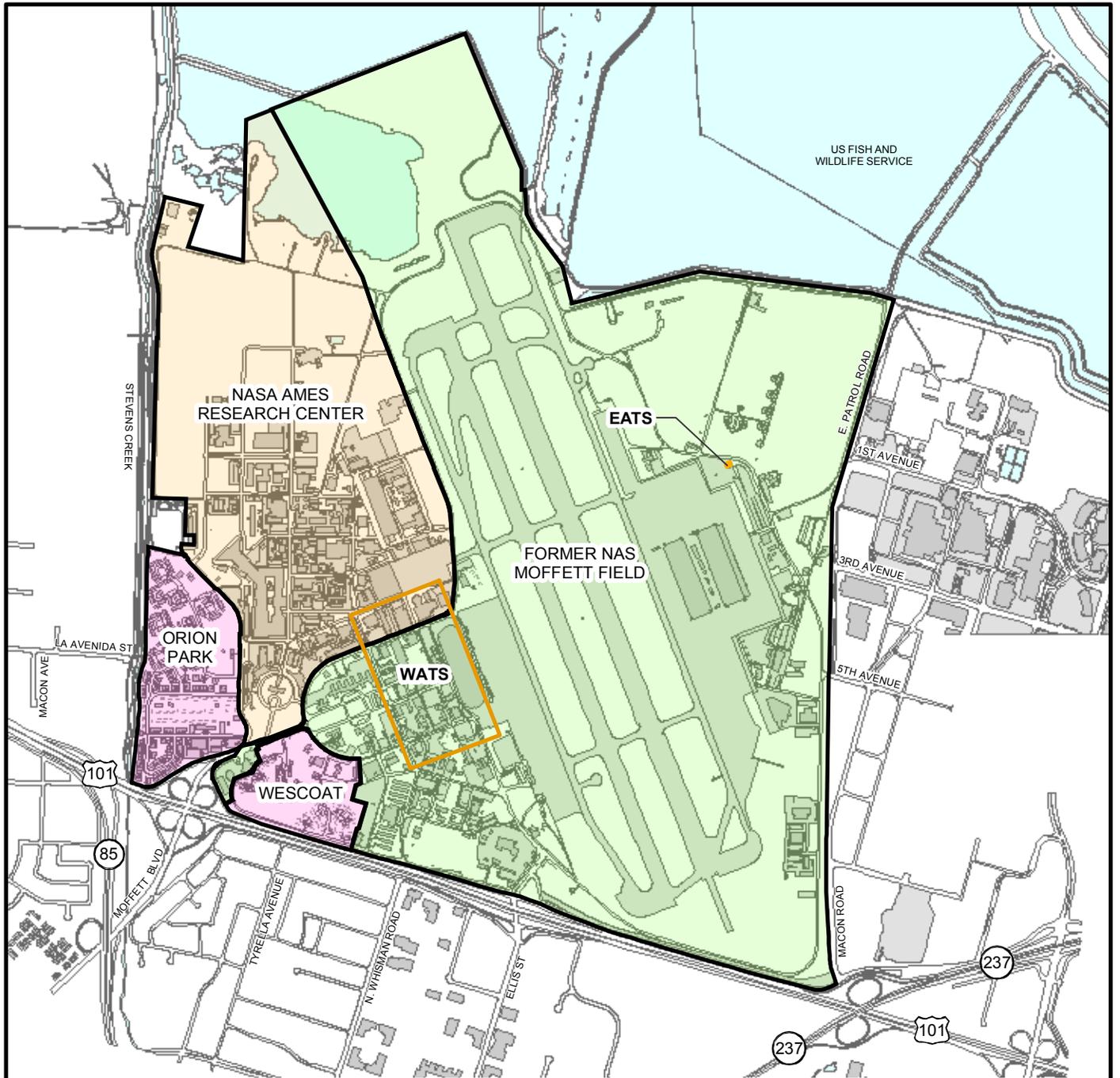
EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
 NAS - NAVAL AIR STATION
 WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM



Scale: 1" = 10 Miles



<p>BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA</p>	
<p>2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 1-1 REGIONAL LOCATION MAP FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA</p>	
<p>REVIEW: 0 AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46R4623.mxd</p>	<p>SES-TECH</p>

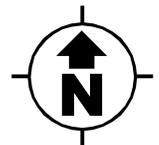
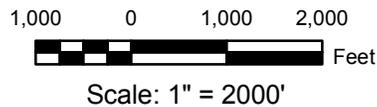


LEGEND

- ROAD
- PAVED SURFACE
- BUILDING
- WATER
- FORMER NAS MOFFETT FIELD
- NASA AMES RESEARCH CENTER
- MOFFETT COMMUNITY HOUSING

NOTES:

- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
- WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM



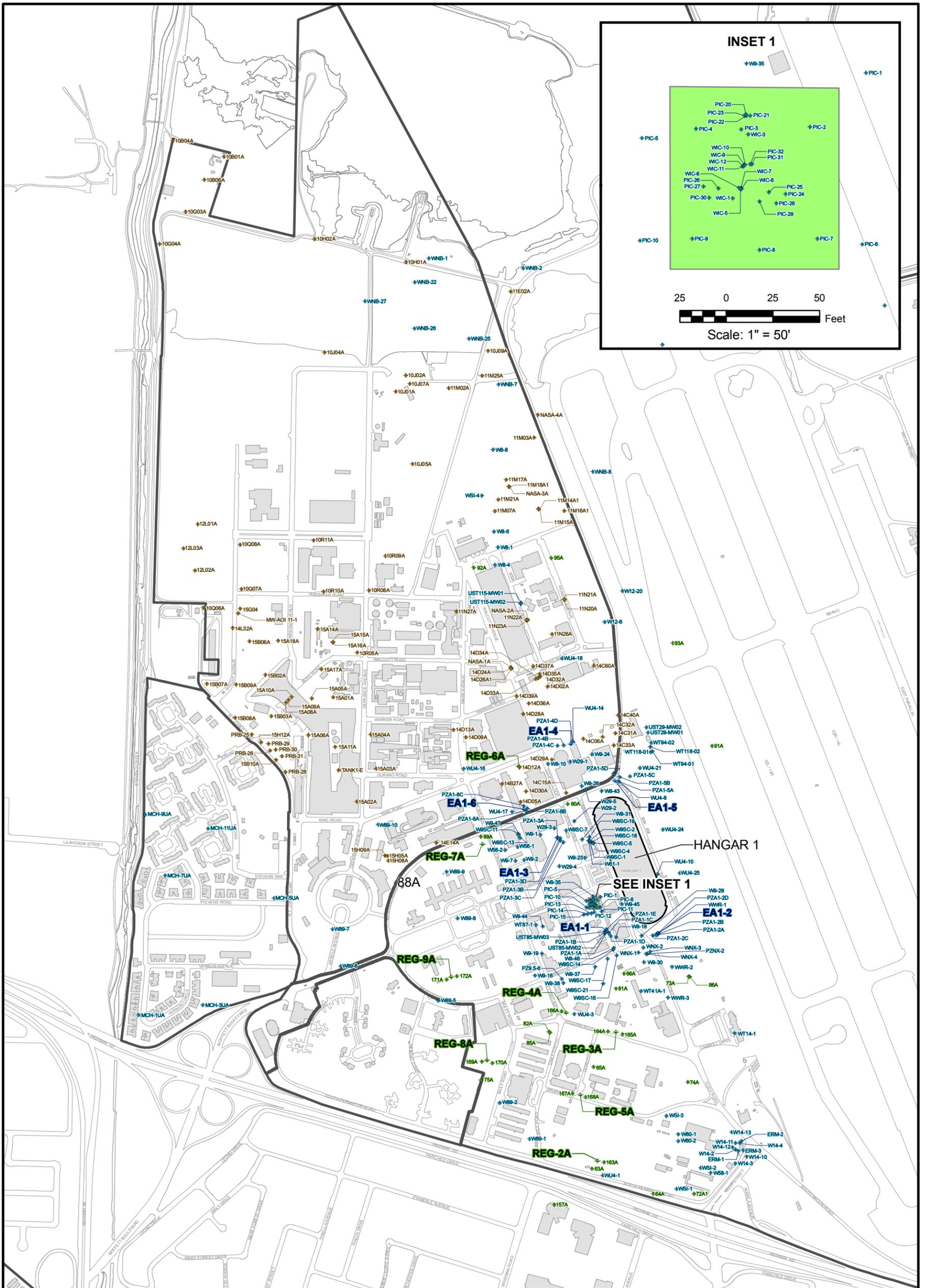
**BASE REALIGNMENT AND CLOSURE
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 SAN DIEGO, CALIFORNIA**

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

FIGURE 1-2
 SITE LOCATION MAP
 FORMER NAS MOFFETT FIELD
 MOFFETT FIELD, CA

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SOURCE: RECORD OF SURVEY FORMER NAVAL AIR STATION MOFFETT FIELD, MARCH 2000, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA).

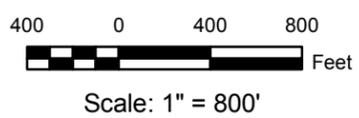


LEGEND

- ◆ WNB-26 NAVY MONITORING WELL
- ◆ 14D28A NASA MONITORING WELL
- ◆ 83A MEW MONITORING WELL
- ◆ EA1-1 NAVY EXTRACTION WELL
- ◆ REG-5A MEW EXTRACTION WELL
- ROAD
- BUILDING

NOTES:

- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
- NAS - NAVAL AIR STATION
- WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM



**BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA**

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

FIGURE 2-1

MONITORING AND EXTRACTION WELL LOCATION MAP,
SITE 28, UPPER PORTION OF THE A AQUIFER

FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA

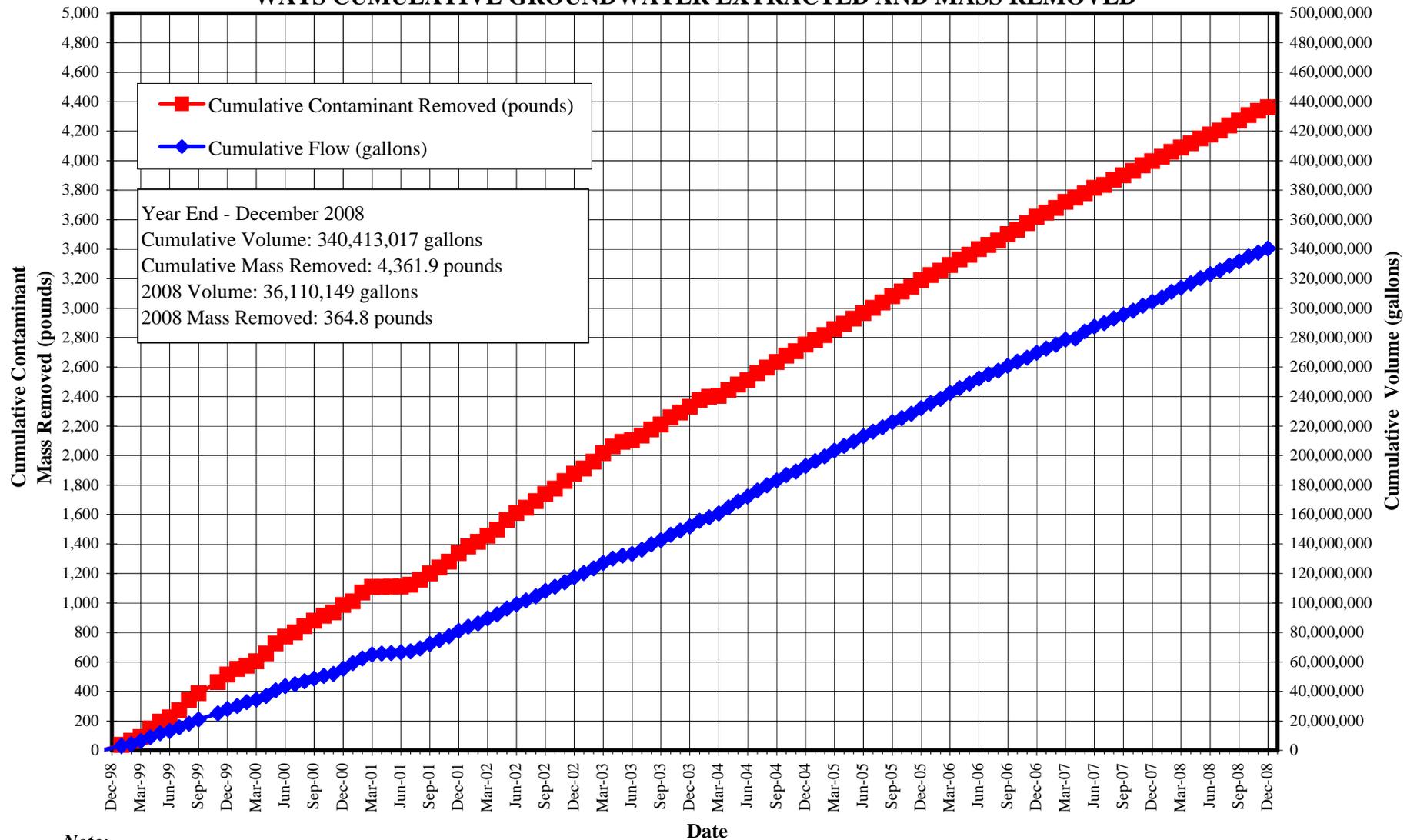
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AUTHOR: RKH
DCN: SEST-3220-0004-0038
FILE NUMBER: SEST46L4625.mxd

SES-TECH

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FIGURE 2-3

WATS CUMULATIVE GROUNDWATER EXTRACTED AND MASS REMOVED



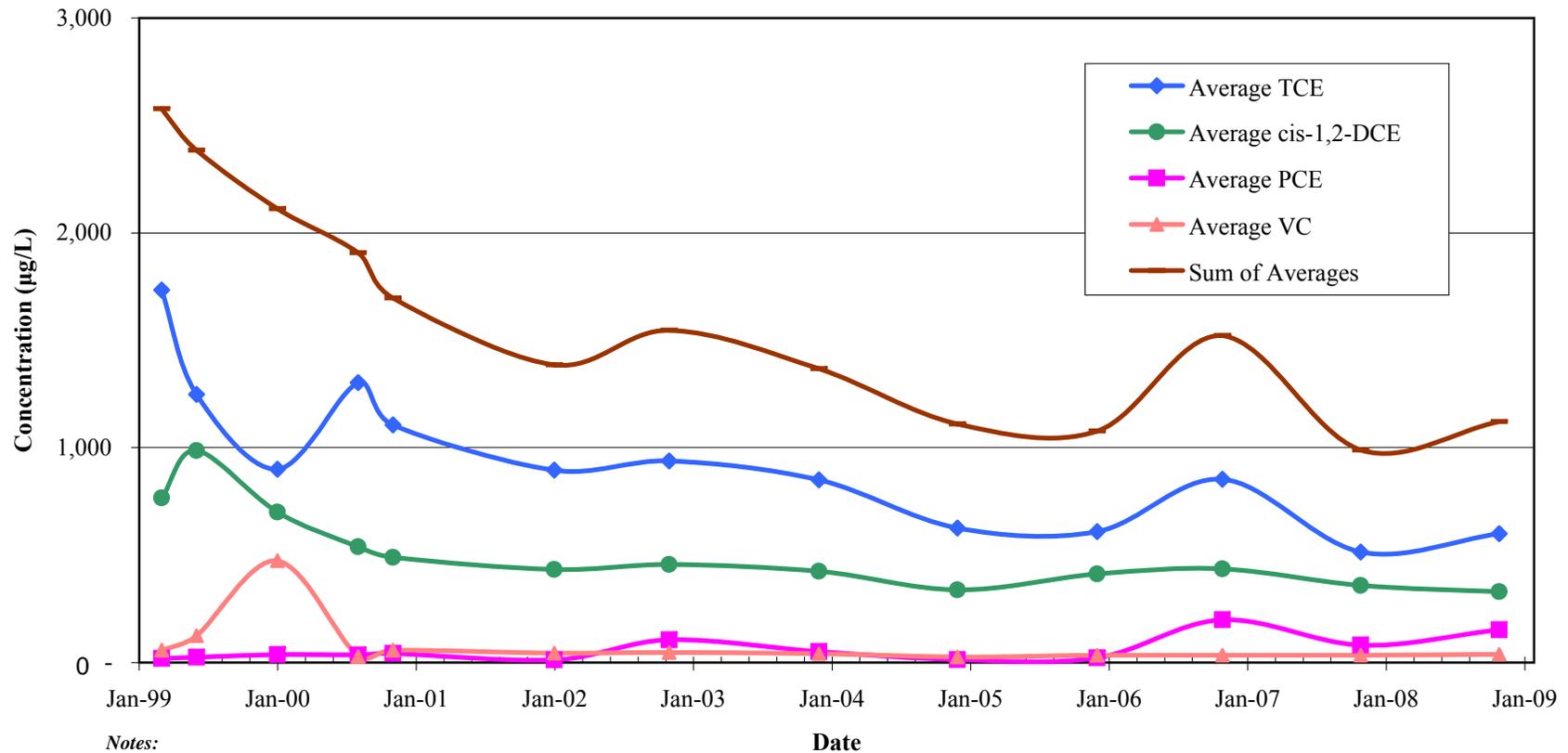
Note:

Total mass removed is based on concentrations of trichloroethene, tetrachloroethene, cis-1,2-dichloroethene, and vinyl chloride.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

FIGURE 2-4

WATS AVERAGE AND SUM OF AVERAGE TCE, PCE, CIS-1,2-DCE, AND VC INFLUENT CONCENTRATIONS FOR EXTRACTION WELLS



Notes:

Averages based on extraction well analytical samples

µg/L - micrograms per liter

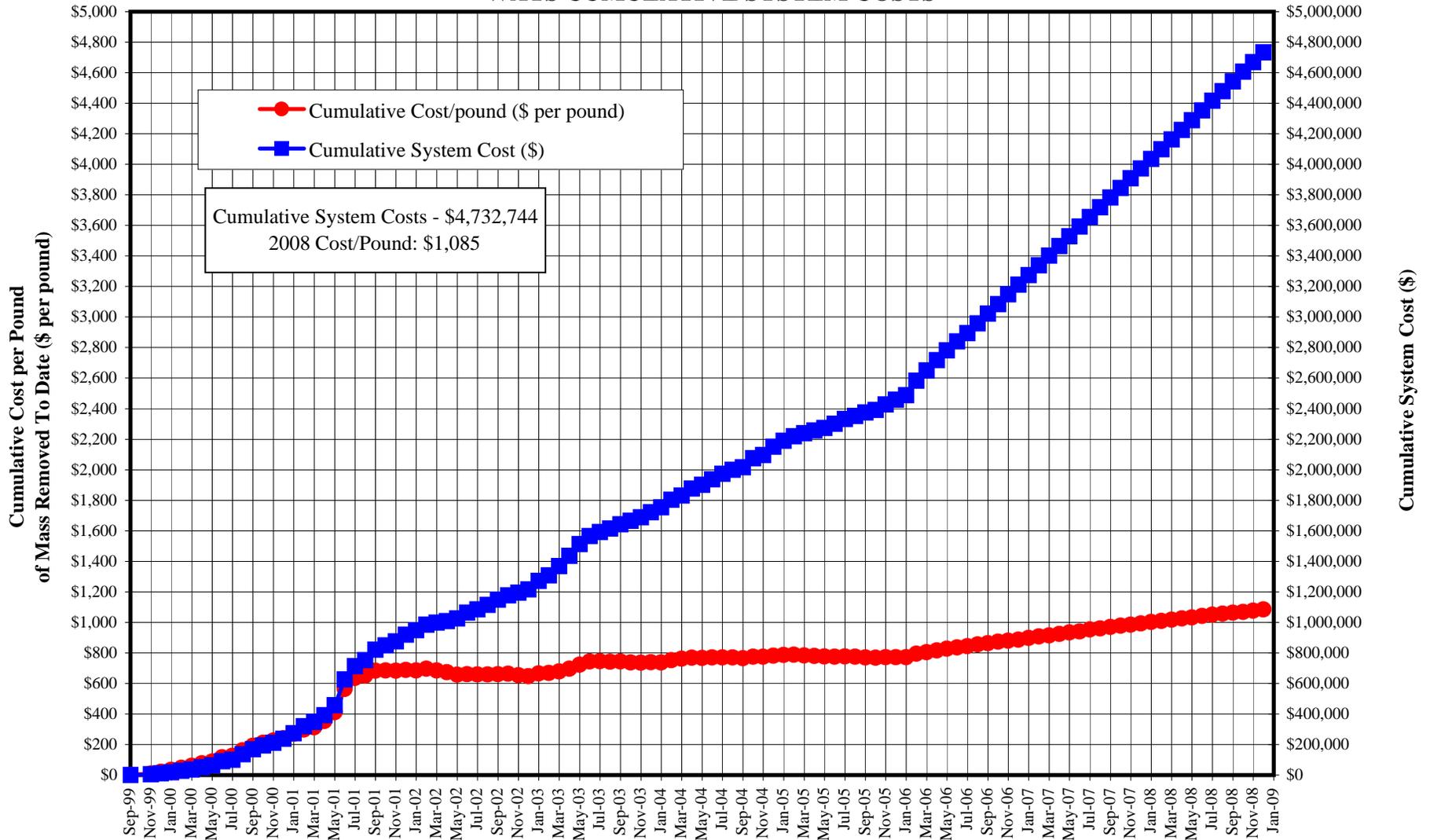
TCE - trichloroethene, cis-1,2-DCE - cis-1,2-dichloroethene, PCE - tetrachloroethene, VC - vinyl chloride, VOC - volatile organic compound

Averages were prepared for extraction wells. The average for each target VOC is calculated by adding the reported concentrations and dividing the resulting sum by the population of reported concentrations. In the case of non-detect results, one half of the laboratory reporting limit was used to produce the sum. The sum of averages for the target VOCs is calculated by adding the averages for TCE, CIS-1,2-DCE, PCE, and VC.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

FIGURE 2-5

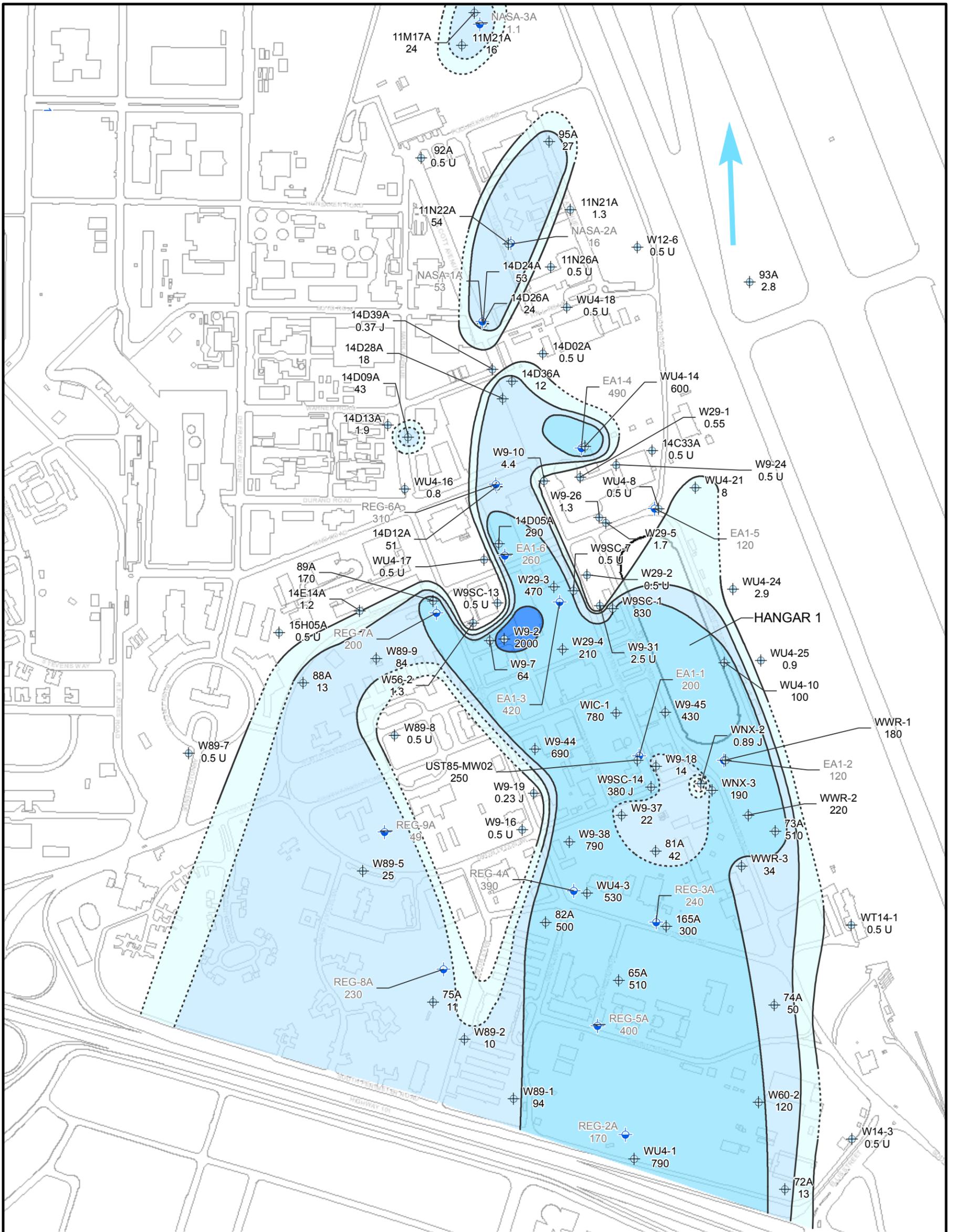
WATS CUMULATIVE SYSTEM COSTS



Note:

Total mass removed is based on concentrations of trichloroethene, tetrachloroethene, cis-1,2-dichloroethene, and vinyl chloride.

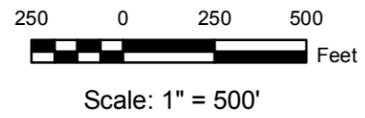
Date:



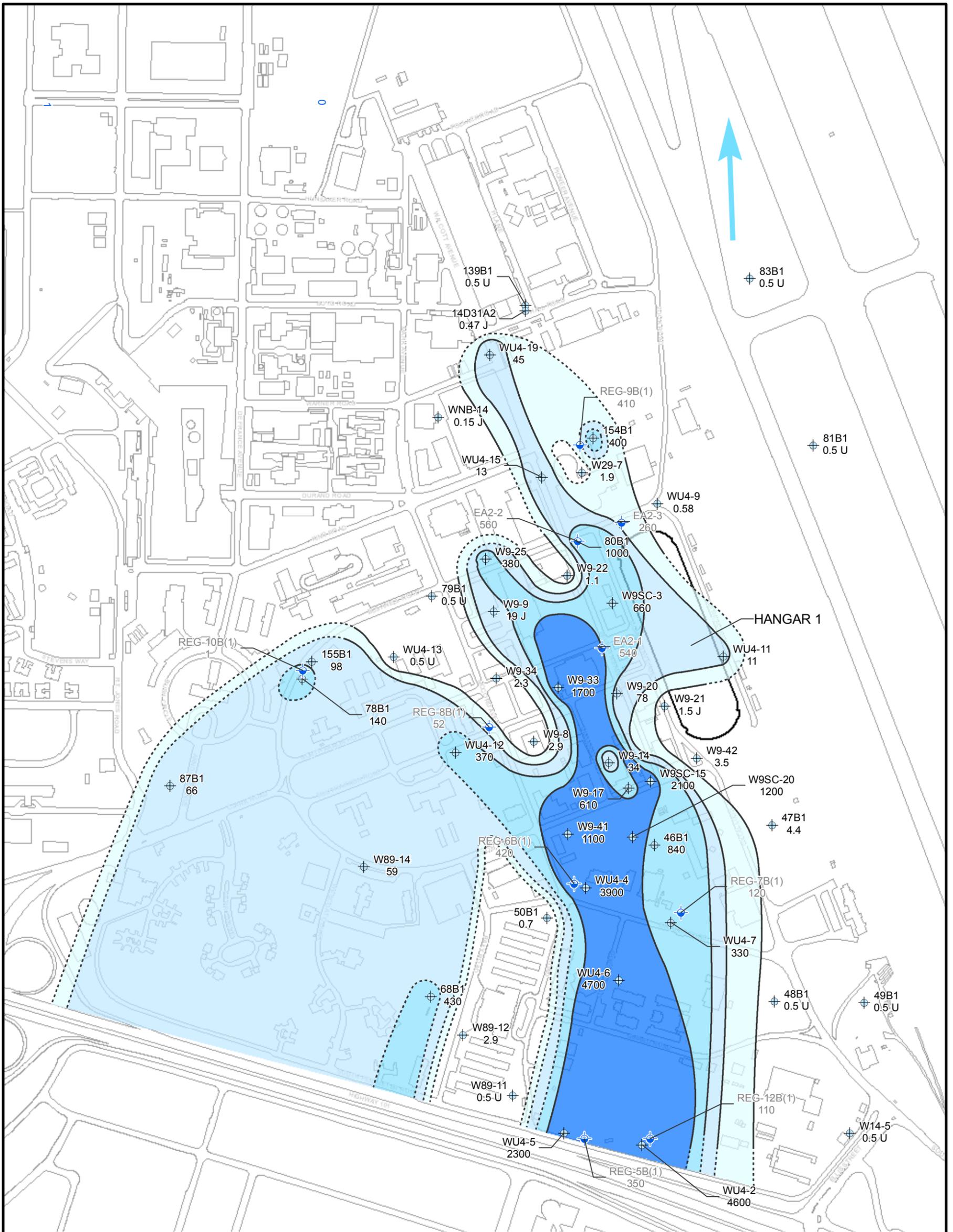
LEGEND

- WU4-1 790 MONITORING WELL LOCATION
- REG-2A 170 EXTRACTION WELL LOCATION
- GENERAL REGIONAL GROUNDWATER FLOW DIRECTION
- 5-10 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED
- 10-100 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED
- 100-1,000 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED
- ≥ 1,000 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED

- NOTES:**
- µg/L - MICROGRAMS PER LITER
 - EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
 - J - ESTIMATED VALUE
 - NAS - NAVAL AIR STATION
 - U - NOT DETECTED AT LABORATORY REPORTING LEVEL
 - WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM
 - GROUNDWATER CLEAN UP STANDARD IS 5 µg/L (EPA 1989) FOR TRICHLOROETHENE



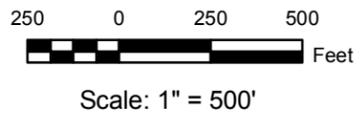
<p>BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA</p>	
<p>2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 2-6 TRICHLOROETHENE (TCE) DISTRIBUTION, SITE 28, UPPER PORTION OF THE A AQUIFER - NOVEMBER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA</p>	
<p>REVIEW: B AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4629.mxd</p>	<p>SES-TECH</p>



LEGEND

- W89-11 0.5 U MONITORING WELL LOCATION
- REG-12B(1) 110 EXTRACTION WELL LOCATION
- GENERAL REGIONAL GROUNDWATER FLOW DIRECTION
- 5-10 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED
- 10-100 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED
- 100-1,000 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED
- ≥ 1,000 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED

- NOTES:**
- µg/L - MICROGRAMS PER LITER
 - EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
 - J - ESTIMATED VALUE
 - NAS - NAVAL AIR STATION
 - U - NOT DETECTED AT LABORATORY REPORTING LEVEL
 - WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM
 - GROUNDWATER CLEAN UP STANDARD IS 5 µg/L (EPA 1989) FOR TRICHLOROETHENE



<p>BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA</p>	
<p>2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 2-7 TRICHLOROETHENE (TCE) DISTRIBUTION, SITE 28, LOWER PORTION OF THE A AQUIFER - NOVEMBER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA</p>	
<p>REVIEW: B AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4630.mxd</p>	<p>SES-TECH</p>

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-8 THROUGH 2-11
HYDROGRAPHS
SITE 28

Figure 2-8 14C33A (Upper Portion of the A Aquifer)

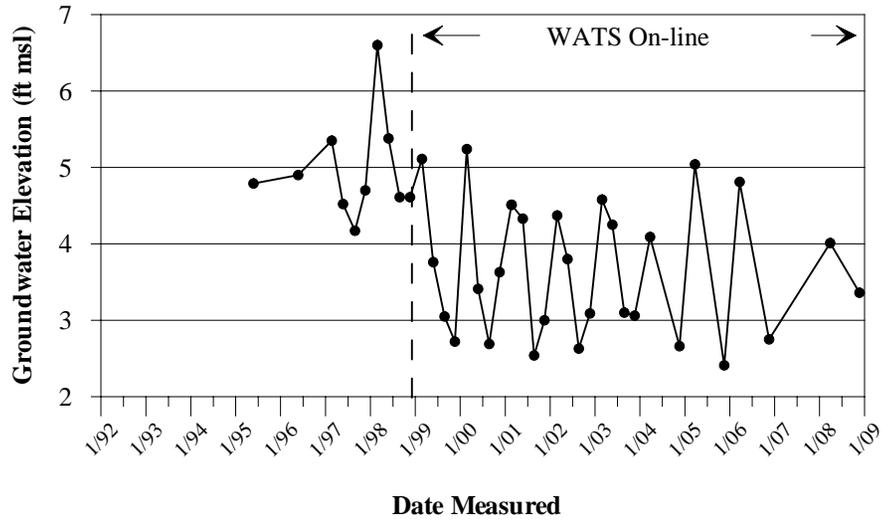


Figure 2-9 14D05A (Upper Portion of the A Aquifer)

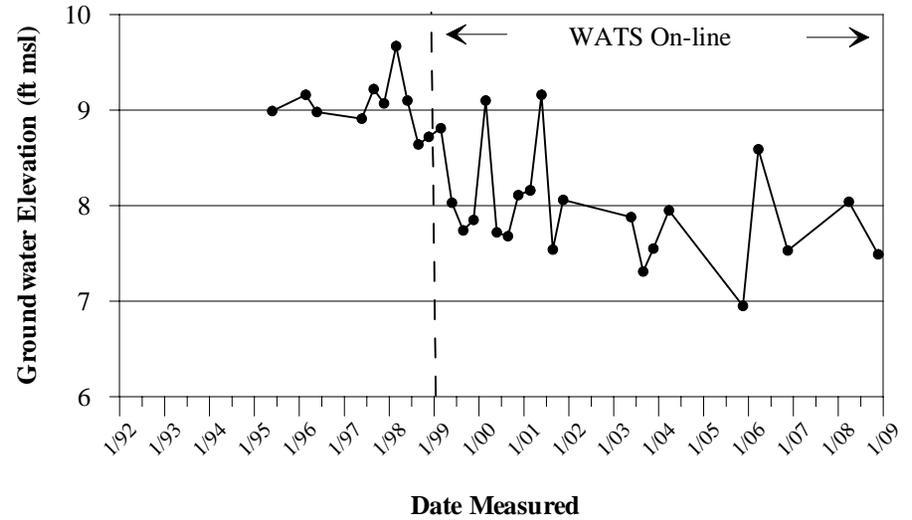


Figure 2-10 W9SC-7 (Upper Portion of the A Aquifer)

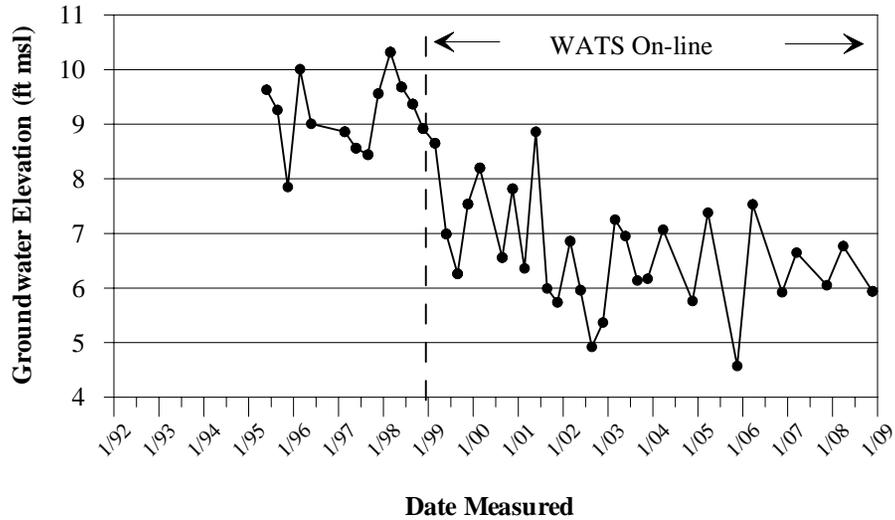
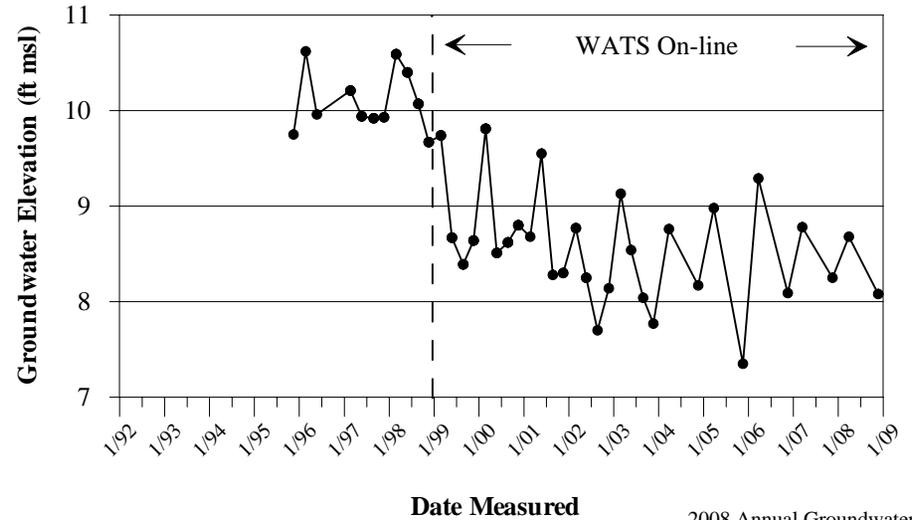


Figure 2-11 W9-1 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-16 THROUGH 2-19
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Figure 2-16 W29-3 (Upper Portion of the A Aquifer)

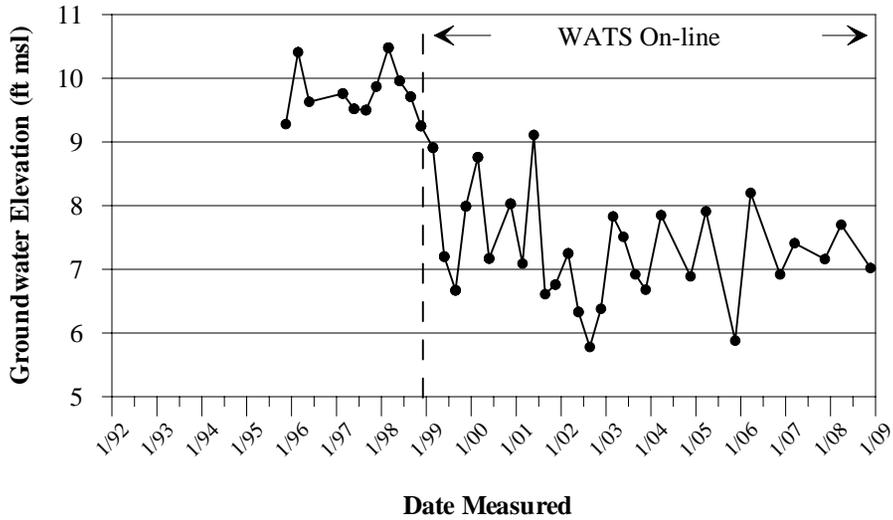


Figure 2-17 WIC-1 (Upper Portion of the A Aquifer)

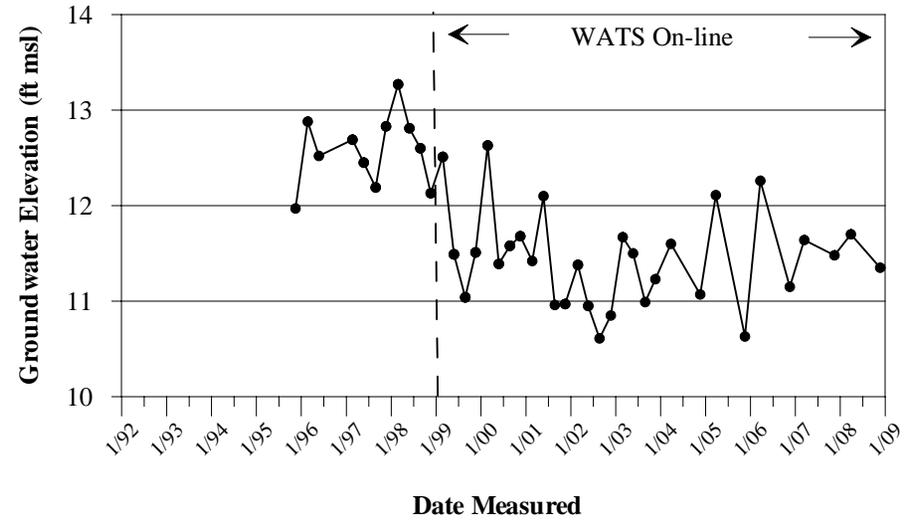


Figure 2-18 WU4-8 (Upper Portion of the A Aquifer)

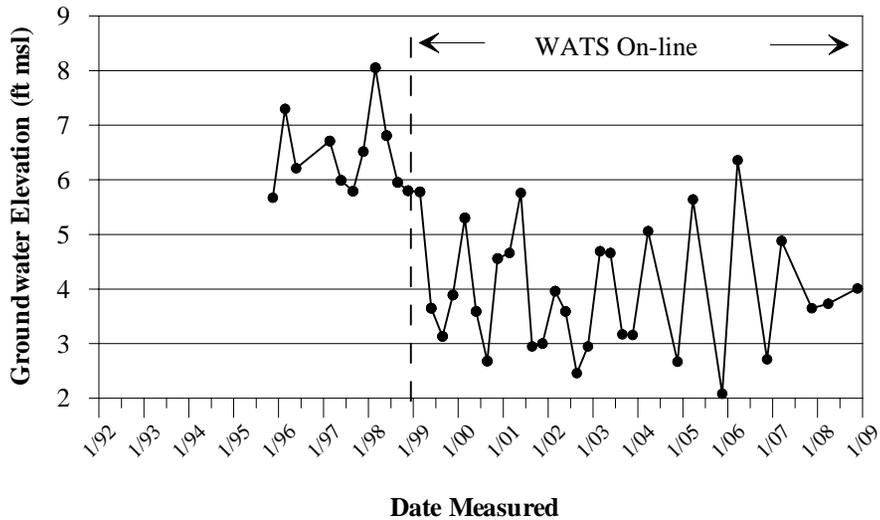
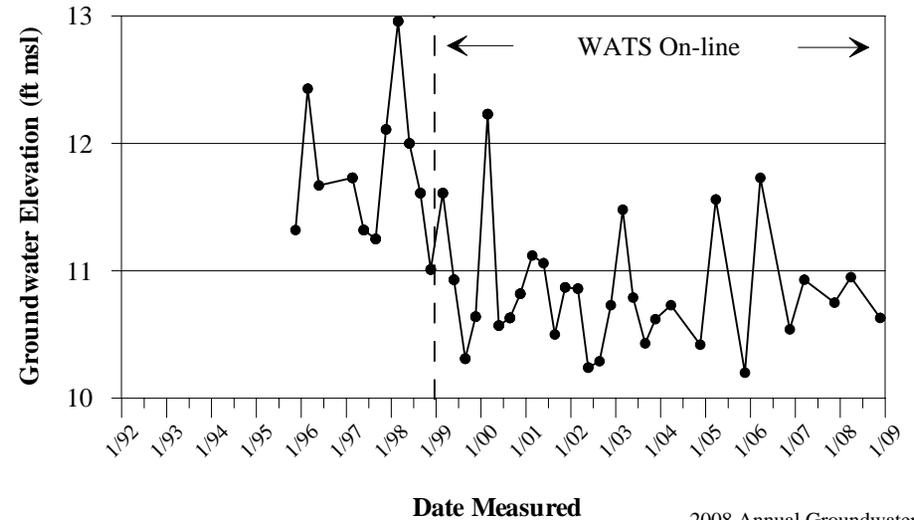


Figure 2-19 WU4-10 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

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SITE 28

Figure 2-20 WU4-14 (Upper Portion of the A Aquifer)

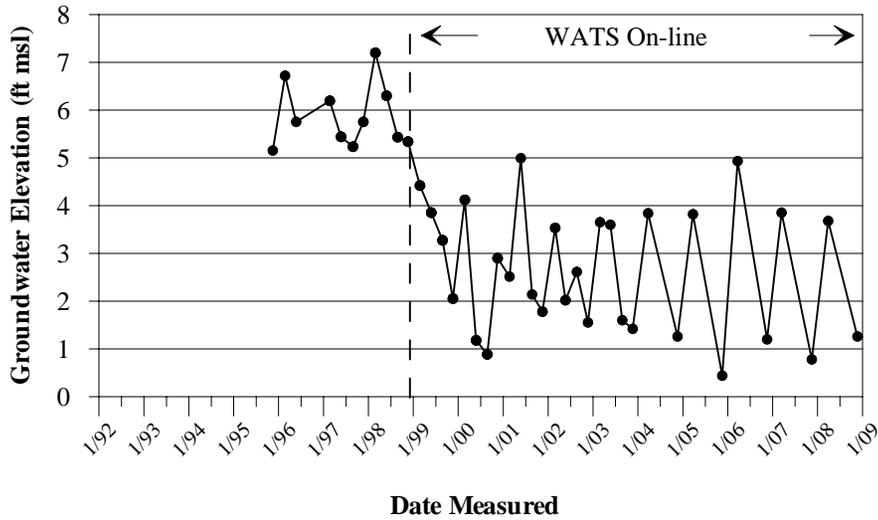


Figure 2-21 WU4-17 (Upper Portion of the A Aquifer)

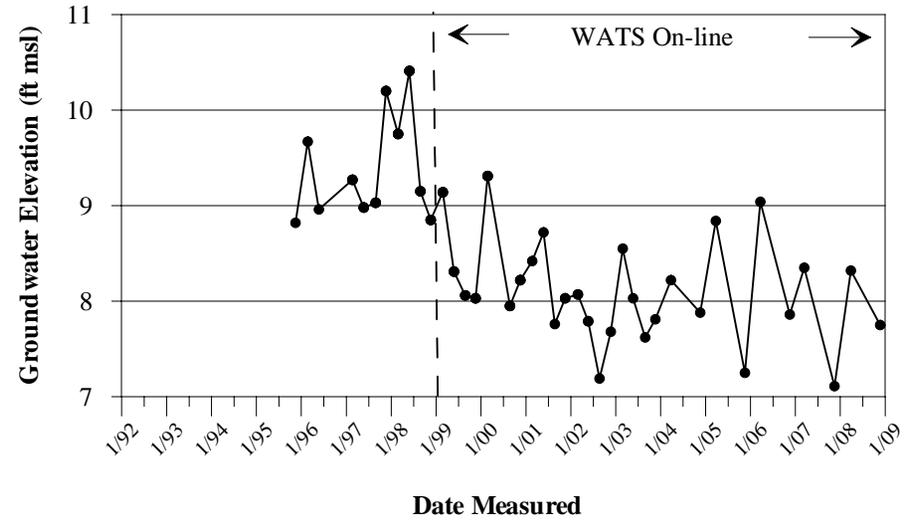


Figure 2-22 WU4-21 (Upper Portion of the A Aquifer)

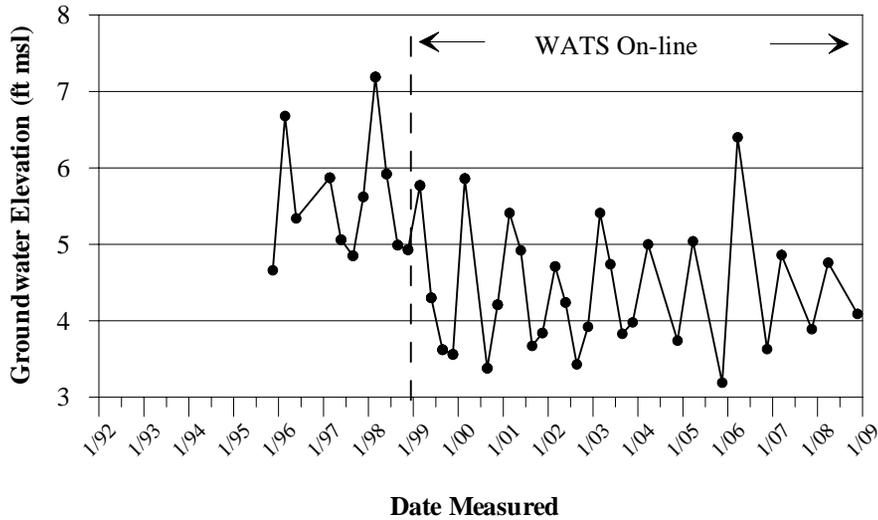
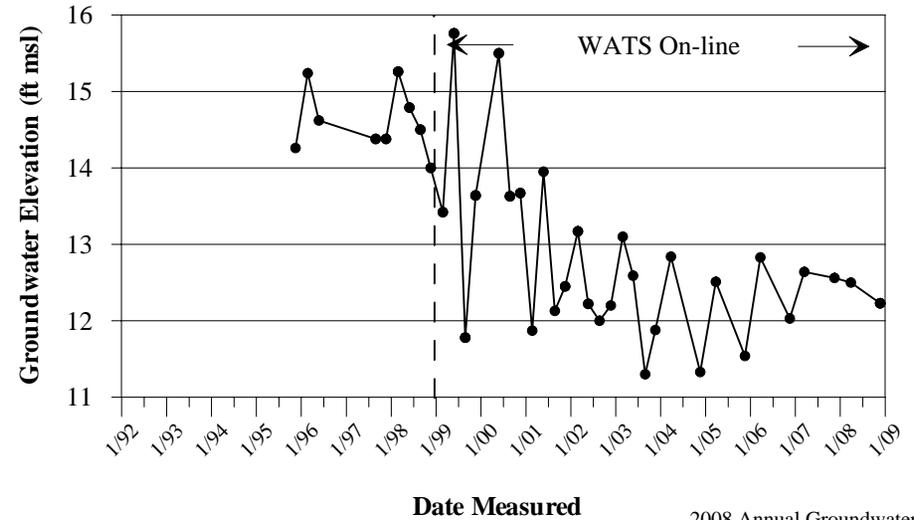


Figure 2-23 WWR-1 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-24 THROUGH 2-27
HYDROGRAPHS
SITE 28

Figure 2-24 80B1 (Lower Portion of the A Aquifer)

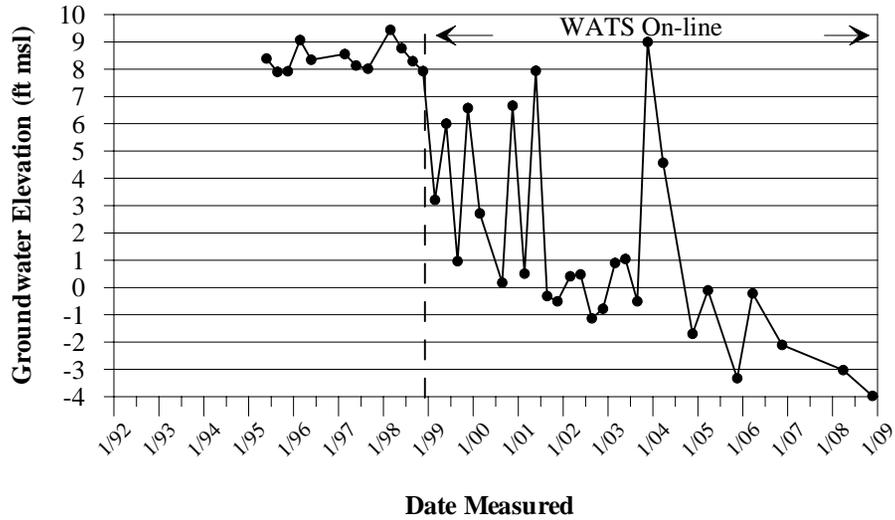


Figure 2-25 W9-27 (Lower Portion of the A Aquifer)

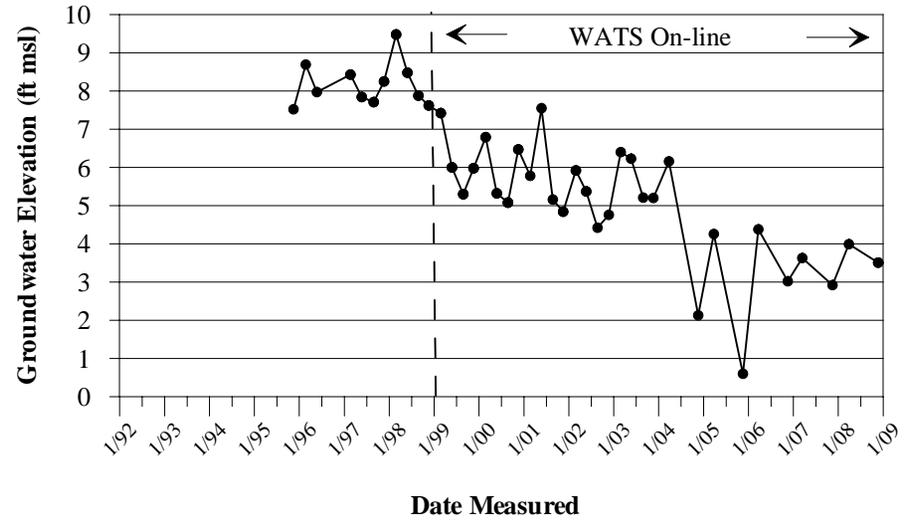


Figure 2-26 W9-28 (Lower Portion of the A Aquifer)

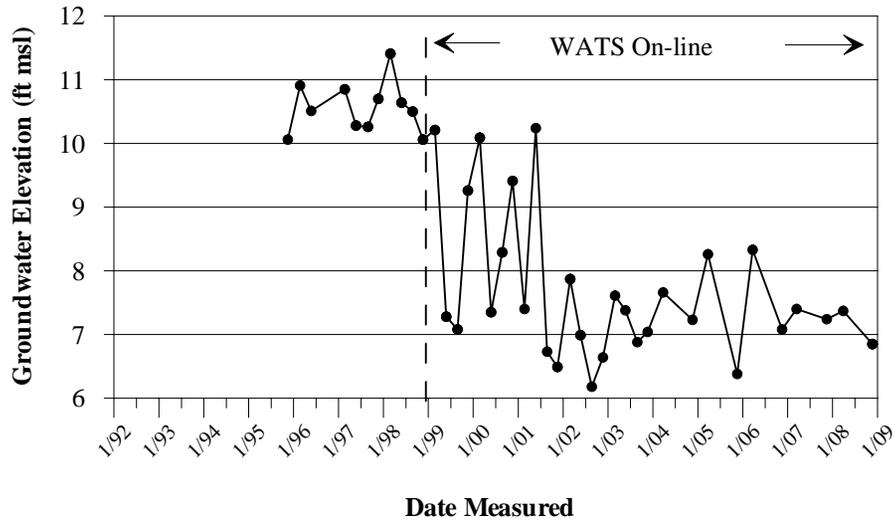
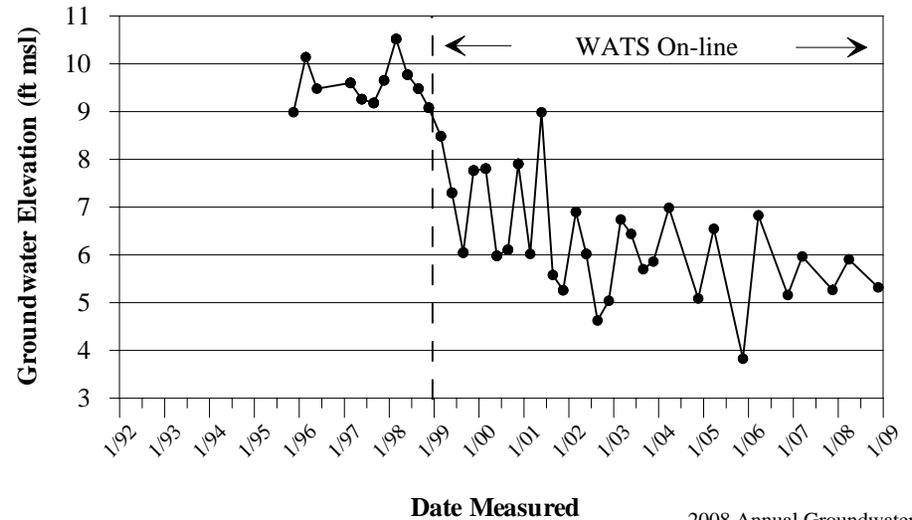


Figure 2-27 W29-8 (Lower Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-28 THROUGH 2-31
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SITE 28

Figure 2-28 WU4-9 (Lower Portion of the A Aquifer)

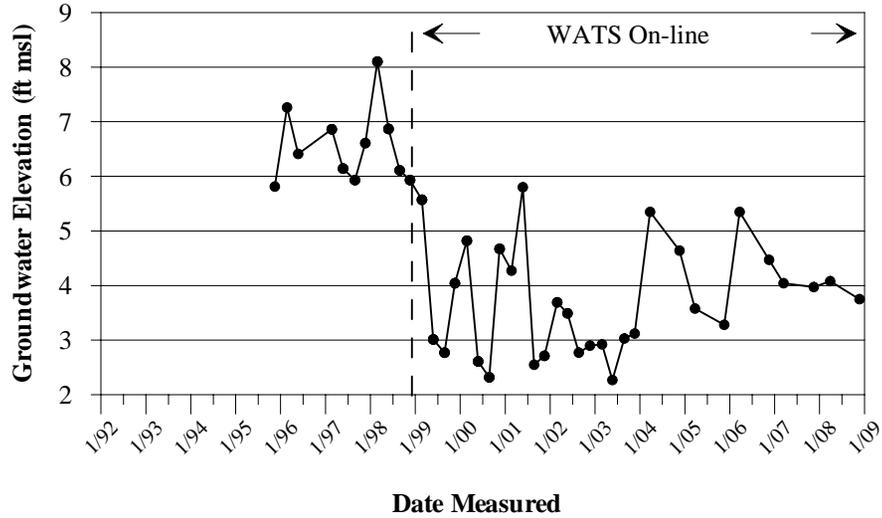


Figure 2-29 WU4-11 (Lower Portion of the A Aquifer)

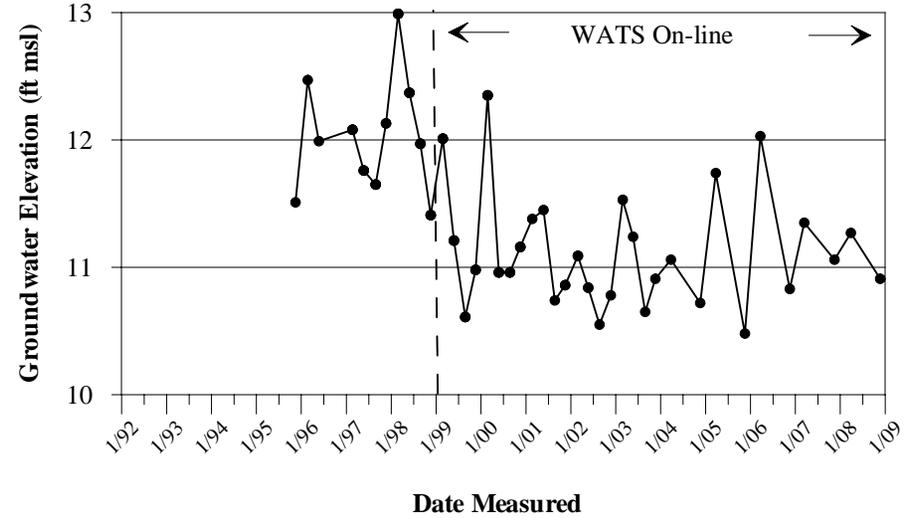


Figure 2-30 PIC-1 (Upper Portion of the A Aquifer)

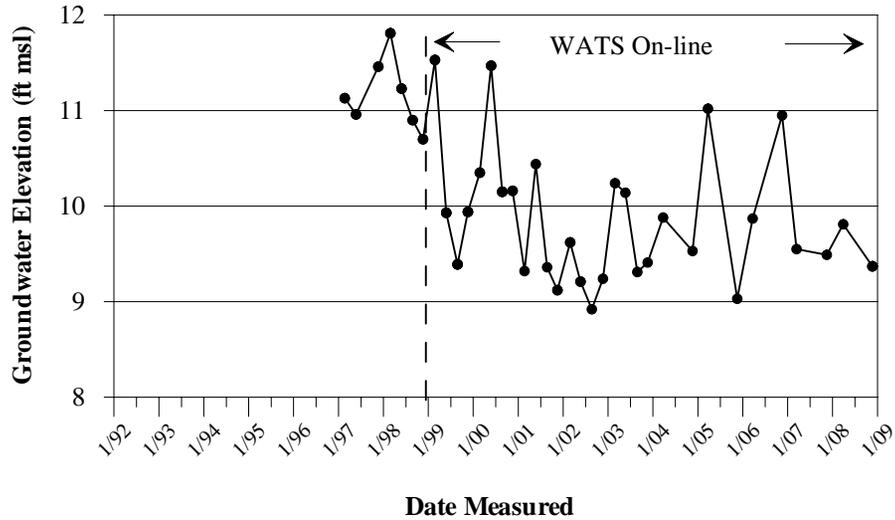
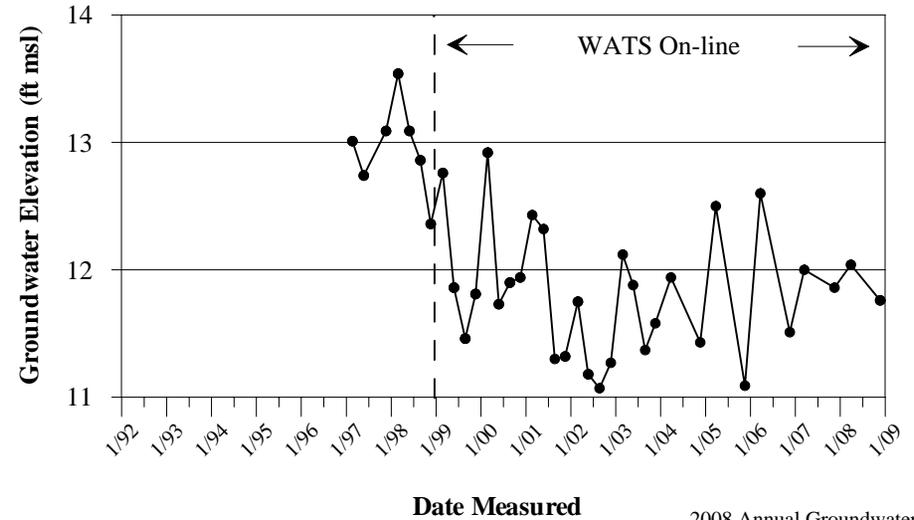


Figure 2-31 PIC-12 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
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Figure 2-32 W9-43 (Upper Portion of the A Aquifer)

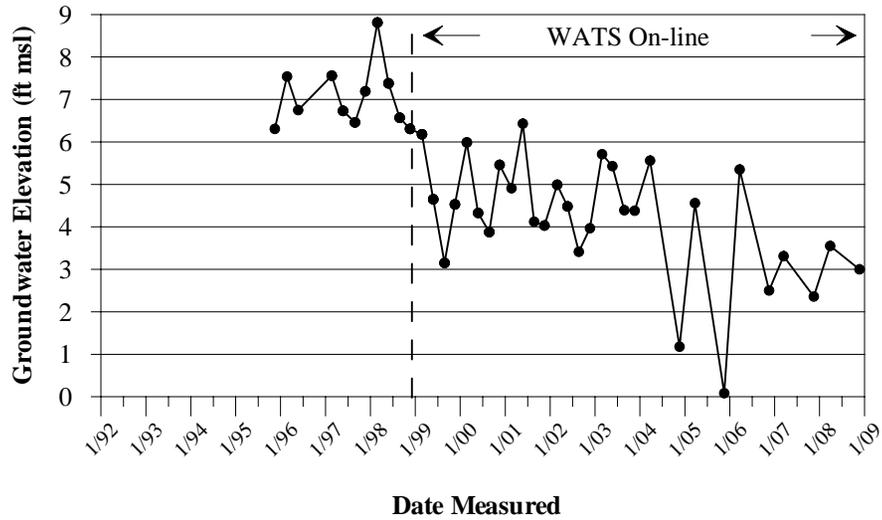


Figure 2-33 W12-6 (Upper Portion of the A Aquifer)

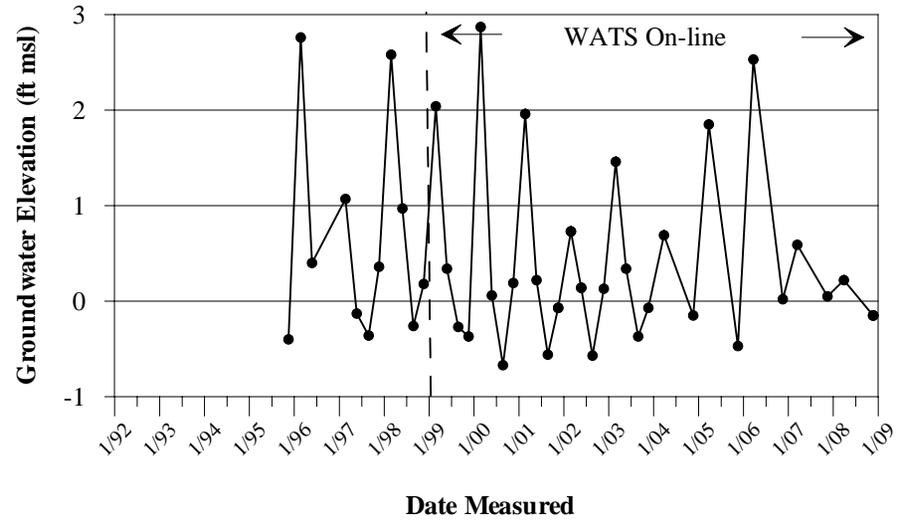


Figure 2-34 W89-2 (Upper Portion of the A Aquifer)

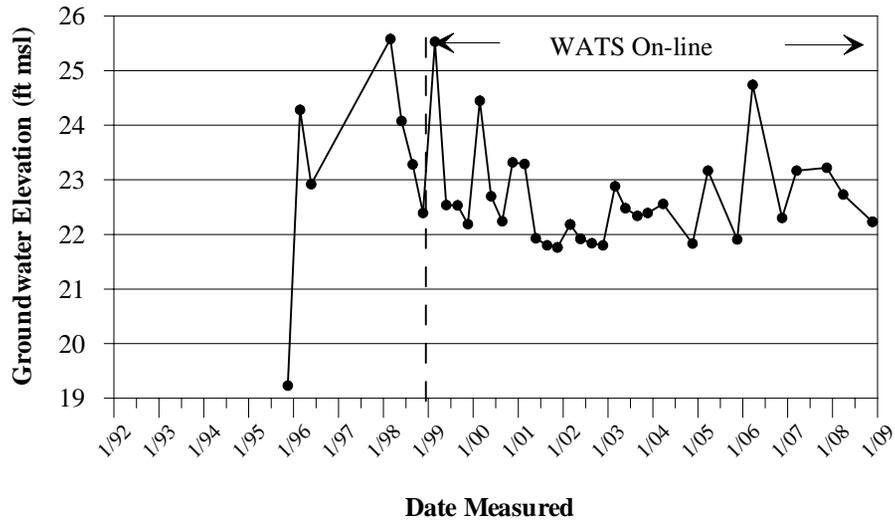
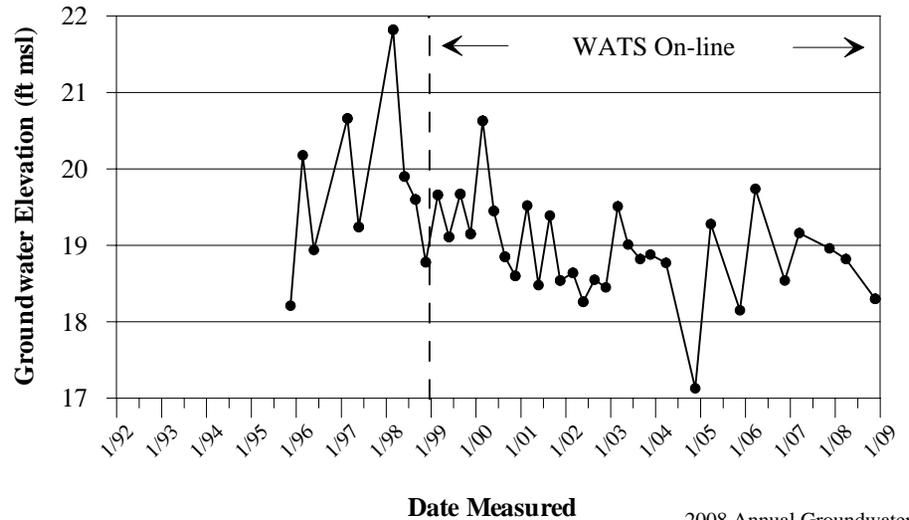


Figure 2-35 W89-5 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
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Figure 2-36 W89-7 (Upper Portion of the A Aquifer)

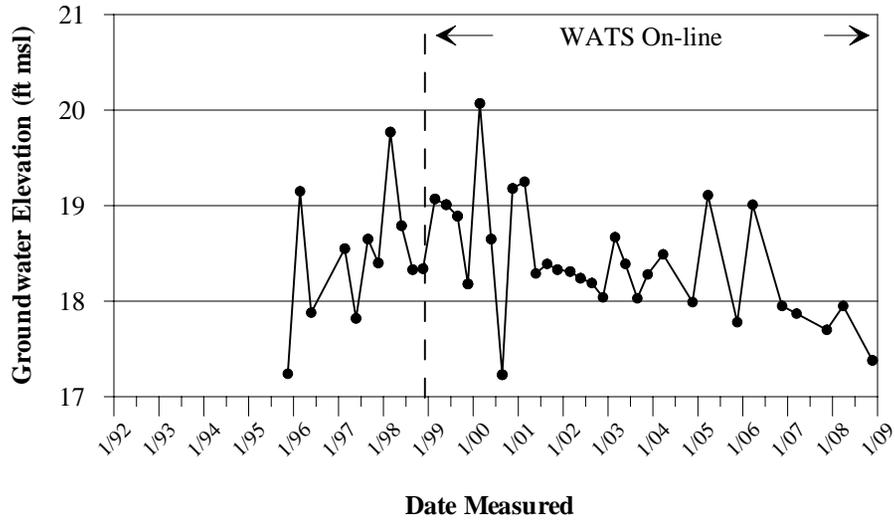


Figure 2-37 W89-9 (Upper Portion of the A Aquifer)

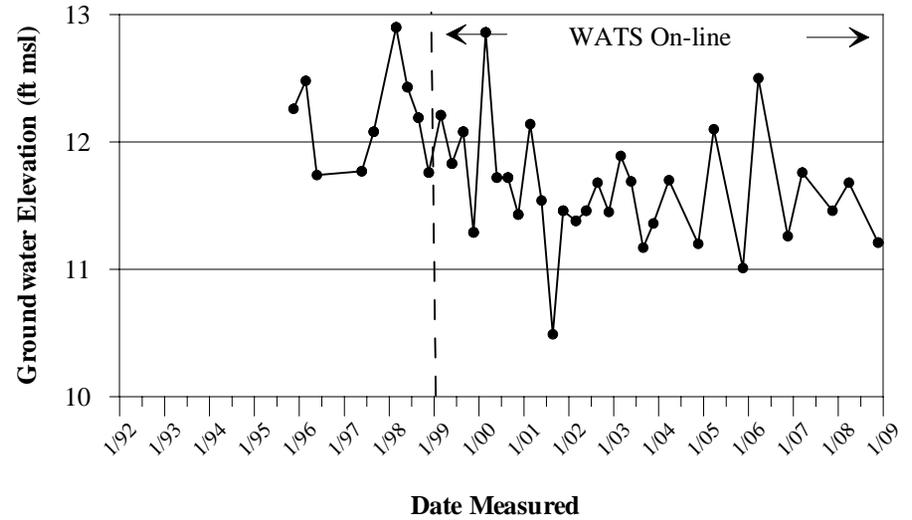


Figure 2-38 87B1 (Lower Portion of the A Aquifer)

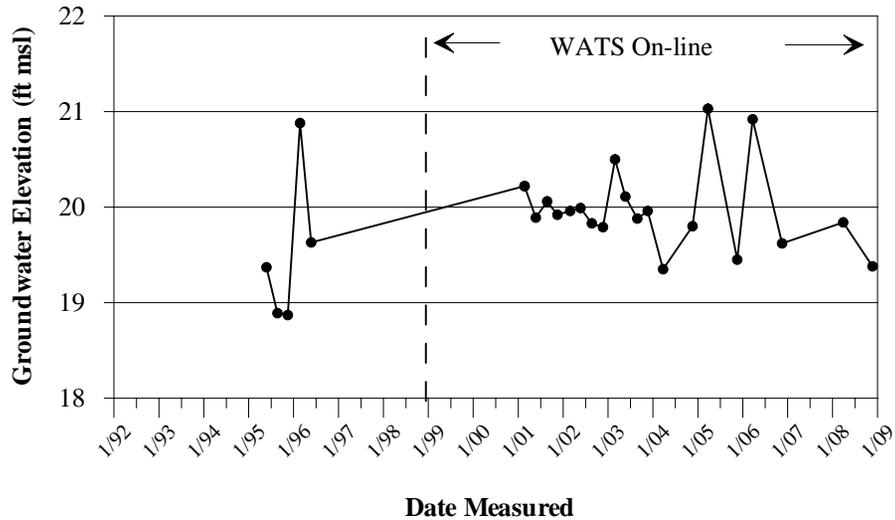
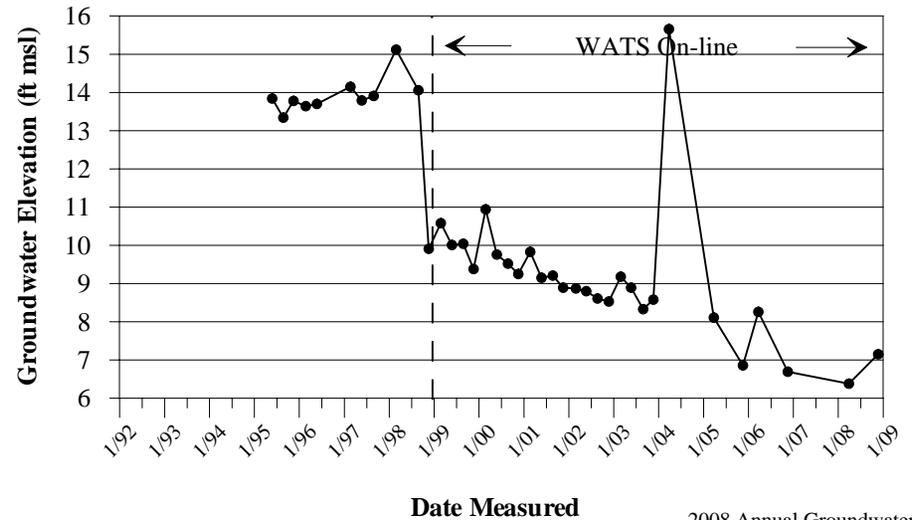


Figure 2-39 111B1 (Lower Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-40 THROUGH 2-43
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SITE 28

Figure 2-40 W9-17 (Lower Portion of the A Aquifer)

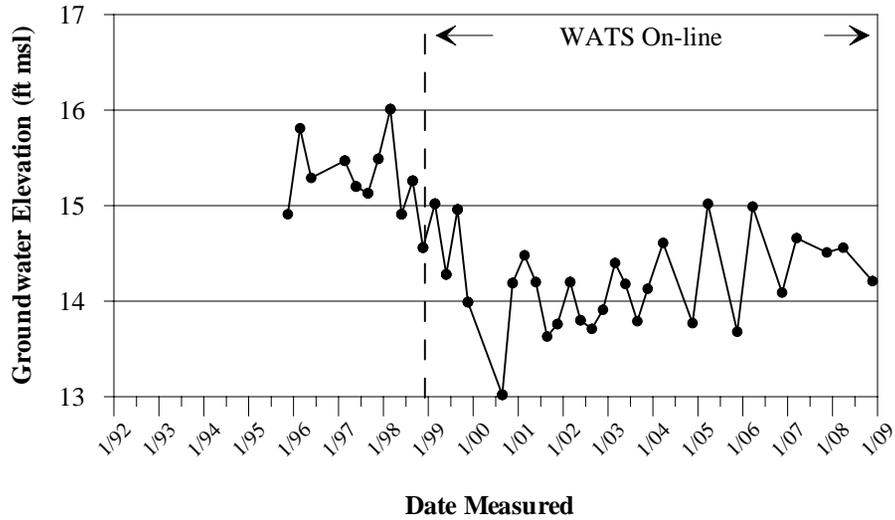


Figure 2-41 W9-25 (Lower Portion of the A Aquifer)

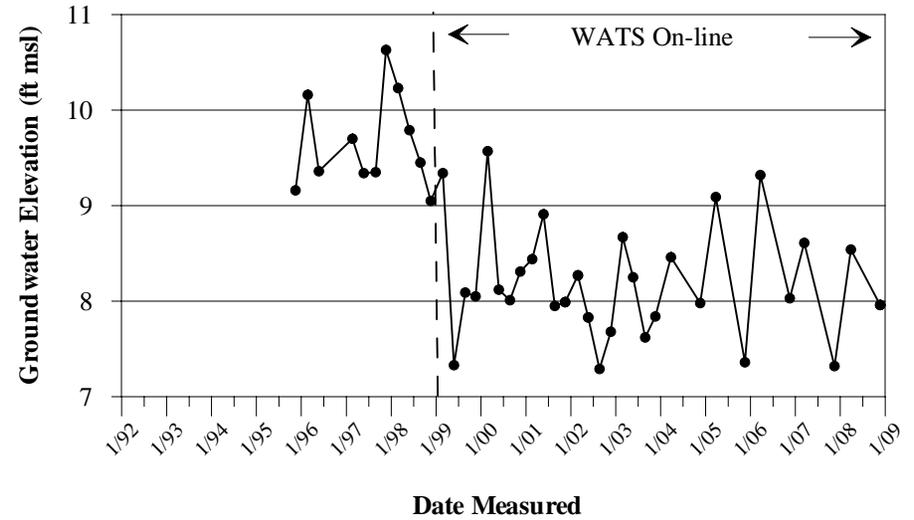


Figure 2-42 W89-12 (Lower Portion of the A Aquifer)

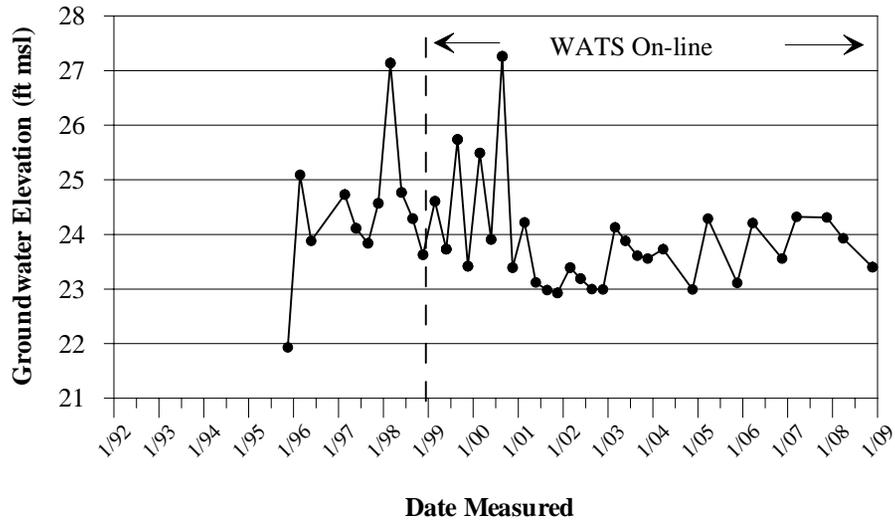
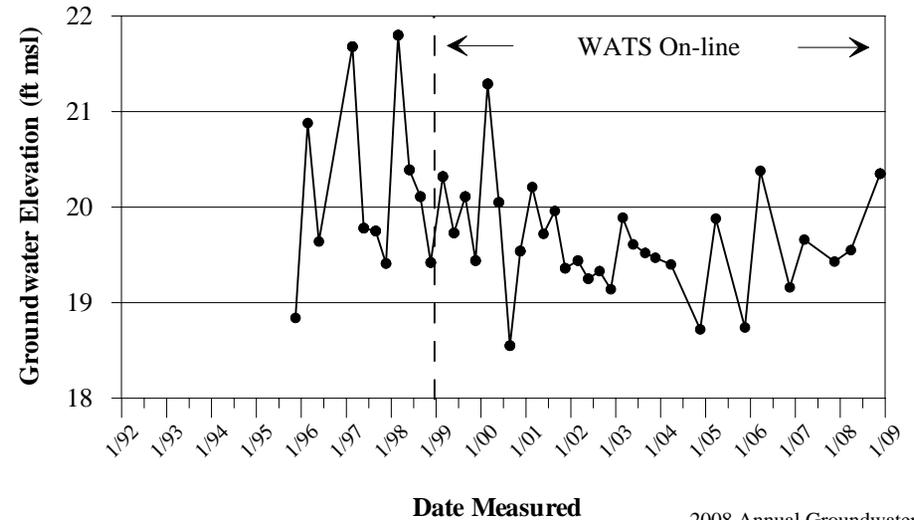


Figure 2-43 W89-14 (Lower Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-44 THROUGH 2-47
HYDROGRAPHS
SITE 28

Figure 2-44 WU4-13 (Lower Portion of the A Aquifer)

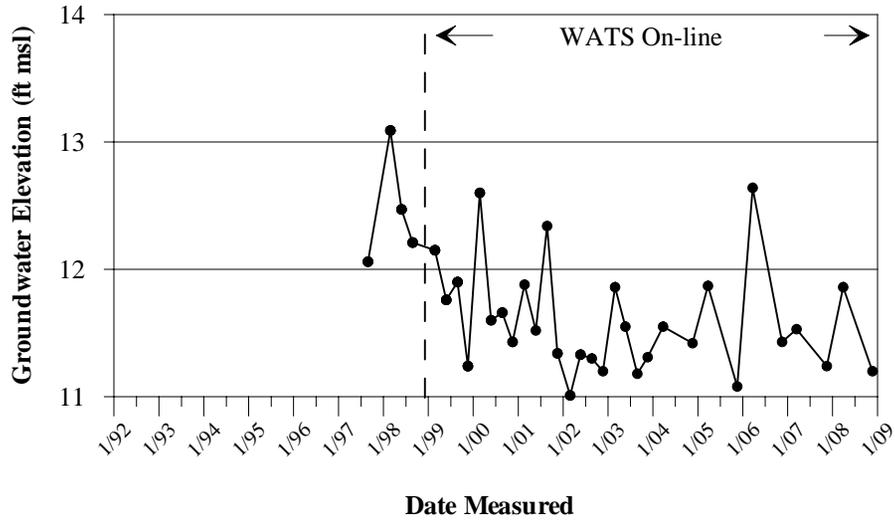


Figure 2-45 54B2 (B2 Aquifer)

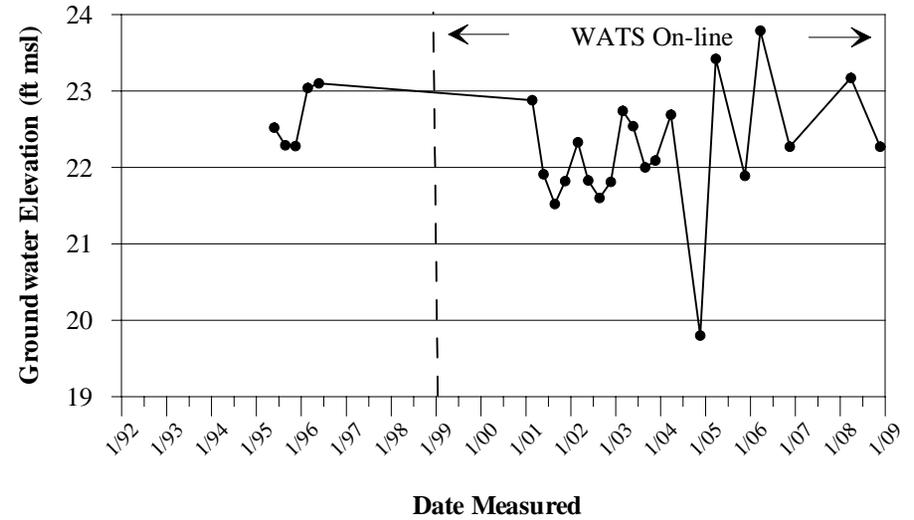


Figure 2-46 82B2 (B2 Aquifer)

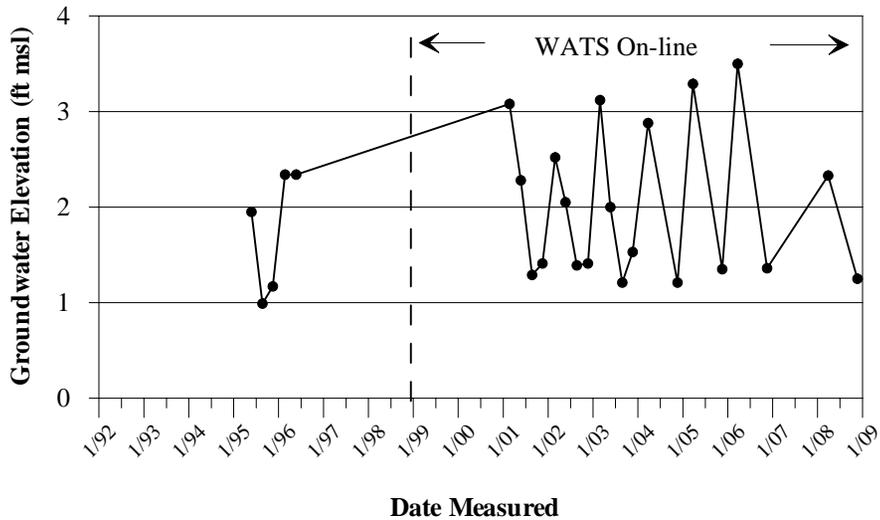
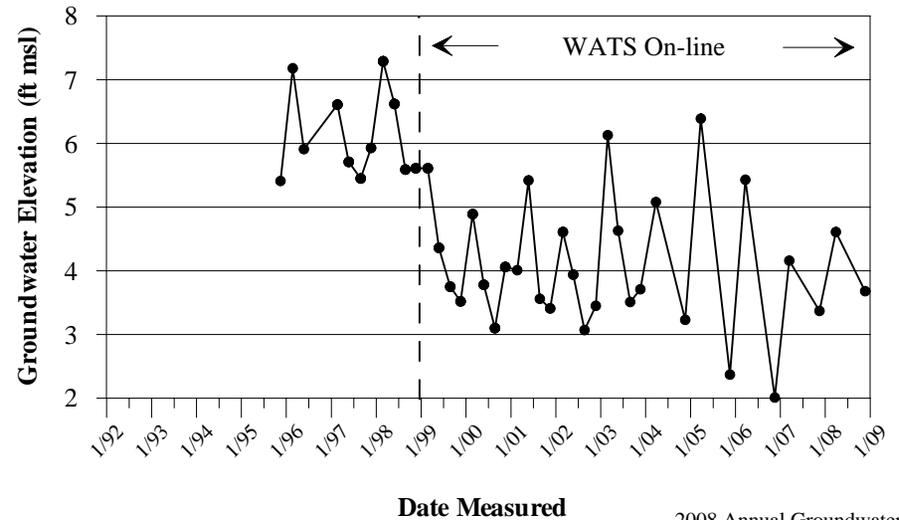


Figure 2-47 W9-11 (B2 Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-48 THROUGH 2-51
HYDROGRAPHS
SITE 28

Figure 2-48 W9-12 (B2 Aquifer)

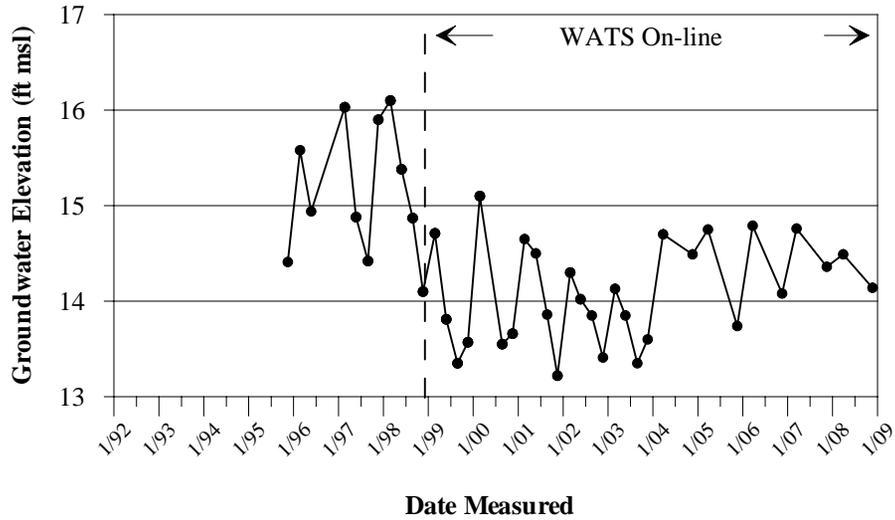


Figure 2-49 W9-15 (B2 Aquifer)

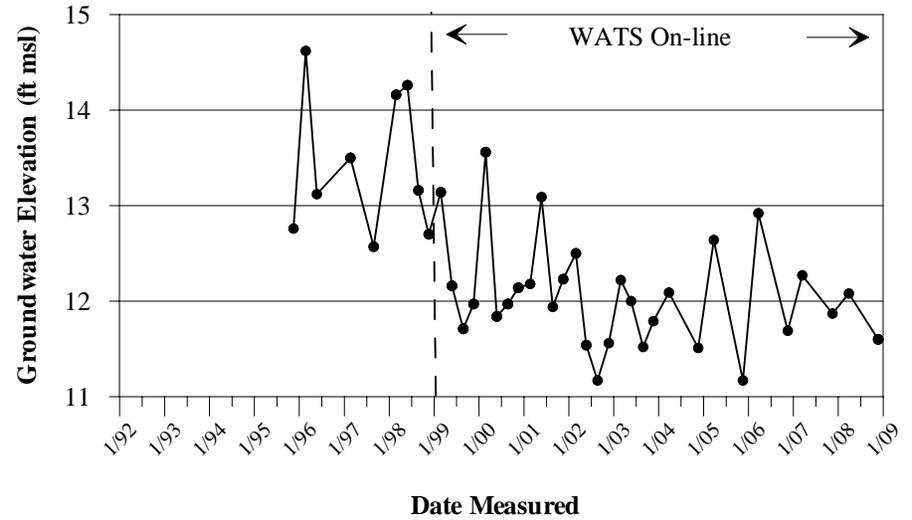


Figure 2-50 W9-39 (B2 Aquifer)

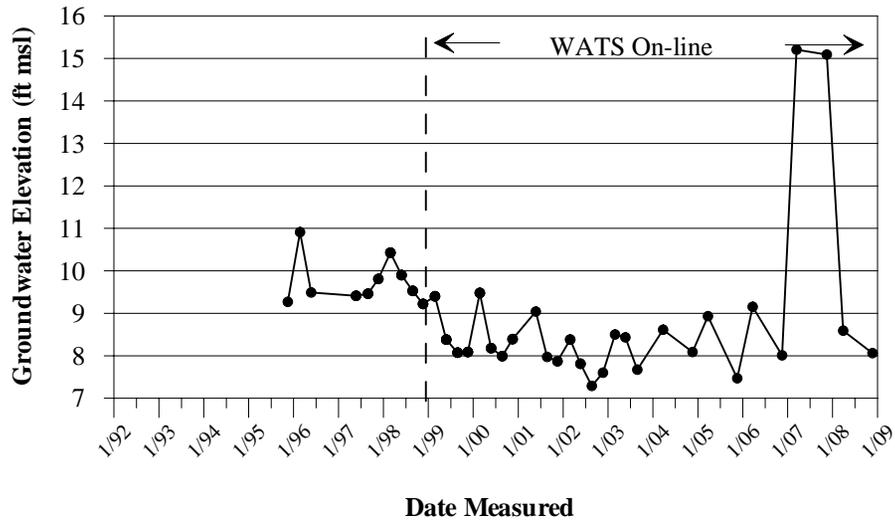
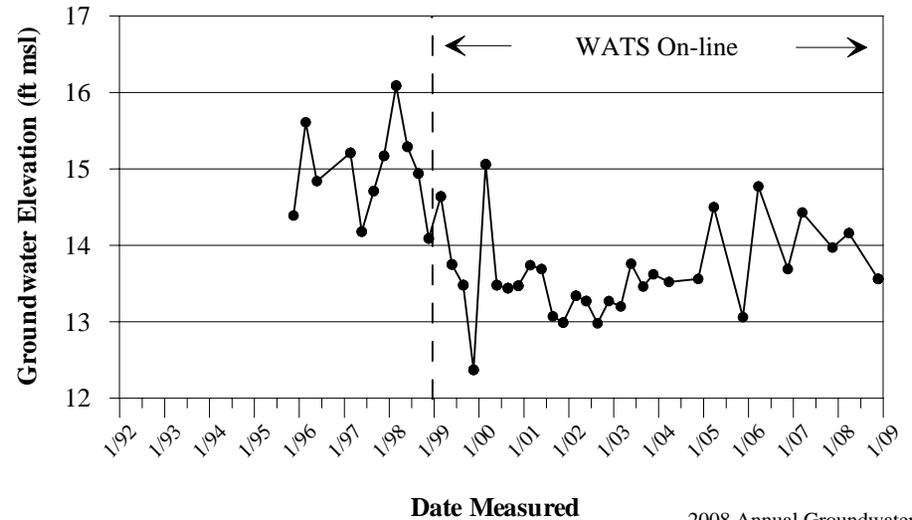
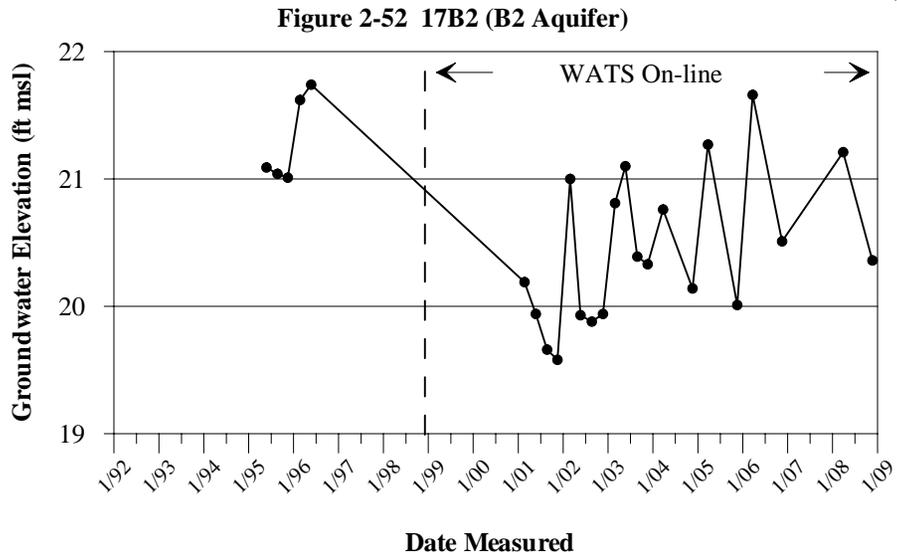


Figure 2-51 W9-40 (B2 Aquifer)

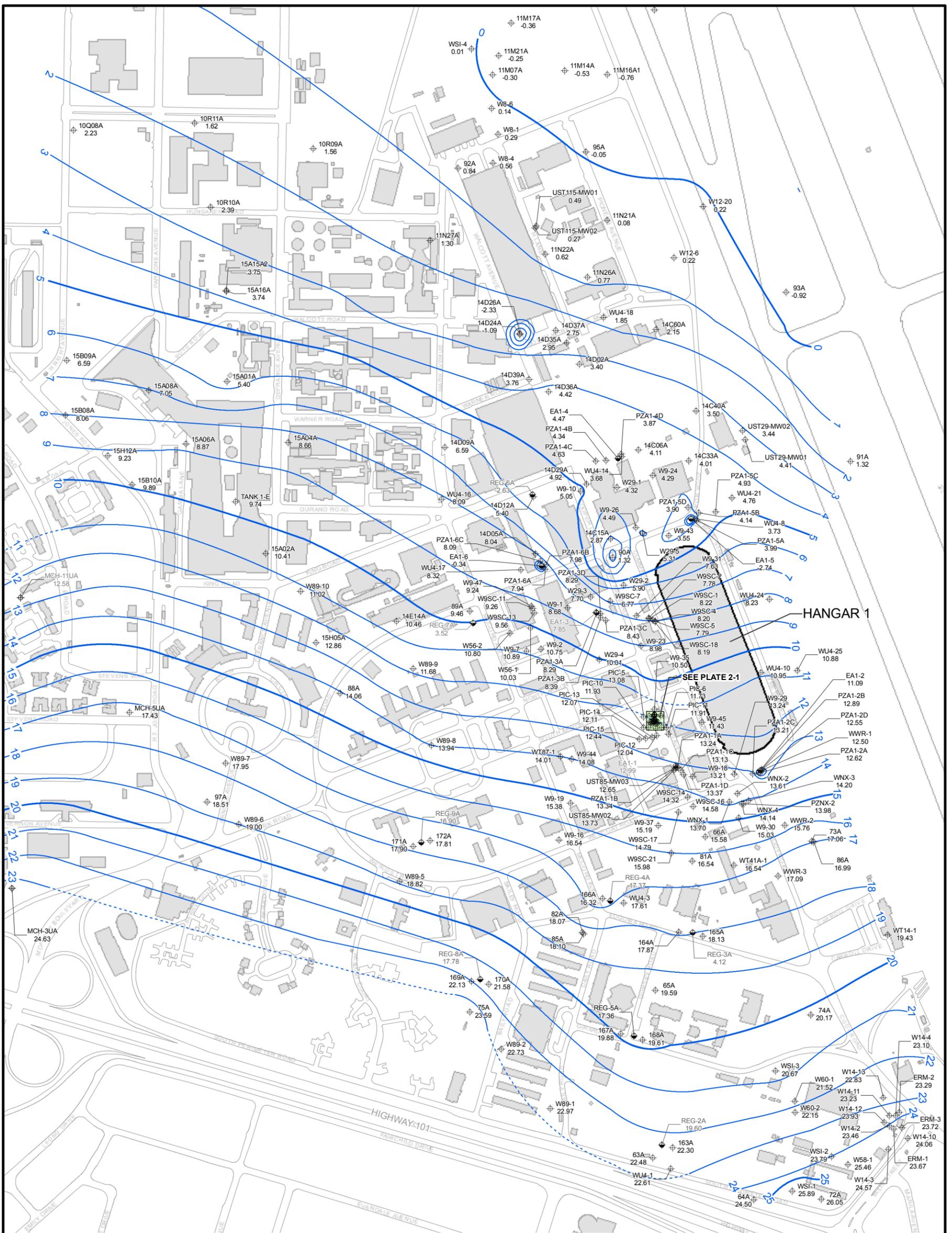


Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURE 2-52
HYDROGRAPH
SITE 28



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level



LEGEND

-  WU4-10 10.95
 MONITORING WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
-  EA1-2 11.09
 EXTRACTION WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
 ADJUSTED FOR WELL LOSS
-  REG-6A -2.63
 EXTRACTION WELL LOCATION
 WATER ELEVATION IN FEELT (MSL)
 NOT ADJUSTED FOR WELL LOSS
 NOT USED FOR GROUNDWATER
 ELEVATION CONTOURING
-  5
 GROUNDWATER ELEVATION
 CONTOUR IN FEET (MSL)
 DASHED WHERE INFERRED
-  ROAD
-  BUILDING

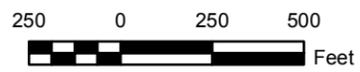
NOTES:

- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
- GPM - GALLONS PER MINUTE
- MSL - MEAN SEA LEVEL
- NAS - NAVAL AIR STATION
- WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM

WATER LEVELS MEASURED ON MARCH 27, 2008

EXTRACTION WELL	FLOW RATE * (GPM)
EA1-1**	0.4
EA1-2	9.8
EA1-3**	0.8
EA1-4	1.2
EA1-5	4.4
EA1-6	1.3

*AVERAGE FOR WEEK ENDING MARCH 28, 2008
 **NOT ADJUSTED FOR WELL LOSS DUE TO BELOW AVERAGE FLOW RATE IN MARCH 2008



Scale: 1" = 500'



**BASE REALIGNMENT AND CLOSURE
 PROGRAM MANAGEMENT OFFICE WEST
 SAN DIEGO, CALIFORNIA**

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

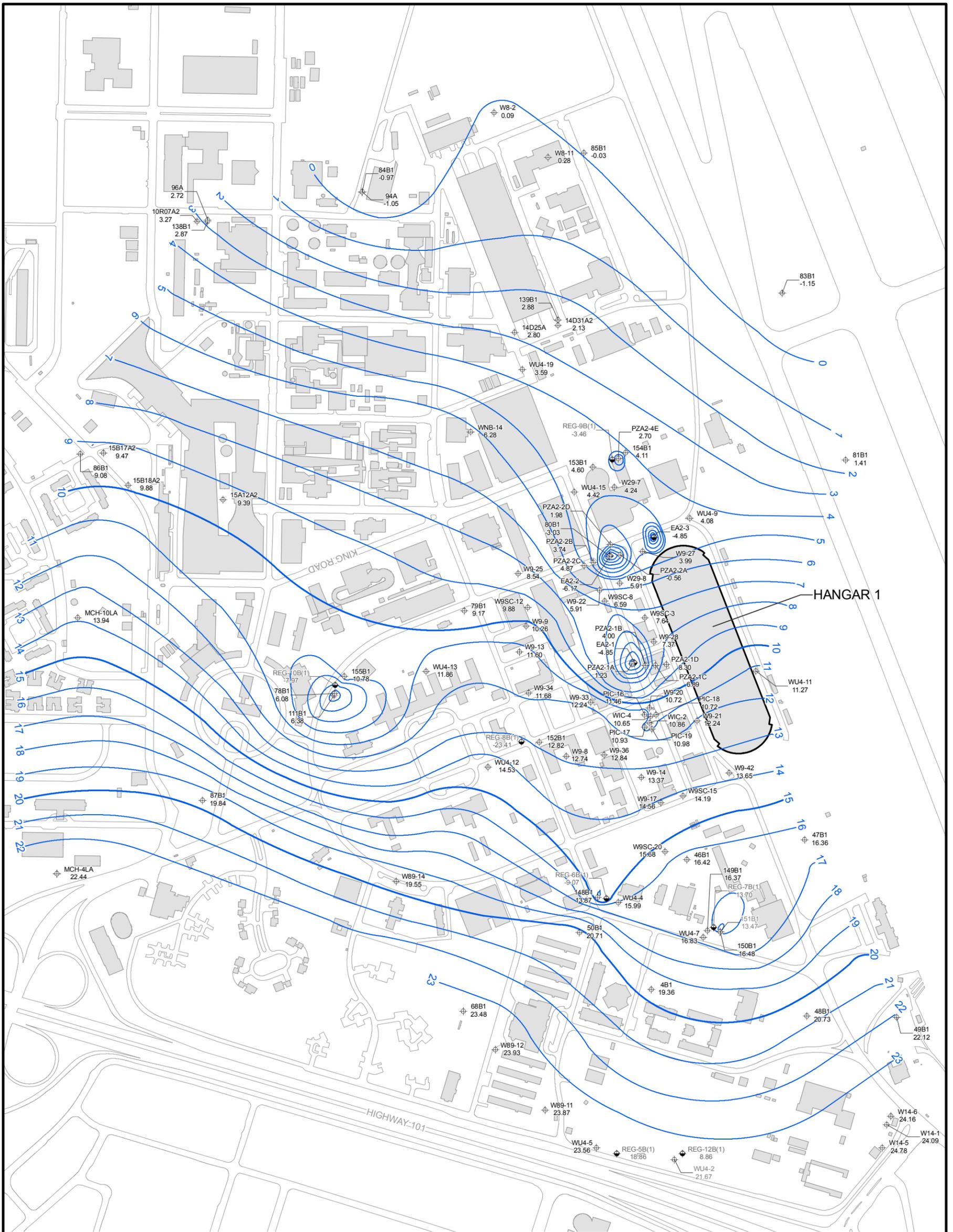
FIGURE 2-53

POTENTIOMETRIC SURFACE MAP, SITE 28,
 UPPER PORTION OF THE AQUIFER - MARCH 2008

FORMER NAS MOFFETT FIELD
 MOFFETT FIELD, CA

REVIEW: B
 AUTHOR: RKH
 DCN: SEST-3220-0004-0038
 FILE NUMBER: SEST46P4631.mxd

SES-TECH



LEGEND

- 
WU4-12
 MONITORING WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
- 
EA2-2
 EXTRACTION WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
 ADJUSTED FOR WELL LOSS
- 
REG-6B(1)
 EXTRACTION WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
 NOT ADJUSTED FOR WELL LOSS
 NOT USED FOR GROUNDWATER
 ELEVATION CONTOURING
- 
5
 GROUNDWATER ELEVATION
 CONTOUR IN FEET (MSL)
 DASHED WHERE INFERRED
- 
 ROAD
- 
 BUILDING

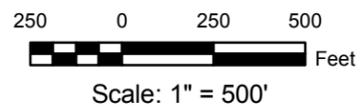
NOTES:

- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
- GPM - GALLONS PER MINUTE
- MSL - MEAN SEA LEVEL
- NAS - NAVAL AIR STATION
- WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM

WATER LEVELS MEASURED ON MARCH 27, 2008

EXTRACTION WELL	FLOW RATE * (GPM)
EA2-1	17.6
EA2-2	19.4
EA2-3	7.4

*AVERAGE FOR WEEK ENDING MARCH 28, 2008



**BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA**

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

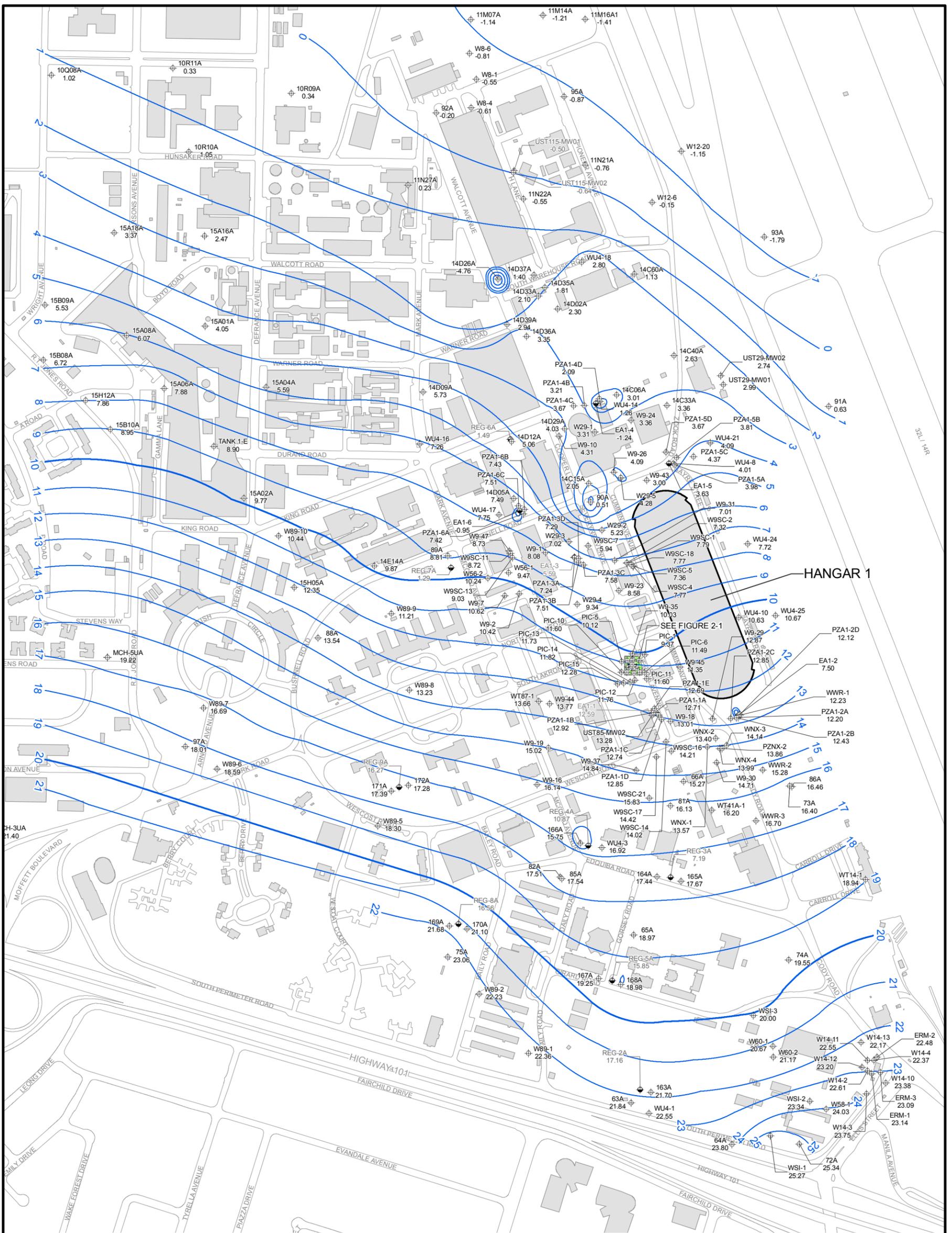
FIGURE 2-54

POTENTIOMETRIC SURFACE MAP, SITE 28,
LOWER PORTION OF THE AQUIFER - MARCH 2008

FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CA

REVIEW: B
AUTHOR: RKH
DCN: SEST-3220-0004-0038
FILE NUMBER: SEST46P4632.mxd

SES-TECH



LEGEND

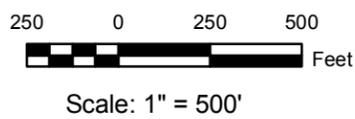
- PZA1-2D
 MONITORING WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
- EA1-2
 EXTRACTION WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
 ADJUSTED FOR WELL LOSS
- REG-6A
 EXTRACTION WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
 NOT ADJUSTED FOR WELL LOSS
 NOT USED FOR GROUNDWATER
 ELEVATION CONTOURING
- 5
 GROUNDWATER ELEVATION
 CONTOUR IN FEET (MSL)
 DASHED WHERE INFERRED
- ROAD
- BUILDING

NOTES:

- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
- GPM - GALLONS PER MINUTE
- MSL - MEAN SEA LEVEL
- NAS - NAVAL AIR STATION
- WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM
- WATER LEVELS MEASURED ON NOVEMBER 20, 2008

EXTRACTION WELL	FLOW RATE * (GPM)
EA1-1**	0.4
EA1-2	10.3
EA1-3**	2.4
EA1-4	1.9
EA1-5	1.0
EA1-6	1.0

*AVERAGE FOR WEEK ENDING NOVEMBER 21, 2008
 **EA-1 AND EA-3 NOT ADJUSTED FOR WELL LOSS DUE TO BELOW AVERAGE FLOW RATE IN NOVEMBER 2008

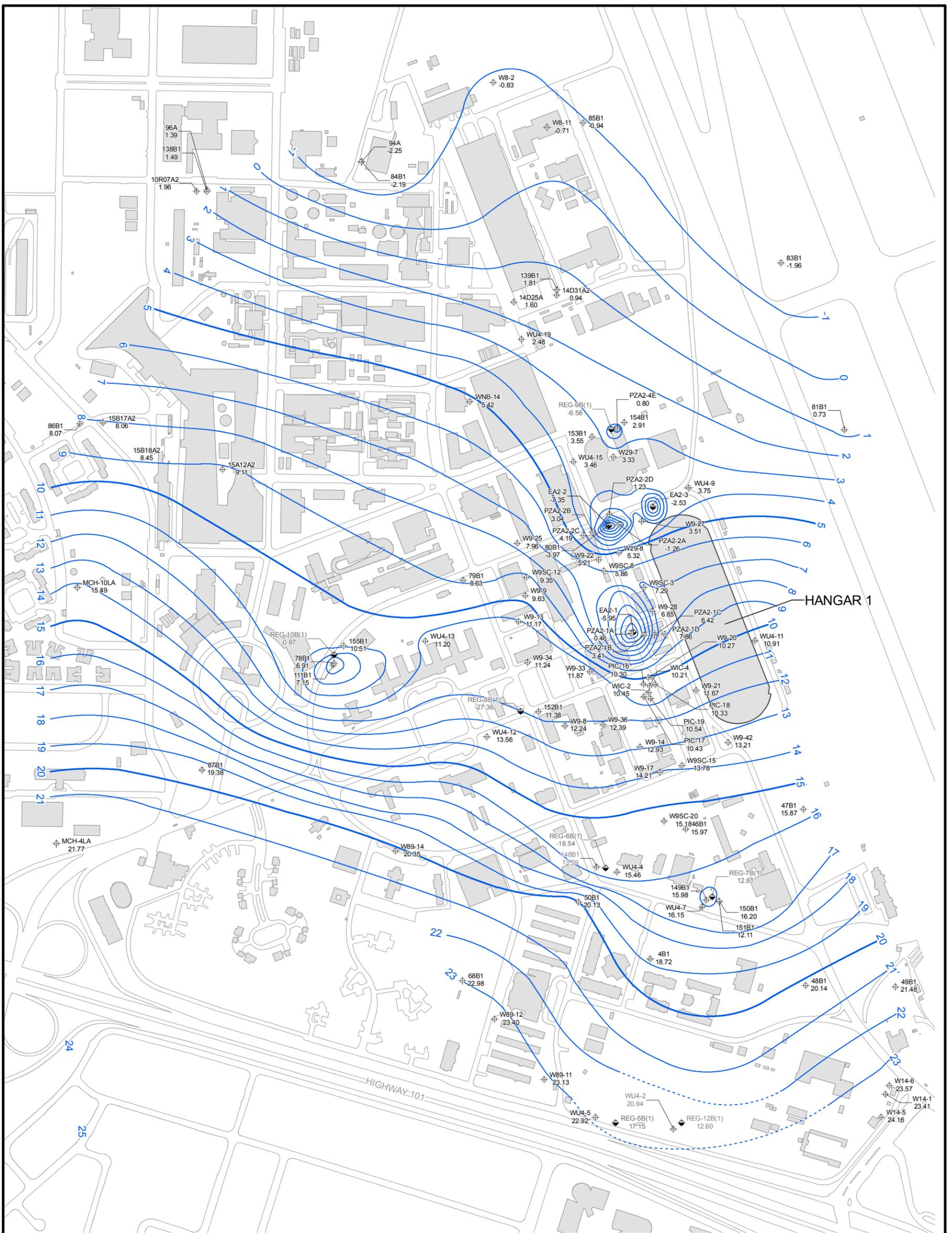


**BASE REALIGNMENT AND CLOSURE
 PROGRAM MANAGEMENT OFFICE WEST
 SAN DIEGO, CALIFORNIA**

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURE 2-55
 POTENTIOMETRIC SURFACE MAP, SITE 28,
 UPPER PORTION OF THE A AQUIFER - NOVEMBER 2008
 FORMER NAS MOFFETT FIELD
 MOFFETT FIELD, CA

REVIEW: B
 AUTHOR: RKH
 DCN: SEST-3220-0004-0038
 FILE NUMBER: SEST46P4633.mxd

SES-TECH



LEGEND

- WU4-12
14.27
MONITORING WELL LOCATION
WATER ELEVATION IN FEET (MSL)
- EA2-1
-5.95
EXTRACTION WELL LOCATION
WATER ELEVATION IN FEET (MSL)
ADJUSTED FOR WELL LOSS
- REG-6B(1)
-18.54
EXTRACTION WELL LOCATION
WATER ELEVATION IN FEET (MSL)
NOT ADJUSTED FOR WELL LOSS
NOT USED FOR GROUNDWATER
ELEVATION CONTOURING
- 5
GROUNDWATER ELEVATION
CONTOUR IN FEET (MSL)
DASHED WHERE INFERRED
- ROAD
- BUILDING

NOTES:

- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
- GPM - GALLONS PER MINUTE
- MSL - MEAN SEA LEVEL
- NAS - NAVAL AIR STATION
- WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM

WATER LEVELS MEASURED ON NOVEMBER 20, 2008

EXTRACTION WELL	FLOW RATE * (GPM)
EA2-1	17.4
EA2-2	18.8
EA2-3	7.5

*AVERAGE FOR WEEK ENDING NOVEMBER 21, 2008



Scale: 1" = 500'



**BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA**

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

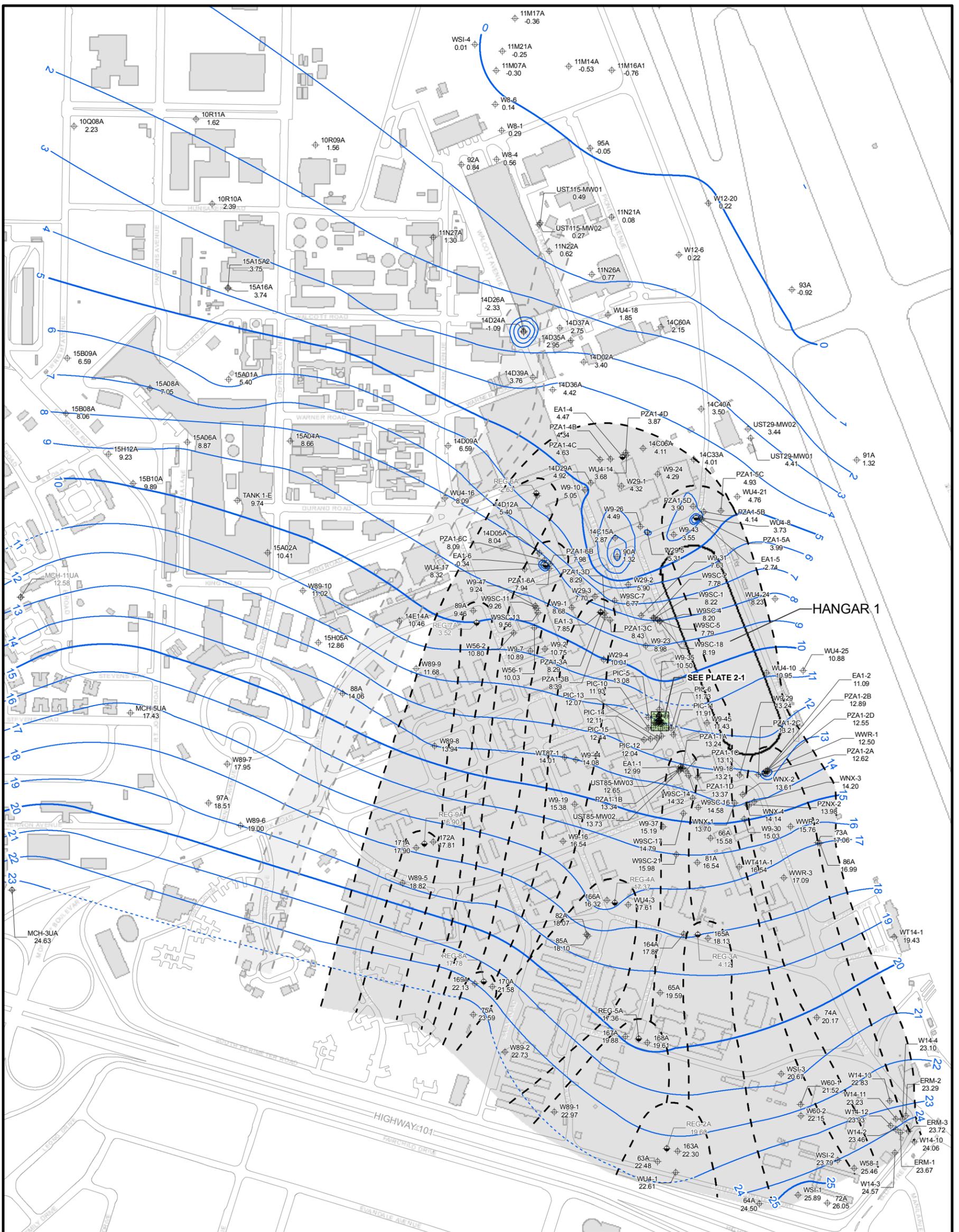
FIGURE 2-56

POTENTIOMETRIC SURFACE MAP, SITE 28,
LOWER PORTION OF THE A AQUIFER - NOVEMBER 2008

FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CA

REVISION: B
AUTHOR: RKH
DCN: SEST-3220-0004-0038
FILE NUMBER: SEST46P4634.mxd

SES-TECH



LEGEND

- 
WU4-10
 MONITORING WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
- 
EA1-2
 EXTRACTION WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
 ADJUSTED FOR WELL LOSS
- 
REG-6A
 EXTRACTION WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
 NOT ADJUSTED FOR WELL LOSS
 NOT USED FOR GROUNDWATER
 ELEVATION CONTOURING
- 
5
 GROUNDWATER ELEVATION
 CONTOUR IN FEET (MSL)
 DASHED WHERE INFERRED
- 
 ROAD
- 
 ESTIMATED EXTENT OF HYDRAULIC
 CAPTURE
- 
 HISTORICAL ESTIMATED EXTENT OF
 HYDRAULIC CAPTURE, WELLS NOT
 GAUGED IN 2008
- 
 BUILDING

NOTES:

- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
- GPM - GALLONS PER MINUTE
- MSL - MEAN SEA LEVEL
- NAS - NAVAL AIR STATION
- WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM

WATER LEVELS MEASURED ON MARCH 27, 2008

EXTRACTION WELL	FLOW RATE * (GPM)
EA1-1**	0.4
EA1-2	9.8
EA1-3**	0.8
EA1-4	1.2
EA1-5	4.4
EA1-6	1.3

*AVERAGE FOR WEEK ENDING MARCH 28, 2008

**NOT ADJUSTED FOR WELL LOSS DUE TO BELOW AVERAGE FLOW RATE IN MARCH 2008



Scale: 1" = 500'



**BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA**

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

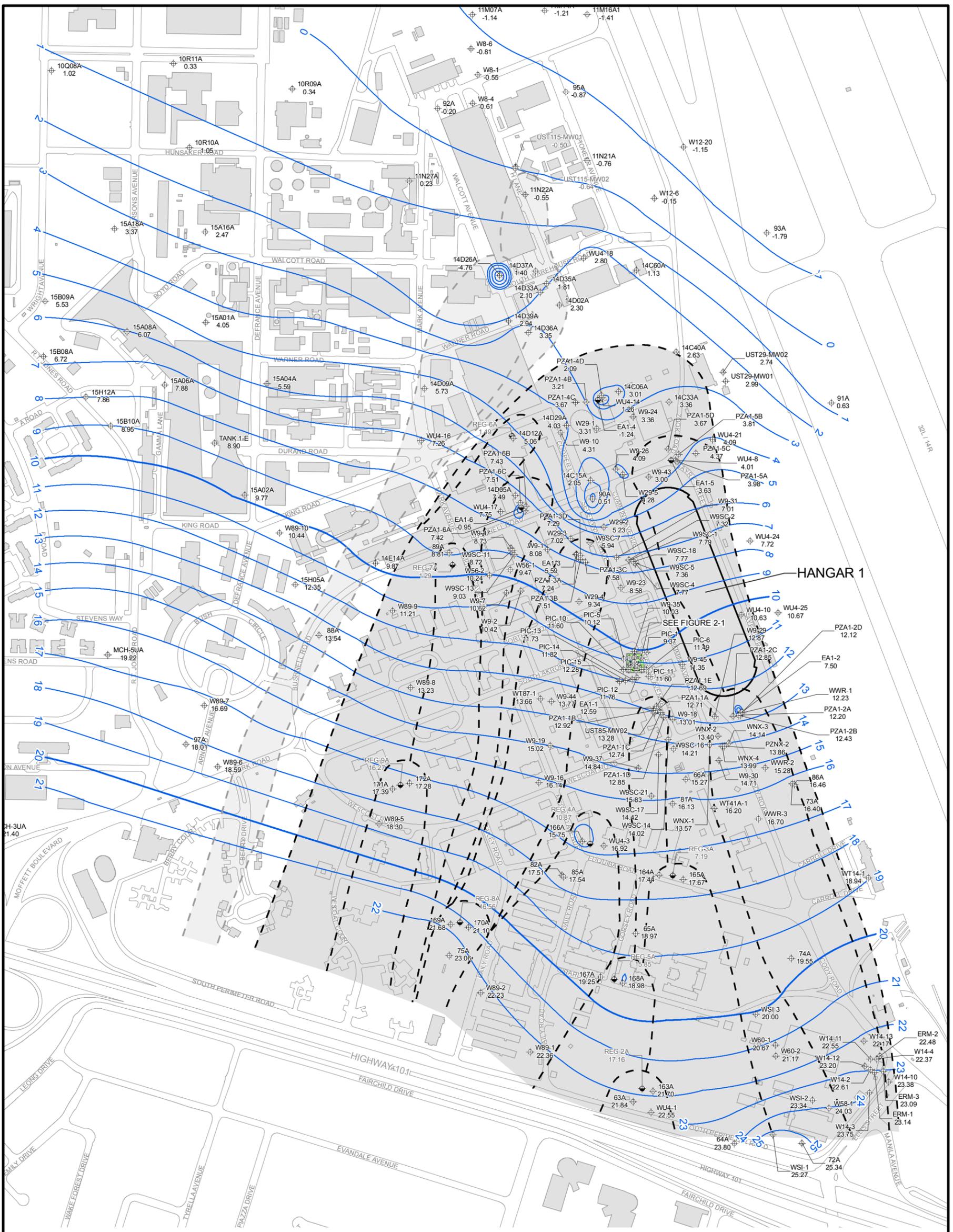
FIGURE 2-57

CAPTURE ZONE MAP, SITE 28,
UPPER PORTION OF THE AQUIFER - MARCH 2008

FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CA

REVIEW: B
AUTHOR: RKH
DCN: SEST-3220-0004-0038
FILE NUMBER: SEST46P4635.mxd

SES-TECH



LEGEND

-  PZA1-2D
 MONITORING WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
-  EA1-2
 EXTRACTION WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
 ADJUSTED FOR WELL LOSS
-  REG-6A
 EXTRACTION WELL LOCATION
 WATER ELEVATION IN FEET (MSL)
 NOT ADJUSTED FOR WELL LOSS
 NOT USED FOR GROUNDWATER
 ELEVATION CONTOURING
-  5
 GROUNDWATER ELEVATION
 CONTOUR IN FEET (MSL)
 DASHED WHERE INFERRED
-  ROAD
-  ESTIMATED EXTENT OF HYDRAULIC
 CAPTURE
-  HISTORICAL ESTIMATED EXTENT OF
 HYDRAULIC CAPTURE, WELLS NOT
 GAUGED IN 2008
-  BUILDING

NOTES:

- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
- GPM - GALLONS PER MINUTE
- MSL - MEAN SEA LEVEL
- NAS - NAVAL AIR STATION
- WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM

WATER LEVELS MEASURED ON NOVEMBER 20, 2008

EXTRACTION WELL	FLOW RATE * (GPM)
EA1-1**	0.4
EA1-2	10.3
EA1-3**	2.4
EA1-4	1.9
EA1-5	1.0
EA1-6	1.0

*AVERAGE FOR WEEK ENDING NOVEMBER 21, 2008
 **NOT ADJUSTED FOR WELL LOSS DUE TO BELOW
 AVERAGE FLOW RATE IN NOVEMBER 2008



Scale: 1" = 500'

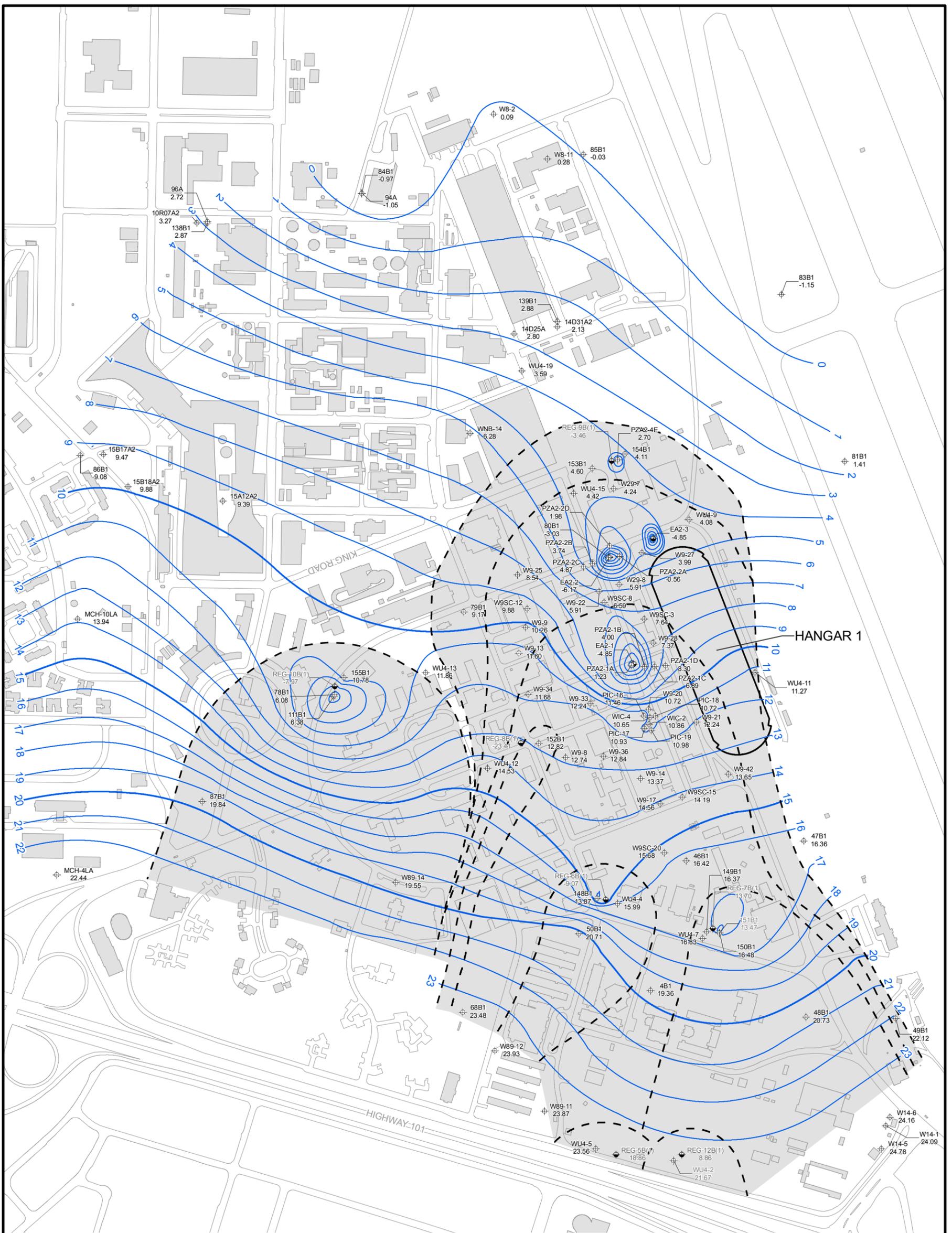


**BASE REALIGNMENT AND CLOSURE
 PROGRAM MANAGEMENT OFFICE WEST
 SAN DIEGO, CALIFORNIA**

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURE 2-58
 CAPTURE ZONE MAP, SITE 28,
 UPPER PORTION OF THE AQUIFER - NOVEMBER 2008
 FORMER NAS MOFFETT FIELD
 MOFFETT FIELD, CA

REVIEW: B
 AUTHOR: RKH
 DCN: SEST-3220-0004-0038
 FILE NUMBER: SEST46P4636.mxd

SES-TECH



LEGEND

- WU4-12
14.68
MONITORING WELL LOCATION
WATER ELEVATION IN FEET (MSL)
- EA2-2
-6.17
EXTRACTION WELL LOCATION
WATER ELEVATION IN FEET (MSL)
ADJUSTED FOR WELL LOSS
- REG-6A
-2.63
EXTRACTION WELL LOCATION
WATER ELEVATION IN FEET (MSL)
NOT ADJUSTED FOR WELL LOSS
NOT USED FOR GROUNDWATER
ELEVATION CONTOURING
- 5
GROUNDWATER ELEVATION
CONTOUR IN FEET (MSL)
DASHED WHERE INFERRED
- ROAD
- ESTIMATED EXTENT OF HYDRAULIC
CAPTURE
- BUILDING

NOTES:

- EATS - EAST-SIDE AQUIFER
TREATMENT SYSTEM
- GPM - GALLONS PER MINUTE
- MSL - MEAN SEA LEVEL
- NAS - NAVAL AIR STATION
- WATS - WEST-SIDE AQUIFERS
TREATMENT SYSTEM

WATER LEVELS MEASURED ON MARCH 27, 2008

EXTRACTION WELL	FLOW RATE * (GPM)
EA2-1	17.6
EA2-2	19.4
EA2-3	7.4

*AVERAGE FOR WEEK ENDING MARCH 28, 2008



Scale: 1" = 500'



**BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA**

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

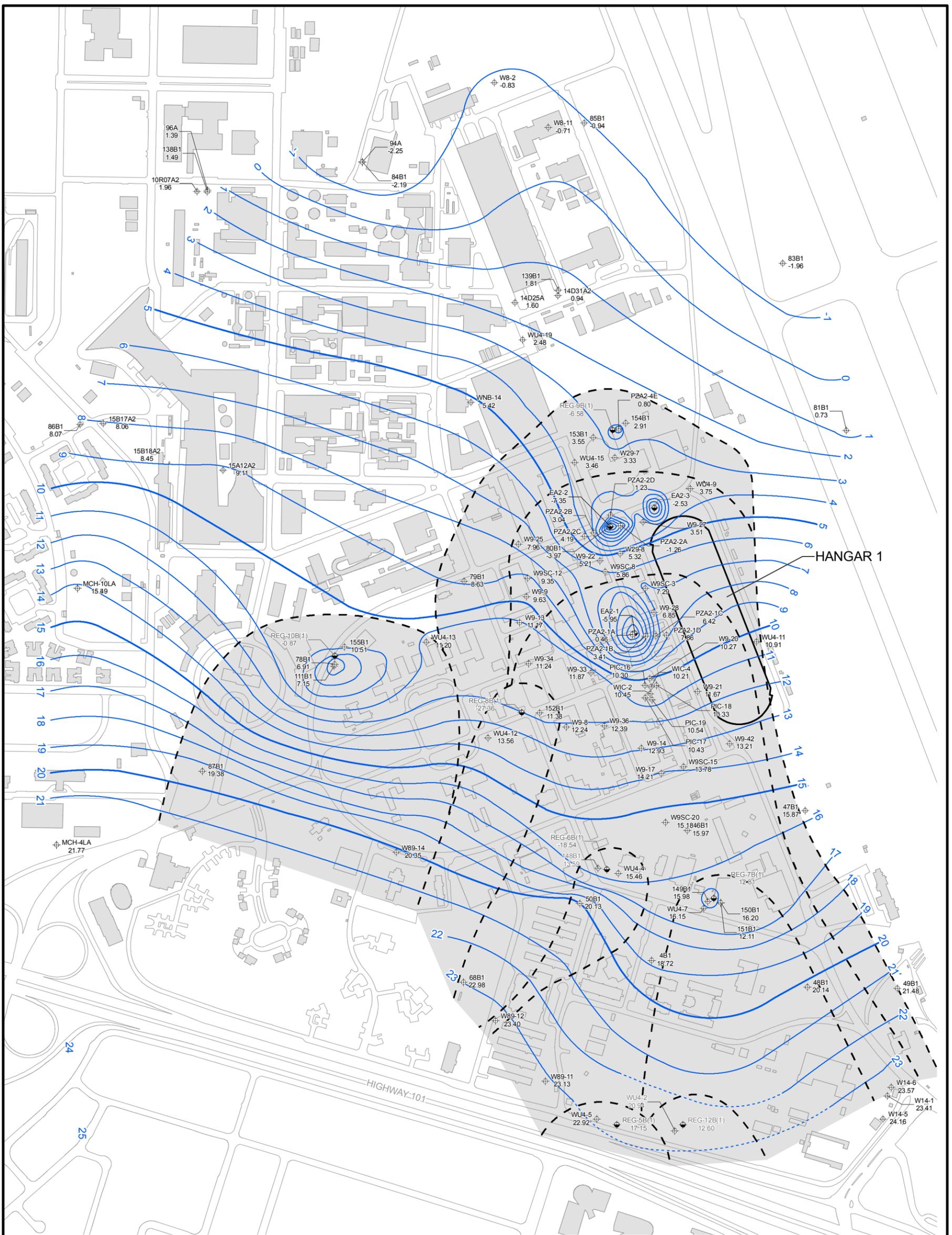
FIGURE 2-59

CAPTURE ZONE MAP, SITE 28,
LOWER PORTION OF THE AQUIFER - MARCH 2008

FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CA

REVIEW: B
AUTHOR: RKH
DCN: SEST-3220-0004-0038
FILE NUMBER: SEST46P4637.mxd

SES-TECH



LEGEND

- WU4-12
14.27
MONITORING WELL LOCATION
WATER ELEVATION IN FEET (MSL)
- EA2-1
-5.95
EXTRACTION WELL LOCATION
WATER ELEVATION IN FEET (MSL)
ADJUSTED FOR WELL LOSS
- REG-6B(1)
-18.54
EXTRACTION WELL LOCATION
WATER ELEVATION IN FEET (MSL)
NOT ADJUSTED FOR WELL LOSS
NOT USED FOR GROUNDWATER
ELEVATION CONTOURING
- 5
GROUNDWATER ELEVATION
CONTOUR IN FEET (MSL)
DASHED WHERE INFERRED
- ROAD
- ESTIMATED EXTENT OF HYDRAULIC
CAPTURE
- HISTORICAL ESTIMATED EXTENT OF
HYDRAULIC CAPTURE, WELLS NOT
GAUGED IN 2008
- BUILDING

NOTES:

- EATS - EAST-SIDE AQUIFER
TREATMENT SYSTEM
- GPM - GALLONS PER MINUTE
- MSL - MEAN SEA LEVEL
- NAS - NAVAL AIR STATION
- WATS - WEST-SIDE AQUIFERS
TREATMENT SYSTEM

WATER LEVELS MEASURED ON NOVEMBER 20, 2008

EXTRACTION WELL	FLOW RATE * (GPM)
EA2-1	17.4
EA2-2	18.8
EA2-3	7.5

*AVERAGE FOR WEEK ENDING NOVEMBER 21, 2008



Scale: 1" = 500'



**BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA**

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

FIGURE 2-60

CAPTURE ZONE MAP, SITE 28,
LOWER PORTION OF THE AQUIFER - NOVEMBER 2008

FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CA

REVISION: B
AUTHOR: RKH
DCN: SEST-3220-0004-0038
FILE NUMBER: SEST46P4638.mxd

SES-TECH

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-61 THROUGH 2-64
TIME SERIES OF TCE CONCENTRATION PLOTS
WATS VICINITY

Figure 2-61 W9-2 (Upper Portion of the A Aquifer)

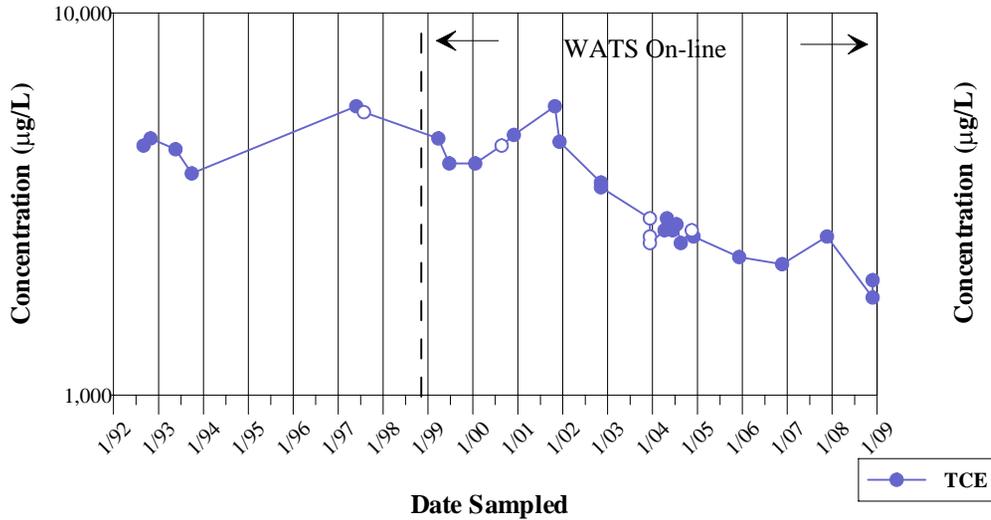


Figure 2-62 14D12A (Upper Portion of the A Aquifer)

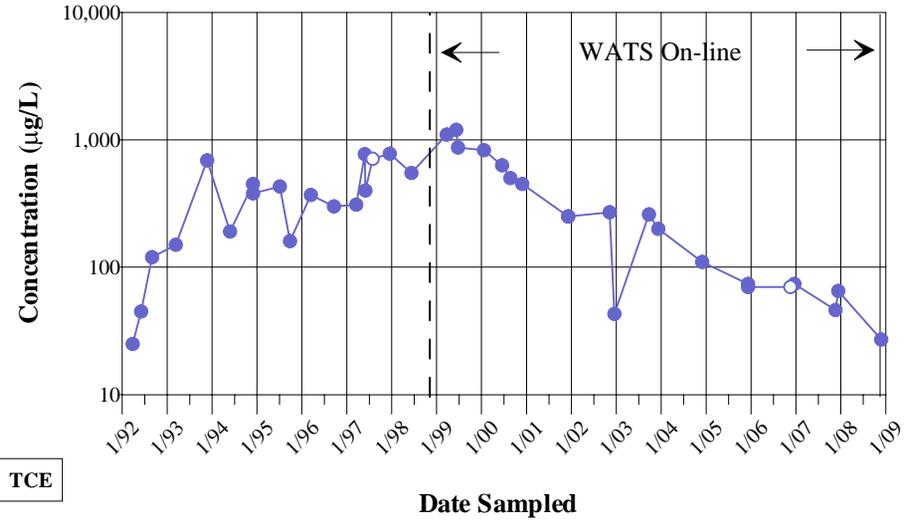


Figure 2-63 W9-10 (Upper Portion of the A Aquifer)

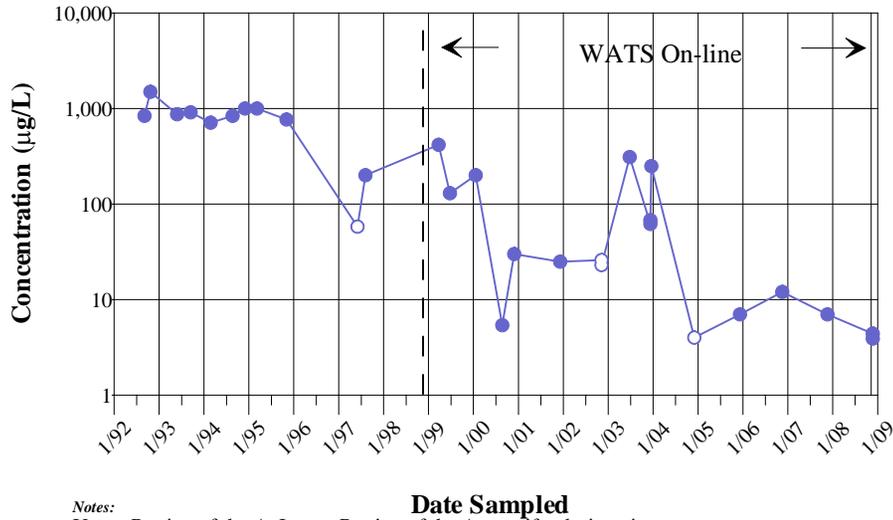
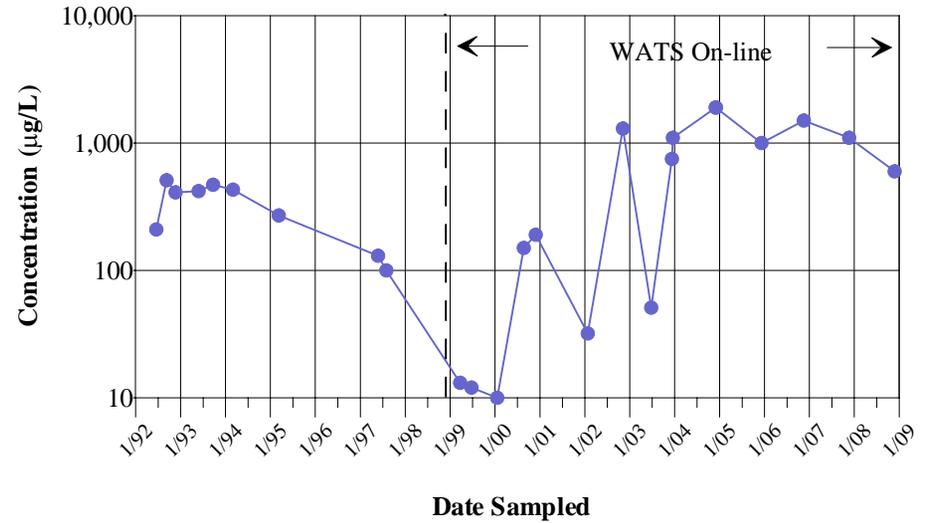


Figure 2-64 WU4-14 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations.
 µg/L - micrograms per liter.
 TCE - Trichloroethene
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-65 THROUGH 2-67
TIME SERIES OF TCE CONCENTRATION PLOTS
DOWNGRADIENT OF WATS

Figure 2-65 14D02A (Upper Portion of the A Aquifer)

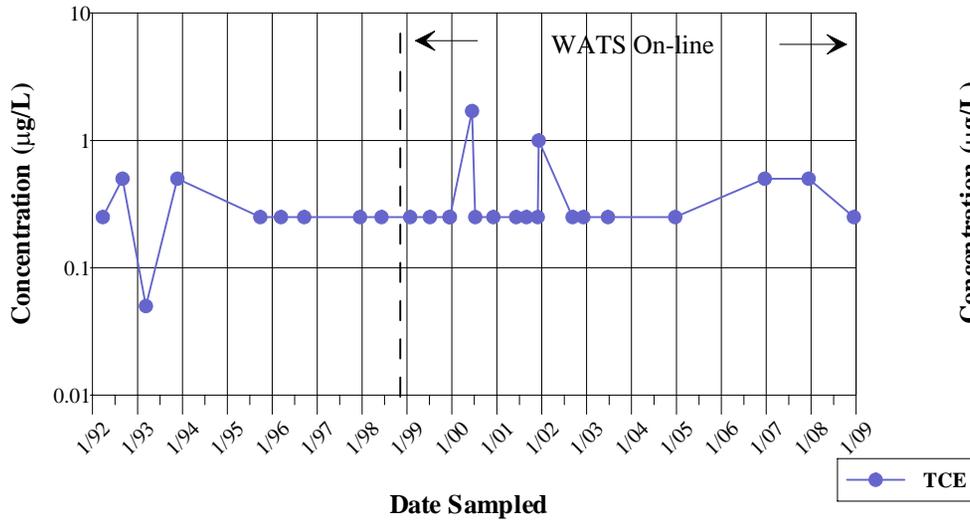


Figure 2-66 14D28A (Upper Portion of the A Aquifer)

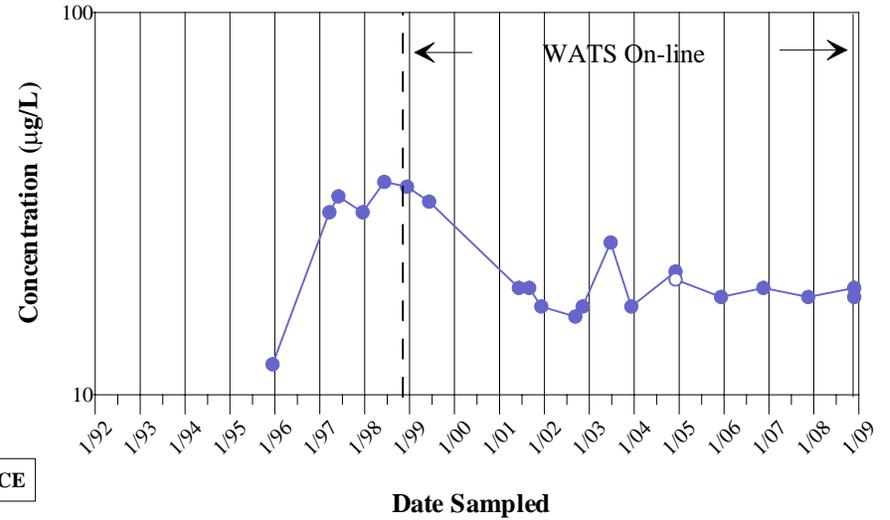
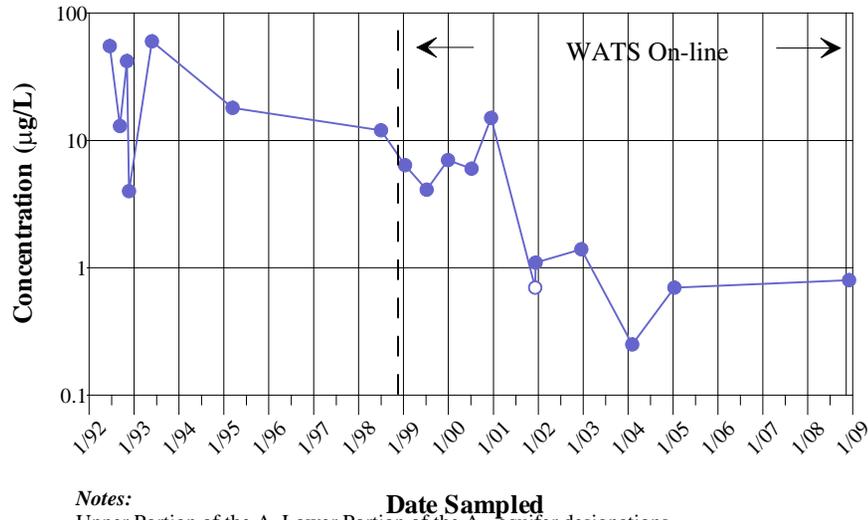


Figure 2-67 WU4-16 (Upper Portion of the A Aquifer)



Notes:

Date Sampled
 Upper Portion of the A, Lower Portion of the A - aquifer designations.

µg/L - micrograms per liter.

TCE - Trichloroethene

Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.

Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-68 THROUGH 2-71
TIME SERIES OF TCE CONCENTRATION PLOTS
WATS VICINITY

Figure 2-68 154B1 (Lower Portion of the A Aquifer)

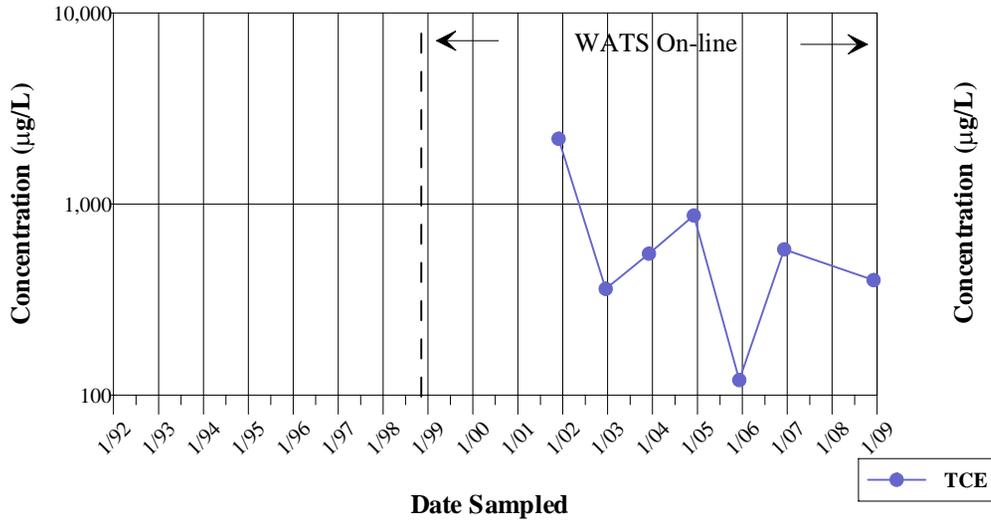


Figure 2-69 W9-25 (Lower Portion of the A Aquifer)

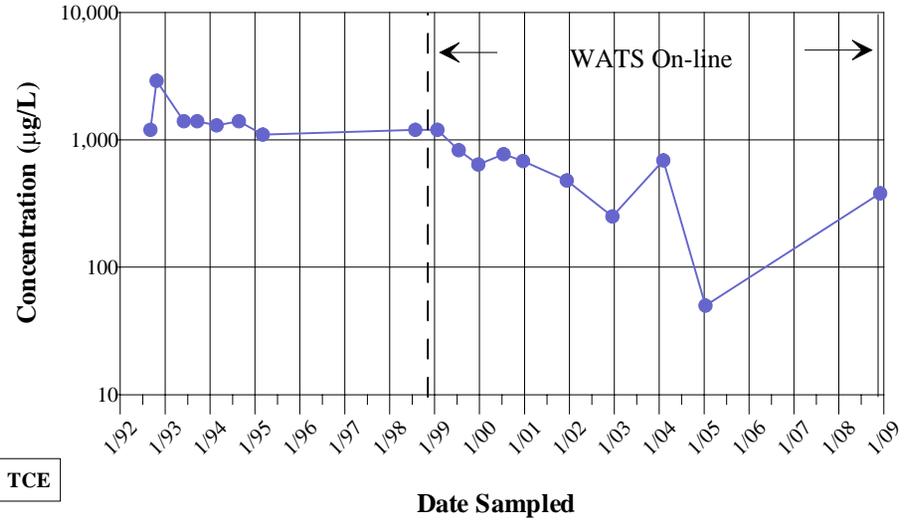


Figure 2-70 W29-7 (Lower Portion of the A Aquifer)

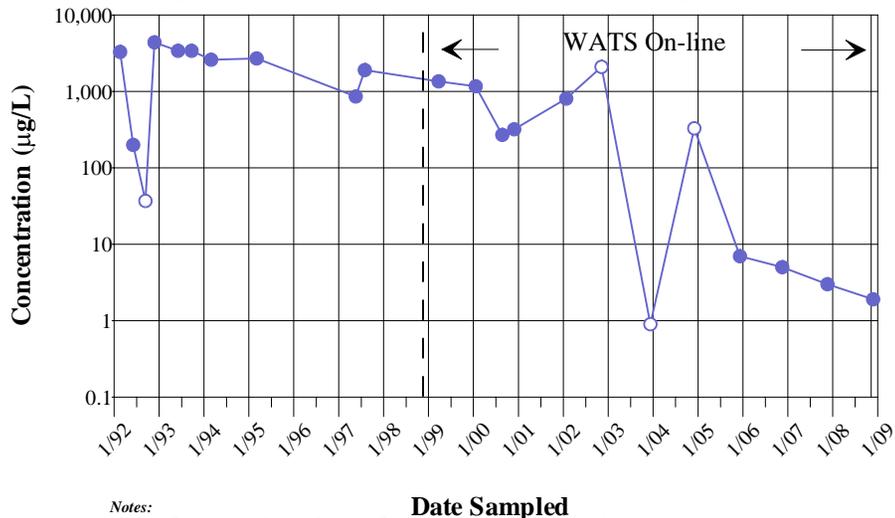
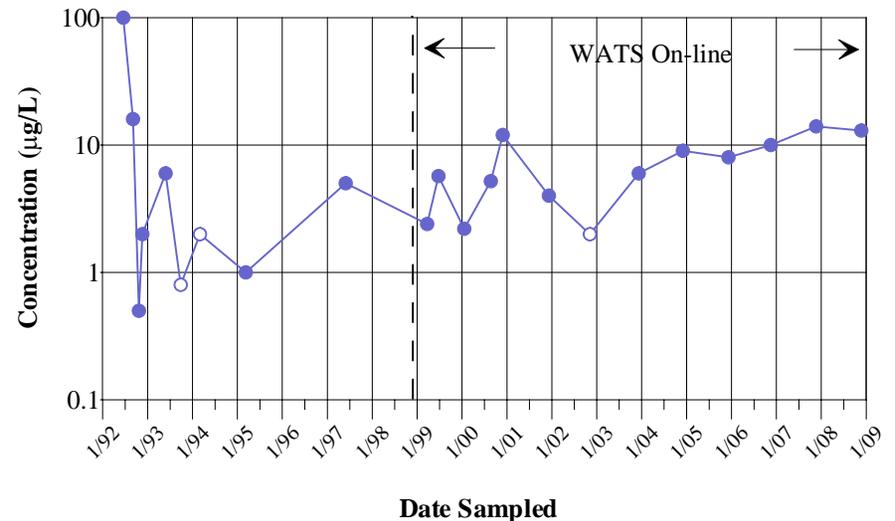


Figure 2-71 WU4-15 (Lower Portion of the A Aquifer)



Notes:

Upper Portion of the A, Lower Portion of the A - aquifer designations.

µg/L - micrograms per liter.

TCE - Trichloroethene

Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.

Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-72 THROUGH 2-74
TIME SERIES OF TCE CONCENTRATION PLOTS
DOWNGRADIENT OF WATS

Figure 2-72 139B1 (Lower Portion of the A Aquifer)

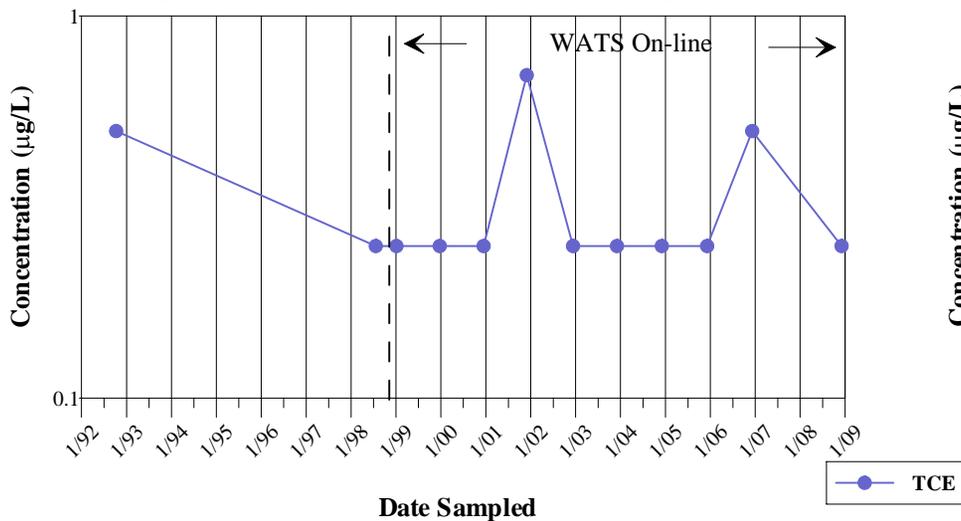


Figure 2-73 WNB-14 (Lower Portion of the A Aquifer)

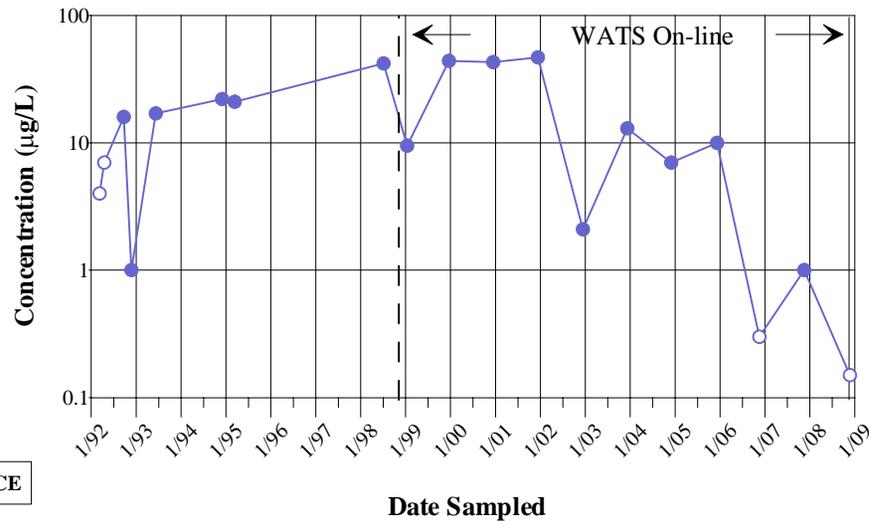
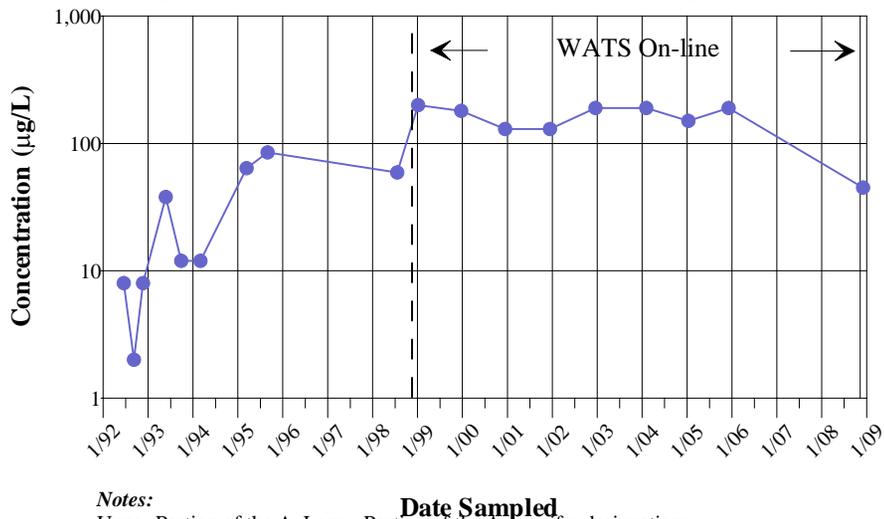


Figure 2-74 WU4-19 (Lower Portion of the A Aquifer)



Notes:

Upper Portion of the A, Lower Portion of the A - aquifer designations.

µg/L - micrograms per liter.

TCE - Trichloroethene

Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.

Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-75 THROUGH 2-78
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 28

Figure 2-75 14C33A (Upper Portion of the A Aquifer)

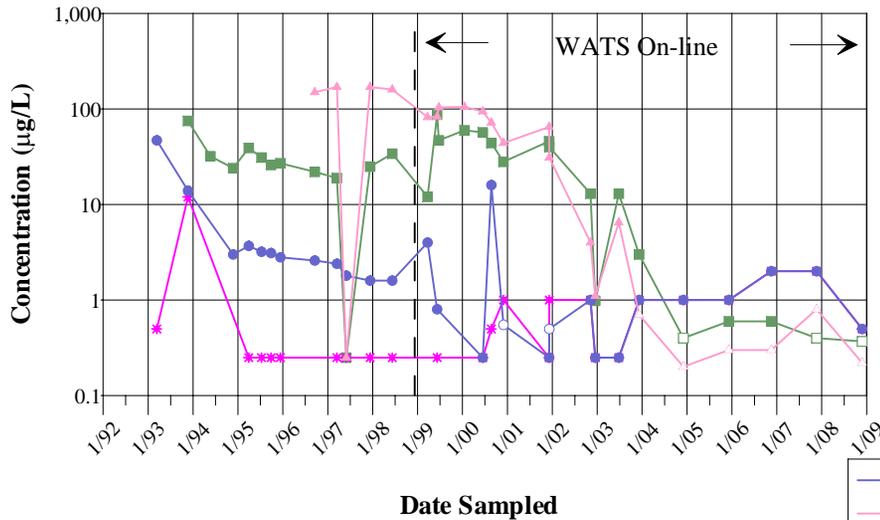


Figure 2-76 14D05A (Upper Portion of the A Aquifer)

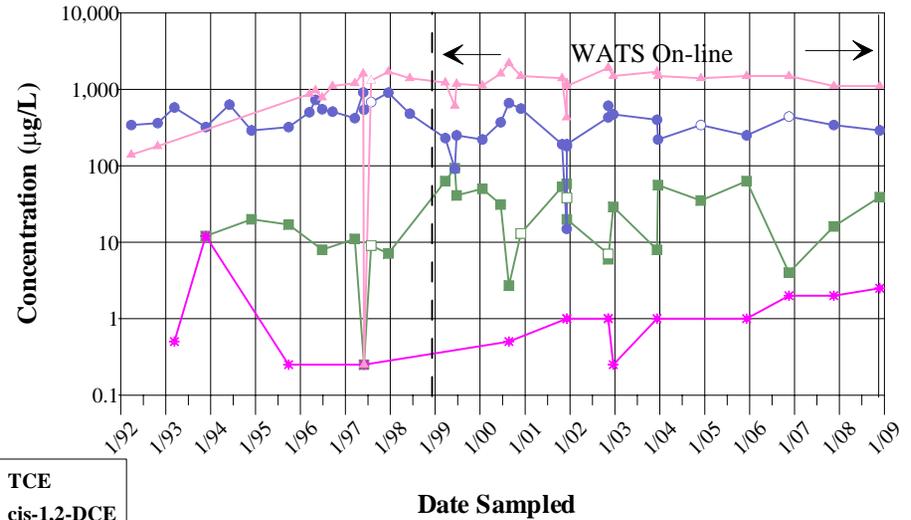


Figure 2-77 W9-2 (Upper Portion of the A Aquifer)

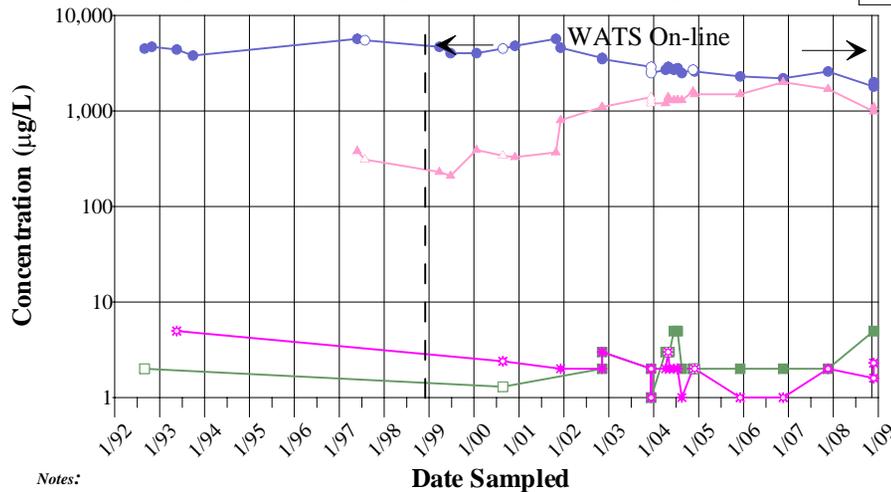
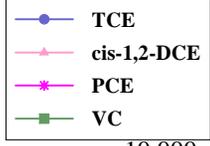
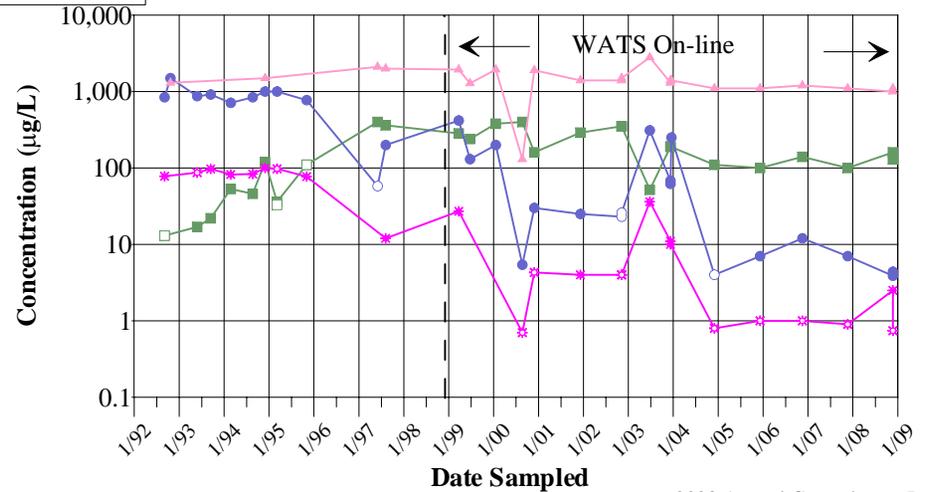


Figure 2-78 W9-10 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter; VOC - Volatile Organic Compound
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2,-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-79 THROUGH 2-82
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 28

Figure 2-79 W9-18 (Upper Portion of the A Aquifer)

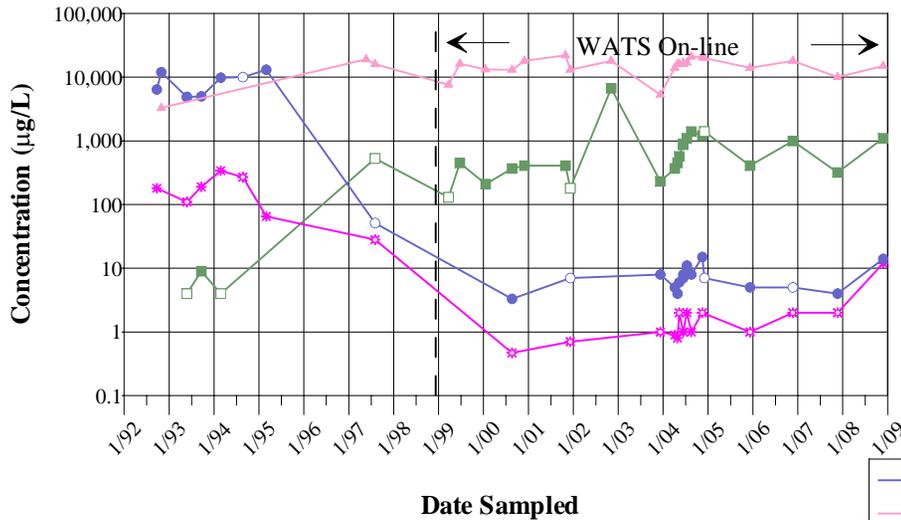


Figure 2-80 W9-19 (Upper Portion of the A Aquifer)

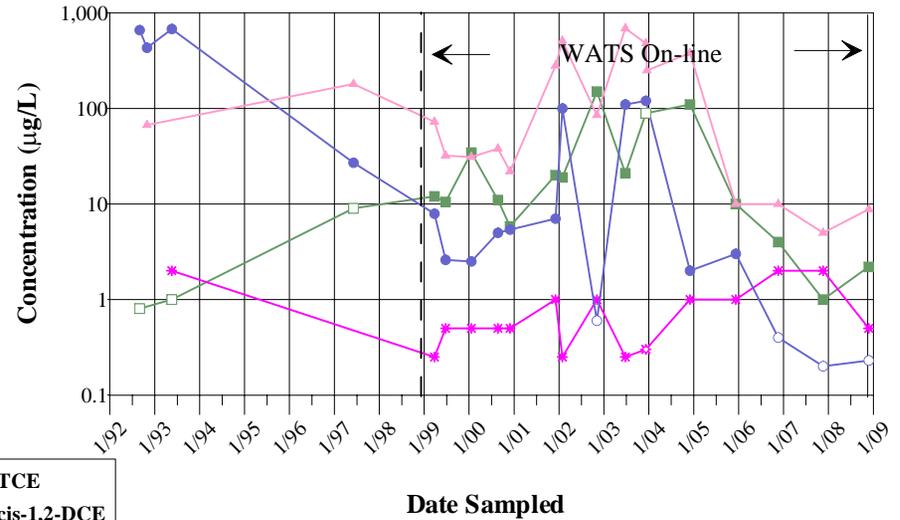


Figure 2-81 W9SC-1 (Upper Portion of the A Aquifer)

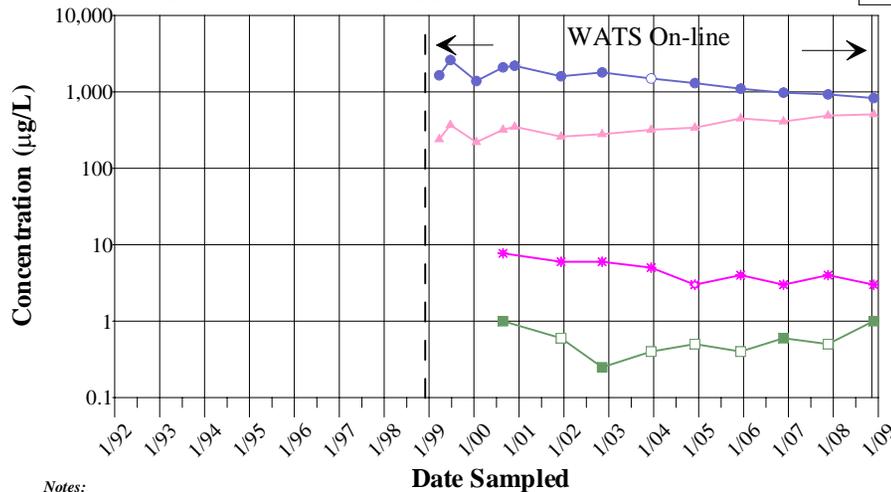
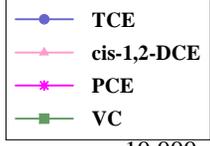
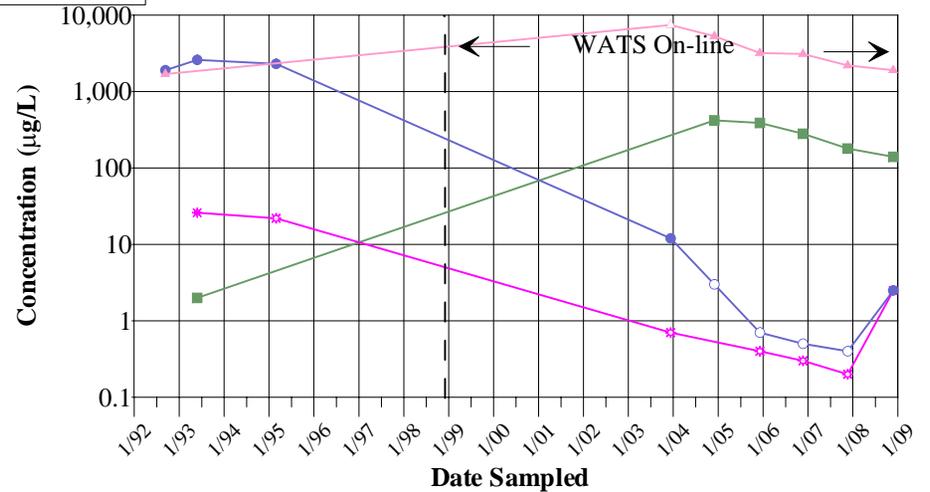


Figure 2-82 W9-31 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter. VOC - Volatile Organic Compound
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2,-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-83 THROUGH 2-86
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 28

Figure 2-83 W9-37 (Upper Portion of the A Aquifer)

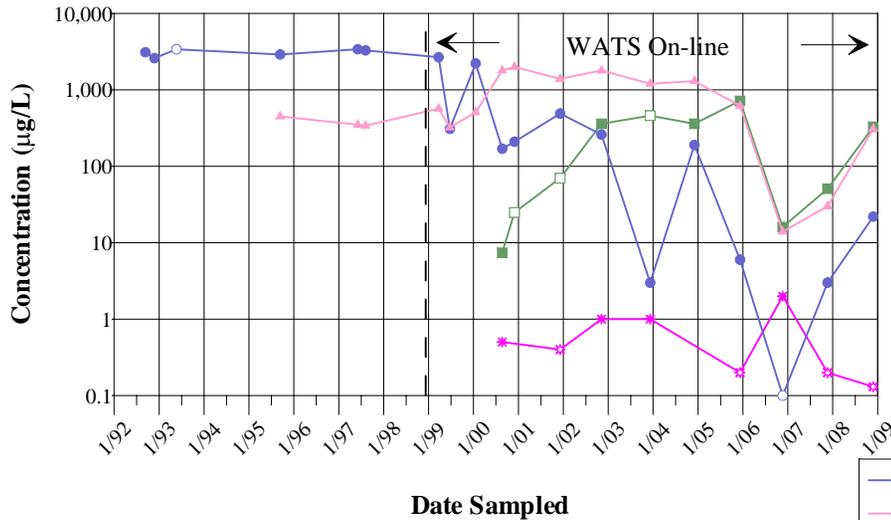


Figure 2-84 W9-45 (Upper Portion of the A Aquifer)

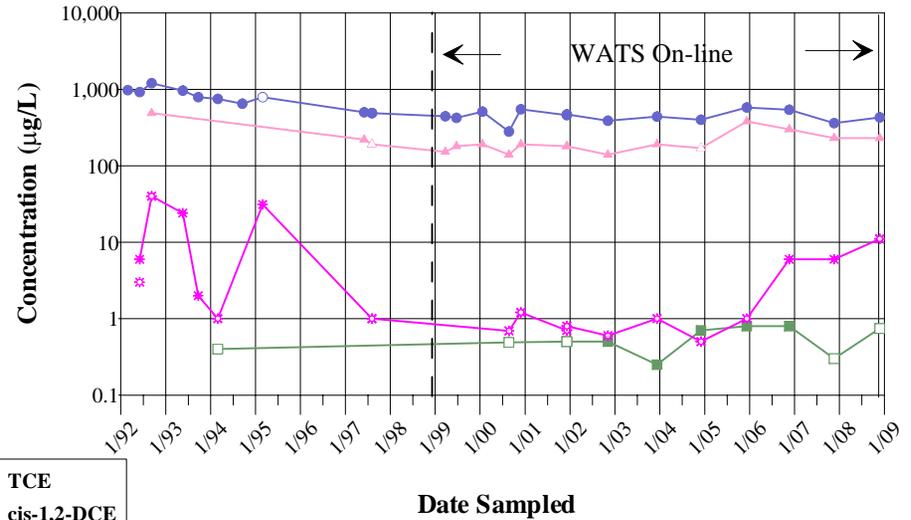


Figure 2-85 W9SC-7 (Upper Portion of the A Aquifer)

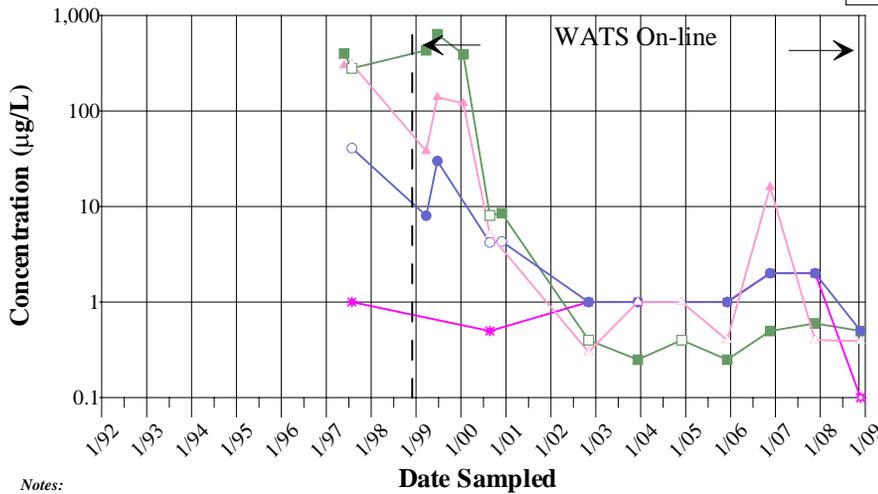
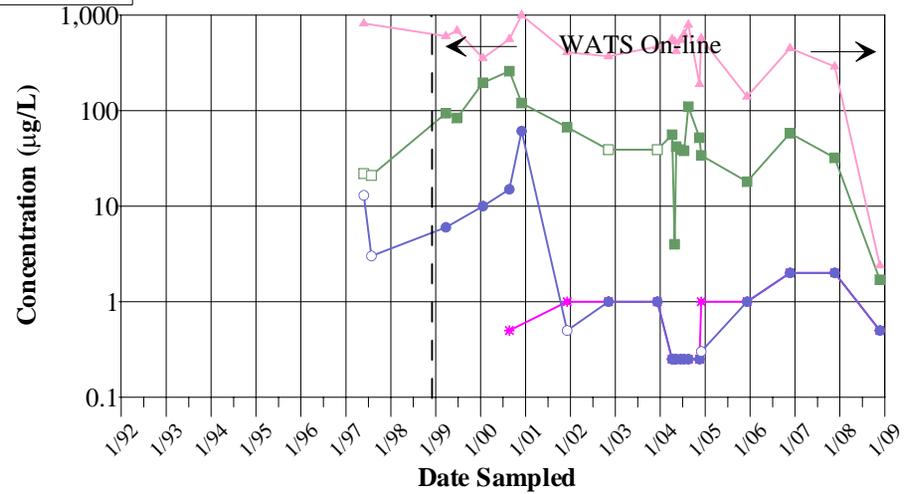


Figure 2-86 W9SC-13 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter. VOC - Volatile Organic Compound
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2,-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-87 THROUGH 2-90
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 28

Figure 2-87 W9SC-14 (Upper Portion of the A Aquifer)

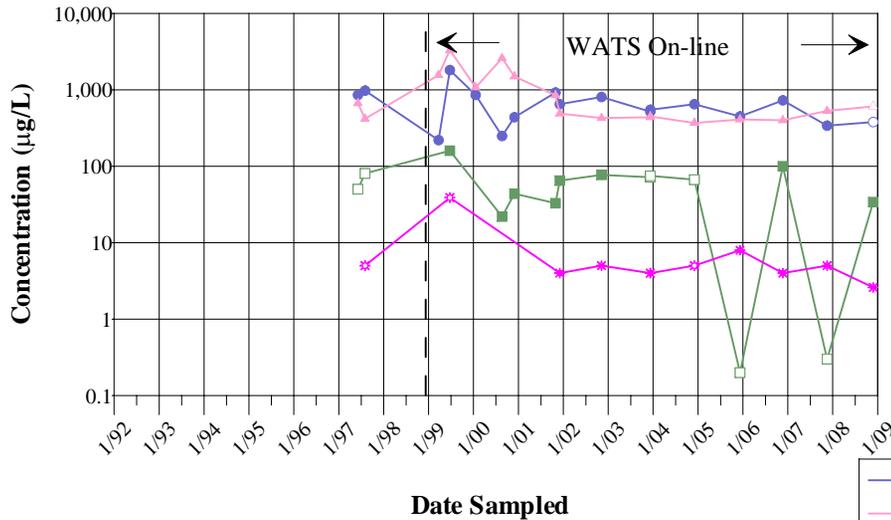


Figure 2-88 W29-1 (Upper Portion of the A Aquifer)

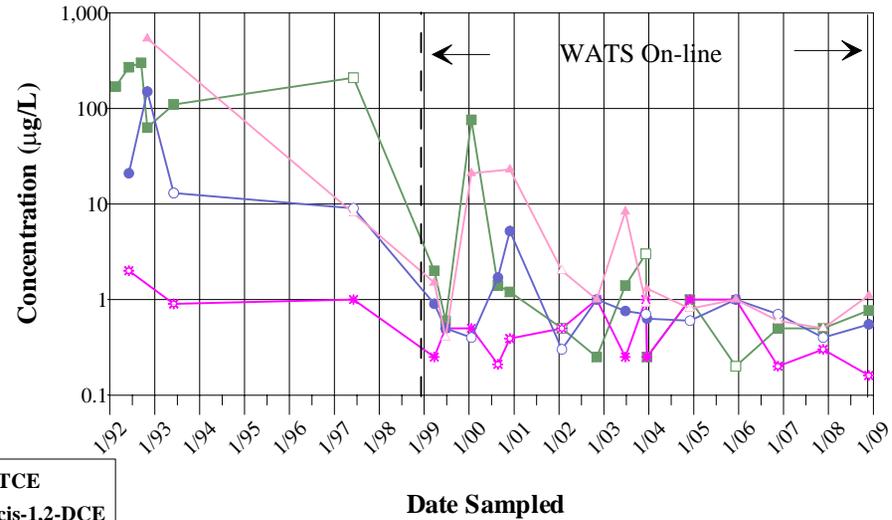


Figure 2-89 W29-3 (Upper Portion of the A Aquifer)

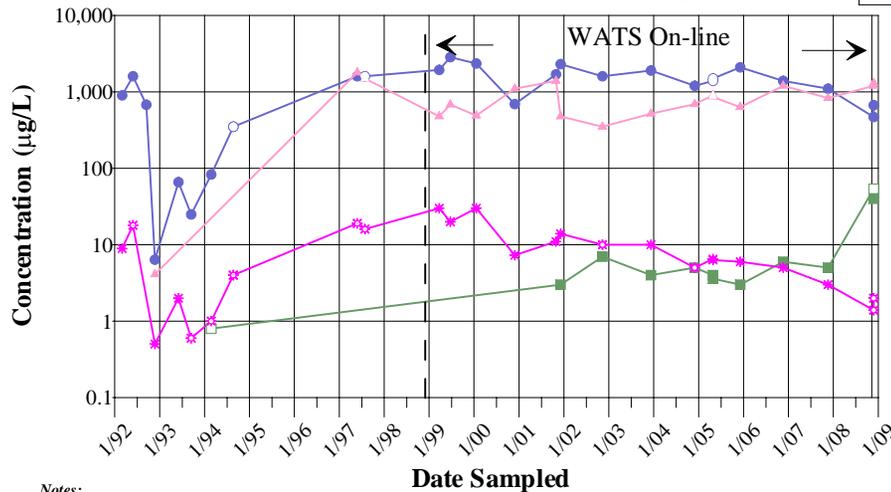
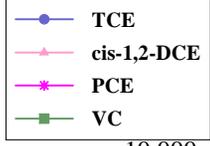
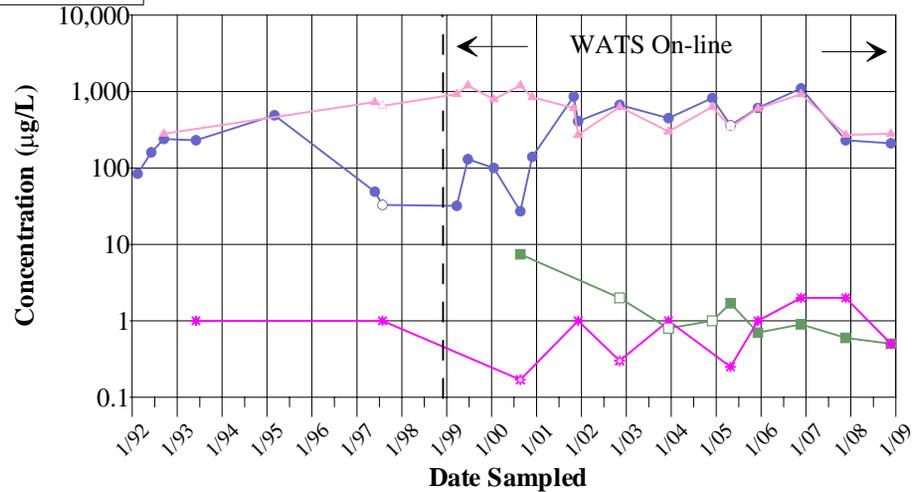


Figure 2-90 W29-4 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter. VOC - Volatile Organic Compound.
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2,-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-91 THROUGH 2-94
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 28

Figure 2-91 W56-2 (Upper Portion of the A Aquifer)

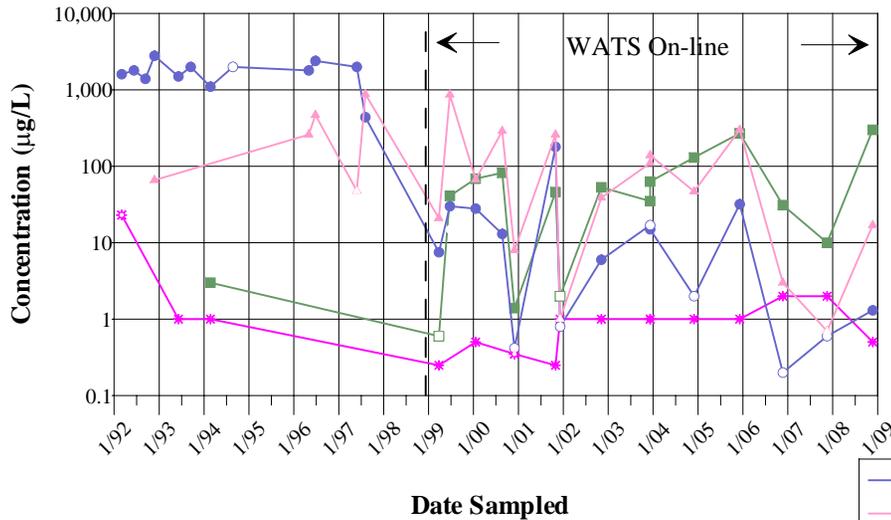


Figure 2-92 WIC-1 (Upper Portion of the A Aquifer)

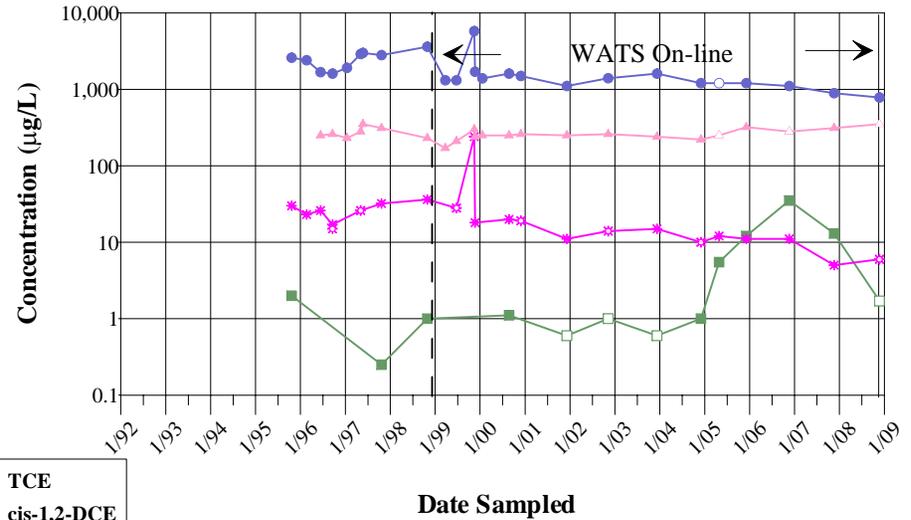


Figure 2-93 WU4-8 (Upper Portion of the A Aquifer)

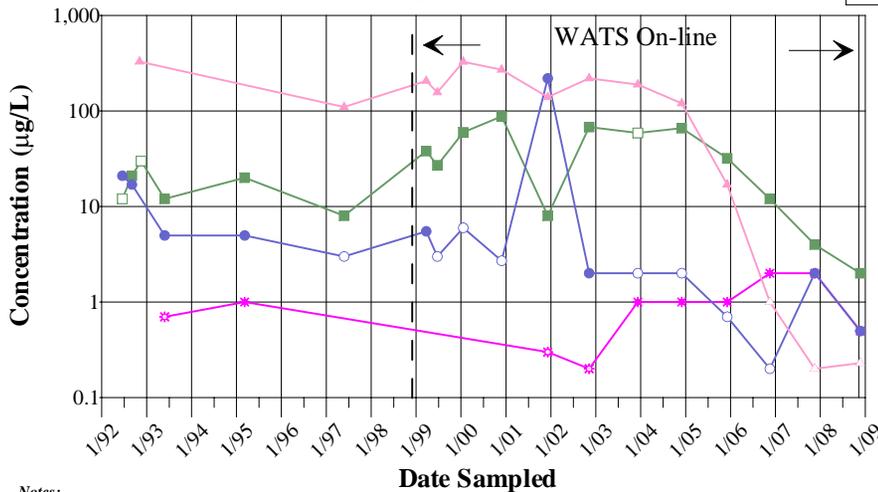
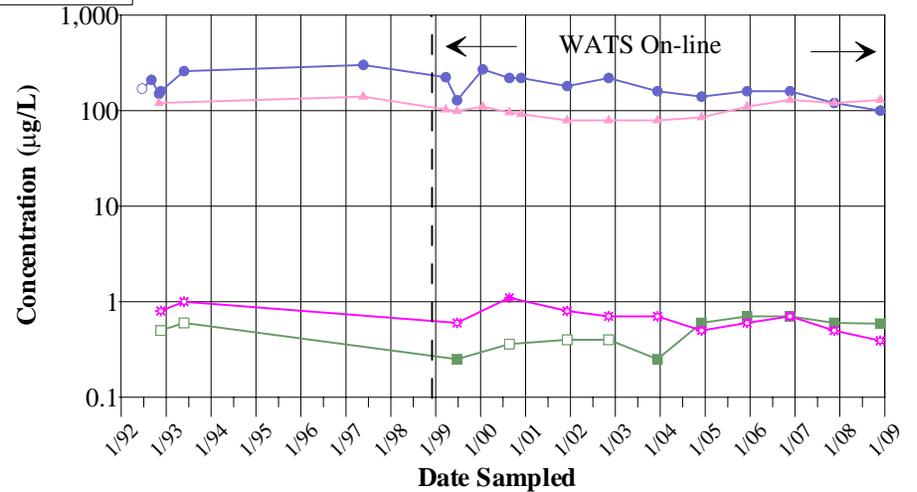


Figure 2-94 WU4-10 (Upper Portion of the A Aquifer)



● TCE
▲ cis-1,2-DCE
✱ PCE
■ VC

Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter. VOC - Volatile Organic Compound
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-95 THROUGH 2-98
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 28

Figure 2-95 WU4-14 (Upper Portion of the A Aquifer)

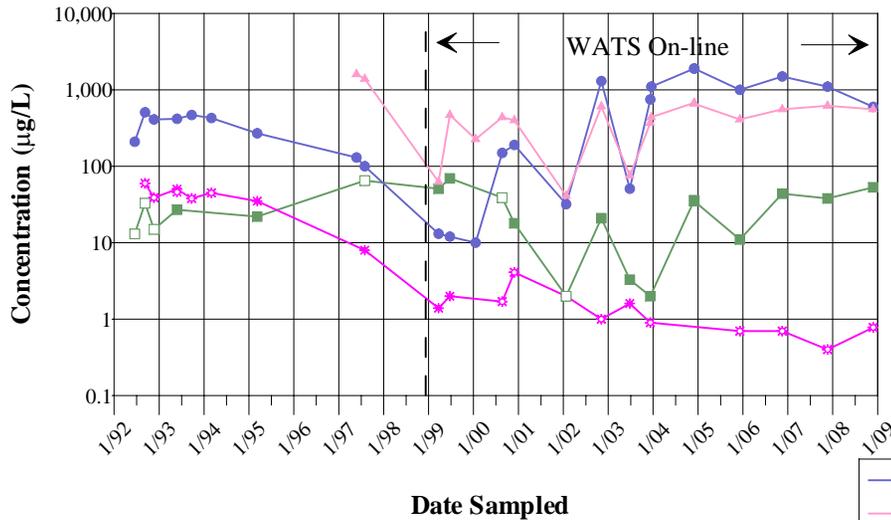


Figure 2-96 WU4-17 (Upper Portion of the A Aquifer)

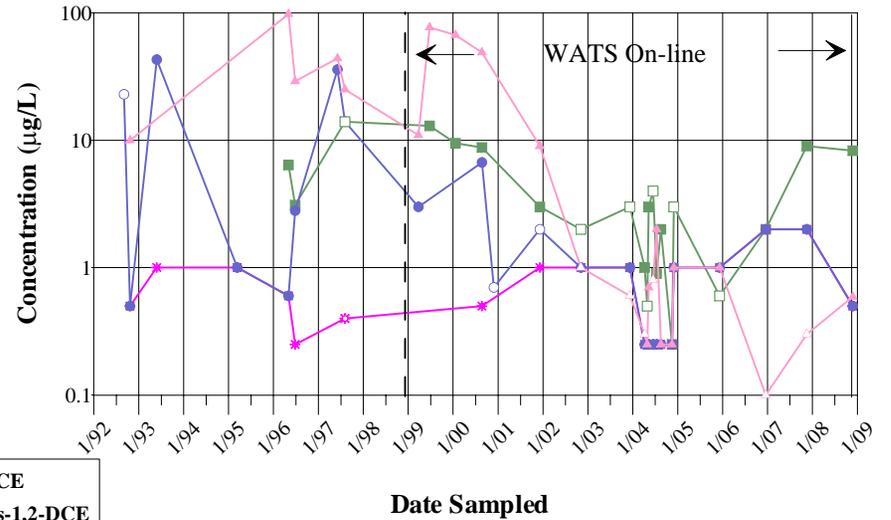


Figure 2-97 WU4-21 (Upper Portion of the A Aquifer)

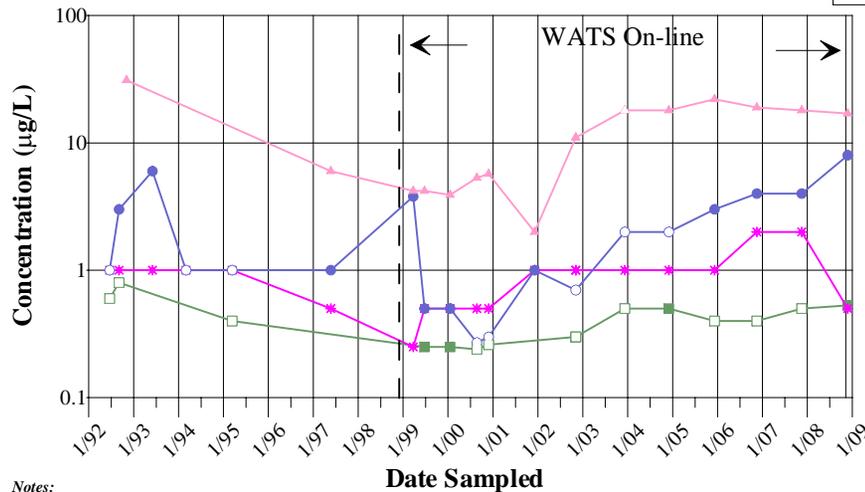
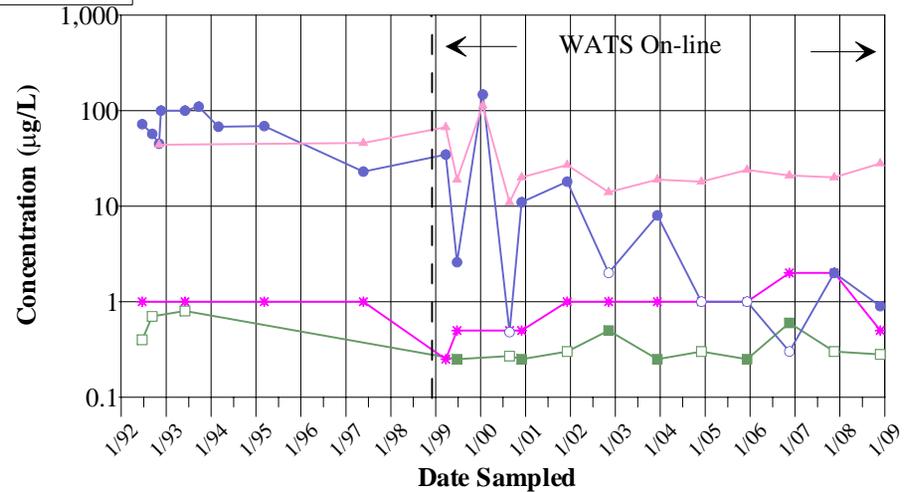


Figure 2-98 WU4-25 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter. VOC - Volatile Organic Compound
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2,-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-99 THROUGH 2-102
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 28

Figure 2-99 WWR-1 (Upper Portion of the A Aquifer)

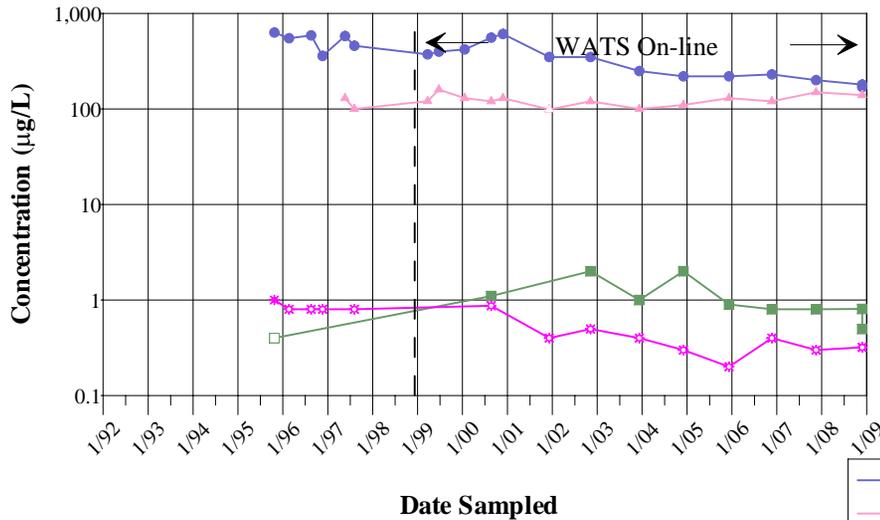


Figure 2-100 WWR-2 (Upper Portion of the A Aquifer)

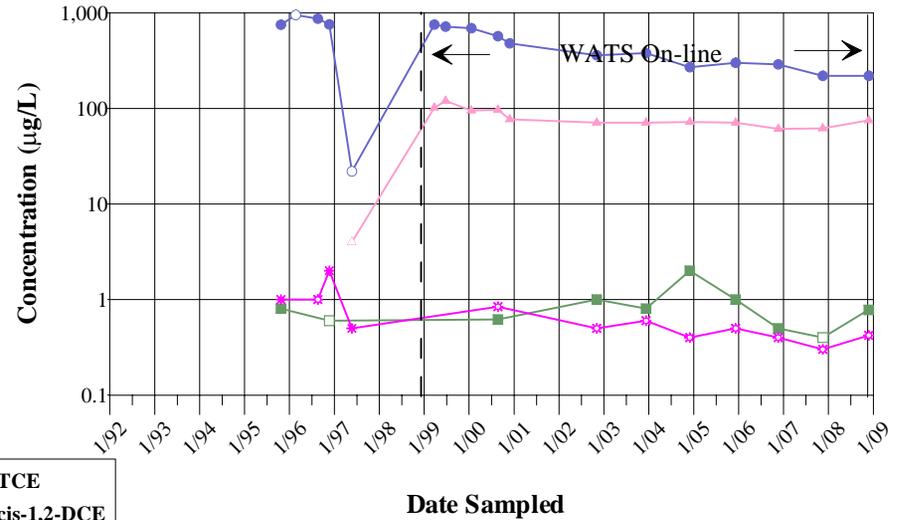


Figure 2-101 80B1 (Lower Portion of the A Aquifer)

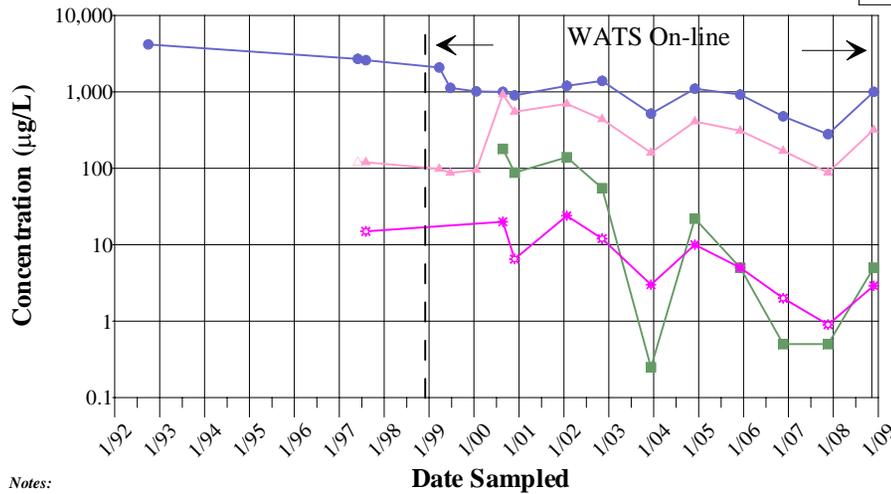
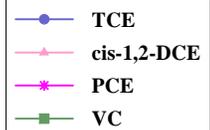
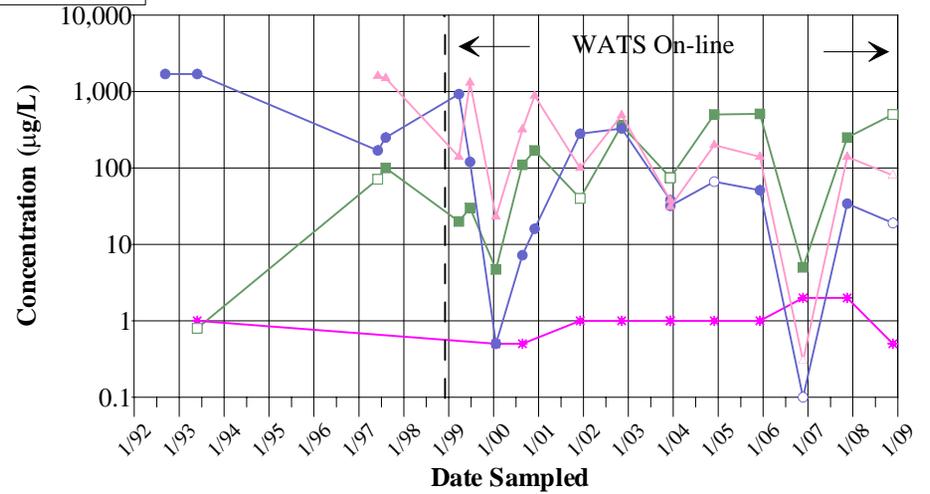


Figure 2-102 W9-9 (Lower Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter. VOC - Volatile Organic Compound
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-103 THROUGH 2-106
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 28

Figure 2-103 W9-14 (Lower Portion of the A Aquifer)

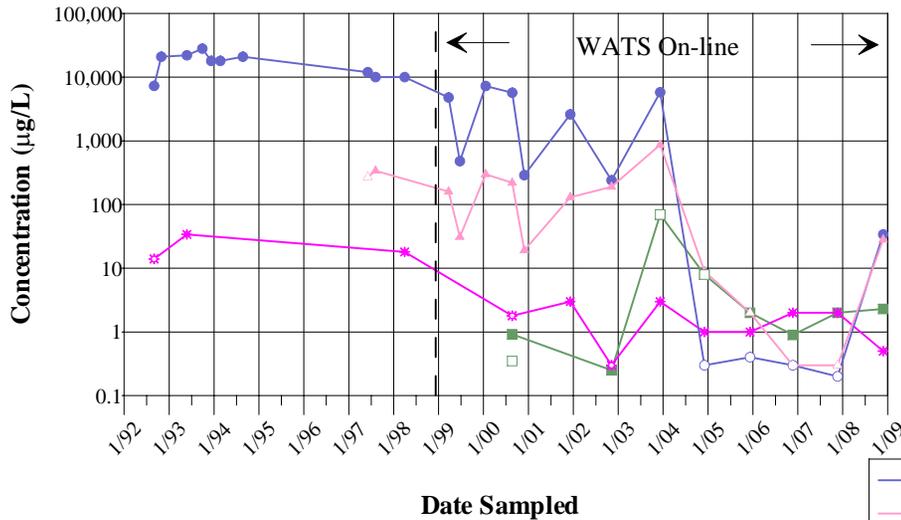


Figure 2-104 W9-20 (Lower Portion of the A Aquifer)

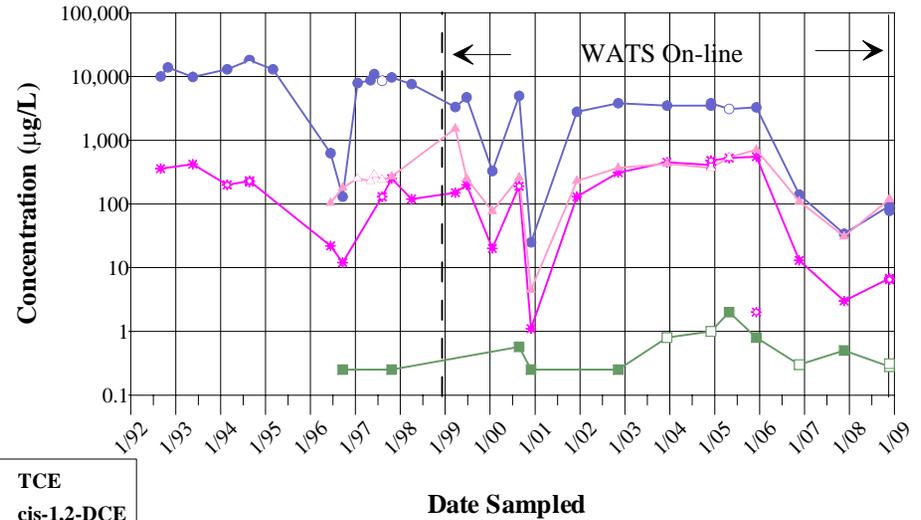


Figure 2-105 W9-21 (Lower Portion of the A Aquifer)

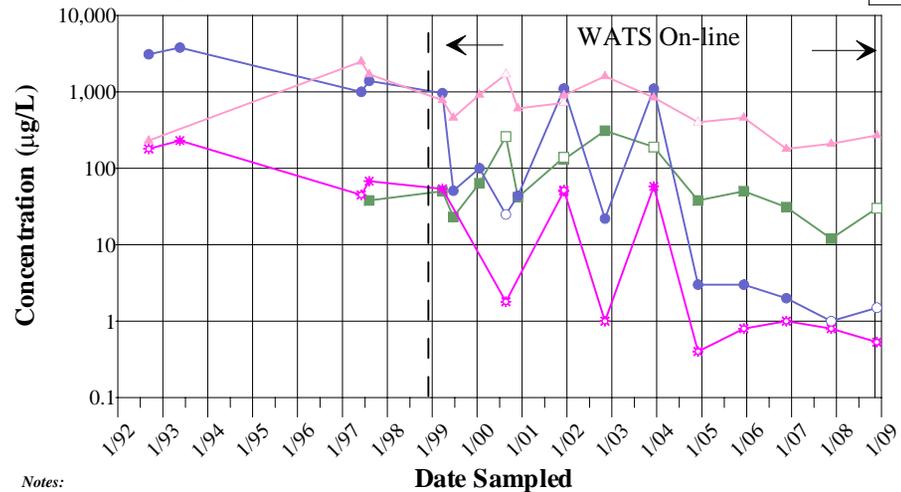
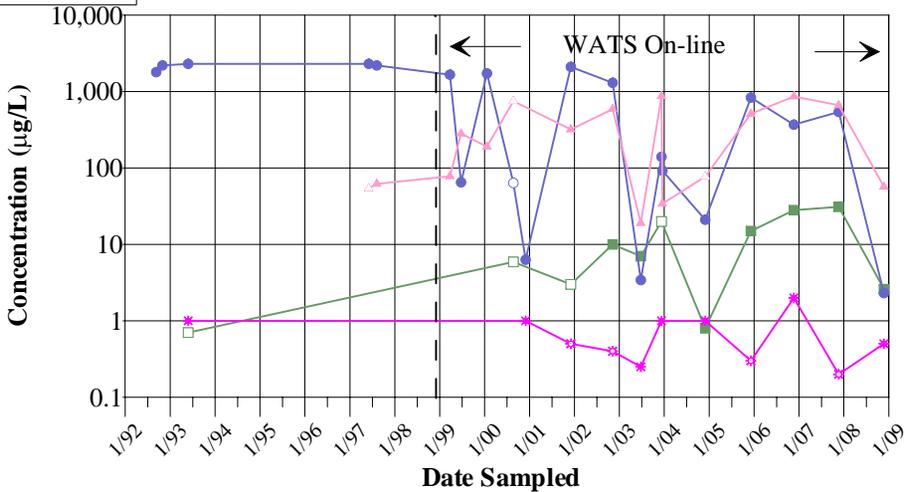


Figure 2-106 W9-34 (Lower Portion of the A Aquifer)



- TCE
- ▲ cis-1,2-DCE
- * PCE
- VC

Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter. VOC - Volatile Organic Compound
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 2-107 THROUGH 2-110
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 28

Figure 2-107 W29-7 (Lower Portion of the A Aquifer)

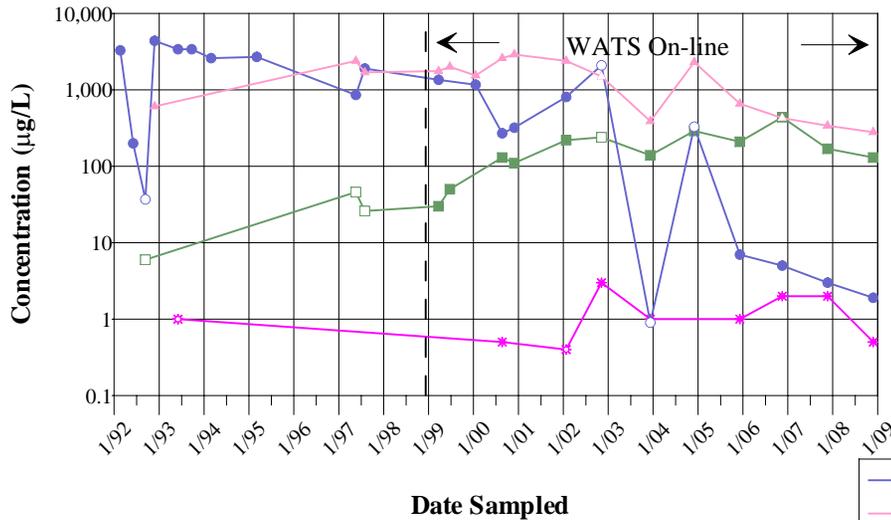


Figure 2-108 WU4-9 (Lower Portion of the A Aquifer)

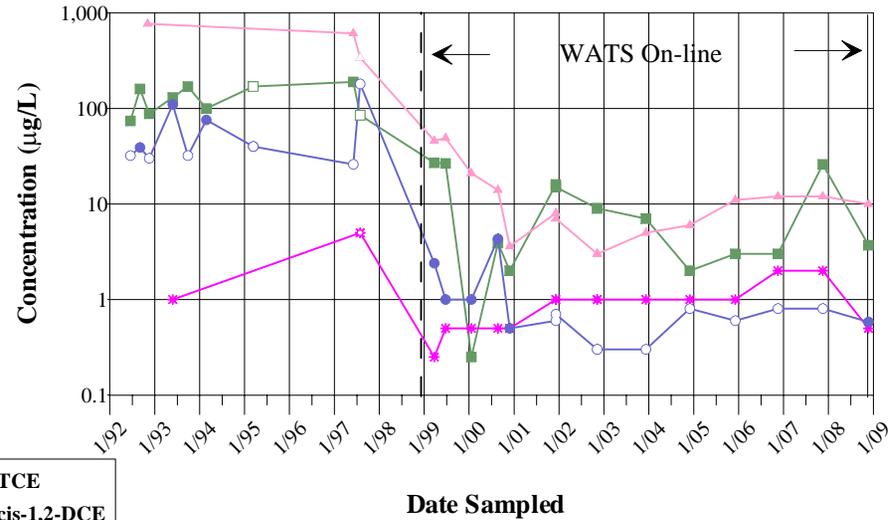


Figure 2-109 WU4-11 (Lower Portion of the A Aquifer)

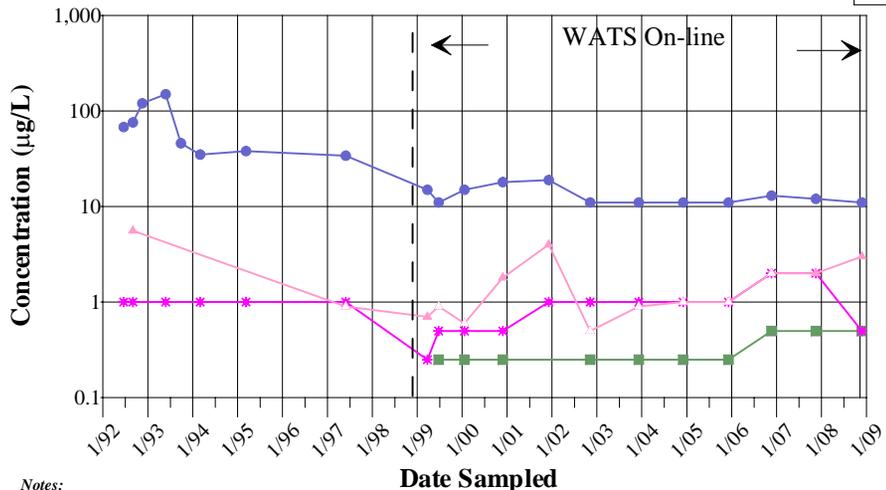
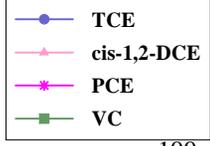
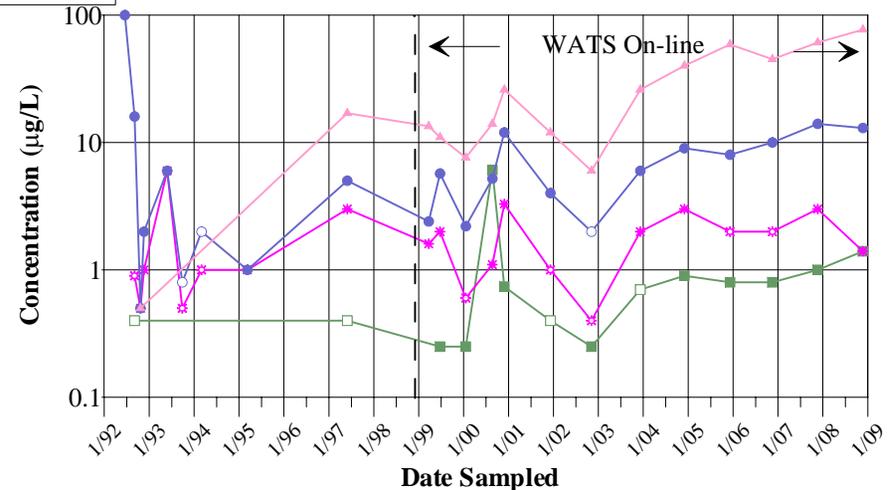
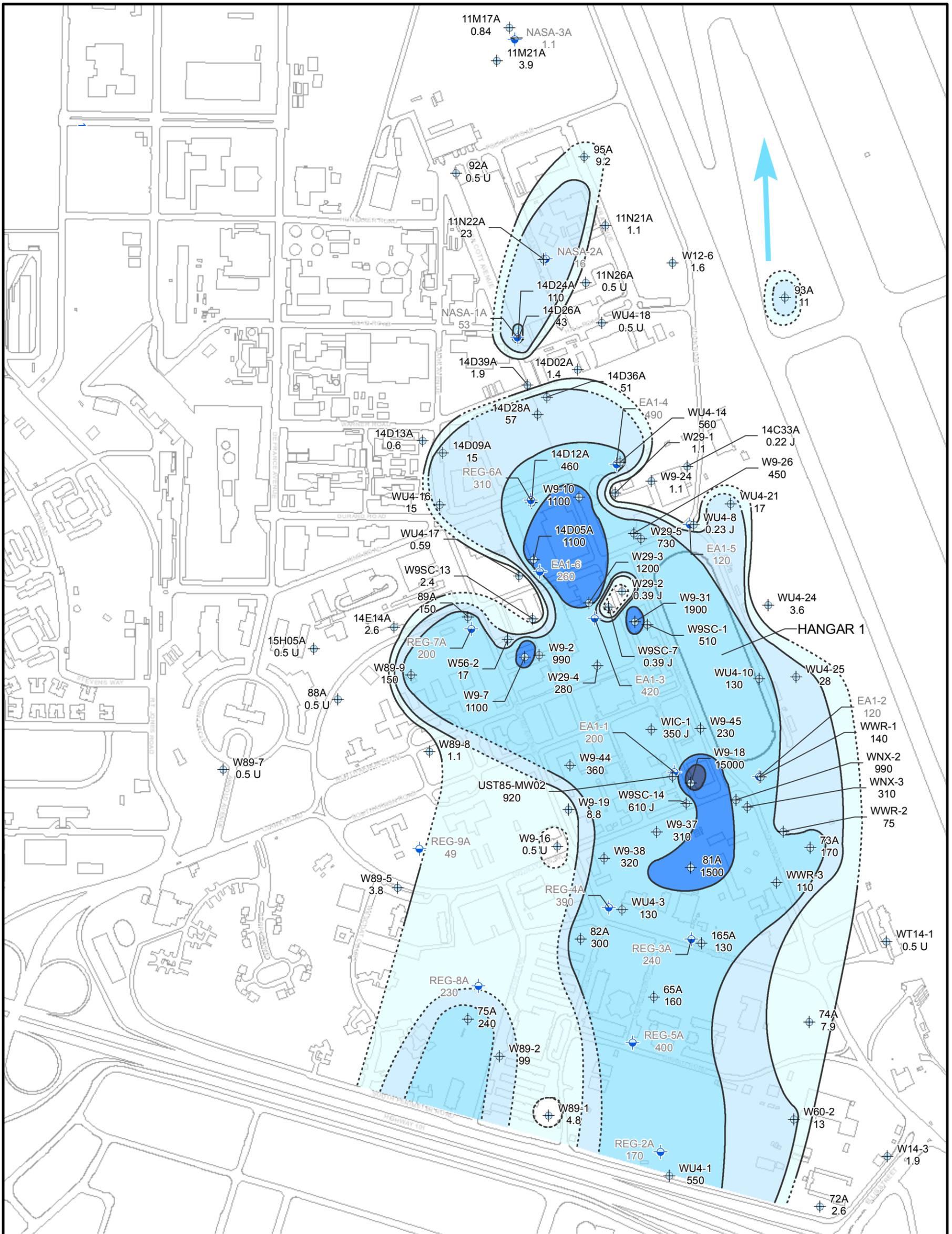


Figure 2-110 WU4-15 (Lower Portion of the A Aquifer)



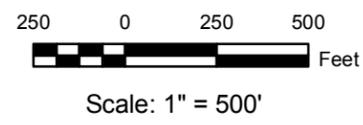
Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter. VOC - Volatile Organic Compound
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2,-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.



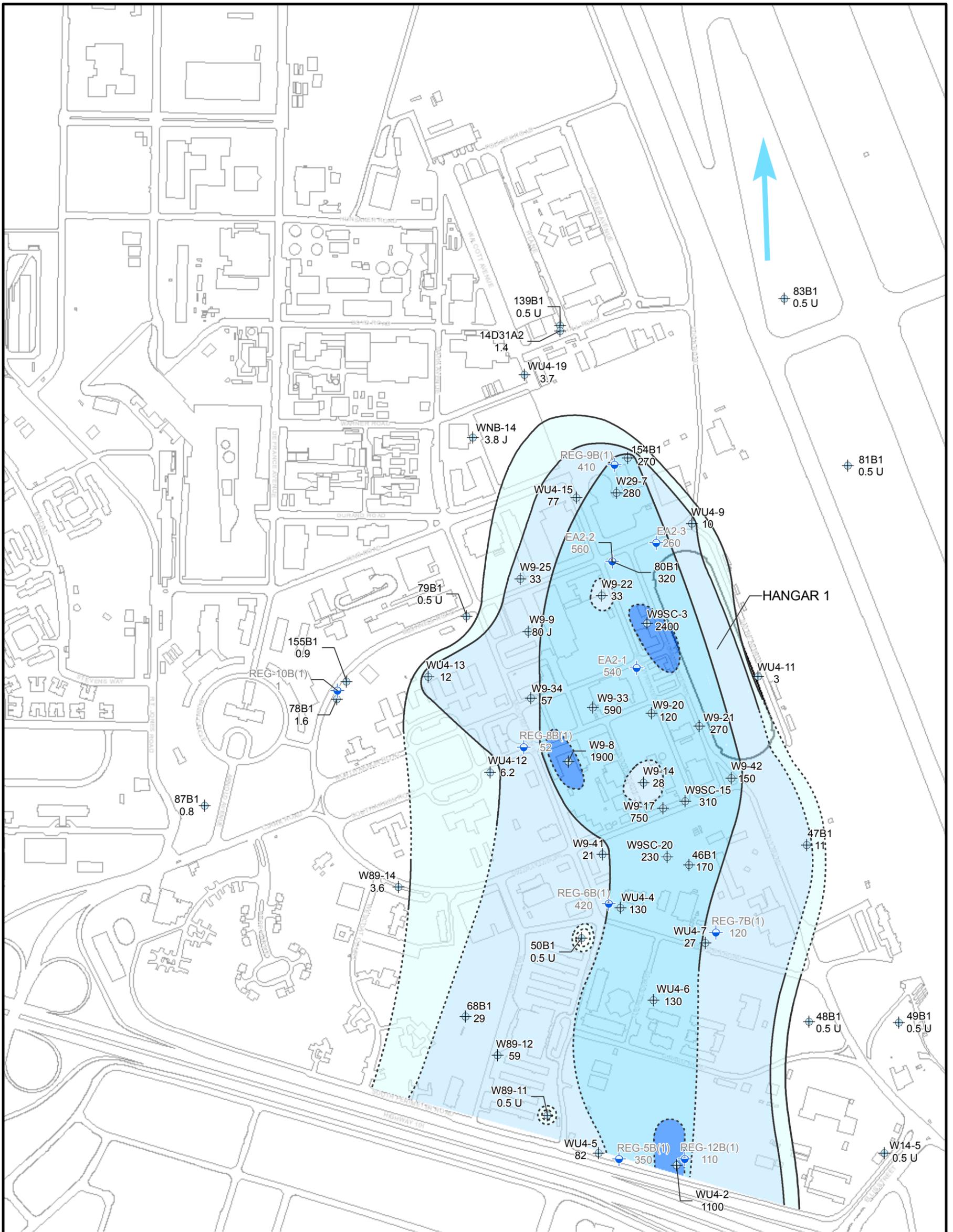
LEGEND

- WIC-1 350 J MONITORING WELL LOCATION CONCENTRATION (µg/L)
- REG-9A 49 EXTRACTION WELL LOCATION CONCENTRATION (µg/L) DATA NOT USED TO GENERATE ISOCONCENTRATION CONTOURS
- GENERAL REGIONAL GROUNDWATER FLOW DIRECTION
- 6 - 10 µg/L CIS-1,2-DICHLOROETHENE CONCENTRATION, DASHED WHERE INFERRED
- 10 - 100 µg/L CIS-1,2-DICHLOROETHENE CONCENTRATION, DASHED WHERE INFERRED
- 100 - 1,000 µg/L CIS-1,2-DICHLOROETHENE CONCENTRATION, DASHED WHERE INFERRED
- 1,000 - 10,000 µg/L CIS-1,2-DICHLOROETHENE CONCENTRATION, DASHED WHERE INFERRED
- ≥ 10,000 µg/L CIS-1,2-DICHLOROETHENE CONCENTRATION, DASHED WHERE INFERRED

- NOTES:**
- µg/L - MICROGRAMS PER LITER
 - EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
 - J - ESTIMATED VALUE
 - NAS - NAVAL AIR STATION
 - U - NOT DETECTED AT LABORATORY REPORTING LEVEL
 - WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM
 - GROUNDWATER CLEAN UP STANDARD IS 5 µg/L (EPA 1989) FOR CIS-1,2-DICHLOROETHENE



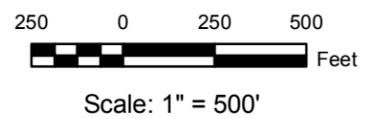
<p>BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA</p>	
<p>2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 2-111</p>	
<p>CIS-1,2-DICHLOROETHENE (cis-1,2-DCE) DISTRIBUTION, SITE 28, UPPER PORTION OF THE A AQUIFER - NOVEMBER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA</p>	
<p>REVIEW: C AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4639.mxd</p>	<p>SES-TECH</p>



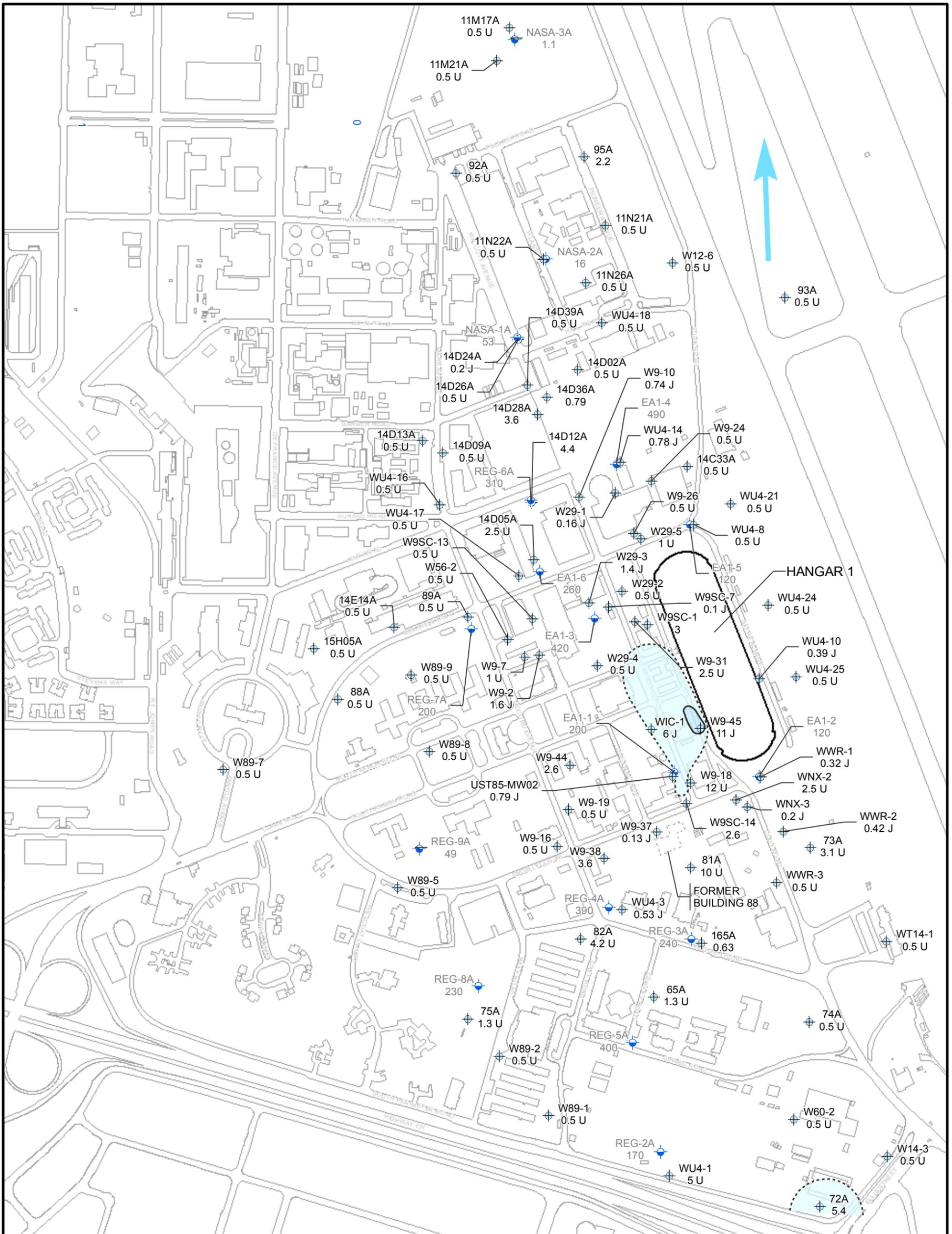
LEGEND

- WU4-15
77 MONITORING WELL LOCATION
CONCENTRATION (µg/L)
- REG-10B(1)
1 EXTRACTION WELL LOCATION
CONCENTRATION (µg/L)
DATA NOT USED TO GENERATE
ISOCONCENTRATION CONTOURS
- GENERAL REGIONAL GROUNDWATER
FLOW DIRECTION
- 5 - 10 µg/L CIS-1,2-DICHLOROETHENE
CONCENTRATION, DASHED WHERE INFERRED
- 10 - 100 µg/L CIS-1,2-DICHLOROETHENE
CONCENTRATION, DASHED WHERE INFERRED
- 100 - 1,000 µg/L CIS-1,2-DICHLOROETHENE
CONCENTRATION, DASHED WHERE INFERRED
- ≥ 1,000 µg/L CIS-1,2-DICHLOROETHENE
CONCENTRATION, DASHED WHERE INFERRED

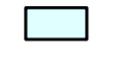
- NOTES:**
- µg/L - MICROGRAMS PER LITER
 - EATS - EAST-SIDE AQUIFER
TREATMENT SYSTEM
 - J - ESTIMATED VALUE
 - NAS - NAVAL AIR STATION
 - U - NOT DETECTED AT
LABORATORY REPORTING
LEVEL
 - WATS - WEST-SIDE AQUIFERS
TREATMENT SYSTEM
 - GROUNDWATER CLEAN UP
STANDARD IS 5 µg/L (EPA 1989)
FOR CIS-1,2-DICHLOROETHENE



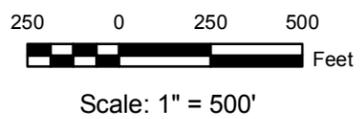
BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA	
2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 2-112 CIS-1,2-DICHLOROETHENE (cis-1,2-DCE) DISTRIBUTION, SITE 28, LOWER PORTION OF THE A AQUIFER - NOVEMBER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA	
REVIEW: B AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4640.mxd	



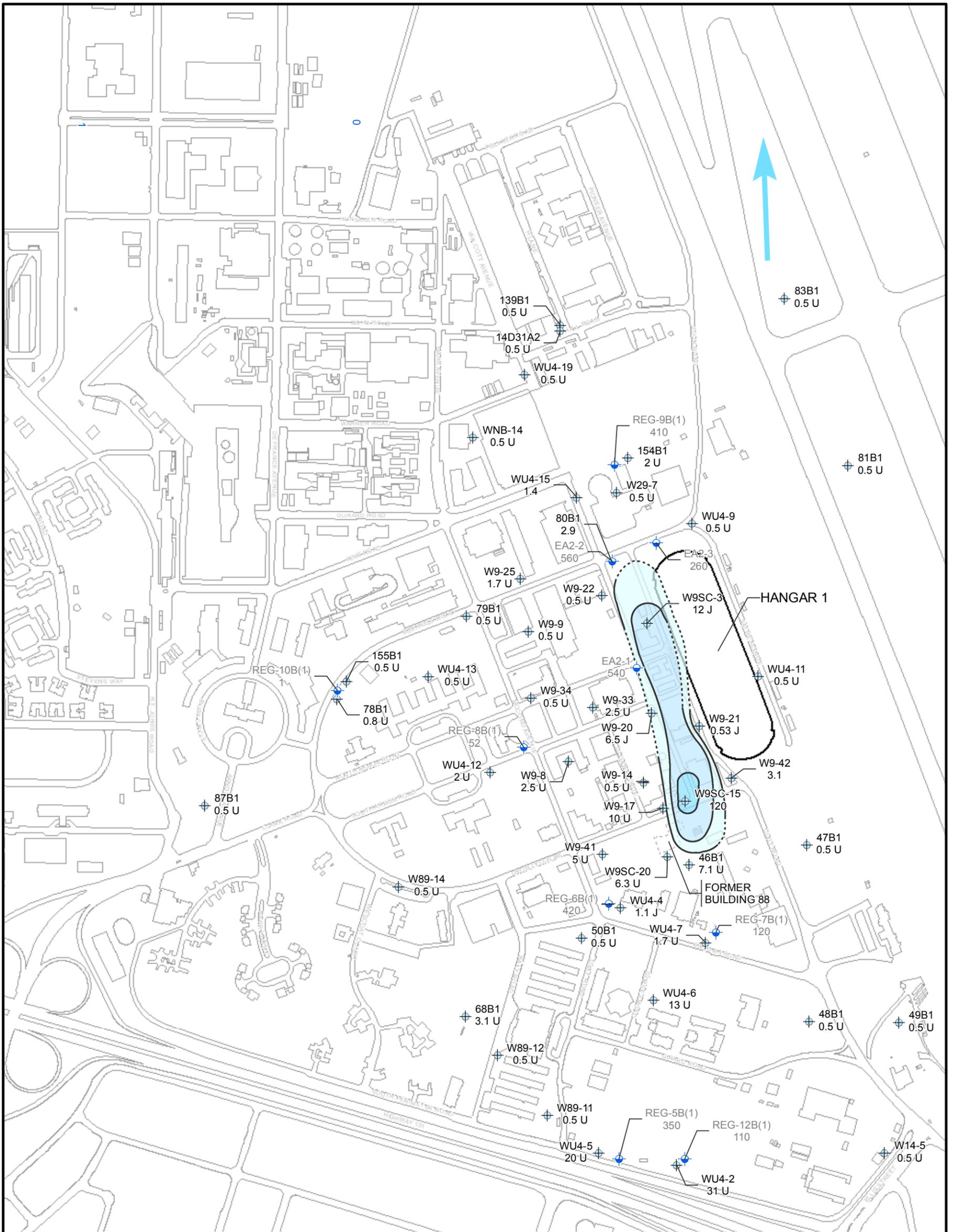
LEGEND

- 
WIC-1
6 J MONITORING WELL LOCATION
CONCENTRATION (µg/L)
- 
REG-8A
230 EXTRACTION WELL LOCATION
CONCENTRATION (µg/L)
DATA NOT USED TO GENERATE
ISOCONCENTRATION CONTOURS
- 
 GENERAL REGIONAL GROUNDWATER
FLOW DIRECTION
- 
 5-10 µg/L TETRACHLOROETHENE
CONCENTRATION, DASHED WHERE
INFERRED
- 
 10-100 µg/L TETRACHLOROETHENE
CONCENTRATION, DASHED WHERE
INFERRED

- NOTES:**
- µg/L - MICROGRAMS PER LITER
 - EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
 - J - ESTIMATED VALUE
 - NAS - NAVAL AIR STATION
 - U - NOT DETECTED AT LABORATORY REPORTING LEVEL
 - WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM
 - GROUNDWATER CLEAN UP STANDARD IS 5 µg/L (EPA 1989) FOR TETRACHLOROETHENE



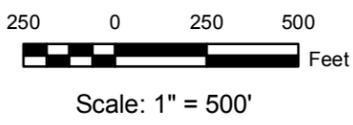
BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA	
2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 2-113 TETRACHLOROETHENE (PCE) DISTRIBUTION, SITE 28, UPPER PORTION OF THE A AQUIFER - NOVEMBER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA	
REVIEW: B AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4641.mxd	SES-TECH



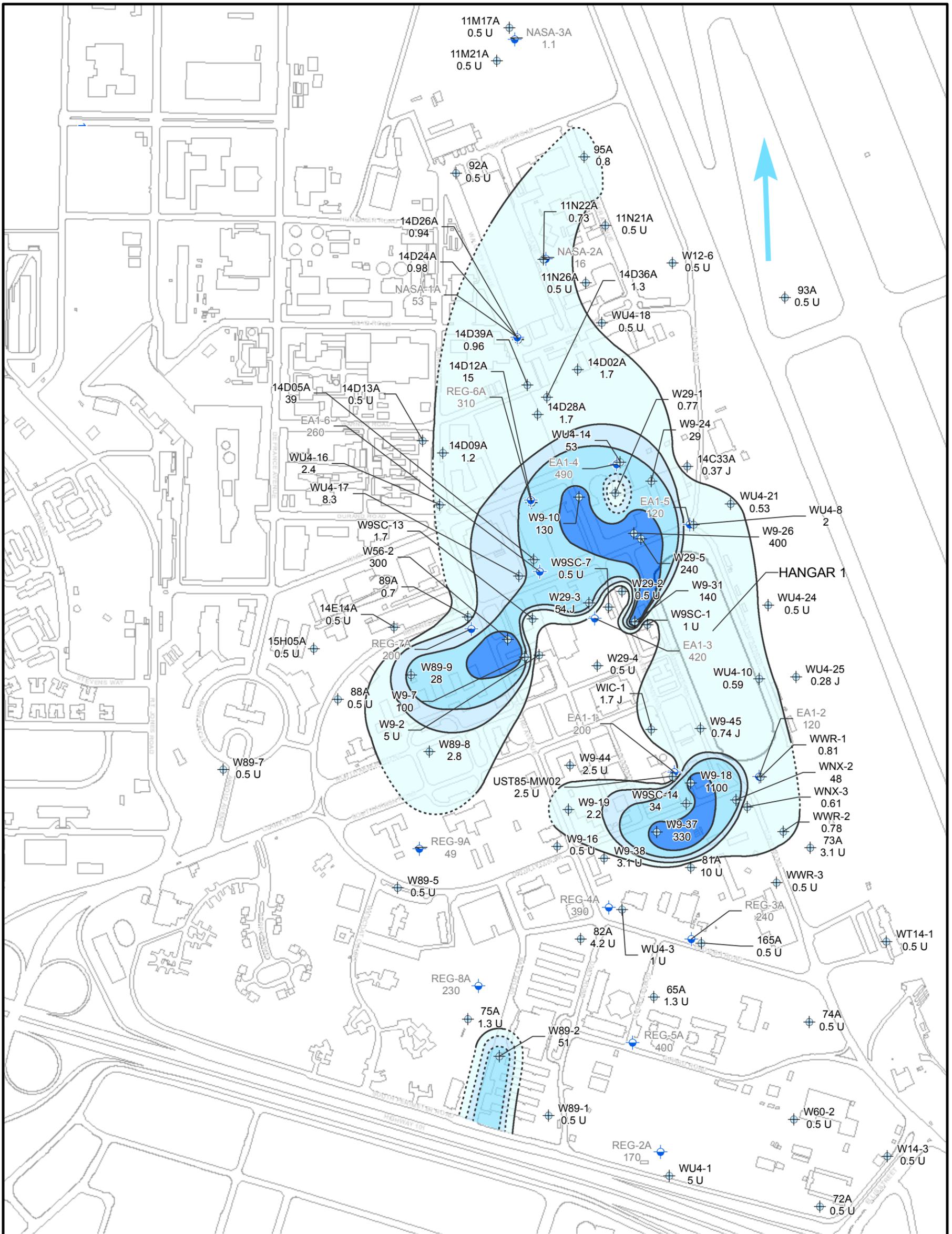
LEGEND

- W9-33 2.5 U MONITORING WELL LOCATION
CONCENTRATION (µg/L)
- EA2-1 540 EXTRACTION WELL LOCATION
CONCENTRATION (µg/L)
DATA NOT USED TO GENERATE
ISOCONCENTRATION CONTOURS
- GENERAL REGIONAL GROUNDWATER
FLOW DIRECTION
- 5-10 µg/L TETRACHLOROETHENE
CONCENTRATION, DASHED WHERE
INFERRED
- 10-100 µg/L TETRACHLOROETHENE
CONCENTRATION, DASHED WHERE
INFERRED
- ≥ 100 µg/L TETRACHLOROETHENE
CONCENTRATION, DASHED WHERE
INFERRED

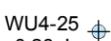
- NOTES:**
- µg/L - MICROGRAMS PER LITER
 - EATS - EAST-SIDE AQUIFER
TREATMENT SYSTEM
 - J - ESTIMATED VALUE
 - NAS - NAVAL AIR STATION
 - U - NOT DETECTED AT
LABORATORY REPORTING
LEVEL
 - WATS - WEST-SIDE AQUIFERS
TREATMENT SYSTEM
 - GROUNDWATER CLEAN UP
STANDARD IS 5 µg/L (EPA 1989)
FOR TETRACHLOROETHENE



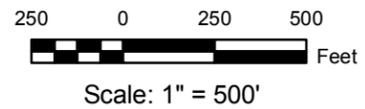
<p>BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA</p>	
<p>2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 2-114 TETRACHLOROETHENE (PCE) DISTRIBUTION, SITE 28, LOWER PORTION OF THE A AQUIFER - NOVEMBER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA</p>	
<p>REVIEW: B AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4642.mxd</p>	<p>SES-TECH</p>



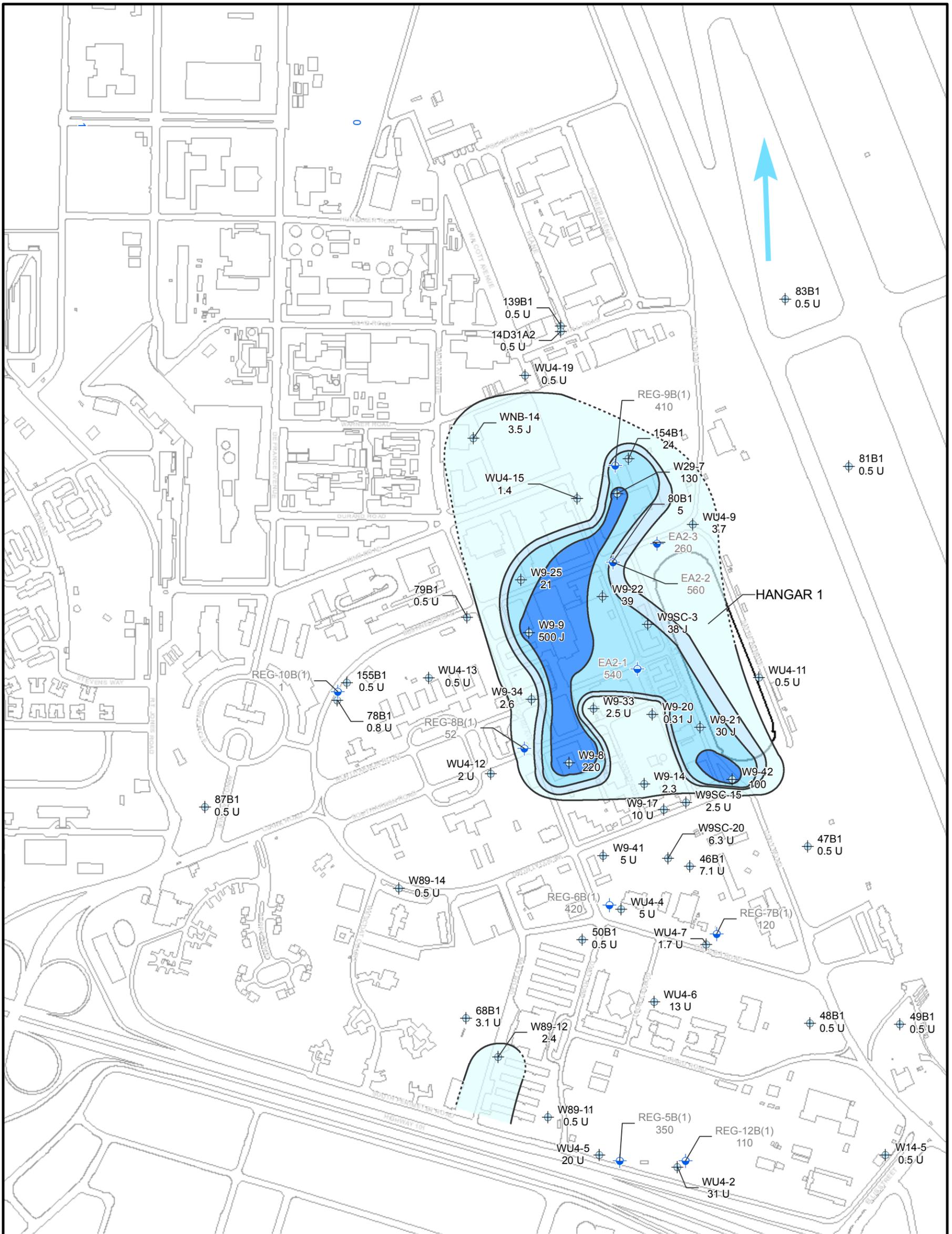
LEGEND

-  WU4-25
0.28 J
MONITORING WELL LOCATION
CONCENTRATION (µg/L)
-  REG-9A
49
EXTRACTION WELL LOCATION
CONCENTRATION (µg/L)
DATA NOT USED TO GENERATE
ISOCONCENTRATION CONTOURS
-  GENERAL REGIONAL GROUNDWATER
FLOW DIRECTION
-  0.5-5 µg/L VINYL CHLORIDE CONCENTRATION
DASHED WHERE INFERRED
-  5-10 µg/L VINYL CHLORIDE CONCENTRATION
DASHED WHERE INFERRED
-  10-100 µg/L VINYL CHLORIDE CONCENTRATION
DASHED WHERE INFERRED
-  ≥ 100 µg/L VINYL CHLORIDE CONCENTRATION
DASHED WHERE INFERRED

- NOTES:**
- µg/L - MICROGRAMS PER LITER
 - EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
 - J - ESTIMATED VALUE
 - NAS - NAVAL AIR STATION
 - U - NOT DETECTED AT LABORATORY REPORTING LEVEL
 - WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM
 - GROUNDWATER CLEAN UP STANDARD IS 0.5 µg/L (EPA 1989) FOR VINYL CHLORIDE



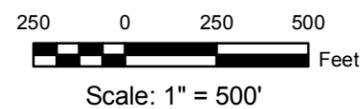
BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA	
2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 2-115 VINYL CHLORIDE (VC) DISTRIBUTION, SITE 28, UPPER PORTION OF THE A AQUIFER - NOVEMBER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA	
REVIEW: B AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4643.mxd	SES-TECH



LEGEND

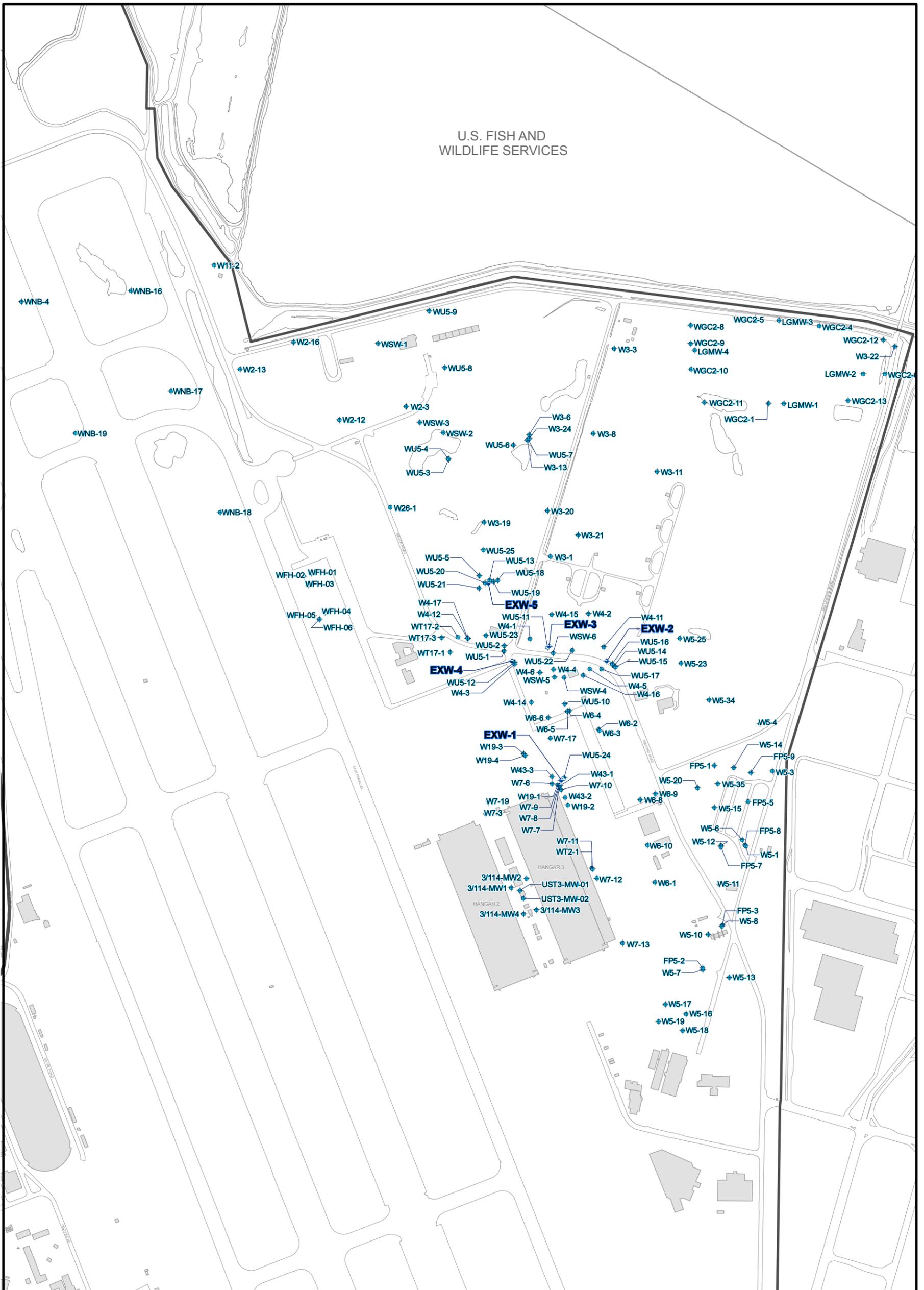
- WU4-2 31 U MONITORING WELL LOCATION
CONCENTRATION (µg/L)
- REG-12B(1) 110 EXTRACTION WELL LOCATION
CONCENTRATION (µg/L)
DATA NOT USED TO GENERATE
ISOCONCENTRATION CONTOURS
- GENERAL REGIONAL GROUNDWATER
FLOW DIRECTION
- 0.5-5 µg/L VINYL CHLORIDE CONCENTRATION
DASHED WHERE INFERRED
- 5-10 µg/L VINYL CHLORIDE CONCENTRATION
DASHED WHERE INFERRED
- 10-100 µg/L VINYL CHLORIDE CONCENTRATION
DASHED WHERE INFERRED
- ≥ 100 µg/L VINYL CHLORIDE CONCENTRATION
DASHED WHERE INFERRED

- NOTES:**
- µg/L - MICROGRAMS PER LITER
 - EATS - EAST-SIDE AQUIFER
TREATMENT SYSTEM
 - J - ESTIMATED VALUE
 - NAS - NAVAL AIR STATION
 - U - NOT DETECTED AT
LABORATORY REPORTING
LEVEL
 - WATS - WEST-SIDE AQUIFERS
TREATMENT SYSTEM
 - GROUNDWATER CLEAN UP
STANDARD IS 0.5 µg/L (EPA 1989)
FOR VINYL CHLORIDE



<p>BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA</p>	
<p>2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 2-116 VINYL CHLORIDE (VC) DISTRIBUTION, SITE 28, LOWER PORTION OF THE A AQUIFER - NOVEMBER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA</p>	
<p>REVIEW: B AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4644.mxd</p>	<p>SES-TECH</p>

U.S. FISH AND
WILDLIFE SERVICES

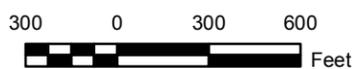


LEGEND

- WU4-19 + NAVY MONITORING WELL
- EA2-1 + NAVY EXTRACTION WELL
- ROAD
- BUILDING

NOTES:

- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
- NAS - NAVAL AIR STATION
- WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM



Scale: 1" = 600'



BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS

FIGURE 3-1

MONITORING AND EXTRACTION WELL LOCATION MAP,
SITE 26, UPPER PORTION OF THE A AQUIFER

FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA

REVIEW: B
AUTHOR: RKH
DCN: SEST-3220-0004-0038
FILE NUMBER: SEST46L4627.mxd

SES-TECH

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 3-2 THROUGH 3-5
HYDROGRAPHS
SITE 26

Figure 3-2 W4-3 (Upper Portion of the A Aquifer)

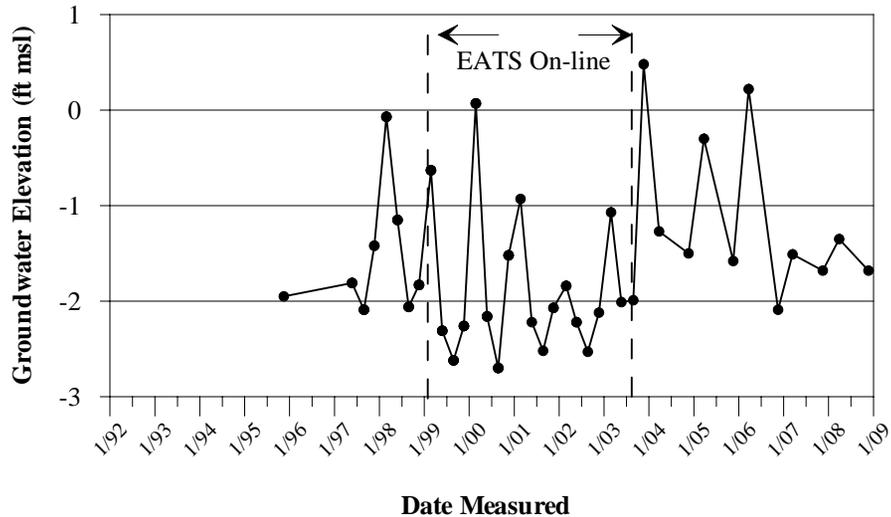


Figure 3-3 W7-10 (Upper Portion of the A Aquifer)

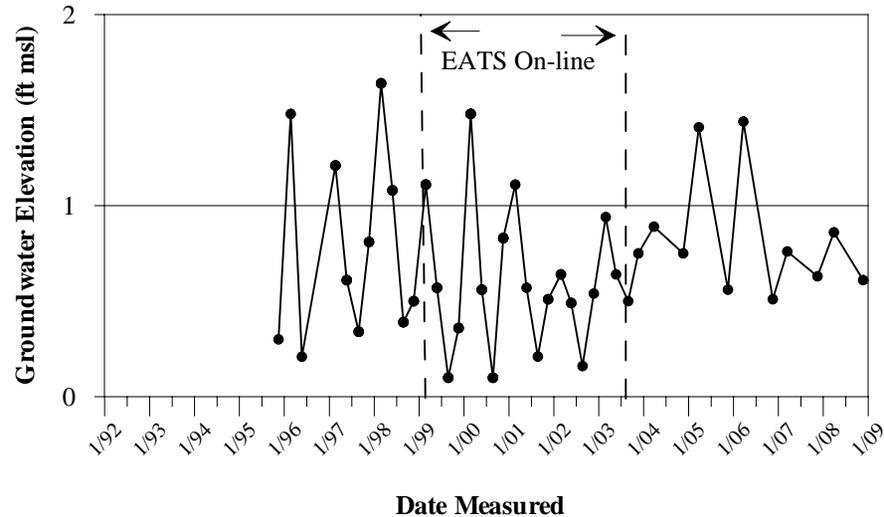


Figure 3-4 WSW-6 (Upper Portion of the A Aquifer)

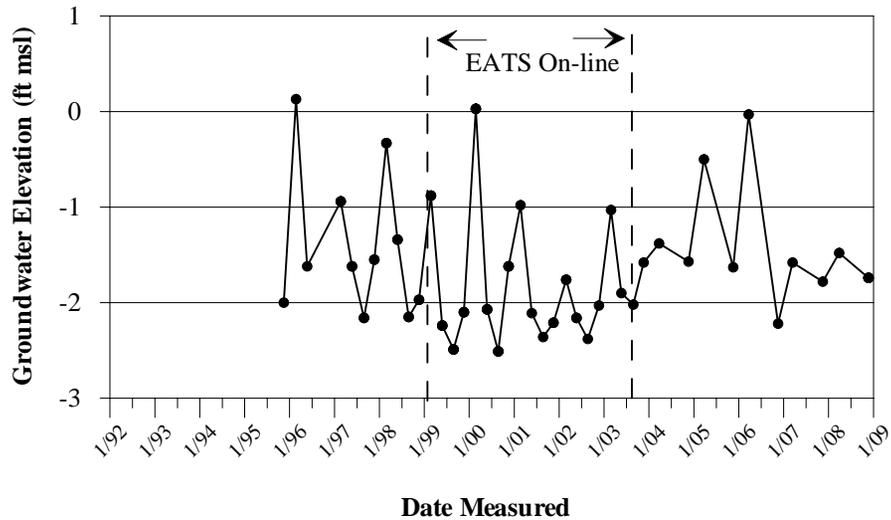
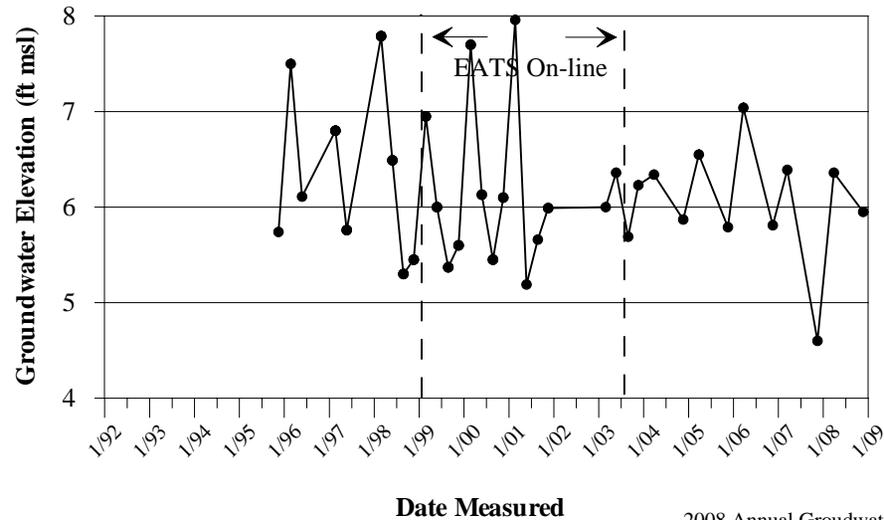


Figure 3-5 W5-18 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 3-6 THROUGH 3-9
HYDROGRAPHS
SITE 26

Figure 3-6 W5-23 (Upper Portion of the A Aquifer)

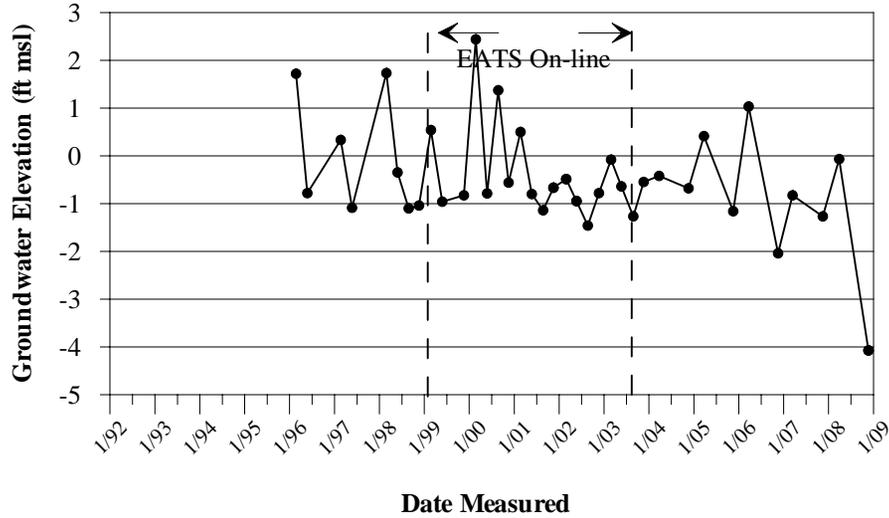


Figure 3-7 W10-2 (Upper Portion of the A Aquifer)

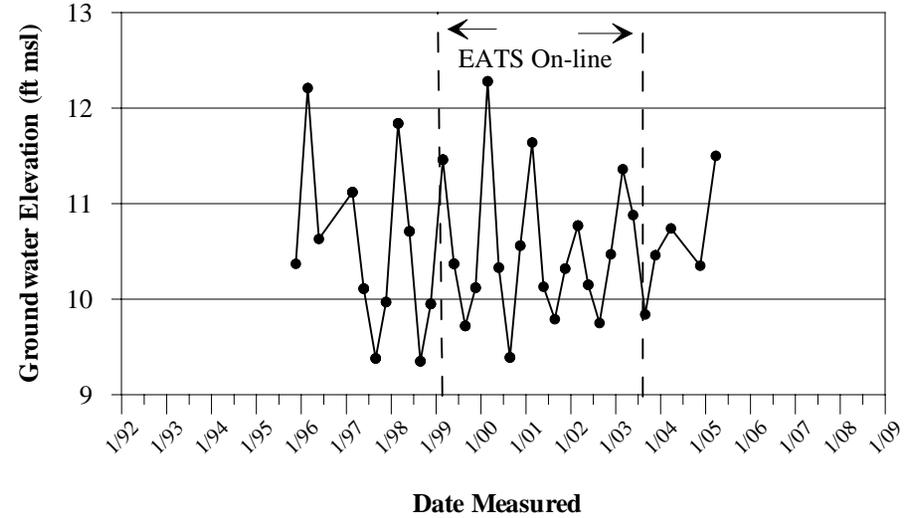


Figure 3-8 W19-4 (Upper Portion of the A Aquifer)

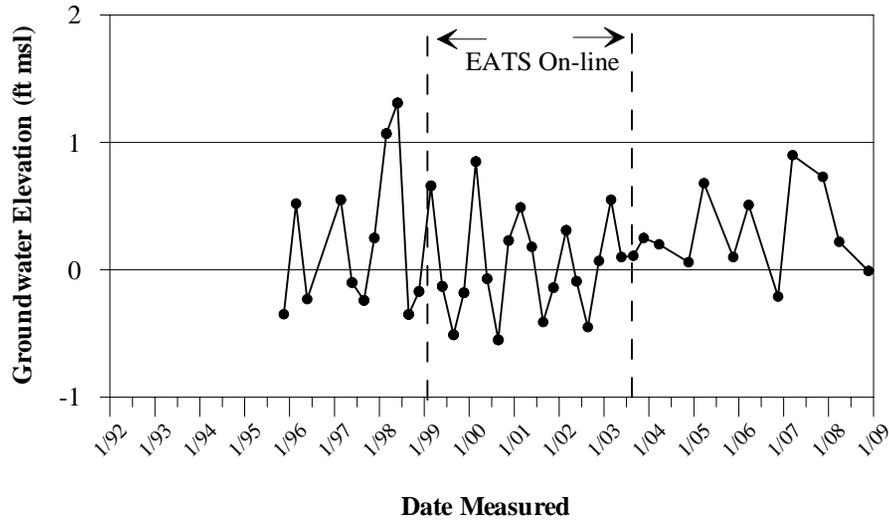
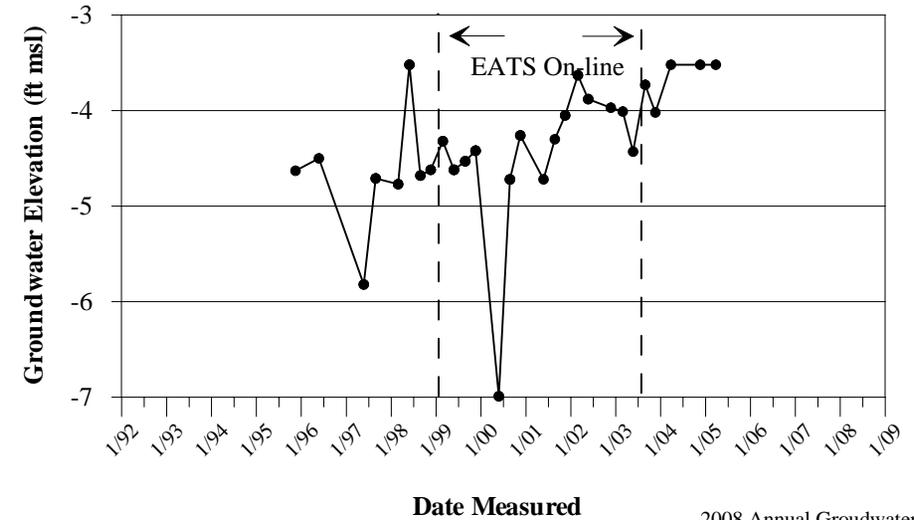


Figure 3-9 W3-12 (Lower Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 3-10 THROUGH 3-13
HYDROGRAPHS
SITE 26

Figure 3-10 W3-13 (Lower Portion of the A Aquifer)

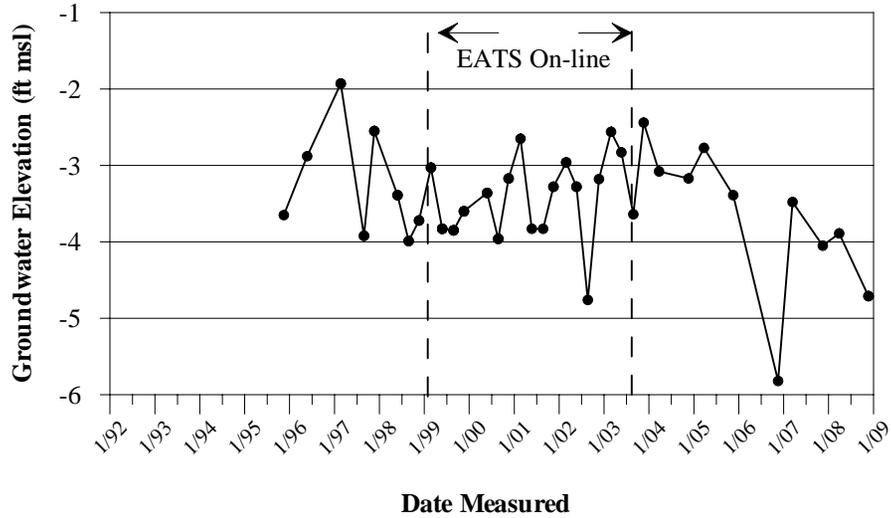


Figure 3-11 W5-7 (Lower Portion of the A Aquifer)

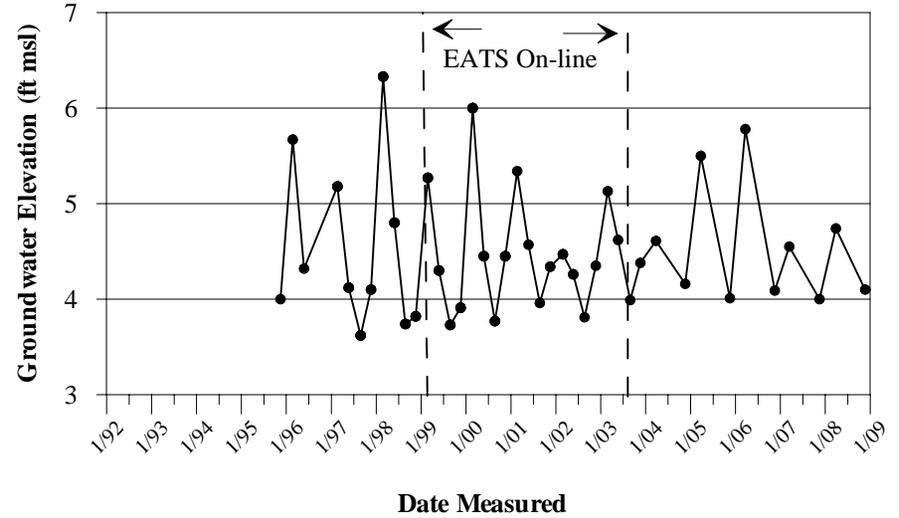


Figure 3-12 W5-8 (Lower Portion of the A Aquifer)

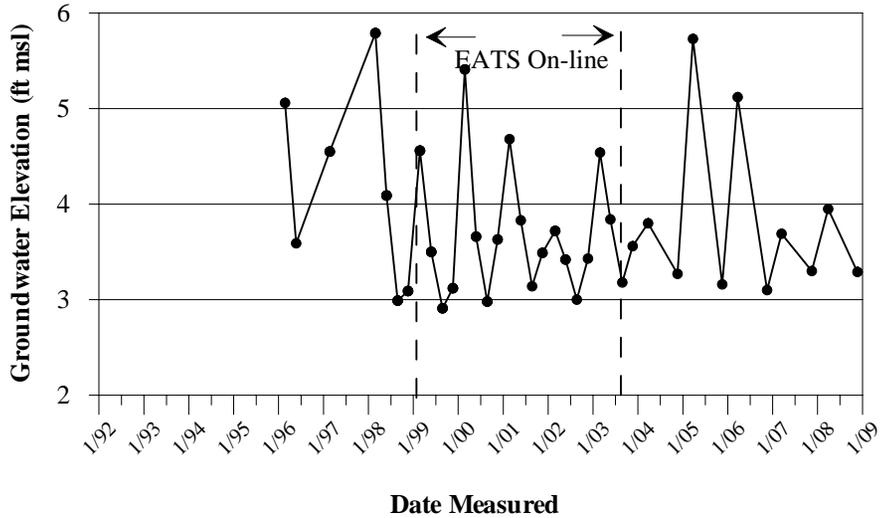
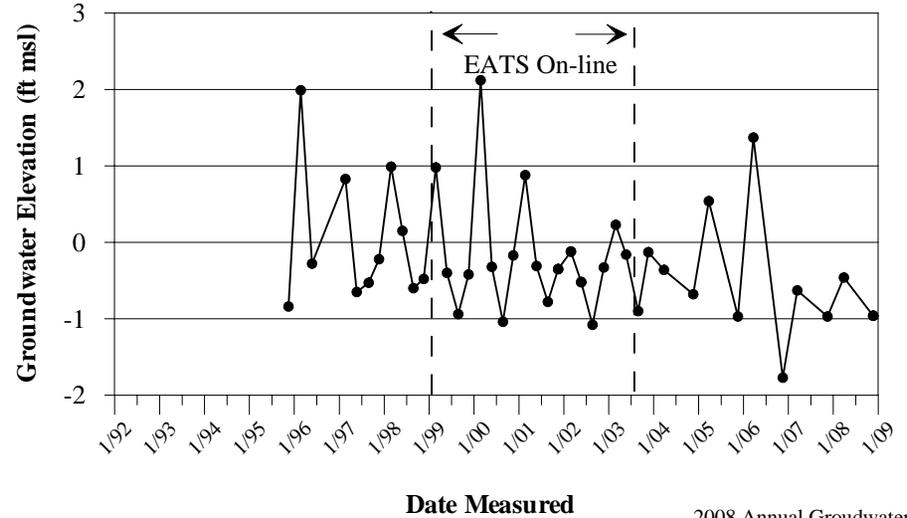


Figure 3-13 W5-25 (Lower Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 3-14 THROUGH 3-17
HYDROGRAPHS

SITE 26

Figure 3-14 W19-2 (Lower Portion of the A Aquifer)

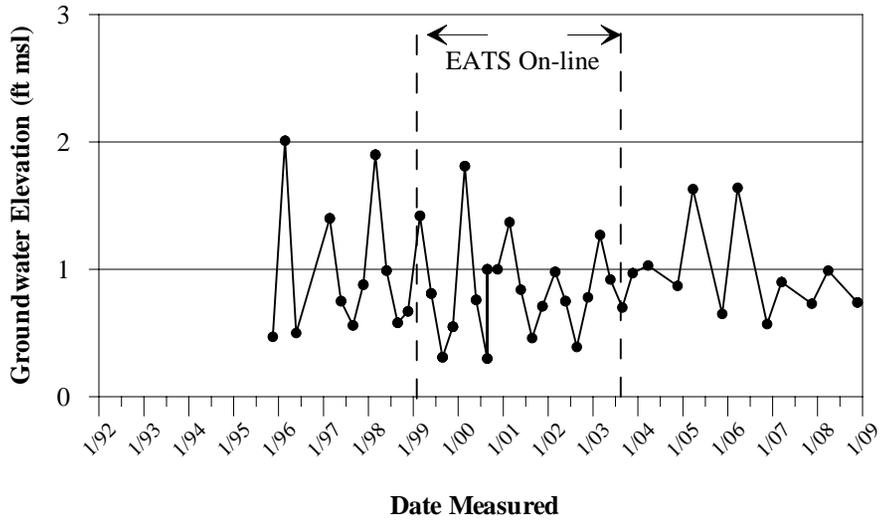


Figure 3-15 W19-3 (Lower Portion of the A Aquifer)

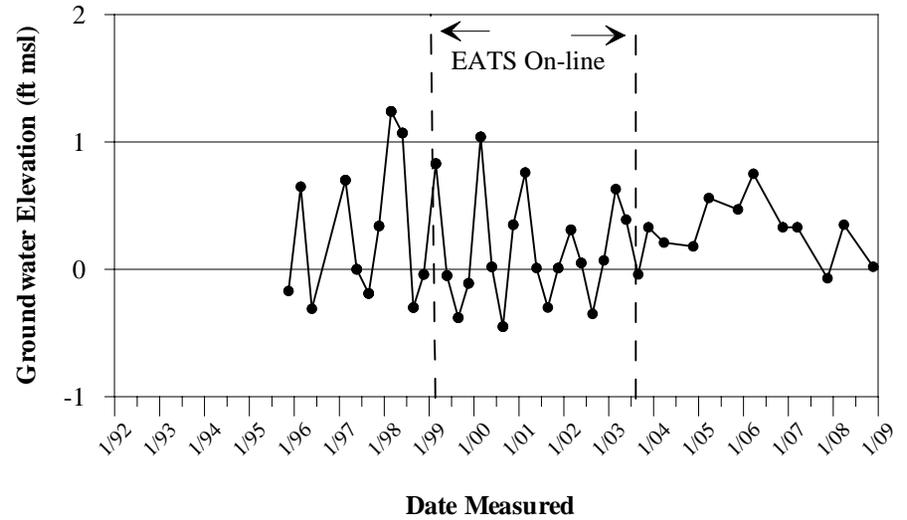


Figure 3-16 W4-13 (B2 Aquifer)

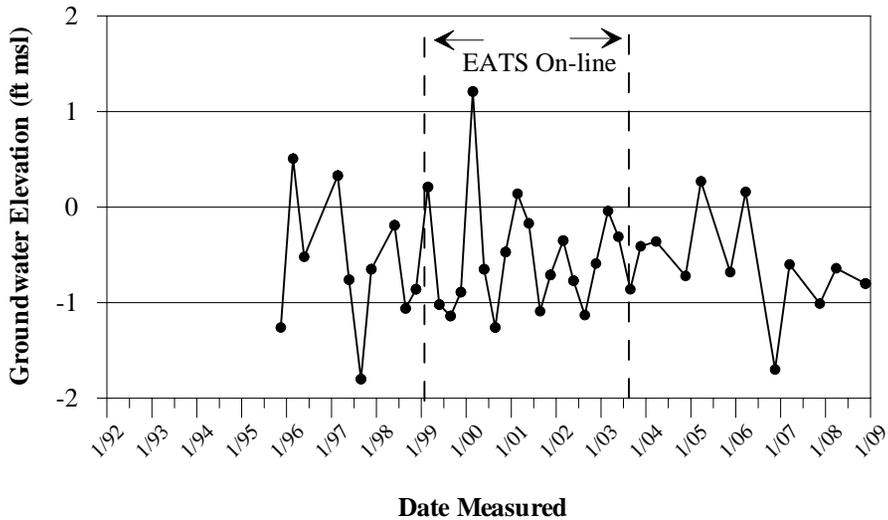
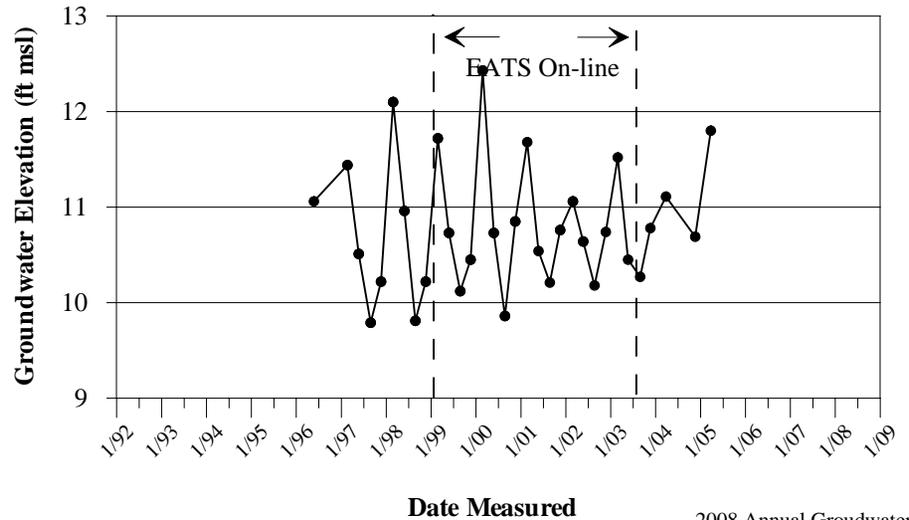
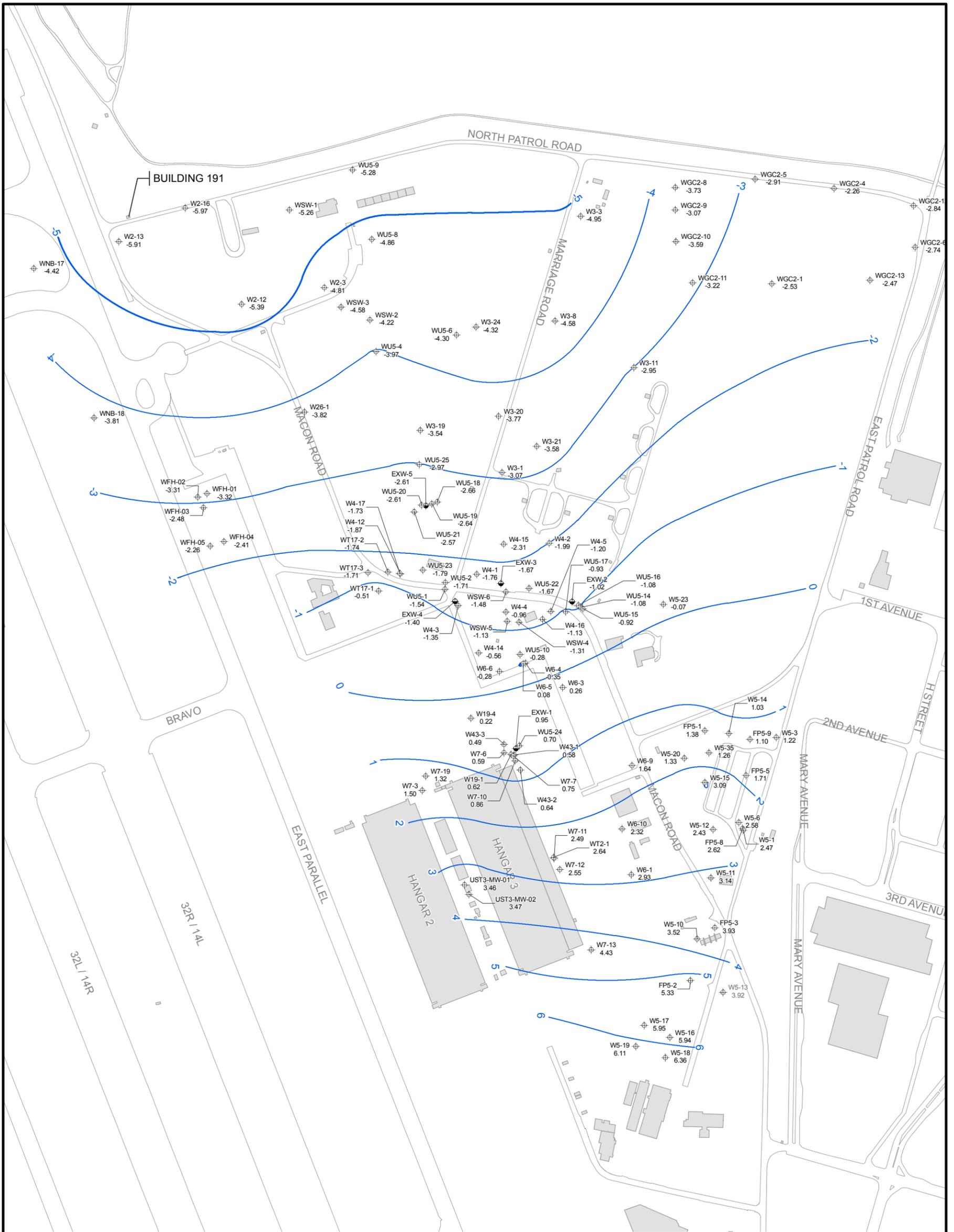


Figure 3-17 W10-3 (B2 Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A, B2 - aquifer designations
 ft msl - feet mean sea level

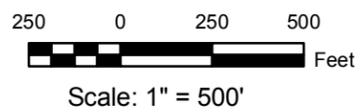


LEGEND

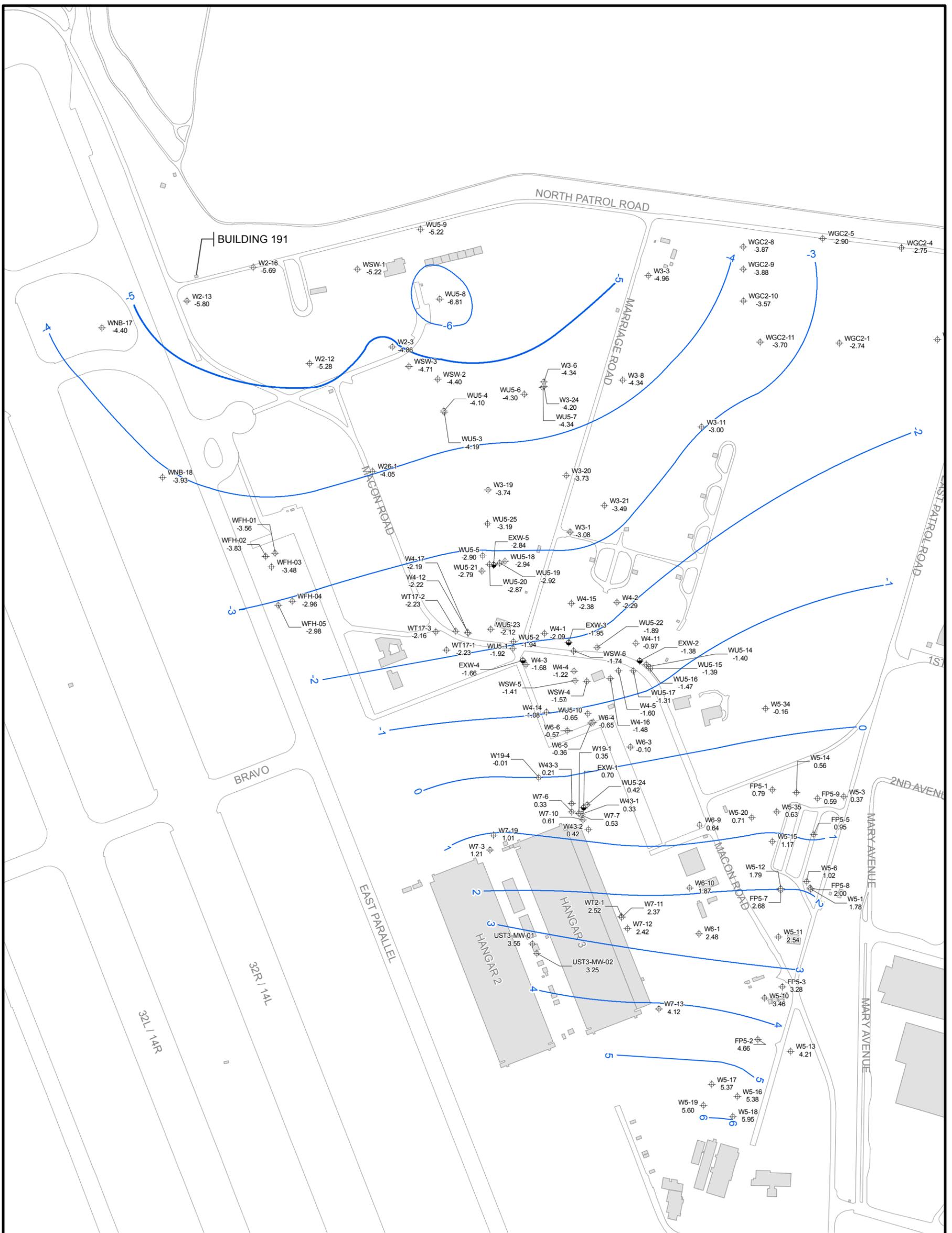
- WU4-10
10.75
MONITORING WELL LOCATION
WATER ELEVATION IN FEET (MSL)
- EXW-1
0.95
EXTRACTION WELL LOCATION
WATER ELEVATION IN FEET (MSL)
- 5
GROUNDWATER ELEVATION
CONTOUR IN FEET (MSL)
DASHED WHERE INFERRED
- ROAD
- BUILDING

NOTES:
MSL - MEAN SEA LEVEL

- NOTES:
- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
 - NAS - NAVAL AIR STATION
 - WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM



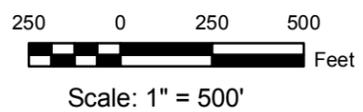
BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA	
2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 3-18 POTENTIOMETRIC SURFACE MAP, SITE 26, UPPER PORTION OF THE AQUIFER-MARCH 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CA	
REVIEW: A AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46P4645.mxd	SES-TECH



LEGEND

- ⊕ W7-3 1.21 MONITORING WELL LOCATION
WATER ELEVATION IN FEET (MSL)
- ⊕ EXW-1 0.70 EXTRACTION WELL LOCATION
WATER ELEVATION IN FEET (MSL)
- 5- GROUNDWATER ELEVATION
CONTOUR IN FEET (MSL)
DASHED WHERE INFERRED
- ROAD
- BUILDING

- NOTES:**
- EATS - EAST-SIDE AQUIFER
TREATMENT SYSTEM
 - MSL - MEAN SEA LEVEL
 - NAS - NAVAL AIR STATION
 - WATS - WEST-SIDE AQUIFERS
TREATMENT SYSTEM



BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA	
2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 3-19 POTENTIOMETRIC SURFACE MAP, SITE 26, UPPER PORTION OF THE AQUIFER-NOVEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CA	
REVIEW: A AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46P4646.mxd	SES-TECH

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 3-20 THROUGH 3-23
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 26

Figure 3-20 W4-3 (Upper Portion of the A Aquifer)

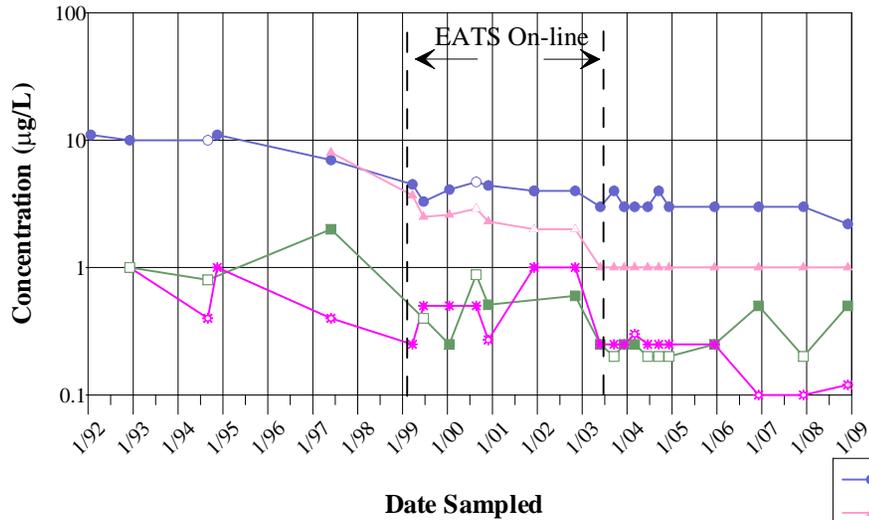


Figure 3-21 W4-14 (Upper Portion of the A Aquifer)

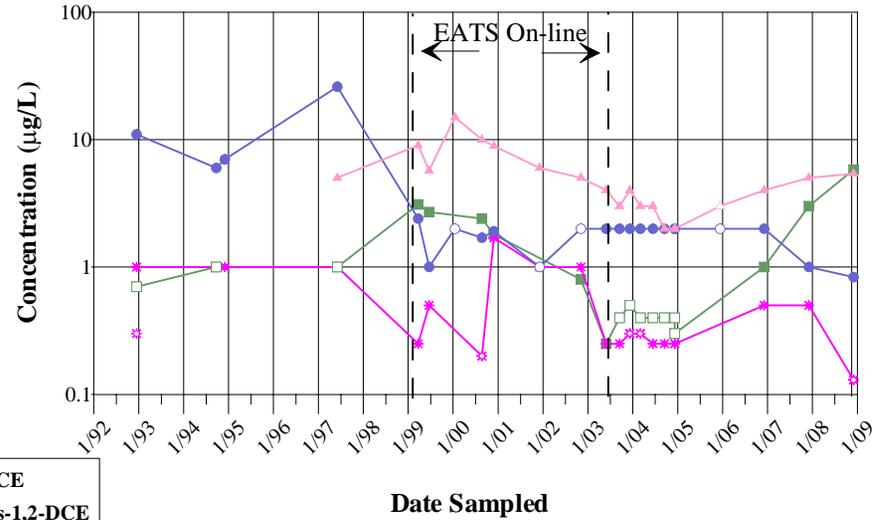


Figure 3-22 W4-15 (Upper Portion of the A Aquifer)

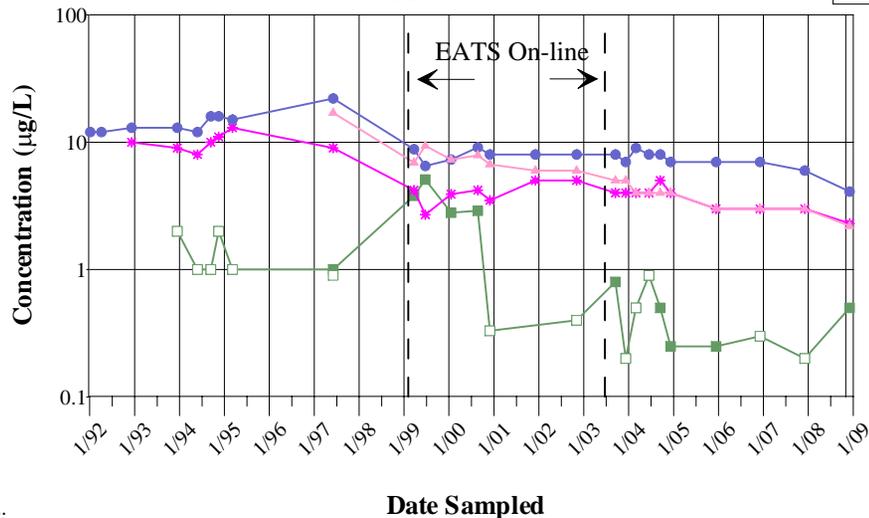
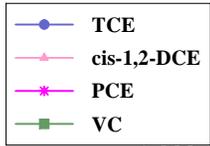
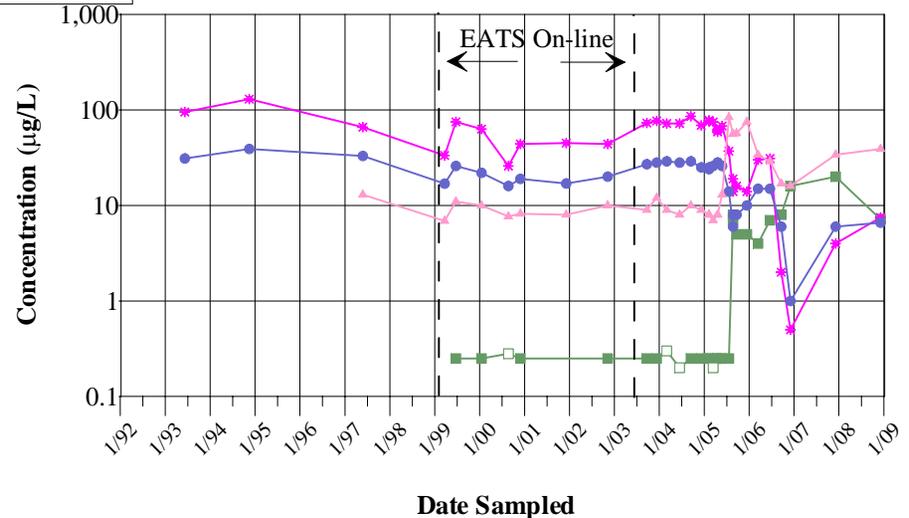


Figure 3-23 W7-10 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter; VOC - Volatile Organic Compound
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2,-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 3-24 THROUGH 3-27
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 26

Figure 3-24 WSW-6 (Upper Portion of the A Aquifer)

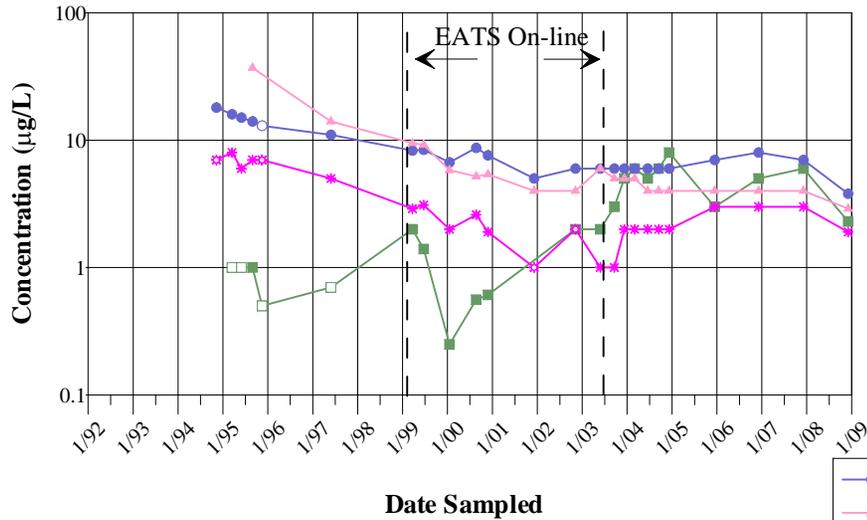


Figure 3-25 WU5-4 (Upper Portion of the A Aquifer)

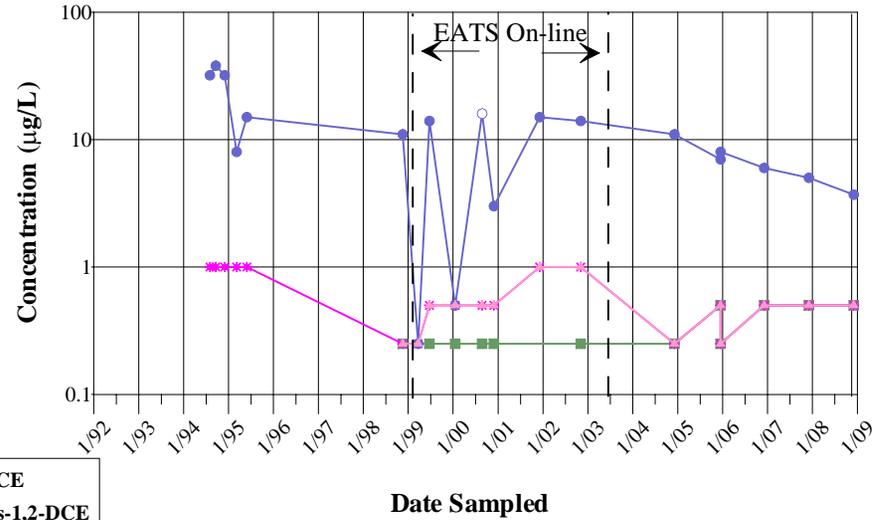


Figure 3-26 WU5-10 (Upper Portion of the A Aquifer)

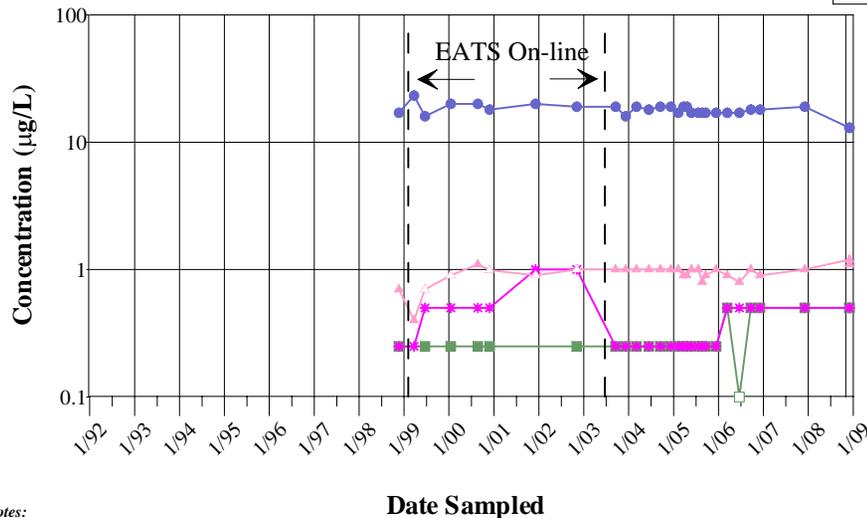
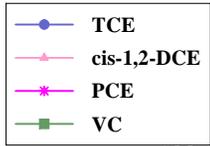
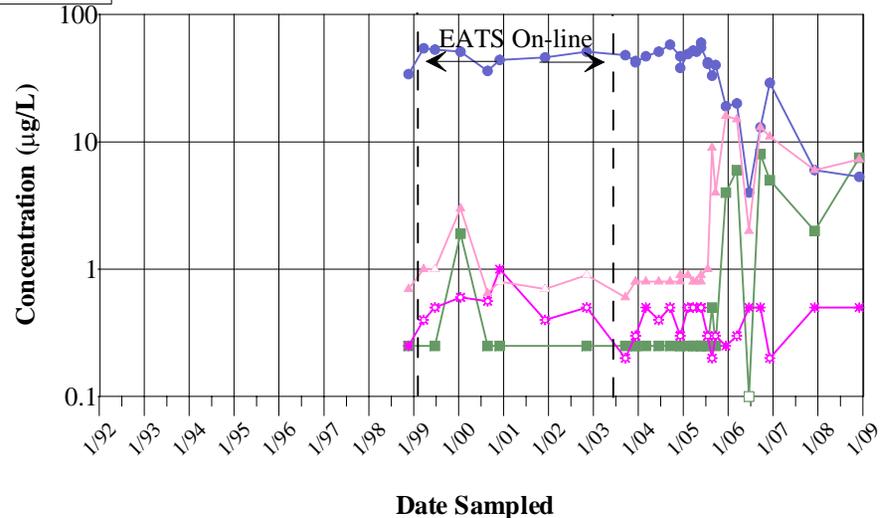


Figure 3-27 WU5-14 (Upper Portion of the A Aquifer)



Notes:
 Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter; VOC - Volatile Organic Compound
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS
FIGURES 3-28 THROUGH 3-29
TIME SERIES OF VOCs CONCENTRATION PLOTS
SITE 26

Figure 3-28 WU5-21 (Upper Portion of the A Aquifer)

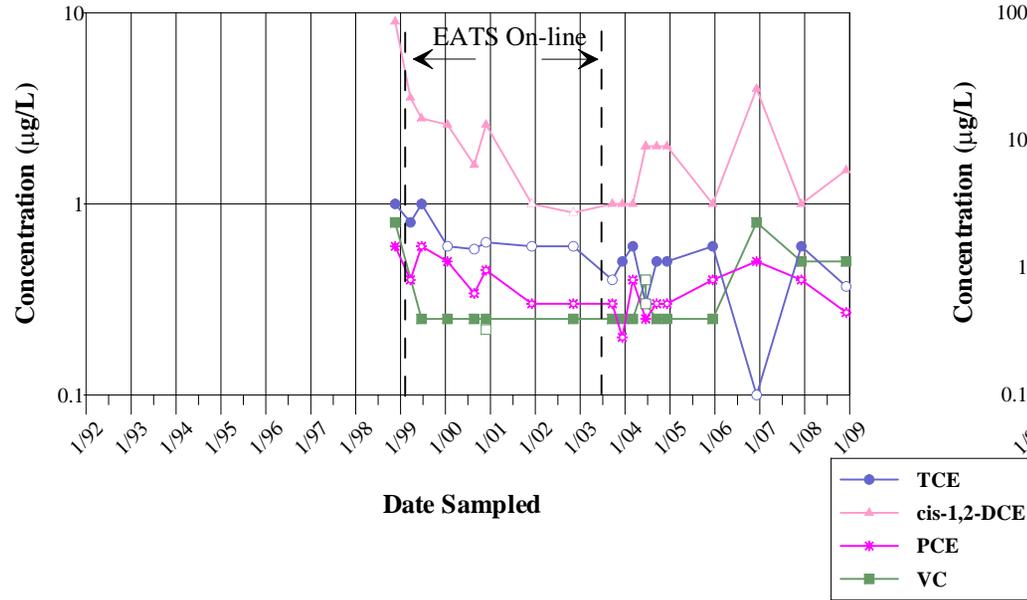
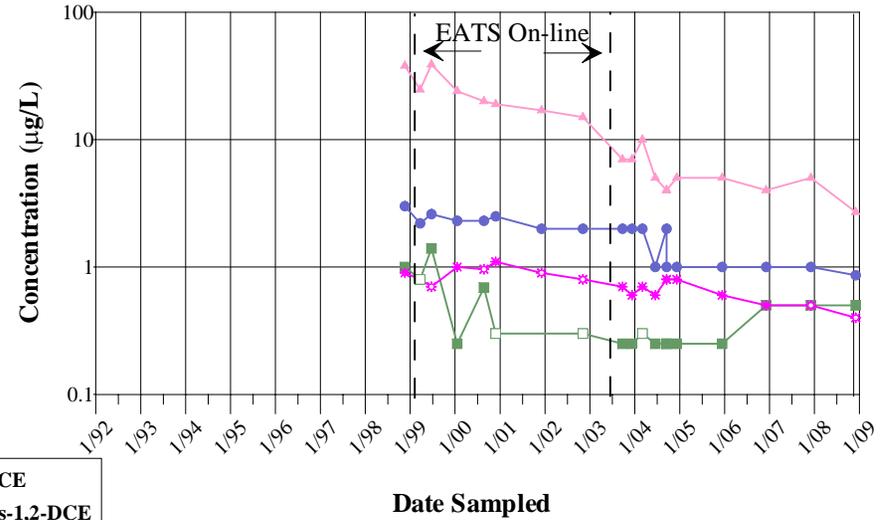


Figure 3-29 WU5-25 (Upper Portion of the A Aquifer)



Notes:

Upper Portion of the A, Lower Portion of the A - aquifer designations
 µg/L - micrograms per liter; VOC - Volatile Organic Compound
 TCE - trichloroethene; cis-1,2-DCE - cis-1,2-dichloroethene; PCE - tetrachloroethene; VC - vinyl chloride
 Open symbols indicate estimated values. Closed-colored symbols indicate non-detects or concentrations detected.
 Non-detects are included at 1/2 reporting limits. Non-detects elevated above the reporting limits are not included on these graphs.

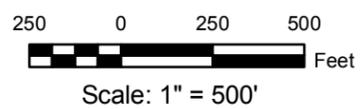


LEGEND

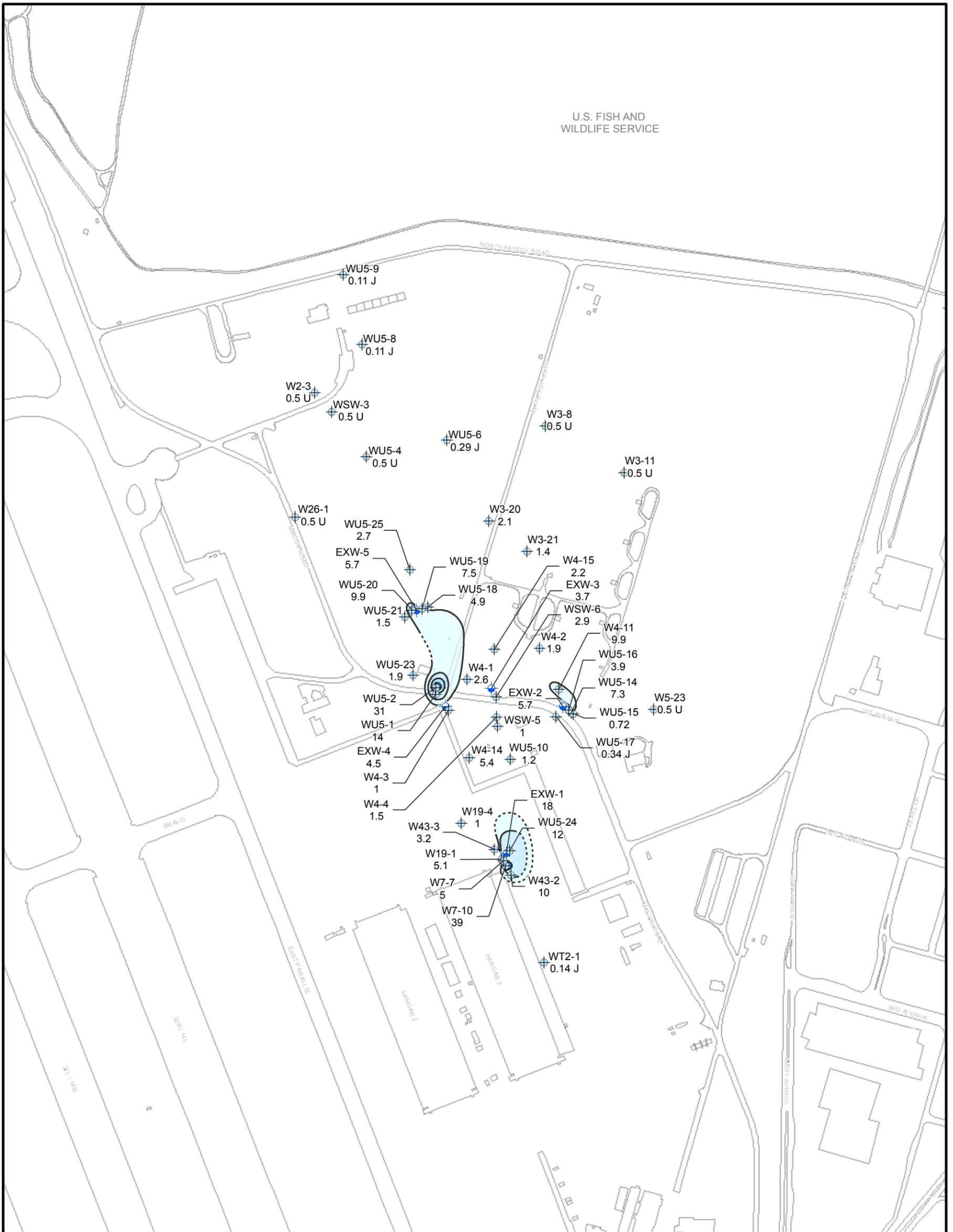
- W4-14 0.83 MONITORING WELL LOCATION
CONCENTRATION (µg/L)
- EXW-3 7.8 EXTRACTION WELL LOCATION
CONCENTRATION (µg/L)
- 5-10 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED
- 10-15 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED
- 15-20 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED
- 20-25 µg/L TRICHLOROETHENE CONCENTRATION
DASHED WHERE INFERRED

NOTES:

- µg/L - MICROGRAMS PER LITER
- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
- J - ESTIMATED VALUE
- NAS - NAVAL AIR STATION
- U - NOT DETECTED AT LABORATORY REPORTING LEVEL
- WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM
- GROUNDWATER CLEAN UP STANDARD IS 5 µg/L (NAVY 1996) FOR TRICHLOROETHENE



<p>BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA</p>	
<p>2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 3-30 TRICHLOROETHENE (TCE) DISTRIBUTION, SITE 26, UPPER PORTION OF THE A AQUIFER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA</p>	
<p>REVIEW: A AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4647.mxd</p>	<p>SES-TECH</p>

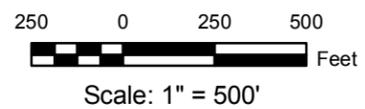


LEGEND

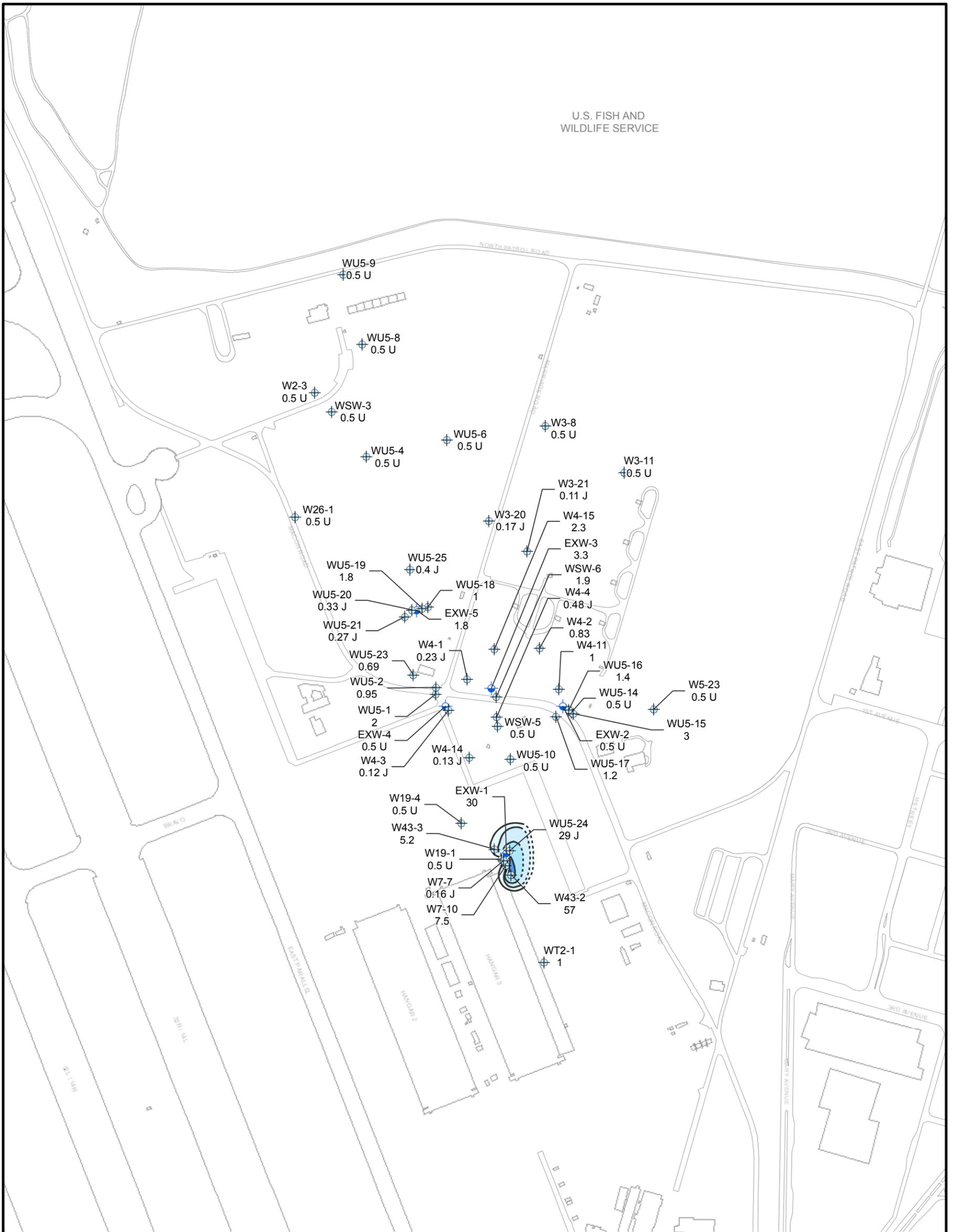
- WU5-25 2.7 MONITORING WELL LOCATION
 CONCENTRATION (µg/L)
- EXW-3 3.7 EXTRACTION WELL LOCATION
 CONCENTRATION (µg/L)
- 6 - 10 µg/L CIS-1,2-DICHLOROETHENE
 CONCENTRATION, DASHED WHERE INFERRED
- 10 - 20 µg/L CIS-1,2-DICHLOROETHENE
 CONCENTRATION, DASHED WHERE INFERRED
- 20 - 30 µg/L CIS-1,2-DICHLOROETHENE
 CONCENTRATION, DASHED WHERE INFERRED
- ≥ 30 µg/L CIS-1,2-DICHLOROETHENE
 CONCENTRATION, DASHED WHERE INFERRED

NOTES:

- µg/L - MICROGRAMS PER LITER
- EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
- J - ESTIMATED VALUE
- NAS - NAVAL AIR STATION
- U - NOT DETECTED AT LABORATORY REPORTING LEVEL
- WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM
- GROUNDWATER CLEAN UP STANDARD IS 5 µg/L (NAVY 1996) FOR CIS-1,2-DICHLOROETHENE



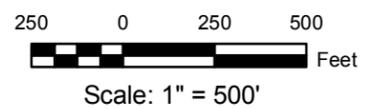
BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA	
2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 3-31 CIS-1,2-DICHLOROETHENE (cis-1,2,-DCE) DISTRIBUTION, SITE 26, UPPER PORTION OF THE A AQUIFER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA	
REVIEW: A AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4648.mxd	SES-TECH



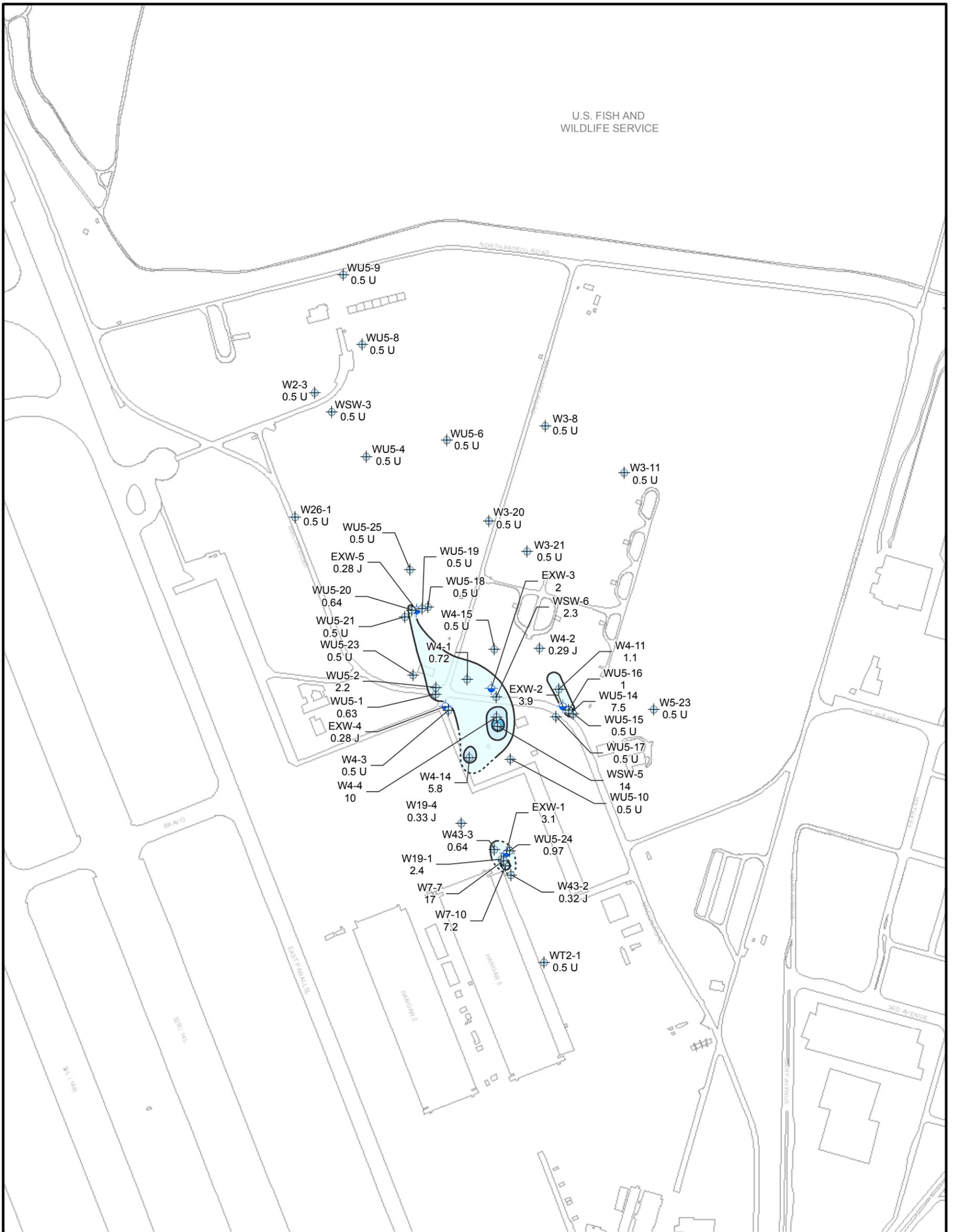
LEGEND

- WU5-25 0.4 J MONITORING WELL LOCATION
- EXW-3 3.3 EXTRACTION WELL LOCATION
- 5-10 µg/L TETRACHLOROETHENE CONCENTRATION, DASHED WHERE INFERRED
- 10-20 µg/L TETRACHLOROETHENE CONCENTRATION, DASHED WHERE INFERRED
- 20-30 µg/L TETRACHLOROETHENE CONCENTRATION, DASHED WHERE INFERRED
- ≥ 30 µg/L TETRACHLOROETHENE CONCENTRATION, DASHED WHERE INFERRED

- NOTES:**
- µg/L - MICROGRAMS PER LITER
 - EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
 - J - ESTIMATED VALUE
 - NAS - NAVAL AIR STATION
 - U - NOT DETECTED AT LABORATORY REPORTING LEVEL
 - WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM
 - GROUNDWATER CLEAN UP STANDARD IS 5 µg/L (NAVY 1996) FOR TETRACHLOROETHENE



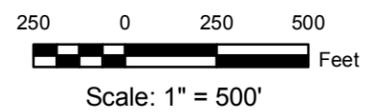
<p>BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA</p>	
<p>2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 3-32 TETRACHLOROETHENE (PCE) DISTRIBUTION, SITE 26, UPPER PORTION OF THE A AQUIFER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA</p>	
<p>REVIEW: A AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4649.mxd</p>	<p>SES-TECH</p>



LEGEND

- WU5-25
0.5 U  MONITORING WELL LOCATION
CONCENTRATION (µg/L)
- EXW-3
2  EXTRACTION WELL LOCATION
CONCENTRATION (µg/L)
-  0.5 - 5 µg/L VINYL CHLORIDE CONCENTRATION
DASHED WHERE INFERRED
-  5 - 10 µg/L VINYL CHLORIDE CONCENTRATION
DASHED WHERE INFERRED
-  10 - 20 µg/L VINYL CHLORIDE CONCENTRATION
DASHED WHERE INFERRED

- NOTES:
- µg/L - MICROGRAMS PER LITER
 - EATS - EAST-SIDE AQUIFER TREATMENT SYSTEM
 - J - ESTIMATED VALUE
 - NAS - NAVAL AIR STATION
 - U - NOT DETECTED AT LABORATORY REPORTING LEVEL
 - WATS - WEST-SIDE AQUIFERS TREATMENT SYSTEM
 - VINYL CHLORIDE GROUNDWATER CLEAN UP STANDARD IS 0.5 µg/L (NAVY 1996)



<p>BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA</p>	
<p>2008 ANNUAL GROUNDWATER REPORT FOR WATS AND EATS FIGURE 3-33 VINYL CHLORIDE (VC) DISTRIBUTION, SITE 26, UPPER PORTION OF THE A AQUIFER-DECEMBER 2008 FORMER NAS MOFFETT FIELD MOFFETT FIELD, CALIFORNIA</p>	
<p>REVIEW: A AUTHOR: RKH DCN: SEST-3220-0004-0038 FILE NUMBER: SEST46C4650.mxd</p>	<p>SES-TECH</p>